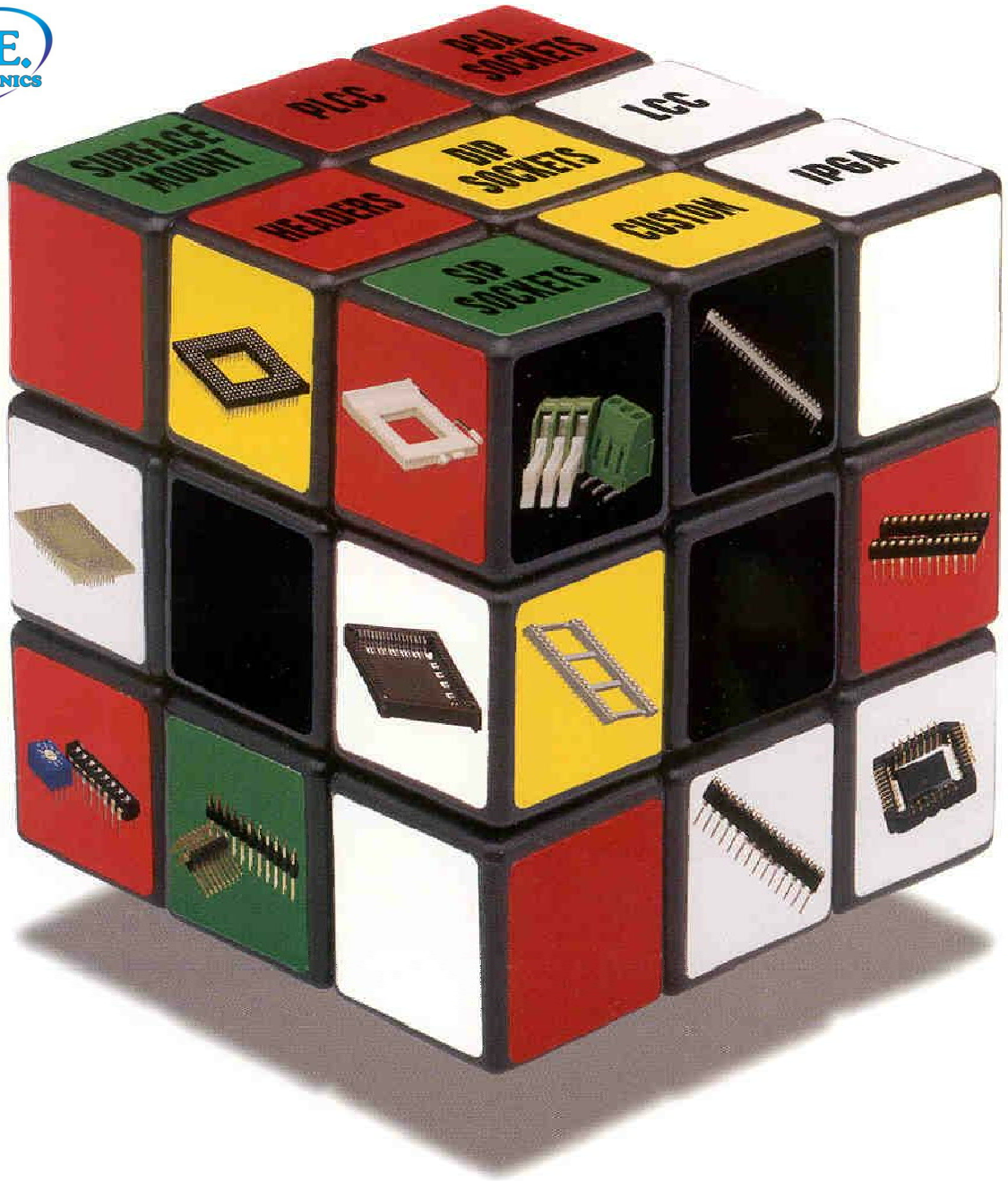
ANDON
INTERCONNECTION SPECIALISTS

ISO 9001:2000
CERTIFIED
RoHS COMPLIANT

ANDON ELECTRONICS

B.C.E. ELECTRONICS



THE PROBLEM SOLVER

CATALOG 2007

B.C.E. S.r.l. - Via Regina Pacis, 54/c - Sassuolo (MO) - I 41049 - Italy
Tel.: 0536 811616 - Fax: 0536 811500 - Web: www.bce.it - E-mail: bce@bce.it

ANDON®
INTERCONNECTION SPECIALISTS

ISO 9001:2000
CERTIFIED

CUT-AWAY VIEW OF ANDON'S STANDARD HI-REL SOCKET

Largest possible tapered entry funnel.

Short four finger contact plated and assembled loose in order to avoid unplated cut-off areas.

Closed base eliminates solder wicking.

Four finger, BeCu inner contact with funnel entry design allows for easy insertion of IC lead.

Chamfer ensures perfect alignment of terminal on the PC board.

THE ONE AND ONLY 1 OUNCE CONTACT
FOR IPGA AND PGA SOCKETS!

ANDON
INTERCONNECTION SPECIALISTS

TABLE OF CONTENTS
PRODUCT LINE SERIES NUMBERS

ANDON
INTERCONNECTION SPECIALISTS

TABLE OF CONTENTS

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

TABLE OF CONTENTS

PLCC & LCC ADAPTER AND CHIP CARRIER SOCKETS

TEST SOCKETS/BATTERY SOCKETS

SPECIFICATIONS

BACK TO TABLE OF CONTENTS

ANDON
INTERCONNECTION SPECIALISTS

SERIES 101 STANDARD DIP SOCKET (OPEN FRAME)
102 DIP SOCKET WITHOUT CROSSBARS (OPEN FRAME)

WAFER CHART			
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 4	24	1.200 [30.48]	624
FIG. 5	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648
FIG. 6	50	2.500 [63.50]	950
	52	2.600 [66.04]	952
	64	3.200 [81.28]	964

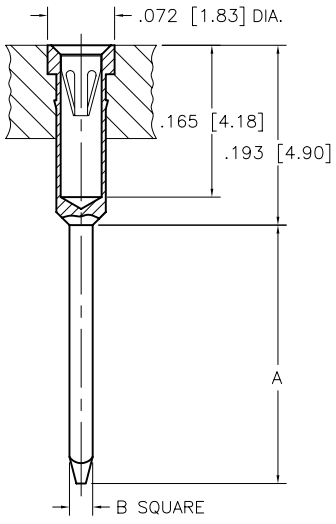


FIG. C

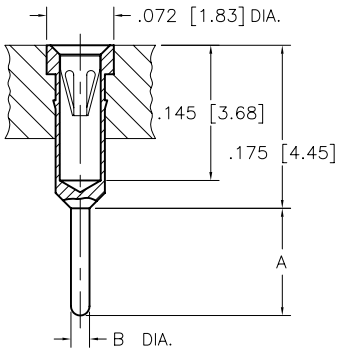
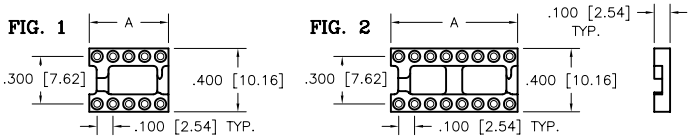
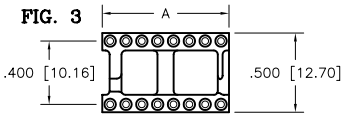
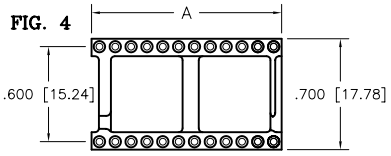


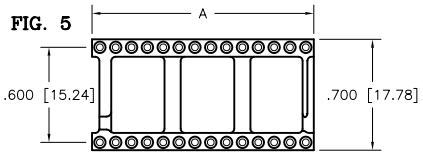
FIG. D

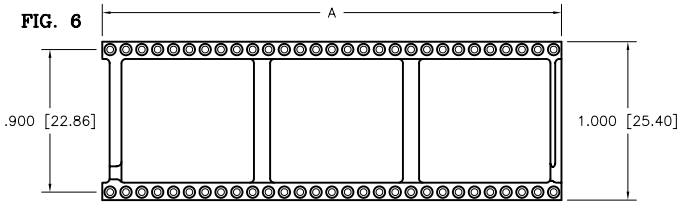
TERMINAL STYLE			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-02	C	.370 [9.40]	.025 [0.64]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]
-09	D	.280 [7.11]	.020 [0.51]
-11	D	.135 [3.43]	.020 [0.51]
-94	D	.125 [3.17]	.018 [0.46]











CONTACT TYPE

S: STANDARD DIP INSERTION FORCE 9.0 oz. AVG.
WITHDRAWAL FORCE 2.0 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +125°C

ORDERING INFORMATION

10X-XXX-XXX-PXX-B12

- **SERIES**
  - 101: WITH CROSS BARS
  - 102: WITHOUT CROSS BARS
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE**
  - FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **LOGO**
- **INSULATOR MATERIAL**
  - OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATING

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

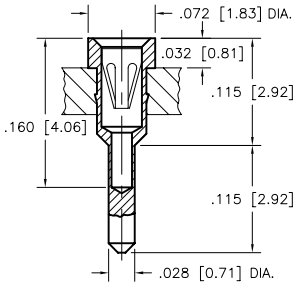
BACK TO TABLE OF CONTENTS

ANDON
INTERCONNECTION SPECIALISTS

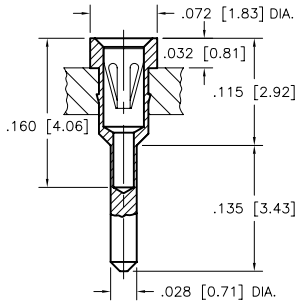
SERIES 103 LOW PROFILE DIP SOCKET (OPEN FRAME)
SERIES 104 ULTRA LOW PROFILE DIP SOCKET (OPEN FRAME)
SERIES 105 ULTRA LOW PROFILE DIP SOCKET (OPEN FRAME WITHOUT CROSSBARS)

WAFER CHART			
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	24	1.200 [30.48]	624
FIG. 4	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640

SERIES 103

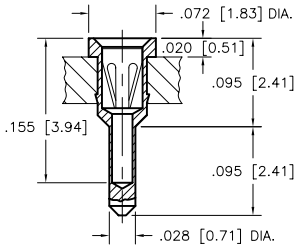


-47
LOW PROFILE

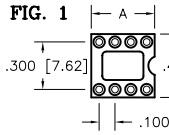


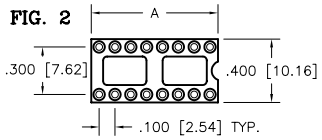
-48
LOW PROFILE
LONGTAIL

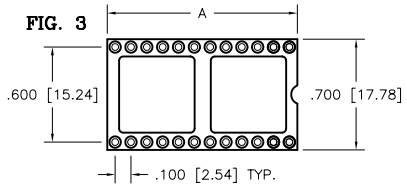
SERIES 104

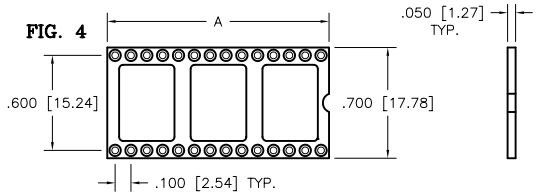


-83
ULTRA LOW PROFILE

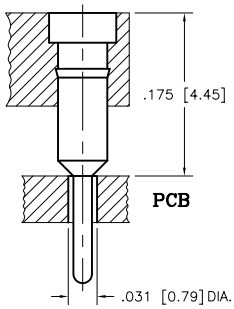




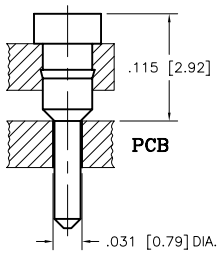




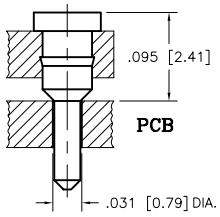
STANDARD HEIGHT ABOVE PCB
WITH -01 TERMINAL



34% REDUCED HEIGHT
WITH -47 TERMINAL



46% REDUCED HEIGHT
WITH -83 TERMINAL



CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED	
TERMINAL	BRASS PER ASTM-B16	
CONTACT	BeCu PER ASTM-B194	
OPERATING TEMP.	-65°C TO +125°C	

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

10X-XXX-XXX-PXX-B10

- **SERIES**
  - 103: LOW PROFILE
  - 104: ULTRA LOW PROFILE
  - 105: WITHOUT CROSSBARS
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE**
  - FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- **INSULATOR MATERIAL**
  - OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **NO LOGO**

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

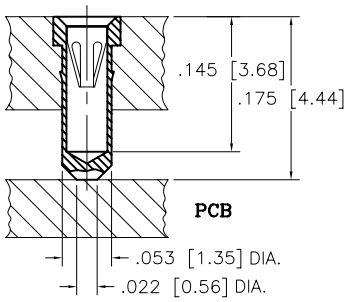
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 106 HI-TEMP SURFACE MOUNT DIP SOCKET (OPEN FRAME)
SERIES 206 HI-TEMP SURFACE MOUNT DIP SOCKET (SOLID FRAME)

SERIES 106 OPEN FRAME WAFER CHART

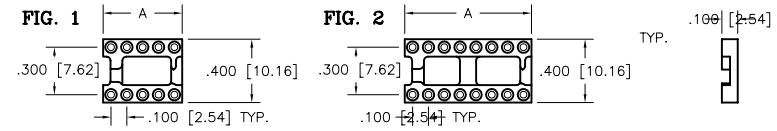
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 4	24	1.200 [30.48]	624
FIG. 5	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648
FIG. 6	50	2.500 [63.50]	950
	52	2.600 [66.04]	952
	64	3.200 [81.28]	964

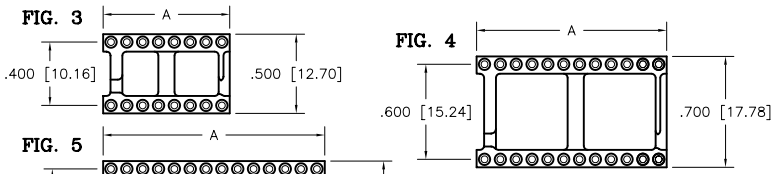


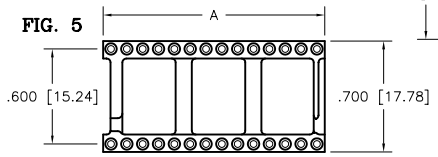
-93

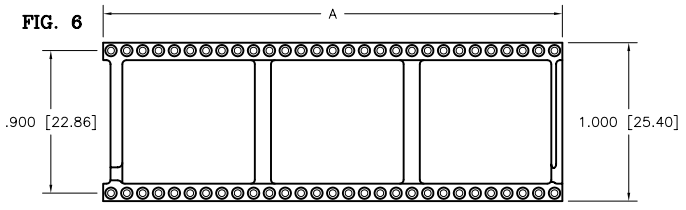
SERIES 206 SOLID FRAME WAFER CHART

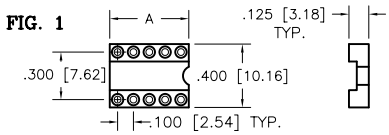
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	24	1.200 [30.48]	324
FIG. 2	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 3	24	1.200 [30.48]	624
	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640

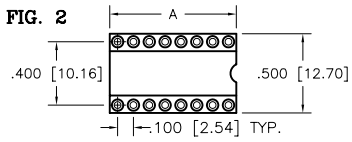


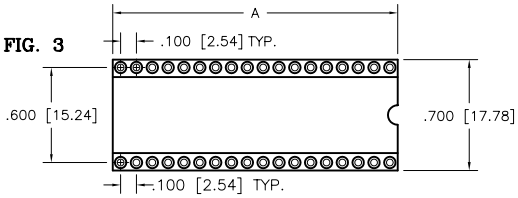












CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

ORDERING INFORMATION

106-XXX-XXX-PXX-Y12
206-XXX-XXX-PXX-Y10

- **SERIES** — 106: OPEN; 206: SOLID
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE** — FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL / CONTACT** — P30: GOLD / GOLD; P31: TIN-LEAD / GOLD; P32: TIN-LEAD / TIN; OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- **INSULATOR MATERIAL** — OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **LOGO**

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GREY NYLON 46	UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16	
CONTACT	BeCu PER ASTM-B194	
OPERATING TEMP.	-65°C TO +150°C	

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS].

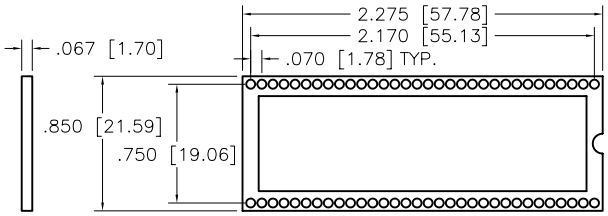
WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

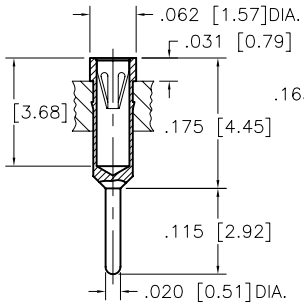
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

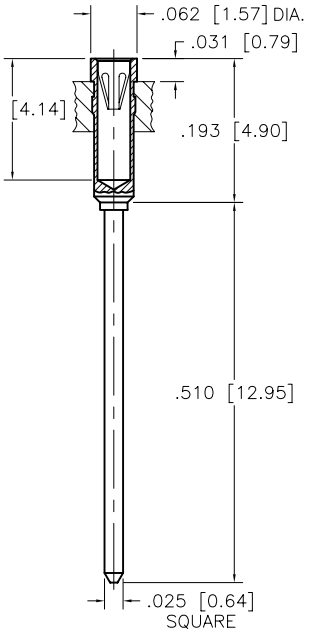
SERIES 107 SHRINK DIP (OPEN FRAME)
207 SHRINK DIP (SOLID FRAME)
403 SHRINK DIP (LAMINATE WAFER)

SERIES 107 DIL





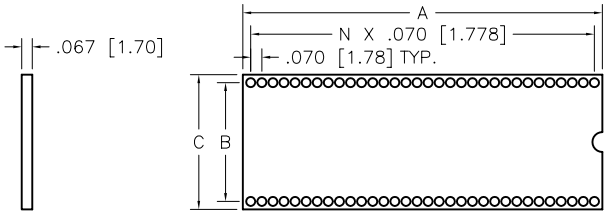
−75



−81

SERIES 207 DIL

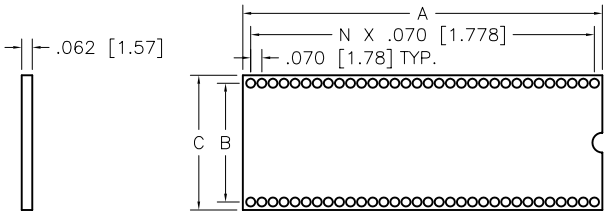
PIN	A	B	C
28	1.010 [25.65]	.600 [15.24]	.700 [17.78]
40	1.430 [36.32]	.600 [15.24]	.700 [17.78]
64	2.270 [57.66]	.750 [19.05]	.850 [21.59]



SERIES 403 DIL

PIN	A	B	C
28	1.010 [25.65]	.600 [15.24]	.700 [17.78]
40	1.430 [36.32]	.600 [15.24]	.700 [17.78]
64	2.270 [57.66]	.750 [19.05]	.850 [21.59]

NOTE: OTHER SOCKET SIZES AVAILABLE



CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V−0 LISTED
TERMINAL	BRASS PER ASTM−B16
CONTACT	BeCu PER ASTM−B194
OPERATING TEMP.	−65°C TO +125°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

107−XXX−XXX−PXX−B10
207−XXX−XXX−PXX−B10
309−XXX−XXX−PXX−B10
403−XXX−XXX−PXX−N10

SERIES
107: OPEN FRAME
207: SOLID FRAME
309: COMBI
403: LAMINATE WAFER

DIP − SPACING
NO. OF PINS

TERMINAL STYLE
FOR OPTIONAL TERMINAL STYLES
SEE TERMINAL STYLES

CONTACT TYPE

PLATING: TERMINAL/CONTACT
P30: GOLD / GOLD
P31: GOLD / TIN
P32: TIN−LEAD / TIN
OTHER PLATINGS AVAILABLE
SEE OPTIONAL PLATINGS

INSULATOR MATERIAL
OTHER MATERIALS AVAILABLE
CONSULT FACTORY

LOGO

SERIES 403: INSULATOR: GLASS−EPOXY FR−4 UL 94V−0
HIGH TEMPERATURE OPERATION

DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS].

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

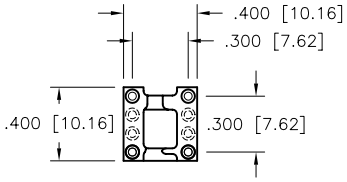
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

Back to Table of Contents

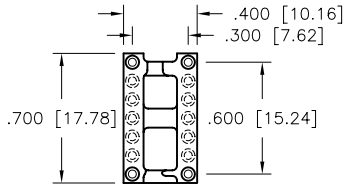
ANDON
INTERCONNECTION SPECIALISTS

SERIES 108 CRYSTAL AND RELAY SOCKET (OPEN FRAME)
208 CRYSTAL AND RELAY SOCKET (SOLID FRAME)

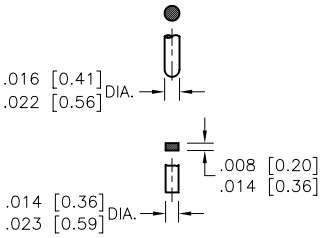
SERIES 108

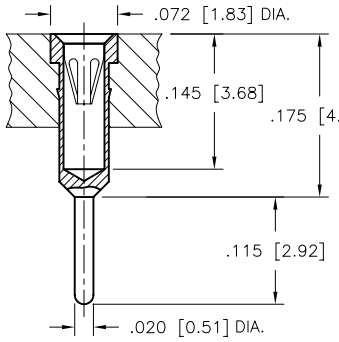


(8) 4 PIN

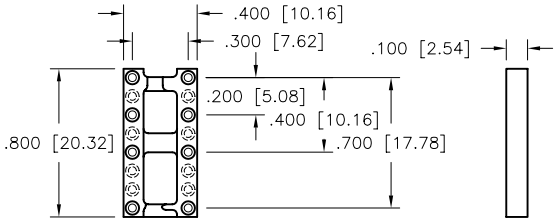


(14) 4 PIN



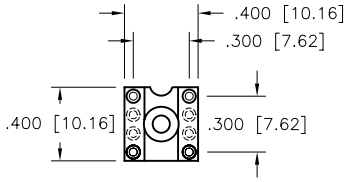


-01

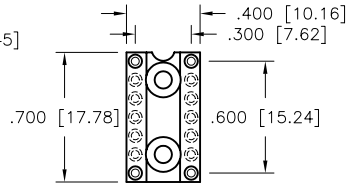


(16) 8 PIN

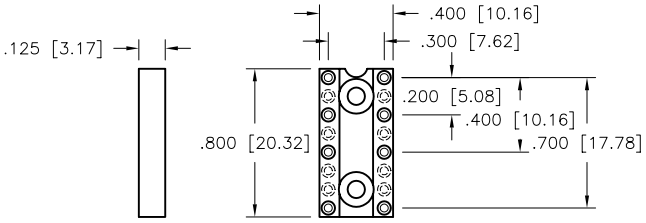
SERIES 208



(8) 4 PIN



(14) 4 PIN



(16) 8 PIN

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +125°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

108-XXX-XXX-PXX-B12
208-XXX-XXX-PXX-B10

SERIES
108: OPEN FRAME
208: SOLID FRAME

WAFER SIZE

NUMBER OF PINS LOADED

TERMINAL STYLE
FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES

CONTACT TYPE

LOGO

INSULATOR MATERIAL
OTHER MATERIAL AVAILABLE CONSULT FACTORY

PLATING: TERMINAL / CONTACT
P30: GOLD / GOLD
P31: TIN-LEAD / GOLD
P32: TIN-LEAD / TIN
OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS

CUSTOM SOCKETS AVAILABLE CONSULT FACTORY

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

BACK TO TABLE OF CONTENTS

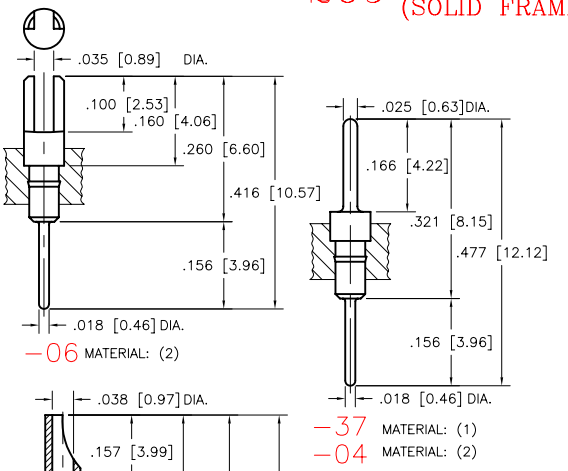
ANDON
INTERCONNECTION SPECIALISTS

SERIES 109 DIP COMPONENT ADAPTERS/HEADERS (OPEN FRAME)

209 DIP COMPONENT ADAPTERS/HEADERS (SOLID FRAME)

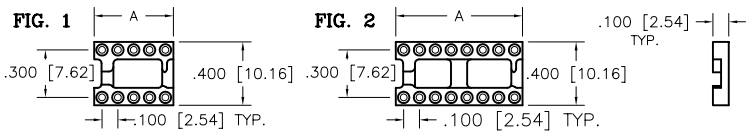
SERIES 109 OPEN FRAME WAFER CHART

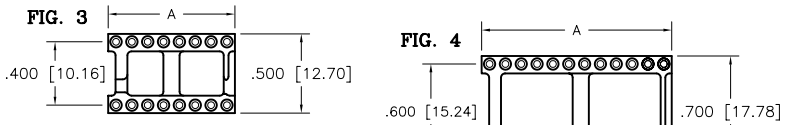
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 4	24	1.200 [30.48]	624
FIG. 5	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648
FIG. 6	50	2.500 [63.50]	950
	52	2.600 [66.04]	952
	64	3.200 [81.28]	964

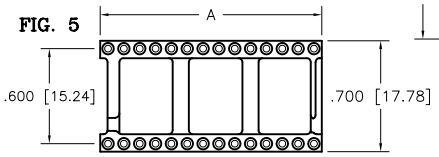


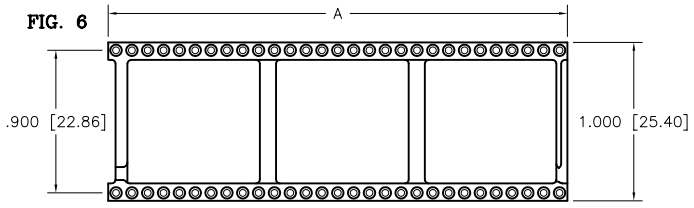
SERIES 209 SOLID FRAME WAFER CHART

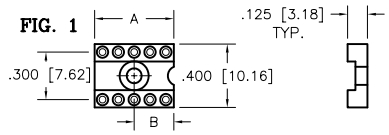
	PIN	DIM "A"	DIM "B"	
FIG. 1	6	.300 [7.62]	.150 [3.81]	306
	8	.400 [10.16]	.200 [5.08]	308
	10	.500 [12.70]	.250 [6.35]	310
FIG. 2	14	.700 [17.78]	.400 [10.16]	314
	16	.800 [20.32]	.500 [12.70]	316
	18	.900 [22.86]	.600 [15.24]	318
	20	1.000 [25.40]	.700 [17.78]	320
	24	1.200 [30.48]	.900 [22.86]	324
FIG. 3	16	.800 [20.32]	.500 [12.70]	416
	22	1.100 [27.94]	.800 [20.32]	422
	24	1.200 [30.48]	.900 [22.86]	424
FIG. 4	24	1.200 [30.48]		624
	28	1.400 [35.56]		628
	30	1.500 [38.10]		630
	32	1.600 [40.64]		632
	36	1.800 [45.72]	1.650 [41.91]	636
	40	2.000 [50.80]	1.650 [41.91]	640

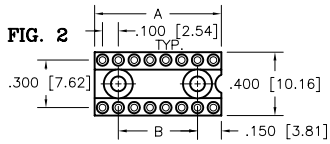


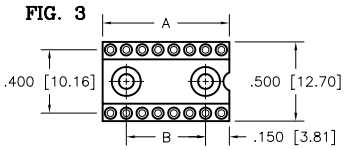


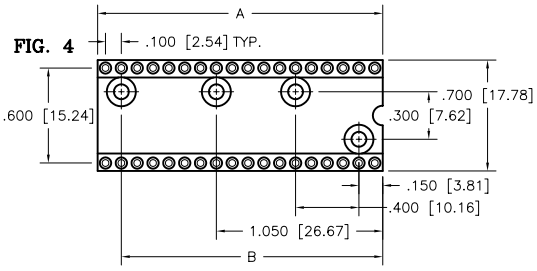












TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR GLASS FILLED POLYESTER
UL 94V-0 LISTED

TERMINAL MATERIAL:(1) BRASS PER ASTM-B16
MATERIAL:(2) PHOSPHOR BRONZE PER ASTM-B139

OPERATING TEMP. -65°C TO +125°C

ORDERING INFORMATION

109-XXX-XX-XXX-B12
209-XXX-XX-XXX-B10

SERIES
109: OPEN
209: SOLID

DIP - SPACING

NO. OF PINS

TERMINAL STYLE
FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES

PLATING: TERMINAL
G04: GOLD
T: TIN
TL: TIN-LEAD

INSULATOR MATERIAL
OTHER MATERIALS AVAILABLE CONSULT FACTORY

LOGO

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

BACK TO TABLE OF CONTENTS

ANDON
INTERCONNECTION SPECIALISTS

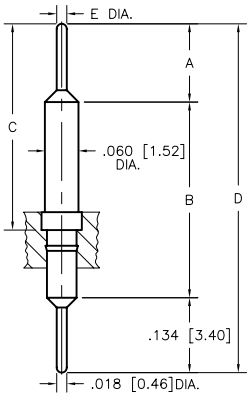
SERIES 110 DIP HEADER: BOARD TO BOARD CONNECTOR (OPEN FRAME)

210 DIP HEADER: BOARD TO BOARD CONNECTOR (SOLID FRAME)

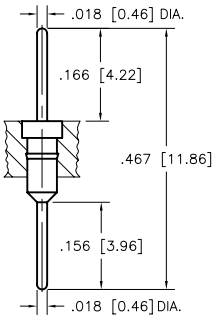
SERIES 110 OPEN FRAME WAFER CHART

	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 4	24	1.200 [30.48]	624
FIG. 5	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648
FIG. 6	50	2.500 [63.50]	950
	52	2.600 [66.04]	952
	64	3.200 [81.28]	964

TERM.	A		B		C		D		E	
-56	.184	[4.68]	.583	[14.82]	.630	[16.00]	.902	[22.90]	.026	[0.65]
-58	.140	[3.56]	.350	[8.89]	.390	[9.91]	.624	[15.85]	.018	[0.46]
-59	.140	[3.56]	.457	[11.61]	.479	[12.17]	.731	[18.57]	.018	[0.46]



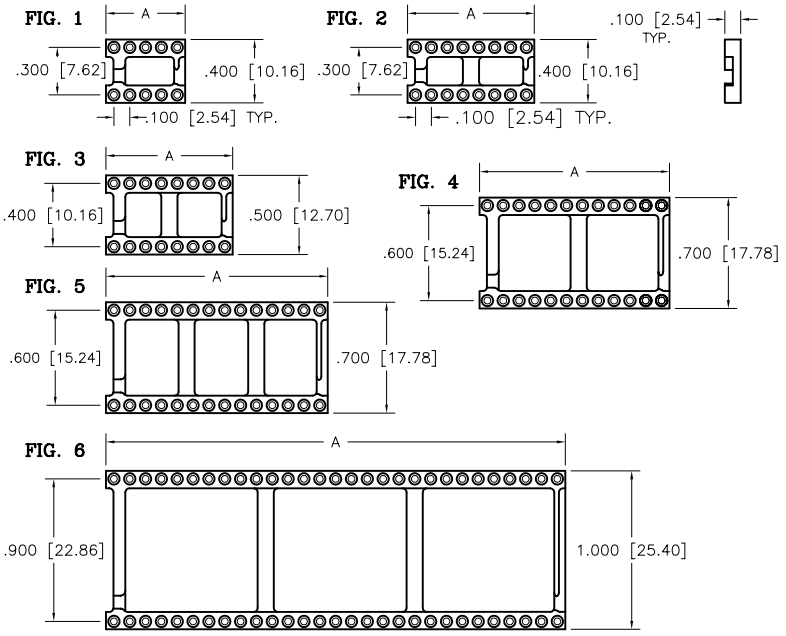
-XX

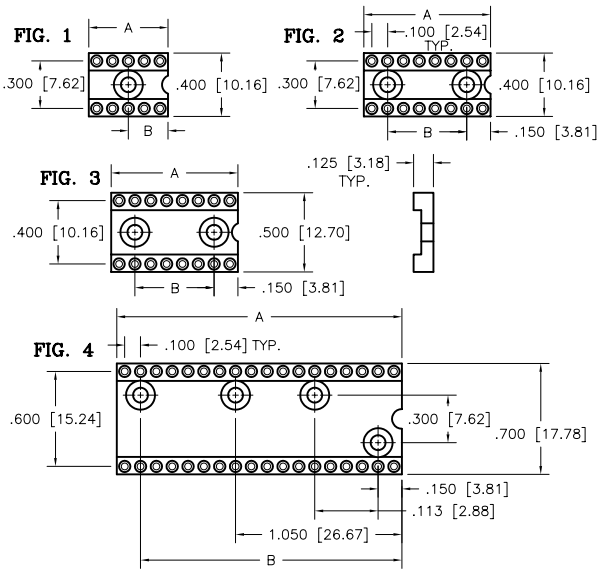


-77

SERIES 210 SOLID FRAME WAFER CHART

	PIN	DIM "A"	DIM "B"	
FIG. 1	6	.300 [7.62]	.150 [3.81]	306
	8	.400 [10.16]	.200 [5.08]	308
	10	.500 [12.70]	.250 [6.35]	310
FIG. 2	14	.700 [17.78]	.400 [10.16]	314
	16	.800 [20.32]	.500 [12.70]	316
	18	.900 [22.86]	.600 [15.24]	318
	20	1.000 [25.40]	.700 [17.78]	320
	24	1.200 [30.48]	.900 [22.86]	324
FIG. 3	16	.800 [20.32]	.500 [12.70]	416
	22	1.100 [27.94]	.800 [20.32]	422
	24	1.200 [30.48]	.900 [22.86]	424
FIG. 4	24	1.200 [30.48]		624
	28	1.400 [35.56]		628
	30	1.500 [38.10]		630
	32	1.600 [40.64]		632
	36	1.800 [45.72]	1.650 [41.91]	636
	40	2.000 [50.80]	1.650 [41.91]	640





TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
OPERATING TEMP.	-65°C TO +125°C

ORDERING INFORMATION

110-XXX-XX-XXX-B12
210-XXX-XX-XXX-B10

- **SERIES** — 110: OPEN; 210: SOLID
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE**
- **PLATING: TERMINAL** — G04: GOLD; T: TIN; TL: TIN-LEAD
- **INSULATOR MATERIAL** — OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **LOGO**

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

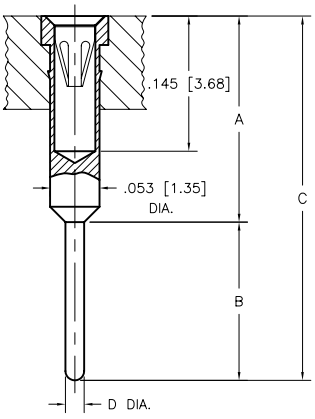
ANDON
INTERCONNECTION SPECIALISTS

SERIES 111 RAISED INTERCONNECT DIP SOCKET (OPEN FRAME)
211 RAISED INTERCONNECT DIP SOCKET (SOLID FRAME)

SERIES 110 OPEN FRAME WAFER CHART

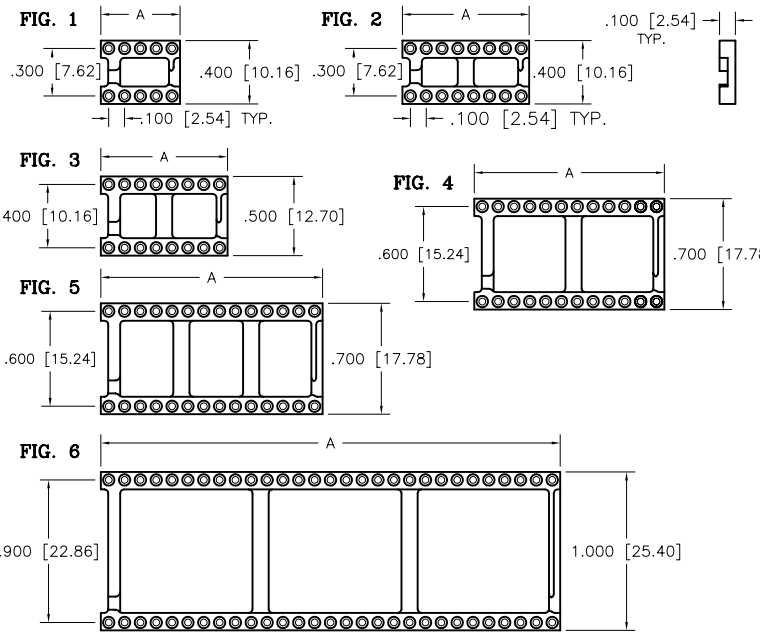
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 4	24	1.200 [30.48]	624
FIG. 5	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648
FIG. 6	50	2.500 [63.50]	950
	52	2.600 [66.04]	952
	64	3.200 [81.28]	964

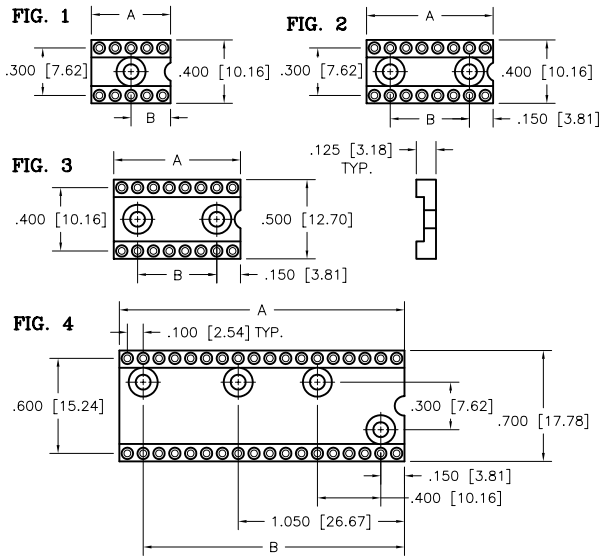
TERMINAL	A	B	C	D
-60	.768 [19.50]	.118 [3.00]	.886 [22.50]	.028 [0.71]
-61	1.161 [29.50]	.118 [3.00]	1.280 [32.50]	.028 [0.71]
-62	.551 [14.00]	.118 [3.00]	.669 [17.00]	.020 [0.51]
-63	.807 [20.50]	.118 [3.00]	.925 [23.50]	.028 [0.71]
-65	.512 [13.00]	.118 [3.00]	.630 [16.00]	.018 [.046]
-80	.236 [6.00]	.126 [3.20]	.362 [9.20]	.024 [0.60]
-82	1.004 [25.50]	.118 [3.00]	1.122 [28.50]	.018 [0.46]
-84	.307 [7.80]	.126 [3.20]	.433 [11.00]	.024 [0.60]
-85	.354 [9.00]	.126 [3.20]	.480 [12.20]	.024 [0.60]
-87	.433 [11.00]	.118 [3.00]	.551 [14.00]	.028 [0.71]



SERIES 211 SOLID FRAME WAFER CHART

	PIN	DIM "A"	DIM "B"	
FIG. 1	6	.300 [7.62]	.150 [3.81]	306
	8	.400 [10.16]	.200 [5.08]	308
	10	.500 [12.70]	.250 [6.35]	310
FIG. 2	14	.700 [17.78]	.400 [10.16]	314
	16	.800 [20.32]	.500 [12.70]	316
	18	.900 [22.86]	.600 [15.24]	318
	20	1.000 [25.40]	.700 [17.78]	320
	24	1.200 [30.48]	.900 [22.86]	324
FIG. 3	16	.800 [20.32]	.500 [12.70]	416
	22	1.100 [27.94]	.800 [20.32]	422
	24	1.200 [30.48]	.900 [22.86]	424
FIG. 4	24	1.200 [30.48]		624
	28	1.400 [35.56]		628
	30	1.500 [38.10]		630
	32	1.600 [40.64]		632
	36	1.800 [45.72]	1.650 [41.91]	636
	40	2.000 [50.80]	1.650 [41.91]	640





CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +125°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

111-XXX-XXX-PXX-B12
211-XXX-XXX-PXX-B10

- SERIES: 111: OPEN; 211: SOLID
- DIP - SPACING NO. OF PINS
- TERMINAL STYLE: FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- CONTACT TYPE
- LOGO
- INSULATOR MATERIAL: OTHER MATERIALS AVAILABLE CONSULT FACTORY
- PLATING: TERMINAL / CONTACT: P30: GOLD / GOLD; P31: TIN-LEAD / GOLD; P32: TIN-LEAD / TIN; OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 201 STANDARD DIP SOCKET (SOLID FRAME)
202 STANDARD DIP SOCKET WITHOUT MOUNTING HOLES (SOLID FRAME)

WAFER CHART				
	PIN	DIM "A"	DIM "B"	
FIG. 1	6	.300 [7.62]	.150 [3.81]	306
	8	.400 [10.16]	.200 [5.08]	308
	10	.500 [12.70]	.250 [6.35]	310
FIG. 2	14	.700 [17.78]	.400 [10.16]	314
	16	.800 [20.32]	.500 [12.70]	316
	18	.900 [22.86]	.600 [15.24]	318
	20	1.000 [25.40]	.700 [17.78]	320
	24	1.200 [30.48]	.900 [22.86]	324
FIG. 3	16	.800 [20.32]	.500 [12.70]	416
	22	1.100 [27.94]	.800 [20.32]	422
	24	1.200 [30.48]	.900 [22.86]	424
FIG. 4	24	1.200 [30.48]		624
	28	1.400 [35.56]		628
	30	1.500 [38.10]		630
	32	1.600 [40.64]		632
	36	1.800 [45.72]	1.650 [41.91]	636
	40	2.000 [50.80]	1.650 [41.91]	640

FIG. 1

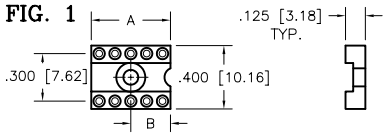


FIG. 2

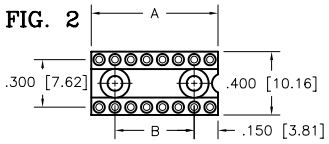


FIG. 3

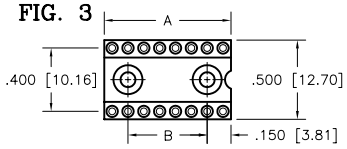
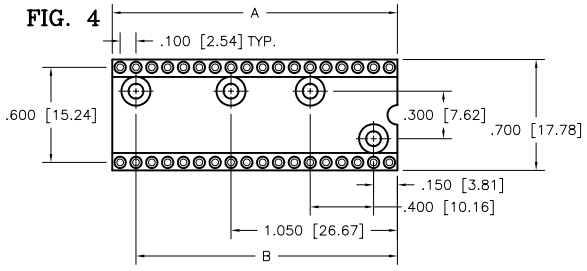


FIG. 4



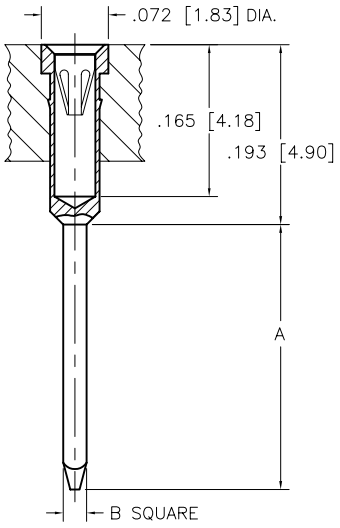


FIG. C

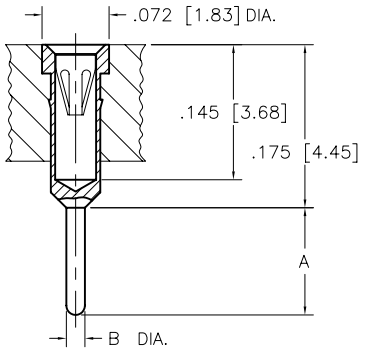


FIG. D

TERMINAL STYLE			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-02	C	.370 [9.40]	.025 [0.64]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]
-09	D	.280 [7.11]	.020 [0.51]
-11	D	.135 [3.43]	.020 [0.51]
-94	D	.125 [3.17]	.018 [0.46]

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +125°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

20X-XXX-XXX-PXX-B10

- SERIES
  - 201: WITH MOUNTING HOLES
  - 202: WITHOUT MOUNTING HOLES
- DIP - SPACING
- NO. OF PINS
- TERMINAL STYLE
  - FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- CONTACT TYPE
- PLATING: TERMINAL / CONTACT
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- INSULATOR MATERIAL
  - OTHER MATERIALS AVAILABLE CONSULT FACTORY
- LOGO

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

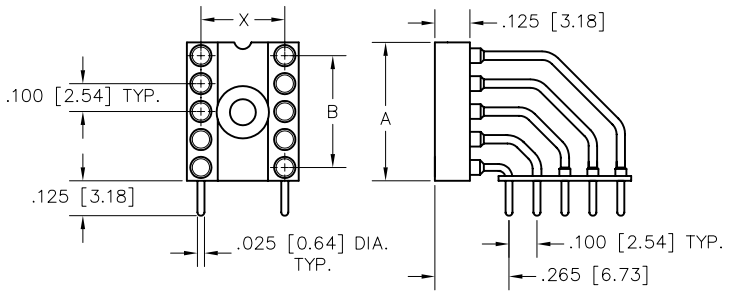
LEAD FREE AVAILABLE

LED SOCKETS

ISO 9001:2000 CERTIFIED

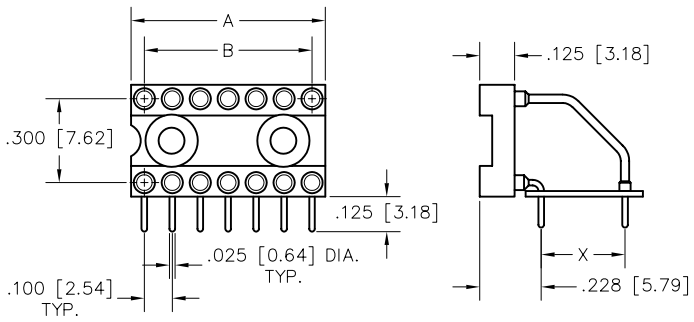
Vertical 90° (Solid Frame) 212 Series
Horizontal 90° (Solid Frame) 213 Series

SERIES 212



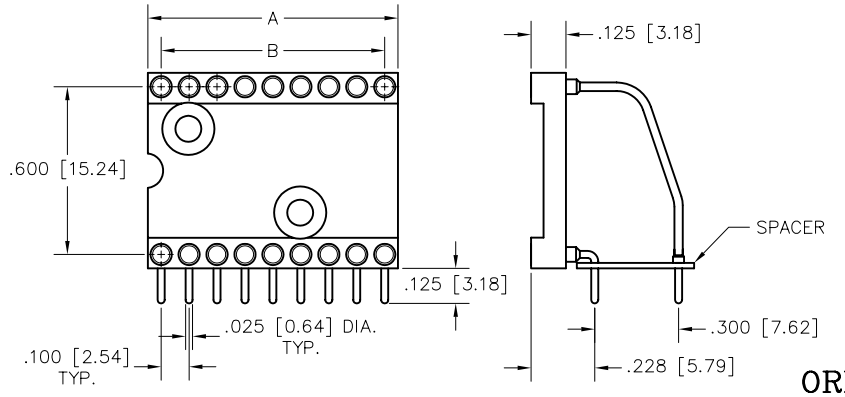
SERIES 212 VERTICAL				
			X=.300[7.62]	X=.600[15.24]
PIN	DIM "A"	DIM "B"	ORDER-CODE	ORDER-CODE
6	.295 [7.49]	.200 [5.08]	-306-289S-	-606-289S-
8	.395 [10.03]	.300 [7.62]	-308-289S-	-608-289S-
10	.495 [12.57]	.400 [10.16]	-310-289S-	-610-289S-
14	.695 [17.65]	.600 [15.24]	-314-289S-	-614-289S-
16	.795 [20.19]	.700 [17.78]	-316-289S-	-616-289S-
18	.895 [22.73]	.800 [20.32]	-318-289S-	-618-289S-
20	.995 [25.27]	.900 [22.86]	-320-289S-	-620-289S-

SERIES 213



SERIES 213 HORIZONTAL				
			X=.300[7.62]	X=.100[2.54]
PIN	DIM "A"	DIM "B"	ORDER-CODE	ORDER-CODE
6	.295 [7.49]	.200 [5.08]	-306-296S-	-306-297S-
8	.395 [10.03]	.300 [7.62]	-308-296S-	-308-297S-
10	.495 [12.57]	.400 [10.16]	-310-296S-	-310-297S-
14	.695 [17.65]	.600 [15.24]	-314-296S-	-314-297S-
16	.795 [20.19]	.700 [17.78]	-316-296S-	-316-297S-
18	.895 [22.73]	.800 [20.32]	-318-296S-	-318-297S-
20	.995 [25.27]	.900 [22.86]	-320-296S-	-320-297S-
24	1.195 [30.35]	1.100 [27.94]	-324-296S-	-324-297S-

SERIES 213



SERIES 213 HORIZONTAL			
PIN	DIM "A"	DIM "B"	ORDER-CODE
16	.795 [20.19]	.700 [17.78]	-616-290S-
18	.895 [22.73]	.800 [20.32]	-618-290S-
20	.995 [25.27]	.900 [22.86]	-620-290S-
22	1.095 [27.81]	1.000 [25.40]	-622-290S-
24	1.195 [30.35]	1.100 [27.94]	-624-290S-
28	1.395 [35.43]	1.300 [33.02]	-628-290S-
30	1.495 [37.97]	1.400 [35.56]	-630-290S-
32	1.595 [40.51]	1.500 [38.10]	-632-290S-
36	1.795 [45.59]	1.700 [43.18]	-636-290S-
40	1.995 [50.67]	1.900 [48.26]	-640-290S-

CONTACT TYPE

S: STANDARD DIP INSERTION FORCE 9.0 oz. AVG.
WITHDRAWAL FORCE 2.0 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL	
INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +125°C

ORDERING INFORMATION

212-XXX-289S-PXX-B15-SP
213-XXX-XXXS-PXX-B15-SP

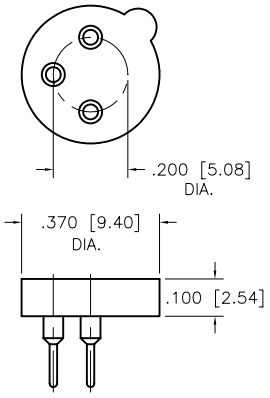
- SERIES
  - 212: LED VERTICAL
  - 213: LED HORIZONTAL
- DIP - SPACING
- NO. OF PINS
- TERMINAL STYLE
  - -290
  - -296
  - -297
- CONTACT TYPE
- PLATING: TERMINAL CONTACT
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - R (LEAD FREE) TERMINAL: TIN PLATING
- INSULATOR MATERIAL
  - OTHER MATERIALS AVAILABLE CONSULT FACTORY
- SPACER

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

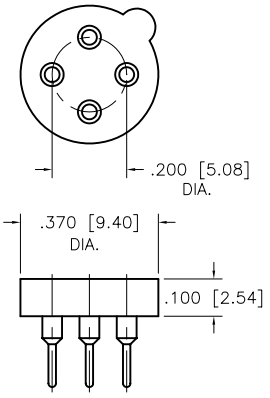
BACK TO TABLE OF CONTENTS

ANDON
INTERCONNECTION SPECIALISTS

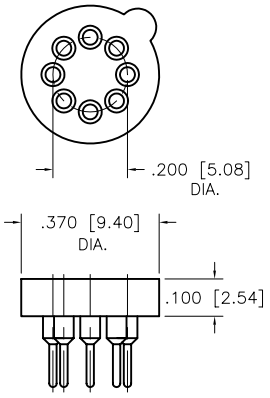
SERIES 215 TRANSISTOR SOCKET



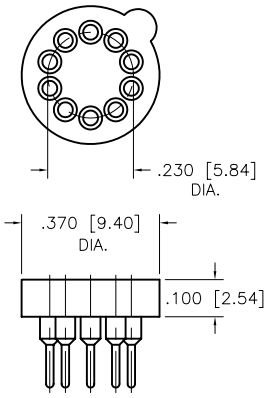
3 PIN



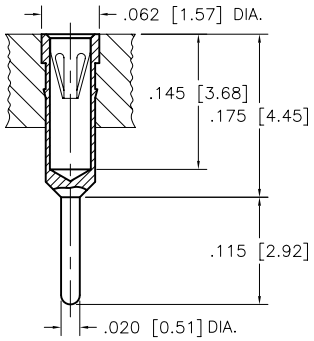
4 PIN



8 PIN



10 PIN



-75

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +125°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

215-0XX-75S-PXX-B10

- **SERIES**
- **NO. OF PINS**
- **TERMINAL STYLE**
  FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL/CONTACT**
  P30: GOLD / GOLD
  P31: GOLD / TIN
  P32: TIN-LEAD / TIN
  OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- **INSULATOR MATERIAL**
  OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **LOGO**

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

BACK TO TABLE OF CONTENTS

ANDON
INTERCONNECTION SPECIALISTS

SERIES 217 SURFACE MOUNT GULLWING SOCKET (SOLID FRAME)
220 SURFACE MOUNT "J" LEAD SOCKET (SOLID FRAME)

SERIES 217

FIG. 2

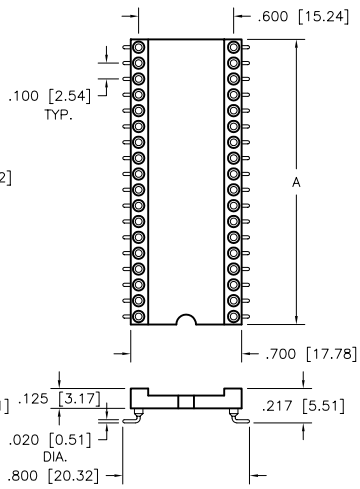
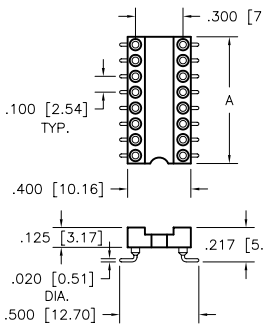
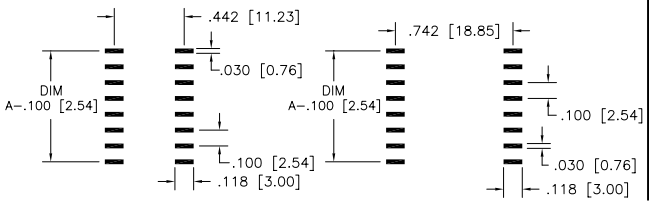


FIG. 1



P.C.B. FOOTPRINT



SERIES 220

FIG. 2

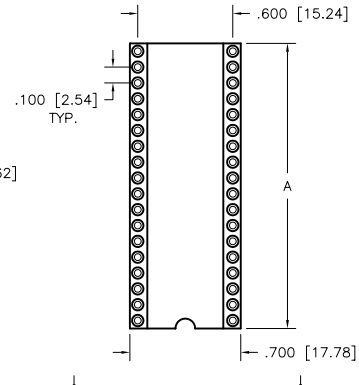
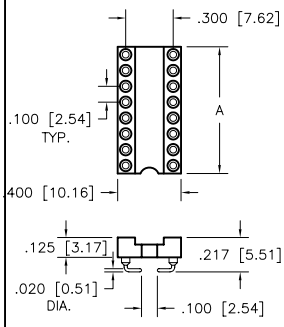
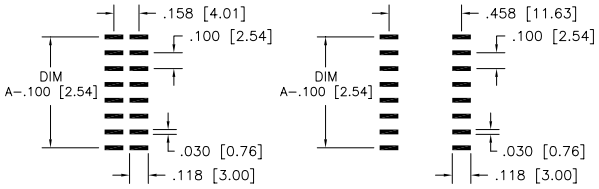


FIG. 1



P.C.B. FOOTPRINT



WAFER CHART			
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	24	1.200 [30.48]	324
FIG. 2	24	1.200 [30.48]	624
	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	HIGH TEMP. GREY NYLON 46 UL 94V-0
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO 150°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

2XX-XXX-232S-PXX-Y10

- **SERIES** — **217:** GULL WING; **220:** "J" LEAD
- **DIP - SPACING NO. OF PINS**
- **TERMINAL ASSEMBLY**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 218 SURFACE MOUNT GULLWING SOCKET (BLUE LAMINATE)

FIG. 1

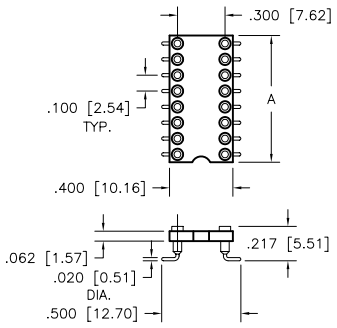
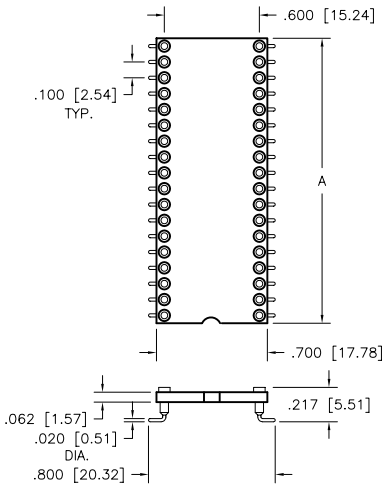
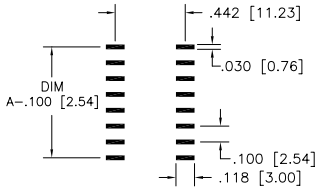
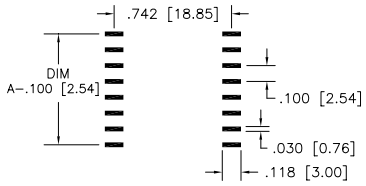


FIG. 2



P.C.B. FOOTPRINT





WAFER CHART			
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	24	1.200 [30.48]	324
FIG. 2	24	1.200 [30.48]	624
	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	HIGH TEMP. BLUE FR-4 EPOXY UL 94V-0	
TERMINAL	BRASS PER ASTM-B16	
CONTACT	BeCu PER ASTM-B194	
OPERATING TEMP.	-65°C TO 150°C	

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

218-XXX-232S-PXX-A10

- **SERIES**
- **DIP - SPACING NO. OF PINS**
- **TERMINAL ASSEMBLY**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON SERIES 219 SURFACE MOUNT GULLWING SOCKET (OPEN FRAME)

INTERCONNECTION SPECIALISTS

WAFER CHART			
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	24	1.200 [30.48]	624
FIG. 4	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648

FIG. 1

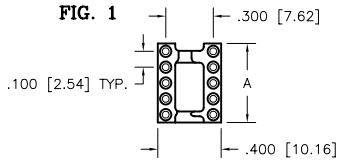
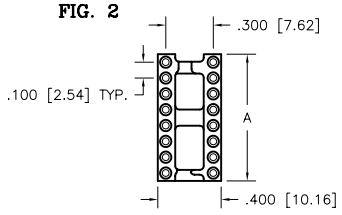
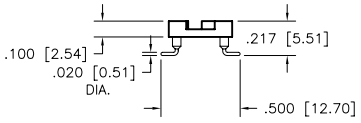


FIG. 2





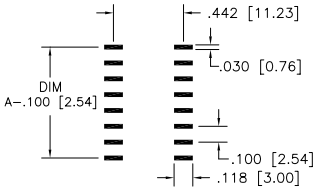


FIG. 3

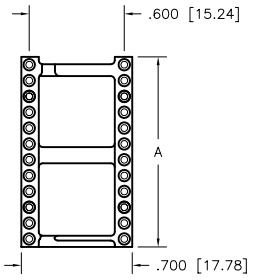
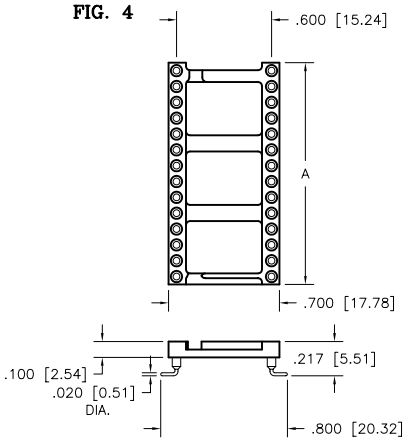
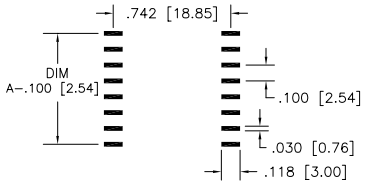


FIG. 4



P.C.B. FOOTPRINT



TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	HIGH TEMP. GREY NYLON 46 UL 94V-0
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65° TO 150°

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

219-XXX-232S-PXX-Y10

- **SERIES**
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL ASSEMBLY**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - SEE OPTIONAL PLATING

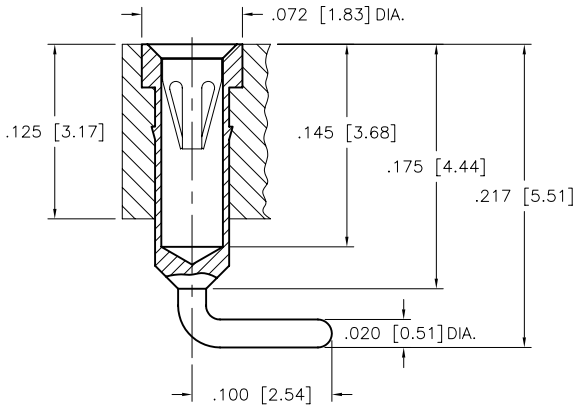
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

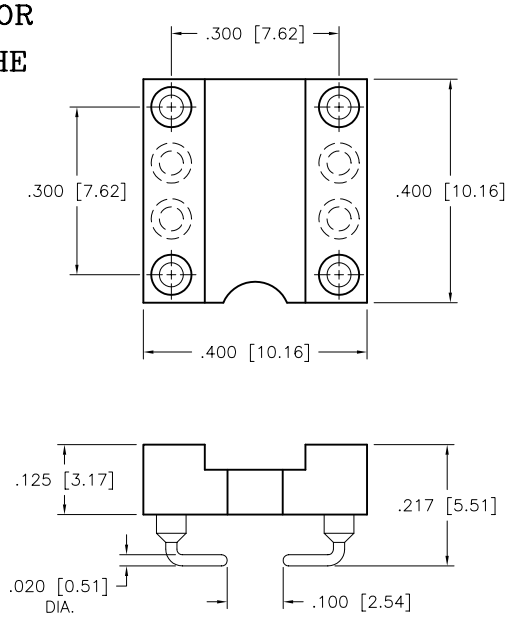
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 221 "J" LEAD OSCILLATOR SOCKET (SOLID FRAME)

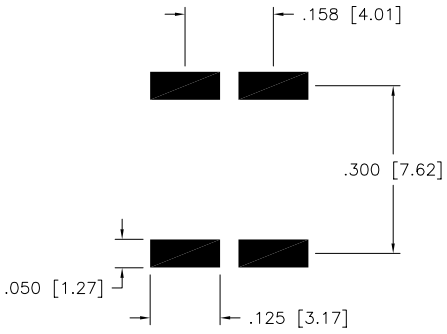
REPLACEMENT SOCKET FOR SMD OSCILLATOR TO REPLACE WITH LEADED DEVICES ON THE SAME FOOTPRINT



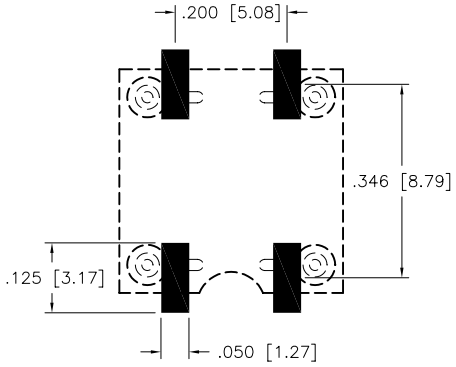


4 PIN
REPLACEMENT SOCKET

STANDARD P.C.B. FOOTPRINT



REPLACEMENT P.C.B. FOOTPRINT



TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	HIGH TEMP. GREY NYLON 46 UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65° TO 150°

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

221-084-232S-PXX-Y10

- **SERIES**
- **WAFER SIZE**
- **NUMBER OF PINS LOADED**
- **TERMINAL ASSEMBLY**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - SEE OPTIONAL PLATINGS

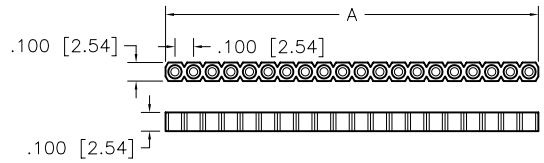
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

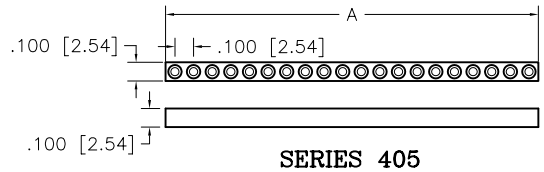
ANDON
INTERCONNECTION SPECIALISTS

SERIES 301 SIP SOCKET (SNAP)
302 SIP SOCKET (SOLID)
405 SIP SOCKET (LAMINATE WAFER)
411 SIP SOCKET (POLYIMIDE WAFER)

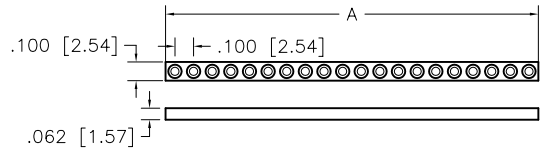
SERIES 301
SNAP
BREAKABLE INSULATOR



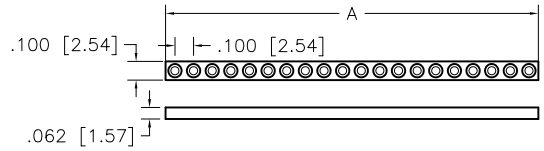
SERIES 302
SOLID INSULATOR



SERIES 405
LAMINATE INSULATOR



SERIES 411
POLYIMIDE INSULATOR



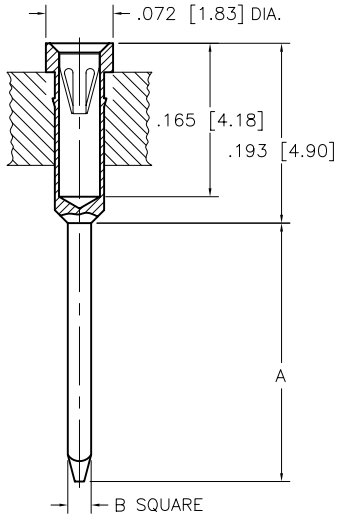


FIG. C

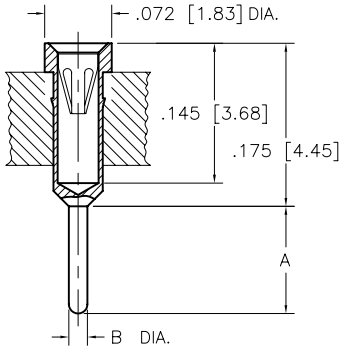


FIG. D

TERMINAL CHART			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-02	C	.370 [9.40]	.025 [0.64]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]
-09	D	.280 [7.11]	.020 [0.51]
-11	D	.135 [3.43]	.020 [0.51]
-94	D	.125 [3.17]	.018 [0.46]

PIN	DIM "A"	
2	.200 [5.08]	002
3	.300 [7.62]	003
4	.400 [10.16]	004
5	.500 [12.70]	005
6	.600 [15.24]	006
7	.700 [17.78]	007
8	.800 [20.32]	008
9	.900 [22.86]	009
10	1.000 [25.40]	010
11	1.100 [27.94]	011
12	1.200 [30.48]	012
13	1.300 [33.02]	013
14	1.400 [35.56]	014
15	1.500 [38.10]	015
16	1.600 [40.64]	016

PIN	DIM "A"	
17	1.700 [43.18]	017
18	1.800 [45.72]	018
19	1.900 [48.26]	019
20	2.000 [50.80]	020
21	2.100 [53.34]	021
22	2.200 [55.88]	022
23	2.300 [58.42]	023
24	2.400 [60.96]	024
25	2.500 [63.50]	025
26	2.600 [66.04]	026
27	2.700 [68.58]	027
28	2.800 [71.12]	028
29	2.900 [73.66]	029
30	3.000 [76.20]	030
31	3.100 [78.74]	031
32	3.200 [81.28]	032

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED	
TERMINAL	BRASS PER ASTM-B16	
CONTACT	BeCu PER ASTM-B194	

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

301-0XX-XXX-PXX-B10
302-0XX-XXX-PXX-B10
405-0XX-XXX-PXX-N10
411-0XX-XXX-PXX-H10

SERIES
301: SNAP
302: SOLID
405: LAMINATE
411: POLYIMIDE
SIP - SPACING
NO. OF PINS
TERMINAL STYLE
FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
CONTACT TYPE
LOGO
INSULATOR MATERIAL
OTHER MATERIALS AVAILABLE CONSULT FACTORY
PLATING: TERMINAL / CONTACT
P30: GOLD / GOLD
P31: TIN-LEAD / GOLD
P32: TIN-LEAD / TIN
OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS

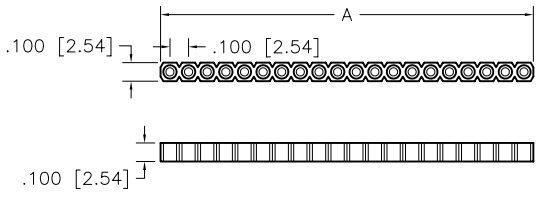
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 303 SIP SOCKET (SNAP)
HEAD FLUSH WITH INSULATOR

SERIES 303
SNAP SIP
BREAKABLE INSULATOR



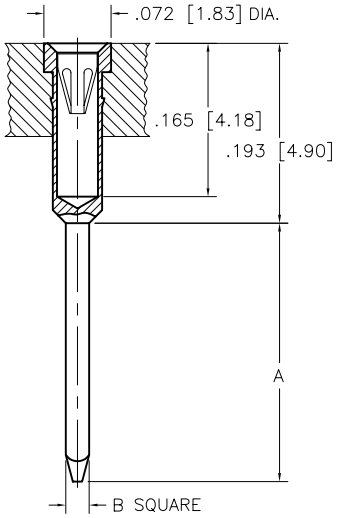


FIG. C

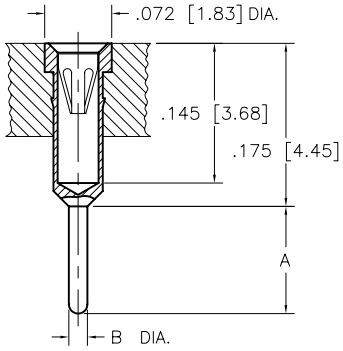


FIG. D

PIN	DIM "A"	
2	.200 [5.08]	002
3	.300 [7.62]	003
4	.400 [10.16]	004
5	.500 [12.70]	005
6	.600 [15.24]	006
7	.700 [17.78]	007
8	.800 [20.32]	008
9	.900 [22.86]	009
10	1.000 [25.40]	010
11	1.100 [27.94]	011
12	1.200 [30.48]	012
13	1.300 [33.02]	013
14	1.400 [35.56]	014
15	1.500 [38.10]	015
16	1.600 [40.64]	016

PIN	DIM "A"	
17	1.700 [43.18]	017
18	1.800 [45.72]	018
19	1.900 [48.26]	019
20	2.000 [50.80]	020
21	2.100 [53.34]	021
22	2.200 [55.88]	022
23	2.300 [58.42]	023
24	2.400 [60.96]	024
25	2.500 [63.50]	025
26	2.600 [66.04]	026
27	2.700 [68.58]	027
28	2.800 [71.12]	028
29	2.900 [73.66]	029
30	3.000 [76.20]	030
31	3.100 [78.74]	031
32	3.200 [81.28]	032

TERMINAL CHART			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-02	C	.370 [9.40]	.025 [0.64]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]
-09	D	.280 [7.11]	.020 [0.51]
-11	D	.135 [3.43]	.020 [0.51]
-94	D	.125 [3.17]	.018 [0.46]

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V-0 LISTED	
TERMINAL	BRASS PER ASTM-B16	
CONTACT	BeCu PER ASTM-B194	
OPERATING TEMP.	-65°C TO +125°C	

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

303-0XX-XXX-PXX-B10

- **SERIES** 303: SNAP SIP HEAD FLUSH
- **SIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE** FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - SEE OPTIONAL PLATINGS
- **INSULATOR MATERIAL** OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **LOGO**

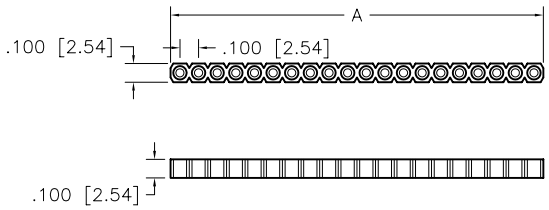
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

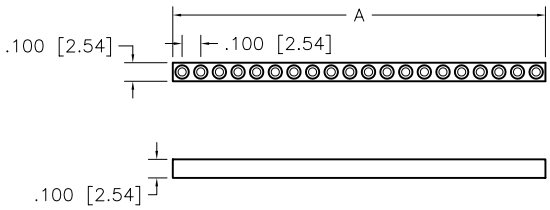
ANDON
INTERCONNECTION SPECIALISTS

SERIES 305 SIP COMPONENT ADAPTER (SNAP)
306 SIP COMPONENT ADAPTER (SOLID)

SERIES 305
SNAP
BREAKABLE INSULATOR

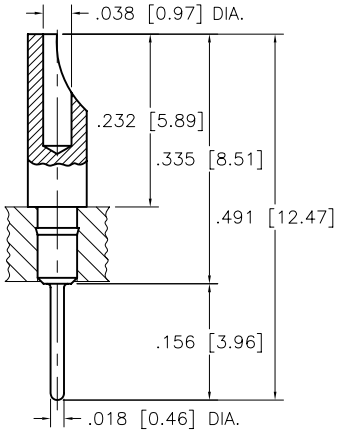


SERIES 306
SOLID
SOLID INSULATOR

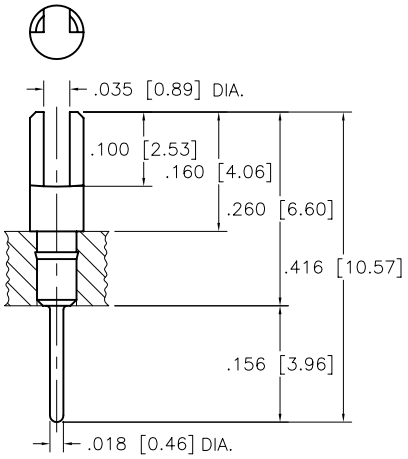


PIN	DIM "A"	
2	.200 [5.08]	002
3	.300 [7.62]	003
4	.400 [10.16]	004
5	.500 [12.70]	005
6	.600 [15.24]	006
7	.700 [17.78]	007
8	.800 [20.32]	008
9	.900 [22.86]	009
10	1.000 [25.40]	010
11	1.100 [27.94]	011
12	1.200 [30.48]	012
13	1.300 [33.02]	013
14	1.400 [35.56]	014
15	1.500 [38.10]	015
16	1.600 [40.64]	016

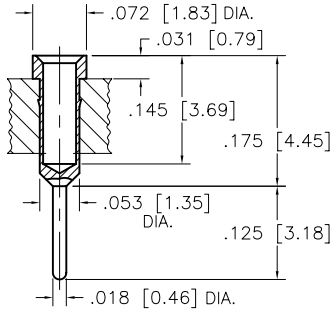
PIN	DIM "A"	
17	1.700 [43.18]	017
18	1.800 [45.72]	018
19	1.900 [48.26]	019
20	2.000 [50.80]	020
21	2.100 [53.34]	021
22	2.200 [55.88]	022
23	2.300 [58.42]	023
24	2.400 [60.96]	024
25	2.500 [63.50]	025
26	2.600 [66.04]	026
27	2.700 [68.58]	027
28	2.800 [71.12]	028
29	2.900 [73.66]	029
30	3.000 [76.20]	030
31	3.100 [78.74]	031
32	3.200 [81.28]	032



−05



−06



−07
HOLLOW
PHOSPHOR BRONZE

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED POLYESTER UL 94V−0 LISTED
TERMINAL	BRASS PER ASTM−B16
OPERATING TEMP.	−65°C TO +125°C

ORDERING INFORMATION

30X−0XX−XX−XXX−B10

- **SERIES**
  - 305: SNAP
  - 306: SOLID
- **SPACING NO. OF PINS**
- **TERMINAL STYLE**
- **PLATING: TERMINAL**
  - G04: GOLD
  - T: TIN
  - TL: TIN−LEAD
- **INSULATOR MATERIAL**
  - OTHER MATERIALS AVAILABLE CONSULT FACTORY
- **LOGO**

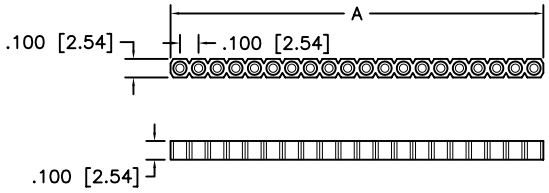
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

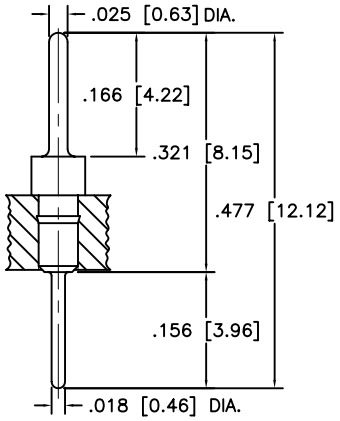
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

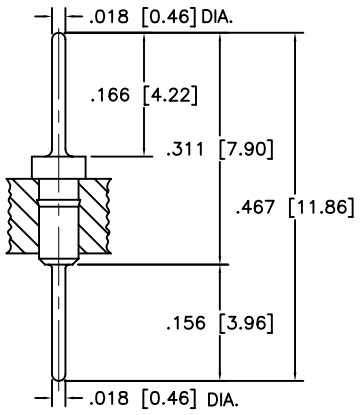
SERIES 307 SIP BOARD TO BOARD CONNECTOR (SNAP)
308 SIP BOARD TO BOARD CONNECTOR (SOLID)

SERIES 307
SNAP
BREAKABLE INSULATOR



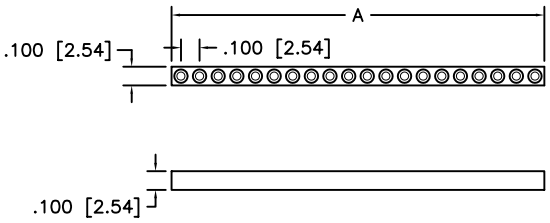


−37 MATERIAL: (1)
−04 MATERIAL: (2)



−77 MATERIAL: (2)

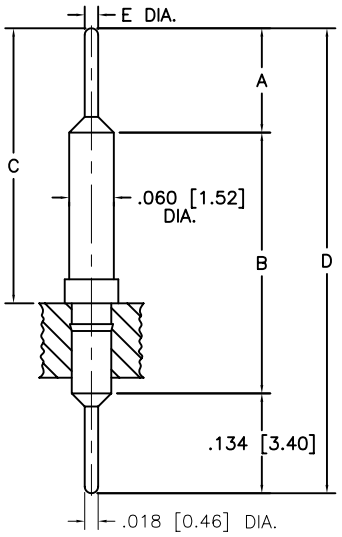
SERIES 308
SOLID
SOLID INSULATOR



TERM.	A	B	C	D	E
−56	.184 [4.68]	.583 [14.82]	.630 [16.00]	.902 [22.90]	.026 [0.65]
−58	.140 [3.56]	.350 [8.89]	.390 [9.91]	.624 [15.85]	.018 [0.46]
−59	.140 [3.56]	.457 [11.61]	.479 [12.17]	.731 [18.57]	.018 [0.46]

PIN	DIM "A"	
2	.200 [5.08]	002
3	.300 [7.62]	003
4	.400 [10.16]	004
5	.500 [12.70]	005
6	.600 [15.24]	006
7	.700 [17.78]	007
8	.800 [20.32]	008
9	.900 [22.86]	009
10	1.000 [25.40]	010
11	1.100 [27.94]	011
12	1.200 [30.48]	012
13	1.300 [33.02]	013
14	1.400 [35.56]	014
15	1.500 [38.10]	015
16	1.600 [40.64]	016

PIN	DIM "A"	
17	1.700 [43.18]	017
18	1.800 [45.72]	018
19	1.900 [48.26]	019
20	2.000 [50.80]	020
21	2.100 [53.34]	021
22	2.200 [55.88]	022
23	2.300 [58.42]	023
24	2.400 [60.96]	024
25	2.500 [63.50]	025
26	2.600 [66.04]	026
27	2.700 [68.58]	027
28	2.800 [71.12]	028
29	2.900 [73.66]	029
30	3.000 [76.20]	030
31	3.100 [78.74]	031
32	3.200 [81.28]	032



−XX MATERIAL: (1)

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR		GLASS FILLED POLYESTER UL 94V−0 LISTED
TERMINAL	MATERIAL: (1)	BRASS PER ASTM−B16
	MATERIAL: (2)	PHOSPHOR BRONZE PER ASTM−B139
CONTACT		BeCu PER ASTM−B194
OPERATING TEMP.		−65°C TO +125°C

ORDERING INFORMATION

XXX−0XX−XX−XXX−B10

- SERIES: 307: SNAP; 308: SOLID
- SIP − SPACING / NO. OF PINS
- TERMINAL STYLE
- PLATING: TERMINAL: G04: GOLD; T: TIN; TL: TIN−LEAD
- LOGO
- INSULATOR MATERIAL: OTHER MATERIAL AVAILABLE CONSULT FACTORY

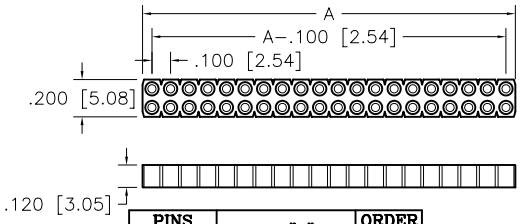
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 351 TWIN STRIP SOCKET
355 TWIN STRIP COMPONENT ADAPTER

TWIN STRIP WAFER



PINS PER ROW	DIM "A"	ORDER CODE
5	.500 [12.70]	205
10	1.000 [25.40]	210
20	2.000 [50.80]	220
32	3.200 [81.28]	232
40	4.000 [101.60]	240

* OTHER PIN QUANTITIES AVAILABLE

SERIES 351 TERMINALS

TERMINAL CHART			
TERMINAL	FIG.	DIM "A"	DIM "B"
–01	D	.115 [2.92]	.020 [0.51]
–02	C	.370 [9.40]	.025 [0.64]
–03	C	.510 [12.95]	.025 [0.64]
–08	D	.170 [4.31]	.020 [0.51]
–09	D	.280 [7.11]	.020 [0.51]
–11	D	.135 [3.43]	.020 [0.51]
–94	D	.125 [3.17]	.018 [0.46]

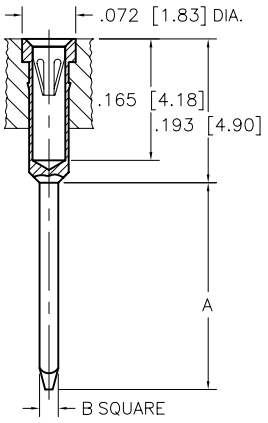


FIG. C
MATERIAL: (1)

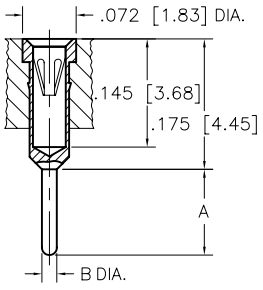
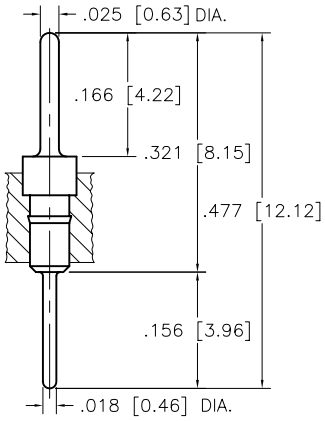
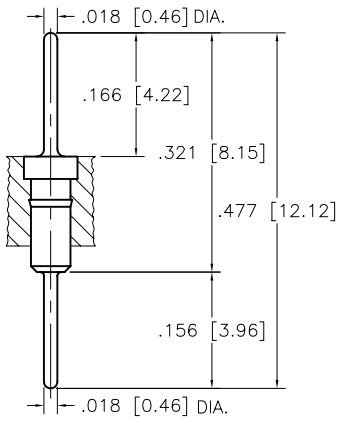


FIG. D
MATERIAL: (1)

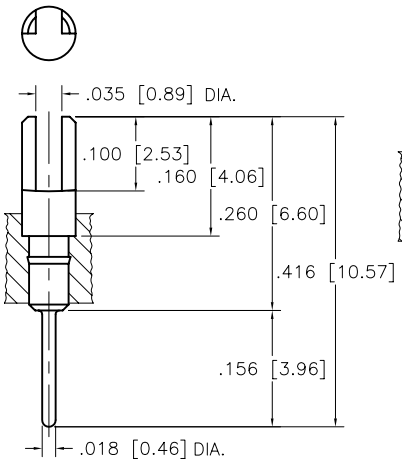
SERIES 355 TERMINALS



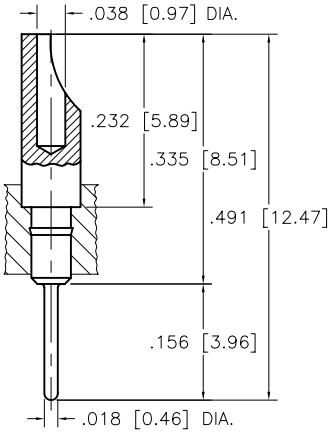
–37 MATERIAL: (1)
–04 MATERIAL: (2)



–77 MATERIAL: (2)



–06 MATERIAL: (2)



–05 MATERIAL: (1)

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR		GLASS FILLED POLYESTER UL 94V–0 LISTED
TERMINAL	MATERIAL:(1)	BRASS PER ASTM–B16
	MATERIAL:(2)	PHOSPHOR BRONZE PER ASTM–B139
CONTACT		BeCu PER ASTM–B194
OPERATING TEMP.		–65°C TO +125°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

XXX–2XX–XXX–XXX–B10

- SERIES: 351, 355
- DIP – SPACING
- NO. OF PINS PER ROW
- TERMINAL STYLE: FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- CONTACT TYPE
- 351
- PLATING: TERMINAL / CONTACT
  - P15: GOLD / GOLD
  - P31: TIN–LEAD / GOLD
  - P32: TIN–LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- 355
  - G04: GOLD
  - T: TIN
  - TL: TIN–LEAD
- INSULATOR MATERIAL: OTHER MATERIALS AVAILABLE CONSULT FACTORY
- LOGO

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 360 PIN HEADER
.025 IN. [0.64 MM] SQ. POST
.100 IN. [2.54 MM] PITCH

TYPE
PSS
PSR
PDS
PDR

- .025 IN [0.64 MM] SQUARE POST ON .100 IN [2.54 MM] CENTERLINE PITCH
- MOLDED WITH STANDOFFS
- UP TO 40 PIN POSITIONS AVAILABLE SINGLE IN LINE AND 80 POSITIONS DUAL IN LINE
- X/Y STACKABLE

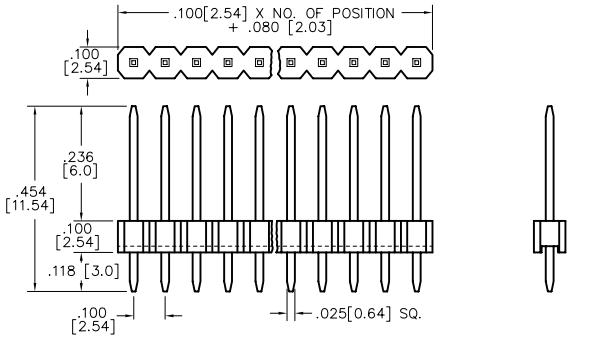
TECHNICAL SPECIFICATIONS

MATERIAL DATA

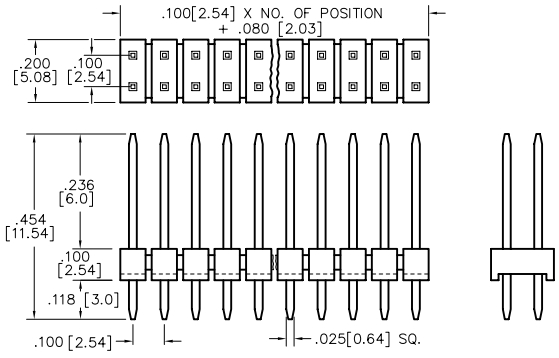
INSULATOR..... GLASS FILLED POLYESTER
UL RATING..... 94V-0
TERMINAL..... BRASS
PLATING..... GOLD OVER NICKEL OR TIN

ELECTRICAL DATA

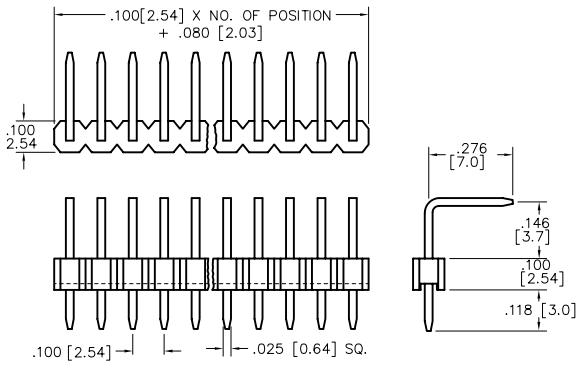
OPERATING TEMPERATURE.....-55°C TO +105°C
VOLTAGE RATING....1000 VAC RMS FOR 1 MIN.
CURRENT RATING 3A
INSULATION RESISTANCE.....1000 MEGOHMS



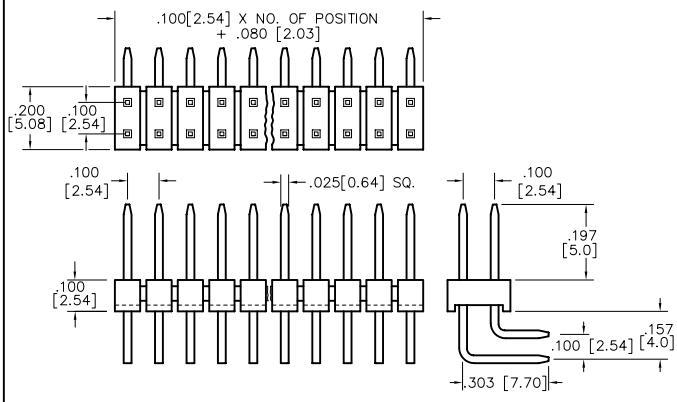
SERIES: 361 SINGLE ROW STRAIGHT TERMINAL
TYPE: PSS



SERIES: 362 DUAL ROW STRAIGHT TERMINAL
TYPE: PDS



SERIES: 363 SINGLE ROW RIGHT ANGLE TERMINAL
TYPE: PSR



SERIES: 364 DUAL ROW RIGHT ANGLE TERMINAL
TYPE: PDR

ORDERING INFORMATION

361 – PSS – 040 – 1 – G

- 361 — SERIES
- PSS — TYPE
- 040 — NO. OF TERMINALS
  1 – 40 SINGLE
  2 – 80 DOUBLE
- 1 — STANDARD TERMINATION LENGTH SHOWN
- G — PLATING
  G: GOLD OVER NICKEL
  T: TIN OVER NICKEL

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 370 RECEPTACLE HEADER .025 IN. [0.64 MM] SQ. POST .100 IN. [2.54 MM] PITCH

TYPE
RSS
RSR
RDS
RDR

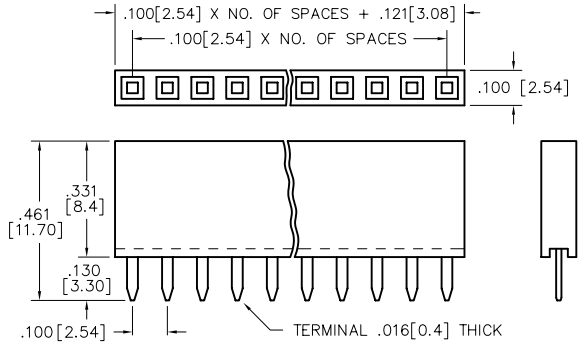
TECHNICAL SPECIFICATIONS

MATERIAL DATA

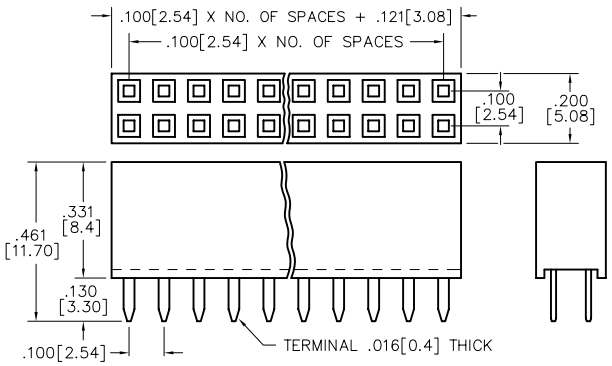
INSULATOR..... GLASS FILLED POLYESTER
UL RATING..... 94V-0
CONTACT ..... PHOSPHOR BRONZE
PLATING..... GOLD OVER NICKEL OR TIN

ELECTRICAL DATA

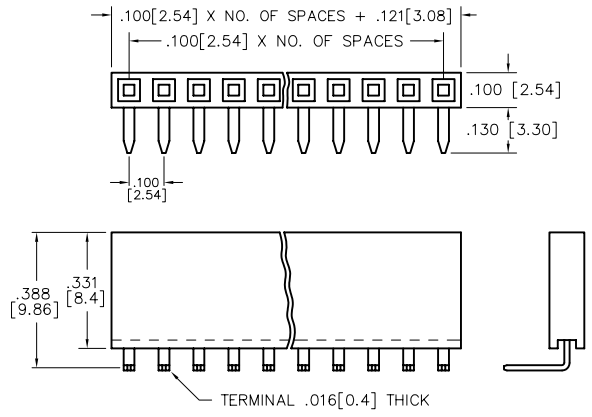
CURRENT RATING ..... 1 AMP
INSULATOR RESISTANCE ... 1 X 10^4 MEGOHMS
DIELECTRIC WITHSTANDING VOLTAGE ..... 2400 VOLTS RMS. 60Hz AT SEA LEVEL ON MINIMUM CONTACT SPACING.
OPERATING TEMP. ..... -55°C TO +105°C



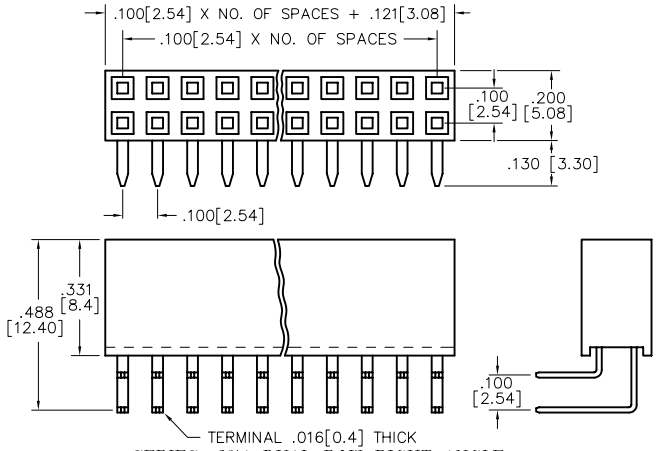
SERIES: 371 SINGLE ROW STRAIGHT
TYPE: RSS



SERIES: 372 DUAL ROW STRAIGHT
TYPE: RDS



SERIES: 373 SINGLE ROW RIGHT ANGLE
TYPE: RSR



SERIES: 374 DUAL ROW RIGHT ANGLE
TYPE: RDR

ORDERING INFORMATION

371 - RSS - 040 - 1 - G

- 371 — SERIES
- RSS — TYPE
- 040 — NO. OF CONTACTS
  1 - 40 SINGLE
  2 - 80 DOUBLE
- 1 — STANDARD TERMINATION LENGTH SHOWN
- G — PLATING
  G: GOLD OVER NICKEL

CONSULT FACTORY FOR:
OTHER PIN LENGTHS .079 IN.[2.00 MM] PIN AND RECEPTACLE HEADERS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

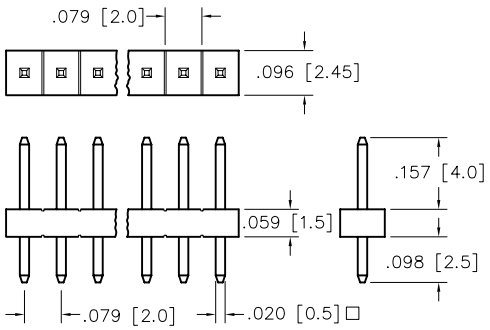
SERIES 380 SINGLE/DUAL ROW HEADERS

COMMERCIAL–.079 IN.[2,00 MM] PITCH

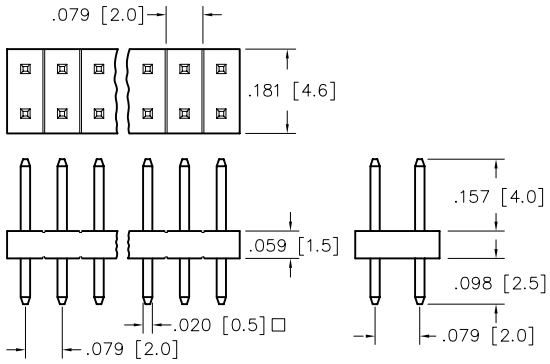
TYPE
PSS RDS
PDS PSR
RSS PDR

- .079 IN.[2,00 MM] CENTERLINE PITCH WITH .020 [0,51] SQUARE POST
- UP TO 40 PIN POSITIONS SINGLE IN LINE AND 80 PIN POSITIONS DUAL IN LINE
- X/Y STACKABLE

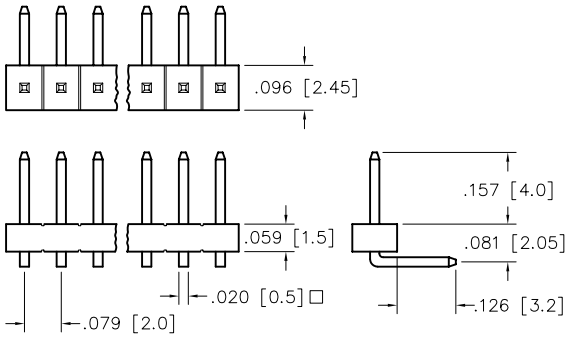
PIN HEADERS



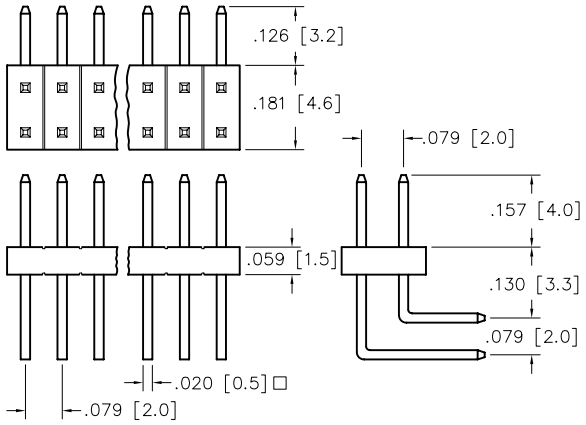
SERIES: 381 SINGLE ROW STRAIGHT TERMINAL
TYPE: PSS



SERIES: 382 DUAL ROW STRAIGHT TERMINAL
TYPE: PDS

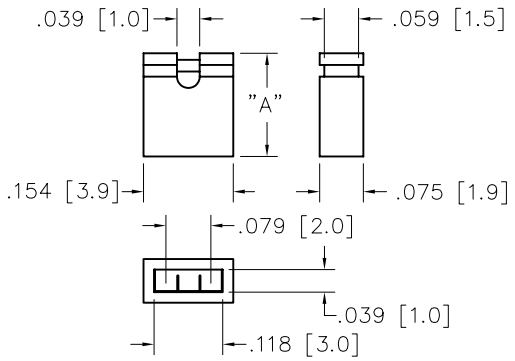


SERIES: 385 SINGLE ROW RIGHT ANGLE TERMINAL
TYPE: PSR



SERIES: 386 DUAL ROW RIGHT ANGLE TERMINAL
TYPE: PDR

MINI JUMPER



MINI JUMPER P/N	A
392–200–35–G	.138 [3.5]
392–200–45–G	.177 [4.5]
392–200–50–G	.213 [5.4]

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

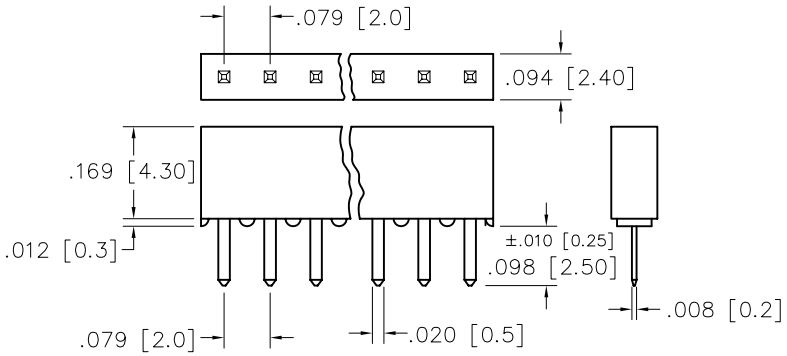
WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

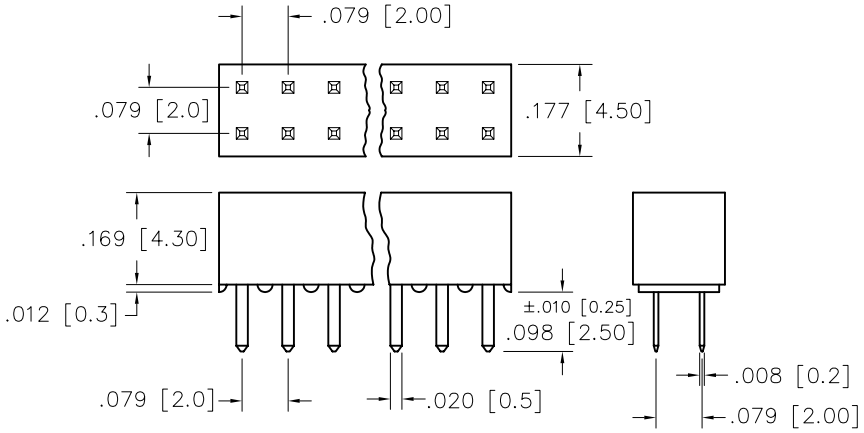
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 380 RECEPTACLE HEADERS



SERIES: 383 SINGLE ROW STRAIGHT CONTACTS
TYPE: RSS



SERIES: 384 DUAL ROW STRAIGHT CONTACTS
TYPE: RDS

TECHNICAL SPECIFICATIONS

MATERIAL DATA

INSULATOR	GLASS FILLED THERMOPLASTIC
UL RATING	94V-0
CONTACT	PHOSPHOR BRONZE
PLATING	GOLD OVER NICKEL

ELECTRICAL DATA

PIN HEADER

CURRENT RATING	1 AMP DC
OPERATING TEMPERATURE	-55°C TO +105°C

RECEPTACLE HEADER

CURRENT RATING	1 AMP DC
CONTACT RESISTANCE	20 Mohm MAX. AT 6 VDC 0.3A
INSULATION RESISTANCE	1000 Mohms MIN. AT 500 VDC
DIELECTRIC VOLTAGE	500 VAC FOR 1 MINUTE

ORDERING INFORMATION

381 - PSS - 040 - 1

- 381 — SERIES NO.
- PSS — TYPE
- 040 — NO. OF CONTACTS
  - 1-40 SINGLE
  - 2-80 DOUBLE
- 1 — STANDARD TERMINATION LENGHTS SHOWN

CONSULT FACTORY FOR

* OTHER PIN LENGTHS
* .100 [2.54] PIN HEADERS AND RECEPTACLE HEADERS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 390 MINI-JUMPER/SHORTING CONNECTOR

PITCH: .100 in. [2.54 mm] and .079 in. [2.00 mm]

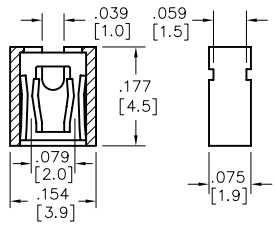
FEATURES

- All Sides Stackable
- Simply Connecting Two Connecting Points Together Or Opposite
- Low Profile
- .079[2.00] Pitch Mates To .020[0.5] Sq. Post
  .100[2.54] Pitch Mates To .025[0.64] Sq. Post

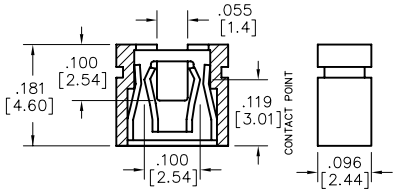
TECHNICAL SPECIFICATIONS

Contact: Phosphor Bronze
Gold Plating
Insulator: Glass Filled Polyester (PBT) 94V-0
Current Rating: 3 AMP max.
Dielectric Withstanding Voltage: AC 650 VRMS
Contact Resistance: 20 Milliohms max.
Insulation Resistance: 1000 Megaohms min.

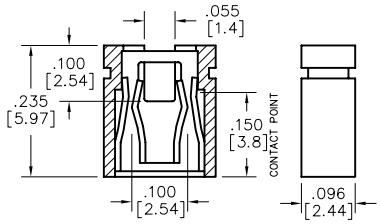
392-200-45-1G



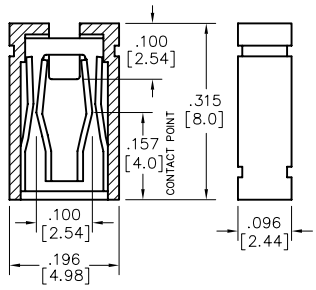
393-254-46-1G



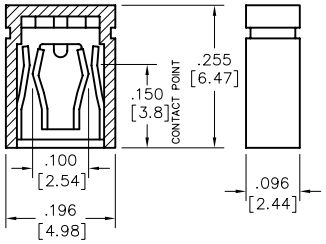
393-254-59-1G



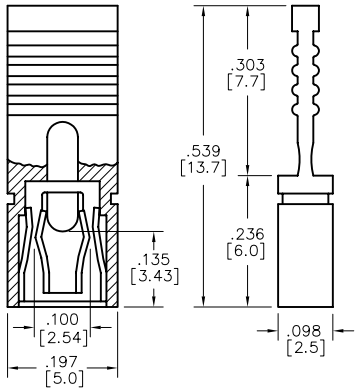
393-254-80-1G

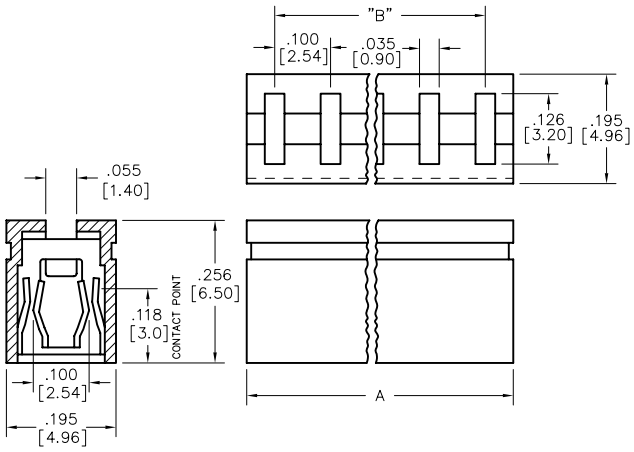


394-254-64-1G



395-254-60-1G





MULTI-JUMPER

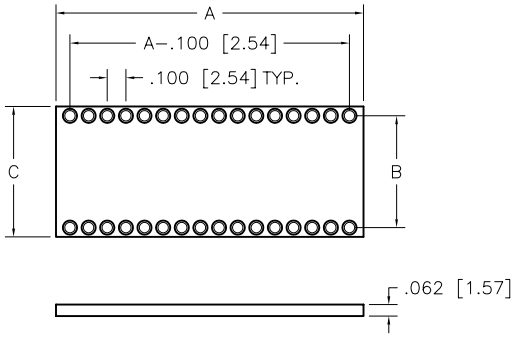
PART NO.	NO. OF CONTACTS	"A" ±.004[±0.1]	"B" ±.004[±0.1]
396-254-65-2G	2	.200 [5.08]	.100 [2.54]
396-254-65-3G	3	.300 [7.62]	.200 [5.08]
396-254-65-4G	4	.400 [10.16]	.300 [7.62]
396-254-65-5G	5	.500 [12.70]	.400 [10.16]
396-254-65-6G	6	.600 [15.24]	.500 [12.70]
396-254-65-7G	7	.700 [17.78]	.600 [15.24]
396-254-65-8G	8	.800 [20.32]	.700 [17.78]
396-254-65-9G	9	.900 [22.86]	.800 [20.32]
396-254-65-10G	10	1.000 [25.40]	.900 [22.86]

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 204 DIP SOCKET (LAMINATE WAFER) (WITHOUT INDEX MARK)



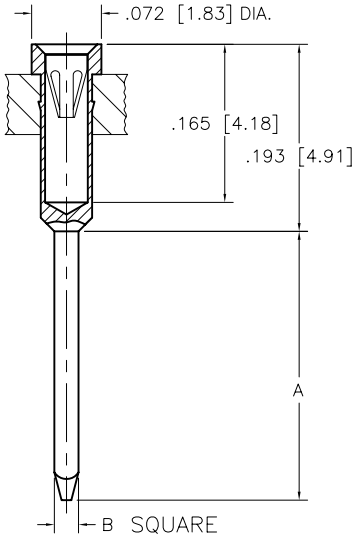


FIG. C

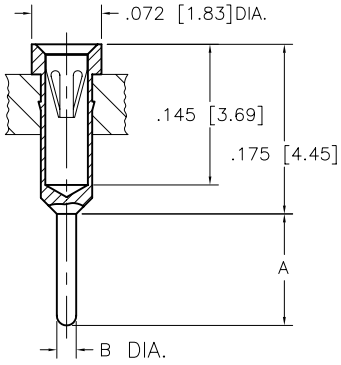


FIG. D

SERIES 402 WAFER CHART				
PIN	DIM "A"	DIM "B"	DIM "C"	
6	.300 [7.62]	.300 [7.62]	.400 [10.16]	306
8	.400 [10.16]			308
10	.500 [12.70]			310
14	.700 [17.78]			314
16	.800 [20.32]			316
18	.900 [22.86]			318
20	1.000 [25.40]			320
22	1.100 [27.94]			322
24	1.200 [30.48]			324
28	1.400 [35.56]			328
24	1.200 [30.48]	.600 [15.24]	.700 [17.78]	624
28	1.400 [35.56]			628
30	1.500 [38.10]			630
32	1.600 [40.64]			632
36	1.800 [45.72]			636
40	2.000 [50.80]			640
42	2.100 [53.34]			642
48	2.400 [60.96]			648
24	1.200 [30.48]	.900 [22.86]	1.000 [25.40]	924
28	1.400 [35.56]		1.000 [25.40]	928
32	1.650 [41.91]		1.050 [26.67]	932
50	2.500 [63.05]		1.000 [25.40]	950
52	2.600 [66.04]		1.000 [25.40]	952
64	3.250 [82.55]		1.050 [26.67]	964

TERMINAL CHART			
TERMINAL	FIG.	DIM "A"	DIM "B"
–01	D	.115 [2.92]	.020 [0.51]
–03	C	.510 [12.95]	.025 [0.64]
–08	D	.170 [4.31]	.020 [0.51]
–09	D	.280 [7.11]	.020 [0.51]
–94	D	.125 [3.17]	.018 [0.46]

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	FR–4 EPOXY (LAMINATE) UL 94V–0 LISTED
TERMINAL	BRASS PER ASTM–B16
CONTACT	BeCu PER ASTM–B194
OPERATING TEMP.	–65°C TO +140°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

204–XXX–XXX–PXX–N10

- **SERIES** — 204: DIP SOCKET WITHOUT INDEX
- **DIP – SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE** — FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL CONTACT** — P30: GOLD / GOLD; P31: TIN–LEAD / GOLD; P32: TIN–LEAD / TIN; OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- **INSULATOR MATERIAL**
- **LOGO**

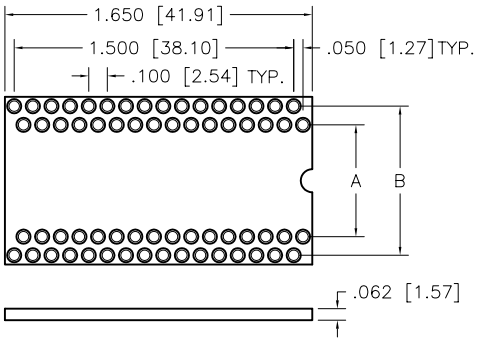
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 401 QUAD SOCKET (LAMINATE WAFER)
402 DIP SOCKET (LAMINATE WAFER)

SERIES 401
QUAD SOCKET



SERIES 401 WAFER CHART				
P/N	PINS	A	B	
401-764-	64	.750 [19.05]	.950 [24.15]	FOR ROCKWELL & NEC CHIP
401-864-	64	.600 [15.24]	.800 [20.32]	FOR FUJITSU CHIP

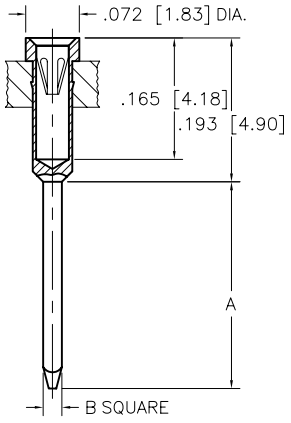


FIG. C

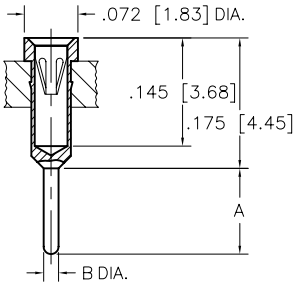
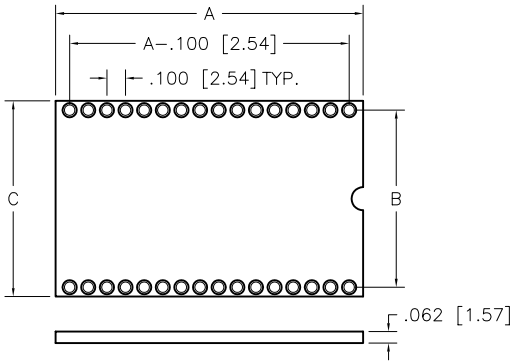


FIG. D

TERMINAL CHART			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]
-09	D	.280 [7.11]	.020 [0.51]
-94	D	.125 [3.17]	.018 [0.46]

SERIES 402
DUAL IN-LINE



SERIES 402 WAFER CHART				
PIN	DIM "A"	DIM "B"	DIM "C"	
6	.300 [7.62]	.300 [7.62]	.400 [10.16]	306
8	.400 [10.16]			308
10	.500 [12.70]			310
14	.700 [17.78]			314
16	.800 [20.32]			316
18	.900 [22.86]			318
20	1.000 [25.40]			320
22	1.100 [27.94]			322
24	1.200 [30.48]			324
28	1.400 [35.56]			328
24	1.200 [30.48]	.600 [15.24]	.700 [17.78]	624
28	1.400 [35.56]			628
30	1.500 [38.10]			630
32	1.600 [40.64]			632
36	1.800 [45.72]			636
40	2.000 [50.80]			640
48	2.400 [60.96]			648
24	1.200 [30.48]	.900 [22.86]	1.000 [25.40]	924
28	1.400 [35.56]		1.000 [25.40]	928
32	1.650 [41.91]		1.000 [25.40]	932
50	2.500 [63.05]		1.000 [25.40]	950
52	2.600 [66.04]		1.000 [25.40]	952
64	3.250 [82.55]		1.000 [25.40]	964

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	FR-4 EPOXY (LAMINATE) UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +140°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

40X-XXX-XXX-PXX-N10

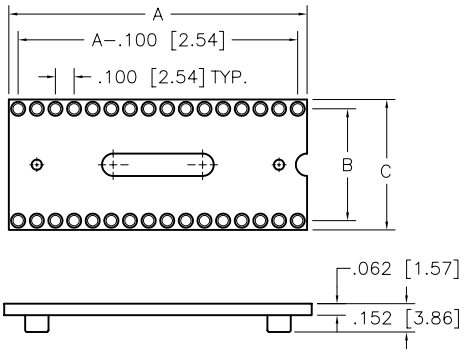
- **SERIES**
  - 401: QUAD SOCKET
  - 402: DIP SOCKET
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE**
  - FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS
- **INSULATOR MATERIAL**
- **LOGO**

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 406 DIP SOCKET: POLYIMIDE WITH STANDOFF
407 DIP SOCKET: POLYIMIDE WITHOUT STANDOFF



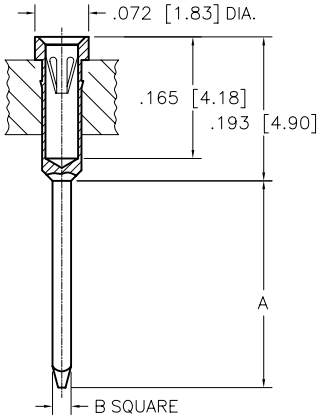


FIG. C

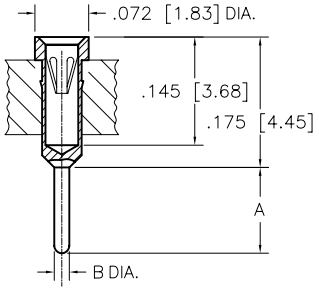


FIG. D

WAFER CHART				
PIN	DIM "A"	DIM "B"	DIM "C"	
6	.300 [7.62]	.300 [7.62]	.400 [10.16]	306
8	.400 [10.16]			308
10	.500 [12.70]			310
14	.700 [17.78]			314
16	.800 [20.32]			316
18	.900 [22.86]			318
20	1.000 [25.40]			320
22	1.100 [27.94]			322
24	1.200 [30.48]			324
28	1.400 [35.56]			328
24	1.200 [30.48]	.600 [15.24]	.700 [17.78]	624
28	1.400 [35.56]			628
30	1.500 [38.10]			630
32	1.600 [40.64]			632
36	1.800 [45.72]			636
40	2.000 [50.80]			640
48	2.400 [60.96]			648
24	1.200 [30.48]	.900 [22.86]	1.000 [25.40]	924
28	1.400 [35.56]			928
32	1.600 [40.64]			932
50	2.500 [63.05]			950
52	2.600 [66.04]			952
64	3.200 [81.28]			964

NOTE:
6, 8, AND 10 PIN SOCKETS
DO NOT HAVE A WINDOW

TERMINAL STYLE			
TERMINAL	FIG.	DIM "A"	DIM "B"
–01	D	.115 [2.92]	.020 [0.51]
–03	C	.510 [12.95]	.025 [0.64]
–08	D	.170 [4.31]	.020 [0.51]
–09	D	.280 [7.11]	.020 [0.51]
–94	D	.125 [3.17]	.018 [0.46]

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.
N: BeNi MATERIAL	INSERTION FORCE	6.70 oz. MAX.
	WITHDRAWAL FORCE	5.29 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	BROWN POLYIMIDE UL 94V–0 LISTED
TERMINAL	BRASS PER ASTM–B16
CONTACT	BeCu PER ASTM–B194
OPERATING TEMP.	–65°C TO +240°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

40X–XXX–XXX–PXX–H10

SERIES
406: WITH STANDOFF
407: WITHOUT STANDOFF

DIP – SPACING

NO. OF PINS

TERMINAL STYLE
FOR OPTIONAL TERMINAL STYLES
SEE TERMINAL STYLES

CONTACT TYPE

PLATING: TERMINAL CONTACT
P30: GOLD / GOLD
P31: TIN–LEAD / GOLD
P32: TIN–LEAD / TIN
OTHER PLATINGS AVAILABLE
SEE OPTIONAL PLATINGS

INSULATOR MATERIAL
OTHER MATERIALS AVAILABLE
CONSULT FACTORY

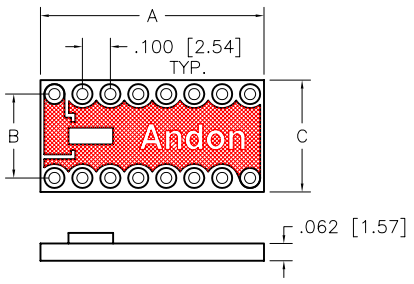
LOGO

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 451 DECOUPLING CAPACITOR DIP SOCKET (LAMINATE WAFER)



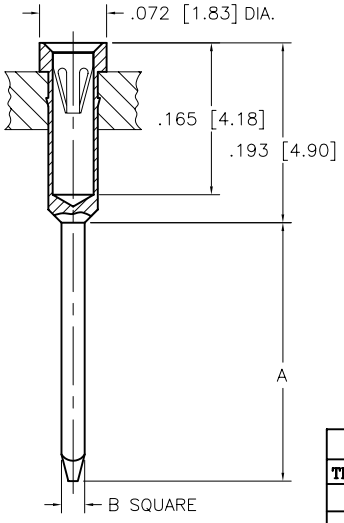


FIG. C

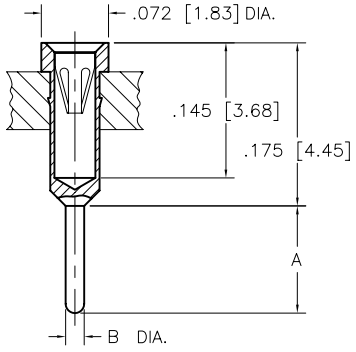
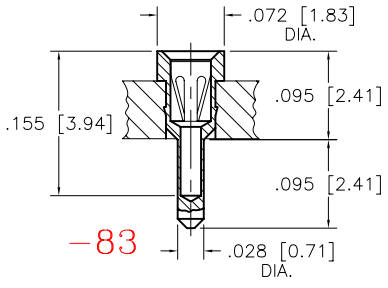
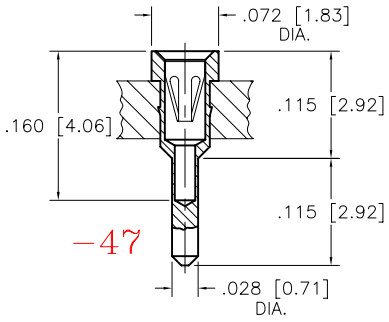


FIG. D

WAFER CHART				
PIN	DIM "A"	"B"	"C"	
6	.300 [7.62]	.300 [7.62]	.400 [10.16]	306
8	.400 [10.16]			308
10	.500 [12.70]			310
14	.700 [17.78]			314
16	.800 [20.32]			316
18	.900 [22.86]			318
20	1.000 [25.40]			320
22	1.100 [27.94]			322
24	1.200 [30.48]			324
28	1.400 [35.56]			328
16	.800 [20.32]	.400 [10.16]	.500 [12.70]	416
22	1.100 [27.94]			422
24	1.200 [30.48]			424
24	1.200 [30.48]	.600 [15.24]	.700 [17.78]	624
28	1.400 [35.56]			628
30	1.500 [38.10]			630
32	1.600 [40.64]			632
36	1.800 [45.72]			636
40	2.000 [50.80]			640
48	2.400 [60.96]			648

TERMINAL CHART			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-02	C	.370 [9.40]	.025 [0.64]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]





CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	COPPER CLAD GLASS EPOXY FR-4 LAMINATE UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +140°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

451-XXX-XXX-PXX-X

- **SERIES**
- **DIP - SPACING / NO. OF PINS**
- **TERMINAL STYLE** — FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **CAPACITOR VALUE**
  - -1: .004 [0.10] MICROFARAD IS STANDARD
  - -2: .0004 [0.01] MICROFARAD
  - -3: .013 [0.33] MICROFARAD
  - (OTHERS ON REQUEST)
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

7 SERIES CARI-LOC

CARRIER/SOCKET ASSEMBLY WITH RIGID INSULATOR AND CARI-LOC™ PATENTED BALL RELEASE PINS

ANDON'S PULL-OFF CARRIER SOCKETS FEATURE A SPECIALLY DESIGNED CARI-LOC™ BALL RELEASE PIN SYSTEM FOR EASY REMOVAL OF THE RIGID INSULATOR, PROTECTION OF ASSEMBLIES IN TRANSIT, PROTECTION AGAINST CONTAMINATION OF CONTACTS DURING SOLDERING OR CLEANING, PROPER PIN-TO-PIN LOCATION, AND ACCURATE PIN ALIGNMENT. IN ADDITION, MOLDED STANDOFFS HOLD THE BARREL OF THE TERMINAL CLEAR OF THE MOUNTING HOLES TO ASSURE PROPER SOLDER FLOW AND A GOOD SOLDER FILLET ON BOTH SIDES OF THE (PCB) PRINTED CIRCUIT BOARD.

FEATURES AND BENEFITS

RIGID INSULATOR

ALLOWS AUTOMATIC INSTALLATION.
PROTECT ASSEMBLY IN TRANSIT.
MAINTAINS PROPER PIN-TO-PIN LOCATION.
MAINTAINS ACCURATE PIN ALIGNMENT.

REMOVAL OF RIGID INSULATOR

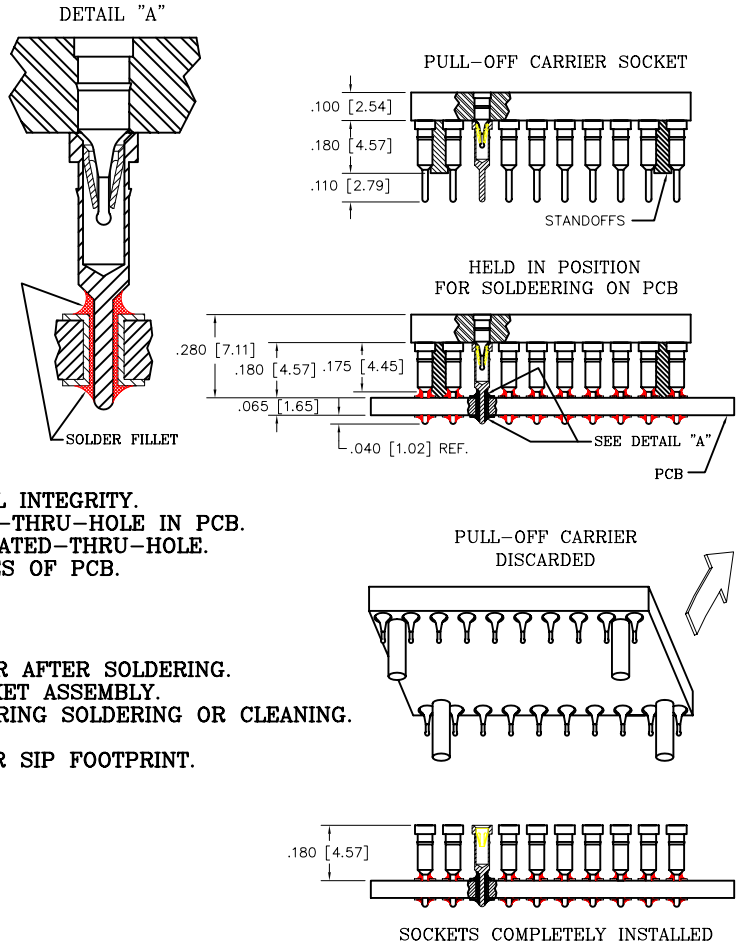
IMPROVES COOLING.
ELIMINATES IONIC CONTAMINATION OF INSULATING MATERIAL.

MOLDED STANDOFFS

ADD MECHANICAL STRENGTH AND ELECTRICAL INTEGRITY.
ALLOW ONLY SOLDER TAIL THROUGH PLATED-THRU-HOLE IN PCB.
ENABLE PROPER SOLDER FLOW THROUGH PLATED-THRU-HOLE.
INSURE GOOD SOLDER FILLET ON BOTH SIDES OF PCB.

CARI-LOC™ BALL RELEASE PINS

ALLOWS EASY PULL OFF OF RIGID INSULATOR AFTER SOLDERING.
PREVENTS ACCIDENTAL SEPERATION OF SOCKET ASSEMBLY.
PREVENTS CONTAMINATION OF CONTACTS DURING SOLDERING OR CLEANING.
HOLDS TRUE POSITION.
SYSTEM CAN BE USED ON ANY PGA, DIP, OR SIP FOOTPRINT.



 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

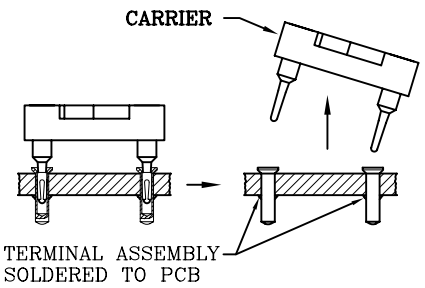
ANDON
INTERCONNECTION SPECIALISTS

9 SERIES CARRIER ASSEMBLIES
ULTRA LOW PROFILE

HI-RELIABILITY ULTRA LOW PROFILE CARRIER SOCKET ASSEMBLIES

- LOW PROFILE ABOVE PCB
- MAINTAINS ACCURATE PIN TO PIN LOCATION
- PREVENTS CONTACT CONTAMINATION DURING SOLDERING
- AVAILABLE IN PGA, DIP, AND SIP CONFIGURATIONS
- RIGID CARRIER EASES PIN INSERTION WITH STANDARD AUTO-INSERTION EQUIPMENT

TYPICAL APPLICATIONS



TECHNICAL SPECIFICATIONS

MATERIALS

CARRIER INSULATOR: GLASS FILLED POLYESTER UL 94V-0
CARRIER TERMINAL: COPPER ALLOY, NICKEL PLATE

TERMINAL ASSEMBLY:

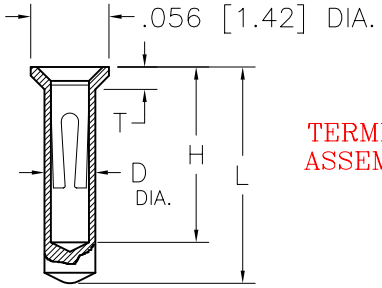
TERMINAL: BRASS, PER ASTM-B16
CONTACT: BeCu, PER ASTM-B194

CONTACT FORCE:

INSERTION FORCE: 2.8 oz. (MAX.)
WITHDRAWAL FORCE: 0.5 oz. (MIN.)
MOUNTING HOLE DIAMETER .039 [0.99] (MIN.)

PLATING

-P17 TERMINAL: TIN-LEAD
CONTACT: GOLD 30 µ INCH
-P29 TERMINAL: TIN-LEAD
CONTACT: GOLD 10 µ INCH
-P32 TERMINAL: TIN-LEAD
CONTACT: TIN 200 µ INCH



TYPE	H	L	D	T
-52U	.120[3.05]	.136[3.45]	.038[.97]	.016[.41]
-54U	.138[3.51]	.155[3.94]	.034[.86]	.031[.79]

* ALL DIMENSIONS ARE FOR REFERENCE ONLY

PGA DEVICE	ANDON P\N
INTEL™ 80386	9-510-14-21-132-XXU-PXX-S10
INTEL™ 80486	9-510-17-03-168-XXU-PXX-S10
INTEL OVERDRIVE READY ™	9-510-19-09-238-XXU-PXX-S10
INTEL PENTIUM™	9-510-21-04-273-XXU-PXX-S10

* PENTIUM™ AND OVERDRIVE READY™ ARE TRADEMARKS OF INTEL CORP.
INTEL® IS A REGISTERED TRADEMARK OF INTEL CORPORATION

ORDERING INFORMATION

PGA CARRIER

9 - 510 - 17 - 03 - 168 - XXU - PXX

- 9 - 510: SERIES
- 17: GRID FOOTPRINT NO.
- 03: NO. OF PINS
- 168: TERMINAL STYLE
- XXU: PLATING
- PXX: PLATING

* CONSULT FACTORY FOR AVAILABLE SOCKET AND TERMINAL OPTIONS

DIP \ SIP CARRIER

9 - 101-320 - XXU - PXX - B12
9 - 201-320 - XXU - PXX - B10
9 - 301-120 - XXU - PXX - B10

- 9 - 101: SERIES 101,201 DIP / 301 SIP
- 320: CENTER
- 120: NO. OF PINS
- XXU: TERMINAL STYLE
- PXX: PLATING
- B12 / B10: PLATING

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE THE DIMENSIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 120 ALUMINUM CARRIER FRAME

ALUMINUM CARRIER CHART			
	PIN	DIM "A"	
FIG. 1	6	.200[5.08]	306
	8	.300 [7.62]	308
	10	.400 [10.16]	310
	14	.600 [15.24]	314
	16	.700 [17.78]	316
	18	.800 [20.32]	318
	20	.900 [22.86]	320
	22	1.000 [25.40]	322
	24	1.100 [27.94]	324
FIG. 2	24	1.100 [27.94]	624
	28	1.300 [33.02]	628
	30	1.400 [35.56]	630
	32	1.500 [38.10]	632
	36	1.700 [43.18]	636
	40	1.900 [48.26]	640
	48	2.300 [58.42]	648

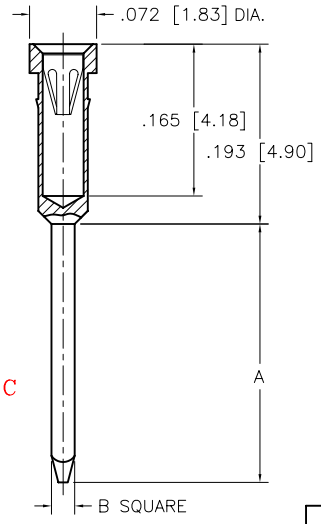


FIG. C

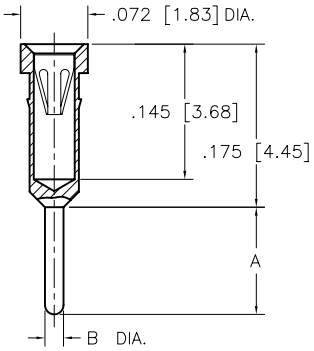
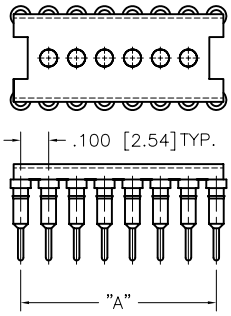


FIG. D

TERMINAL STYLE			
TERMINAL	FIG.	DIM "A"	DIM "B"
-01	D	.115 [2.92]	.020 [0.51]
-02	C	.370 [9.40]	.025 [0.64]
-03	C	.510 [12.95]	.025 [0.64]
-08	D	.170 [4.31]	.020 [0.51]
-09	D	.280 [7.11]	.020 [0.51]
-11	D	.135 [3.43]	.020 [0.51]
-94	D	.125 [3.17]	.018 [0.46]

FIG. 1



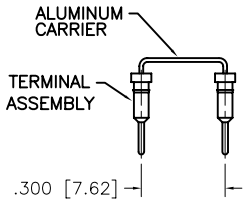
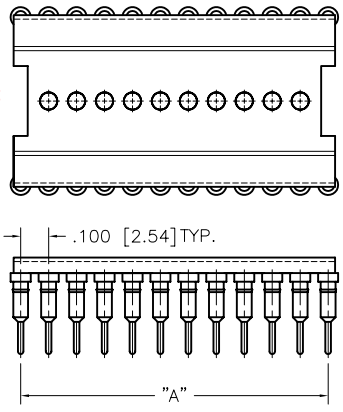
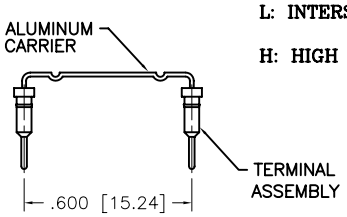


FIG. 2





CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

CARRIER	ALUMINUM
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

120-XXX-XXX-PXX

- SERIES
- **DIP - SPACING NO. OF PINS**
- **TERMINAL STYLE** FOR OPTIONAL TERMINAL STYLES SEE TERMINAL STYLES
- **CONTACT TYPE**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATING

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

BACK TO TABLE OF CONTENTS

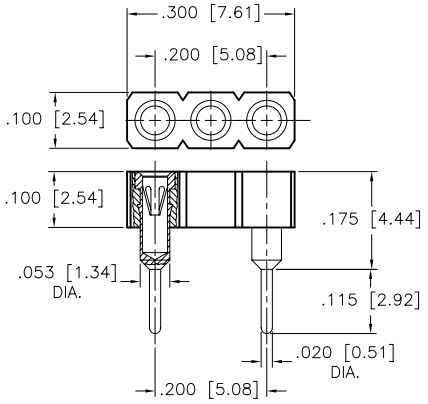
ANDON
INTERCONNECTION SPECIALISTS

LEAD FREE AVAILABLE

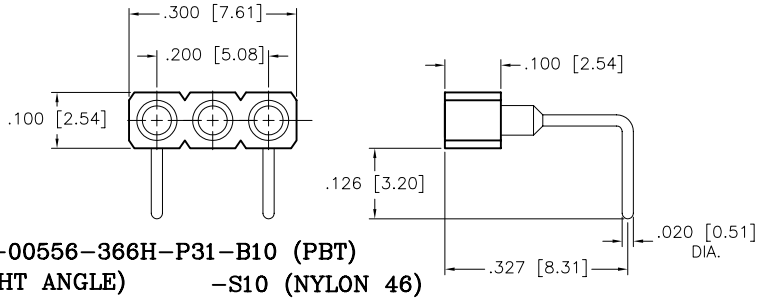
FUSE SOCKETS

TIN–LEAD AND LEAD FREE
QUICK AND EASY FUSE REPLACEMENT
WITHOUT POST SOLDERING / DESOLDERING

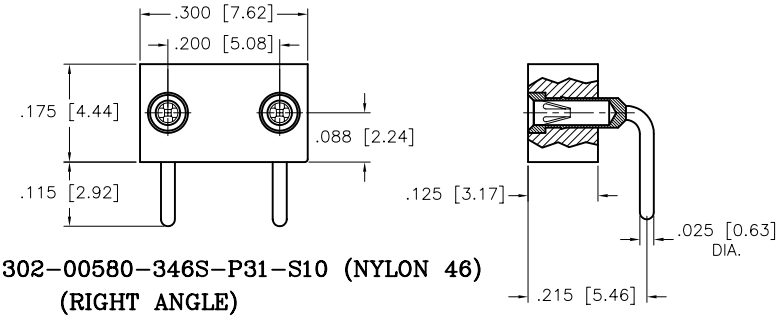
ISO 9001:2000 CERTIFIED



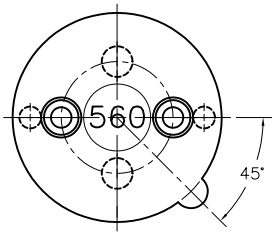
303–00556–01S–P29–S10 (NYLON 46)
(THRU HOLE)
UL LISTED FILE NO. E208521



303–00556–366H–P31–B10 (PBT)
(RIGHT ANGLE) –S10 (NYLON 46)

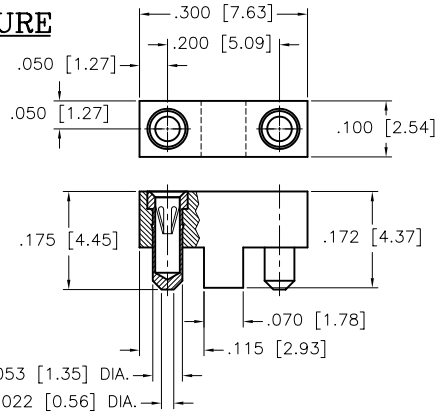


302–00580–346S–P31–S10 (NYLON 46)
(RIGHT ANGLE)

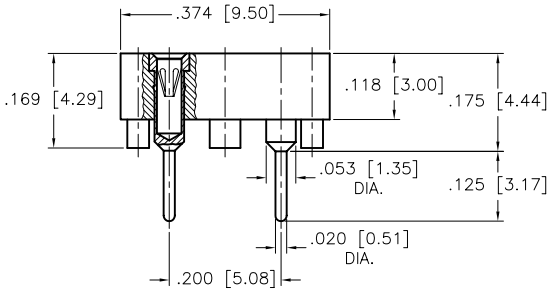


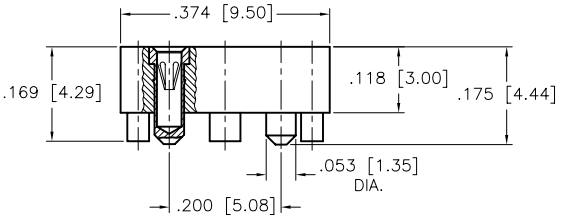
560–02–229S–P31–S18 (NYLON 46)
(THRU HOLE)
UL LISTED FILE NO. E208521

HIGH TEMPERATURE NYLON 46



302–00567–93S–P31–S10 (NYLON 46)
(SURFACE MOUNT)
UL LISTED FILE NO. E208521





560–02–93S–P31–S18 (NYLON 46)
(SURFACE MOUNT)
UL LISTED FILE NO. E208521

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR: B10: PBT GLASS FILLED, UL 94V–0
S10 AND S18: HIGH TEMP. NYLON 46 GLASS FILLED, UL 94V–0

TERMINAL: BRASS, TIN–LEAD PLATED
CONTACT: BeCu, GOLD PLATED
P31 AND P29 = TIN–LEAD PLATING *

TERMINAL: BRASS, TIN PLATED
CONTACT: BeCu, GOLD PLATED
R31 R29 = LEAD FREE PLATING *

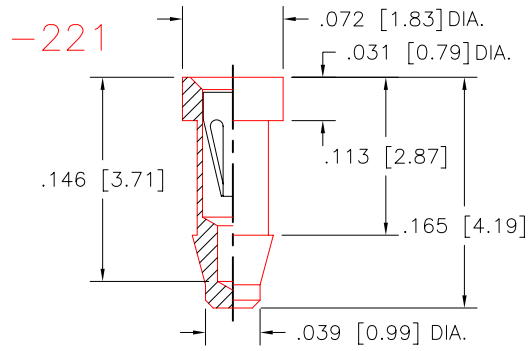
* OTHER PLATINGS AVAILABLE

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

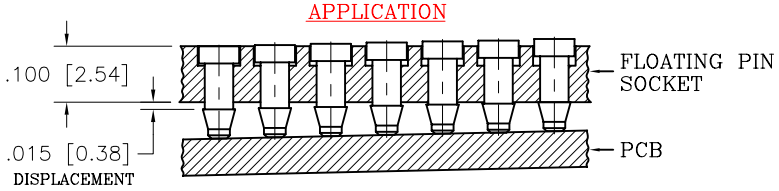
ANDON
INTERCONNECTION SPECIALISTS

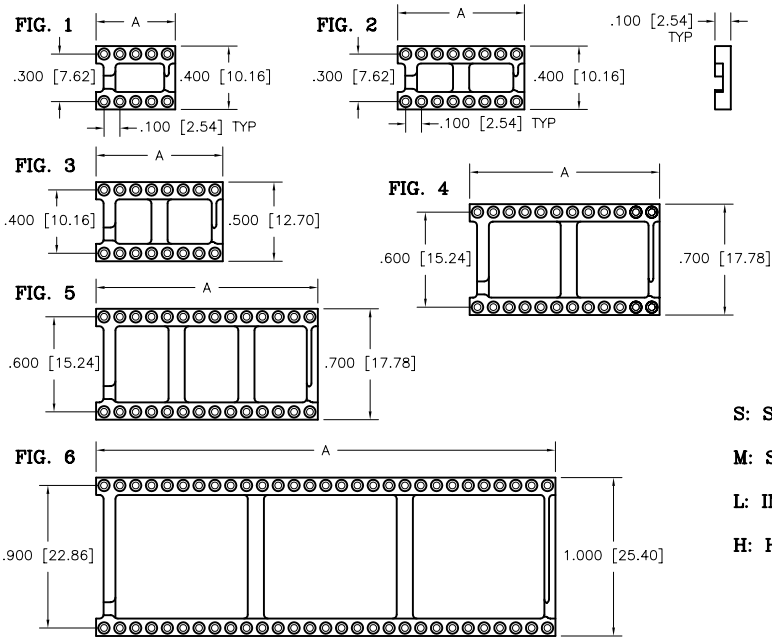
FLOATING TERMINAL SOCKETS
(OPEN FRAME)

WAFER CHART			
	PIN	DIM "A"	
FIG. 1	6	.300 [7.62]	306
	8	.400 [10.16]	308
	10	.500 [12.70]	310
FIG. 2	14	.700 [17.78]	314
	16	.800 [20.32]	316
	18	.900 [22.86]	318
	20	1.000 [25.40]	320
	22	1.100 [27.94]	322
	24	1.200 [30.48]	324
	28	1.400 [35.56]	328
FIG. 3	16	.800 [20.32]	416
	22	1.100 [27.94]	422
	24	1.200 [30.48]	424
FIG. 4	24	1.200 [30.48]	624
FIG. 5	28	1.400 [35.56]	628
	30	1.500 [38.10]	630
	32	1.600 [40.64]	632
	36	1.800 [45.72]	636
	40	2.000 [50.80]	640
	48	2.400 [60.96]	648
FIG. 6	50	2.500 [63.50]	950
	52	2.600 [66.04]	952
	64	3.200 [81.28]	964



APPLICATION





CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	HIGH TEMP. GREY NYLON 46 UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +150°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

101-XXX-221S-PXX-Y12

- SERIES
- DIP - SPACING
- NO. OF PINS
- FLOATING TERMINAL
- CONTACT TYPE
- PLATING: TERMINAL / CONTACT
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

FLOATING TERMINAL SOCKETS
(SOLID FRAME)

AVAILABLE WITH AND WITHOUT MOUNTING HOLES

WAFER CHART				
	PIN	DIM "A"	DIM "B"	
FIG. 1	6	.300 [7.62]	.150 [3.81]	306
	8	.400 [10.16]	.200 [5.08]	308
	10	.500 [12.70]	.250 [6.35]	310
FIG. 2	14	.700 [17.78]	.400 [10.16]	314
	16	.800 [20.32]	.500 [12.70]	316
	18	.900 [22.86]	.600 [15.24]	318
	20	1.000 [25.40]	.700 [17.78]	320
	24	1.200 [30.48]	.900 [22.86]	324
FIG. 3	16	.800 [20.32]	.500 [12.70]	416
	22	1.100 [27.94]	.800 [20.32]	422
	24	1.200 [30.48]	.900 [22.86]	424
FIG. 4	24	1.200 [30.48]		624
	28	1.400 [35.56]		628
	30	1.500 [38.10]		630
	32	1.600 [40.64]		632
	36	1.800 [45.72]	1.650 [41.91]	636
	40	2.000 [50.80]	1.650 [41.91]	640

FIG. 1

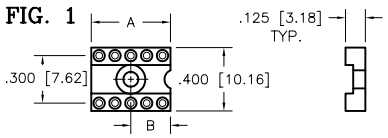


FIG. 2

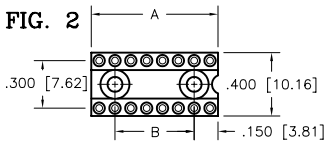


FIG. 3

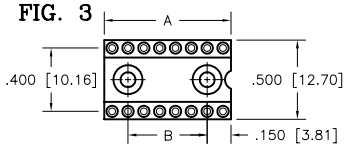
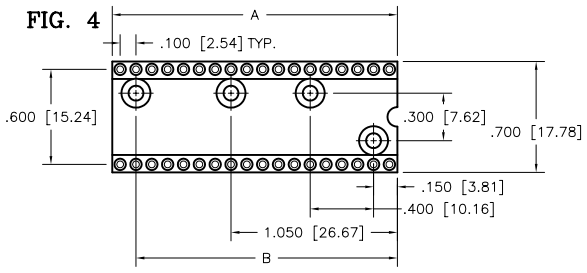
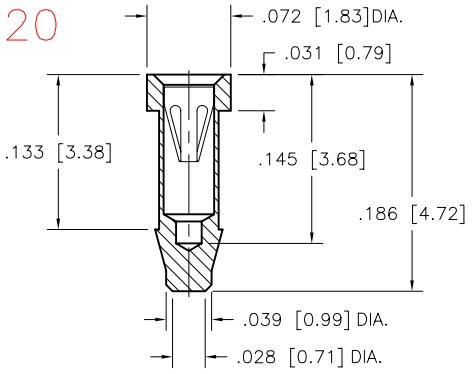


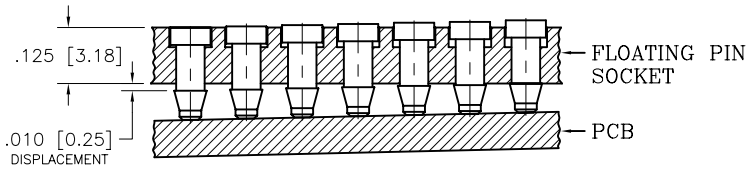
FIG. 4



-220



APPLICATION



CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	GLASS FILLED NYLON 46 UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +150°C

CONTACT FORCES

INSERTION	STANDARD	9 oz. AVG.
WITHDRAWAL	STANDARD	2 oz. MIN.

ORDERING INFORMATION

20X-XXX-220X-PXX-Y10

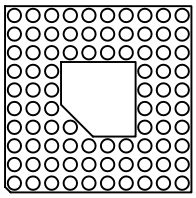
- **SERIES**
  - **201: WITH MOUNTING HOLES**
  - **202: WITHOUT MOUNTING HOLES**
- **DIP - SPACING**
- **NO. OF PINS**
- **TERMINAL STYLE**
- **CONTACT TYPE**
- **PLATING: TERMINAL / CONTACT**
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE
  - SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

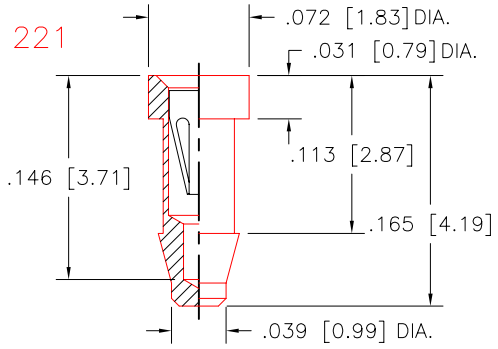
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

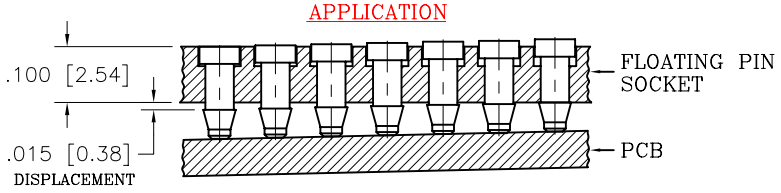
FLOATING TERMINAL SOCKETS
(PIN GRID ARRAY)



REFER TO FOOTPRINTS
FOR AVAILABLE PATTERNS



APPLICATION



CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

INSULATOR	HIGH TEMP. BLACK NYLON 46 UL 94V-0 LISTED
TERMINAL	BRASS PER ASTM-B16
CONTACT	BeCu PER ASTM-B194
OPERATING TEMP.	-65°C TO +150°C

CONTACT FORCES

INSERTION	STANDARD	1.6 oz. MAX.
WITHDRAWAL	STANDARD	0.5 oz. MIN.

ORDERING INFORMATION

510-XX-XX-XXX-221X-PXX-S10

- SERIES
- GRID
- FOOTPRINT
- NO. OF PINS
- FLOATING TERMINAL
- CONTACT TYPE
- PLATING: TERMINAL / CONTACT
  - P30: GOLD / GOLD
  - P31: TIN-LEAD / GOLD
  - P32: TIN-LEAD / TIN
  - OTHER PLATINGS AVAILABLE SEE OPTIONAL PLATINGS

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

ISO 9001:2000
CERTIFIED

TERMINAL STYLES

THE FOLLOWING PAGES SHOW OUR STANDARD RANGE OF TERMINAL STYLES. THESE ARE AVAILABLE EITHER MOUNTED IN A SOCKET BODY OR AS LOOSE PARTS. IF LOOSE PIECE PARTS ARE REQUIRED PLEASE REFER TO THE PART NUMBERS LISTED. SHOULD YOU HAVE ANY SPECIAL REQUIREMENTS PLEASE CONTACT OUR SALES OFFICE.

ANDON ELECTRONICS CORPORATION OFFERS A VARIETY OF TERMINALS FOR MOUNTING INTO DIFFERENT SOCKET INSULATORS. ON THE FOLLOWING PAGES YOU WILL FIND SPECIFICATIONS FOR OUR STANDARD TERMINALS FROM WHICH YOU MAY CHOOSE THE REQUIRED TYPE.

DESIGN AND ENGINEERING ASSISTANCE AVAILABLE TO SUIT YOUR SPECIFIC REQUIREMENTS.

FROM THE RAW MATERIAL TO THE FINISHED PRODUCT OUR QUALITY CONTROL FACILITIES ENSURE THE HIGHEST QUALITY PRODUCTS.

MATERIAL

TERMINAL: BRASS PER ASTM-B16
CONTACT: BeCu, PER ASTM-B194

PLATING CHART

-P29	TERMINAL	TIN-LEAD
	CONTACT	GOLD 10 µ INCHES
-P30	TERMINAL	GOLD 4 µ INCHES
	CONTACT	GOLD 4 µ INCHES
-P31	TERMINAL	TIN-LEAD
	CONTACT	GOLD 4 µ INCHES
-P32	TERMINAL	TIN-LEAD
	CONTACT	TIN

NOTE: **OTHER PLATINGS AVAILABLE**

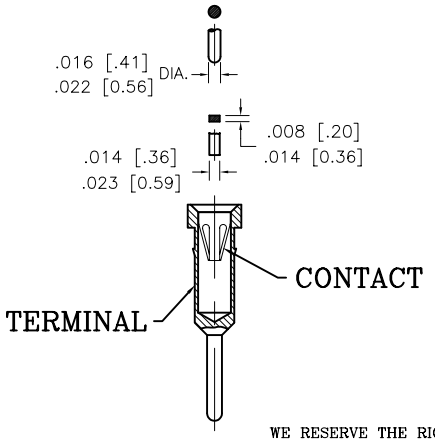
CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.
N: BeNi MATERIAL	INSERTION FORCE	6.70 oz. MAX.
	WITHDRAWAL FORCE	5.29 oz. MIN.
U: ULTRA MINI (SMALLER DIAMETER)	INSERTION FORCE	2.8 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.

NOTE: **EXCEPT FOR "U" CONTACT, S, M, L, H CAN BE USED IN ANY TERMINAL ASSEMBLY**

TEST PROBE DIMENSION

DIN 41870, IEC 191
FOR RECTANGULAR IC-LEADS



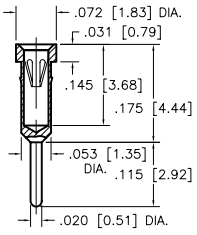
WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

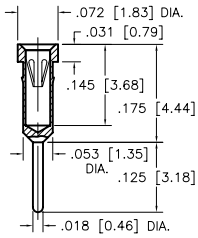
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

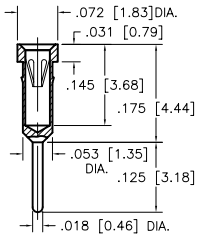
TERMINAL STYLES



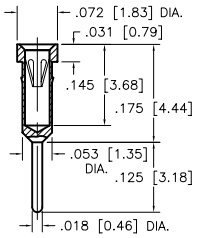
−01



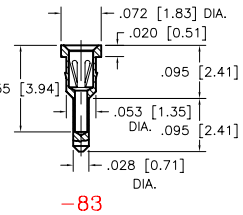
−94



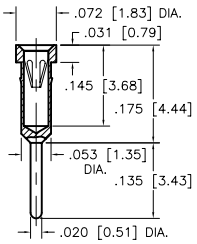
−95
TERMINAL MATERIAL
SOFT BRASS



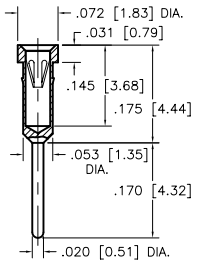
−10
TERMINAL MATERIAL
PHOSPHOR BRONZE



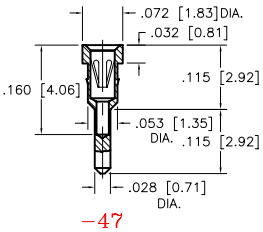
−83
ULTRA LOW PROFILE
OR "FR−4 ONLY"



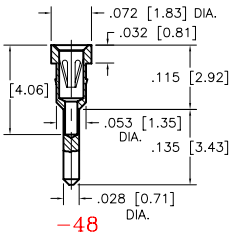
−11



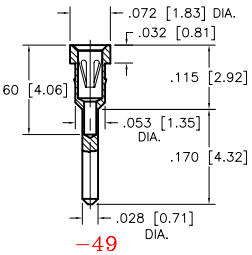
−08



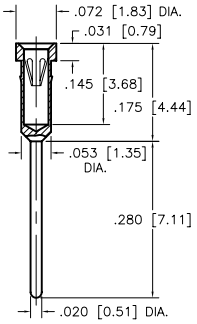
−47
LOW PROFILE



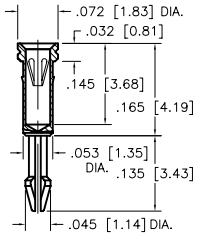
−48
LOW PROFILE
LONGTAIL



−49
LOW PROFILE
LONGTAIL



−09



−97
LOCKING TERMINAL

ORDERING INFORMATION

XXX−PXX

TERMINAL STYLE — CONTACT TYPE — PLATING

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

• **TERMINAL**	BRASS PER ASTM−B16
• **CONTACT**	BeCu PER ASTM−B194

MECHANICAL DATA

• **SOLDERABILITY**	EXCEED MIL−STD−202 METHOD 208

PLATING CHART

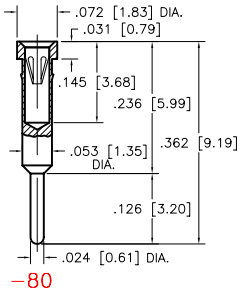
−P29	**TERMINAL** **CONTACT**	TIN−LEAD GOLD 10 µ INCHES
−P30	**TERMINAL** **CONTACT**	GOLD 4 µ INCHES GOLD 4 µ INCHES
−P31	**TERMINAL** **CONTACT**	TIN−LEAD GOLD 4 µ INCHES
−P32	**TERMINAL** **CONTACT**	TIN−LEAD TIN

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

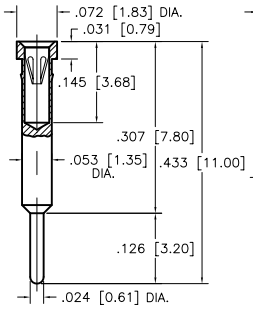
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

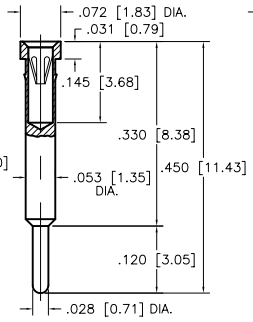
TERMINAL STYLES
RAISED INTERCONNECTORS



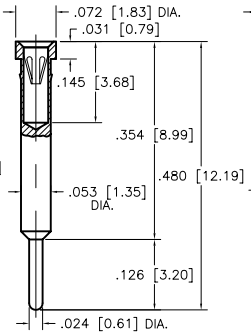
−80



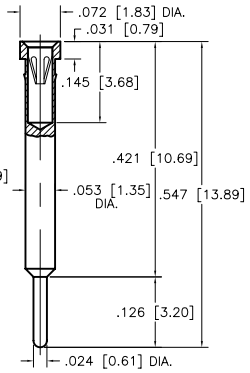
−84



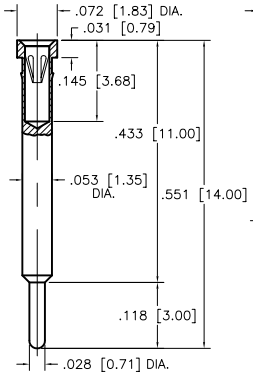
−88



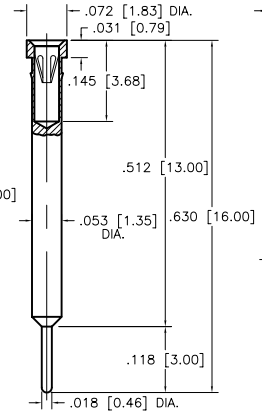
−85



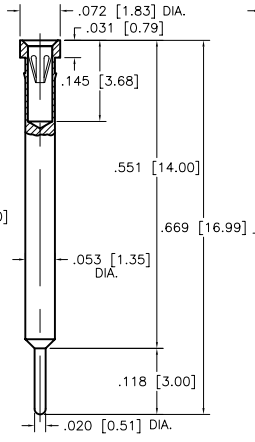
−89



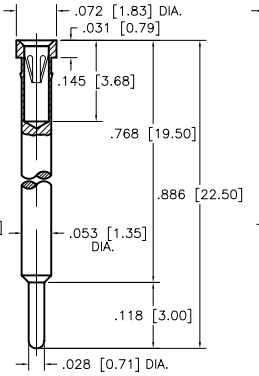
−87



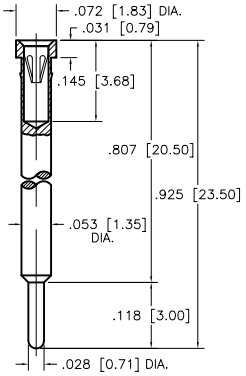
−65



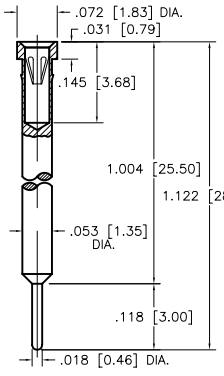
−62



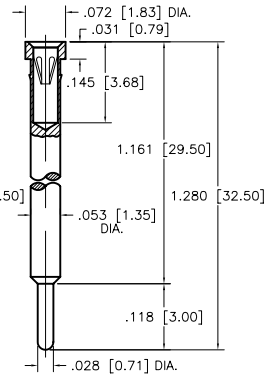
−60



−63



−82



−61

ORDERING INFORMATION

XXX−PXX

TERMINAL STYLE
CONTACT TYPE
PLATING

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

TECHNICAL SPECIFICATIONS

MATERIAL

• **TERMINAL**	BRASS, PER ASTM−B16
• **CONTACT**	BeCu, PER ASTM−B194

MECHANICAL DATA

• **SOLDERABILITY**	EXCEED MIL−STD−202 METHOD 208

PLATING CHART

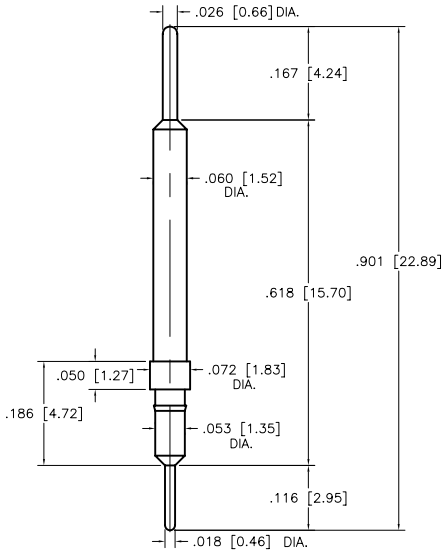
−P29	**TERMINAL** **CONTACT**	TIN−LEAD GOLD 10 µ INCHES
−P30	**TERMINAL** **CONTACT**	GOLD 4 µ INCHES GOLD 4 µ INCHES
−P31	**TERMINAL** **CONTACT**	TIN−LEAD GOLD 4 µ INCHES
−P32	**TERMINAL** **CONTACT**	TIN−LEAD TIN

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

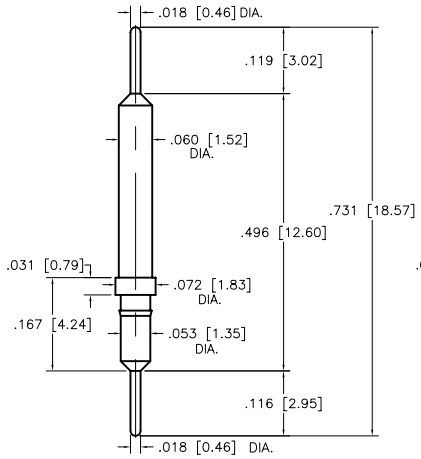
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

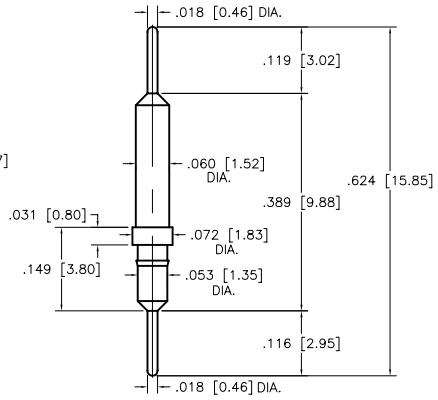
TERMINAL STYLES
BOARD TO BOARD



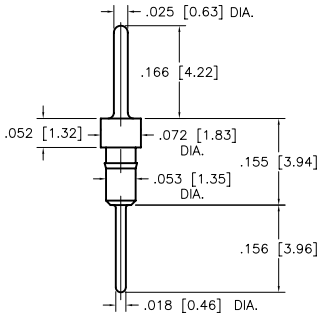
−56



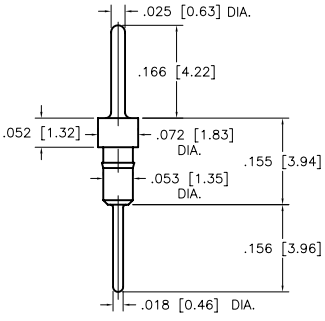
−59



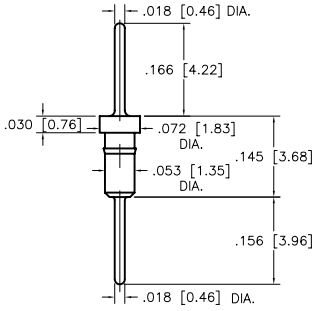
−58



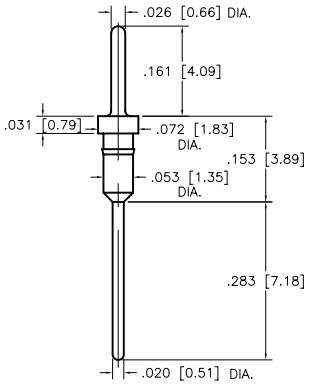
−37



−04
MATERIAL
PHOSPHOR BRONZE



−77
MATERIAL
PHOSPHOR BRONZE



−57

ORDERING INFORMATION

XX−XXX
TERMINAL STYLE — PLATING

TECHNICAL SPECIFICATIONS

- TERMINAL MATERIAL — BRASS PER ASTM−B16
- SOLDERABILITY — EXCEED MIL−STD−202 METHOD 208

PLATING CHART

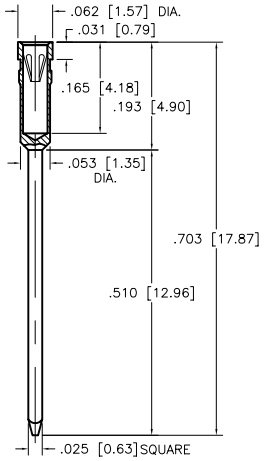
−T	TIN
−TL	TIN−LEAD
−G04	GOLD 4 µ INCHES
−G10	GOLD 10 µ INCHES
−G15	GOLD 15 µ INCHES

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

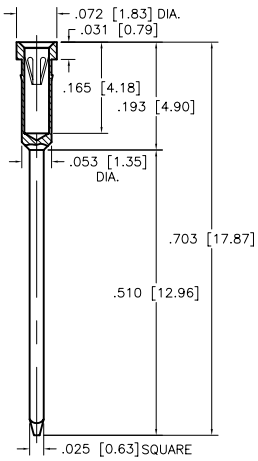
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

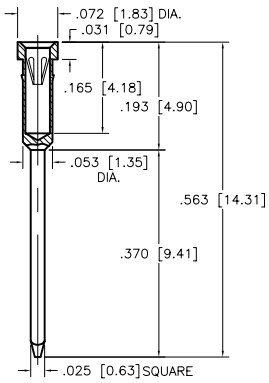
TERMINAL STYLES
WIRE WRAP



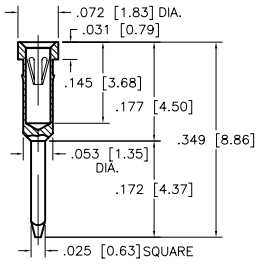
−81
.070 [1.78] SPACING



−03



−02



−44

PLATING CHART

−P29	**TERMINAL CONTACT**	TIN−LEAD GOLD 10 µ INCHES
−P30	**TERMINAL CONTACT**	GOLD 4 µ INCHES GOLD 4 µ INCHES
−P31	**TERMINAL CONTACT**	TIN−LEAD GOLD 4 µ INCHES
−P32	**TERMINAL CONTACT**	TIN−LEAD TIN

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE WITHDRAWAL FORCE	9.0 oz. AVG. 2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE WITHDRAWAL FORCE	1.6 oz. MAX. 0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE WITHDRAWAL FORCE	1.0 oz. MAX. 0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE WITHDRAWAL FORCE	18.3 oz. MAX. 4.2 oz. MIN.

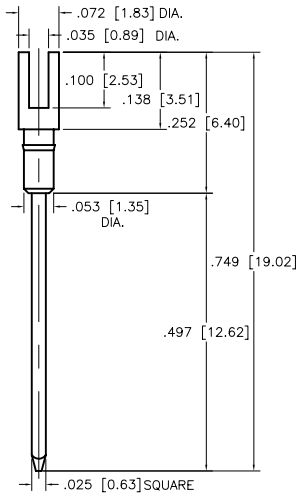
TECHNICAL SPECIFICATIONS

MATERIAL
- TERMINAL — BRASS PER ASTM−B16
- CONTACT — BeCu PER ASTM−B194

MECHANICAL DATA
- SOLDERABILITY — EXCEED MIL−STD−202 METHOD 208

ORDERING INFORMATION

XXX−PXX
TERMINAL STYLE
CONTACT TYPE
PLATING



−38

TECHNICAL SPECIFICATIONS

MATERIAL
- TERMINAL — BRASS PER ASTM−B16

MECHANICAL DATA
- SOLDERABILITY — EXCEED MIL−STD−202 METHOD 208

PLATING CHART

−T	TIN
−TL	TIN−LEAD
−G04	GOLD 4 µ INCHES
−G10	GOLD 10 µ INCHES
−G15	GOLD 15 µ INCHES

ORDERING INFORMATION

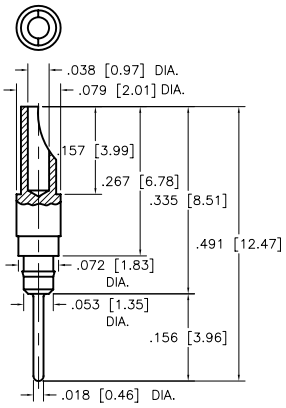
XX−PXX
TERMINAL STYLE
PLATING

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

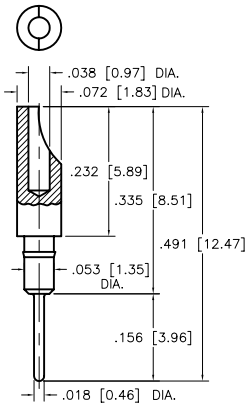
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

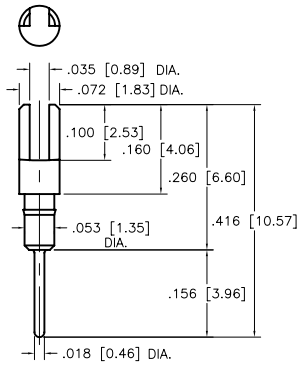
TERMINAL STYLES



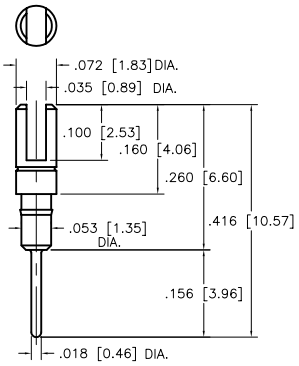
−36
OPEN FRAME AND LAMINATE APPLICATIONS



−05



−06
PHOSPHOR BRONZE



−35

PLATING CHART

−T	TIN
−TL	TIN−LEAD
−G04	GOLD 4 µ INCHES
−G10	GOLD 10 µ INCHES
−G15	GOLD 15 µ INCHES

TECHNICAL SPECIFICATIONS

MATERIAL

TERMINAL	•	BRASS PER ASTM−B16
CONTACT	•	BeCu PER ASTM−B194

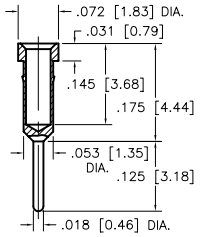
MECHANICAL DATA

SOLDERABILITY	EXCEED MIL−STD−202 METHOD 208

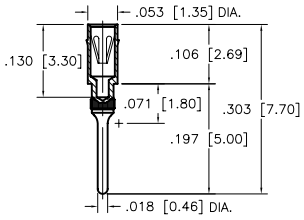
ORDERING INFORMATION

XX−PXX

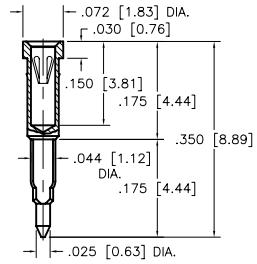
TERMINAL STYLE — PLATING



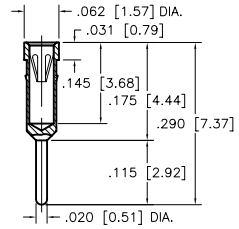
−07
HOLLOW PHOSPHOR BRONZE



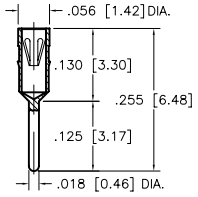
−128
TRANSPUTER



−477
PRESS−FIT



−75
.070 [1.78] SPACING



−211L
INTERSTITIAL APPLICATIONS

TECHNICAL SPECIFICATIONS

MATERIAL

• **TERMINAL**	BRASS PER ASTM−B16
• CONTACT	BeCu PER ASTM−B194

MECHANICAL DATA

• SOLDERABILITY	EXCEED MIL−STD−202 METHOD 208

ORDERING INFORMATION

XXX−PXX

TERMINAL STYLE — CONTACT TYPE — PLATING

PLATING CHART

−P29	**TERMINAL**	TIN−LEAD
	CONTACT	GOLD 10 µ INCHES
−P30	**TERMINAL**	GOLD 4 µ INCHES
	CONTACT	GOLD 4 µ INCHES
−P31	**TERMINAL**	TIN−LEAD
	CONTACT	GOLD 4 µ INCHES
−P32	**TERMINAL**	TIN−LEAD
	CONTACT	TIN

CONTACT TYPE

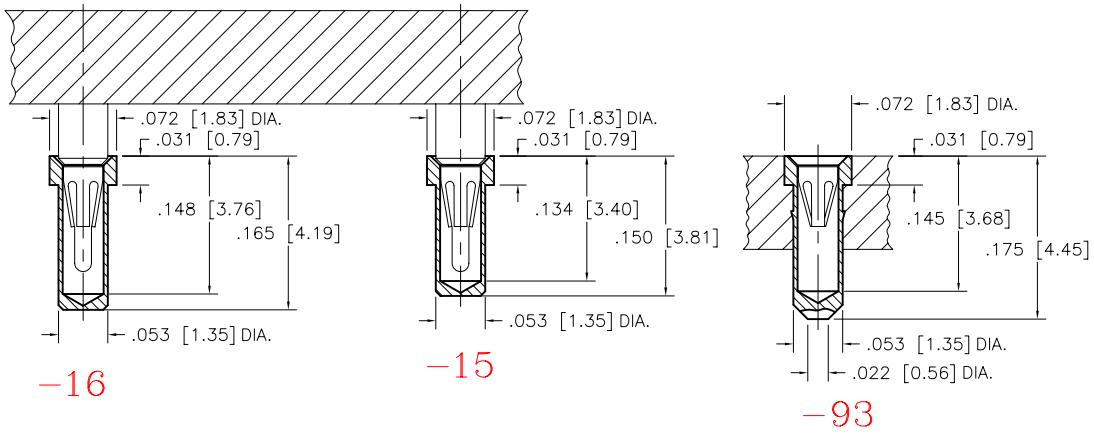
S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

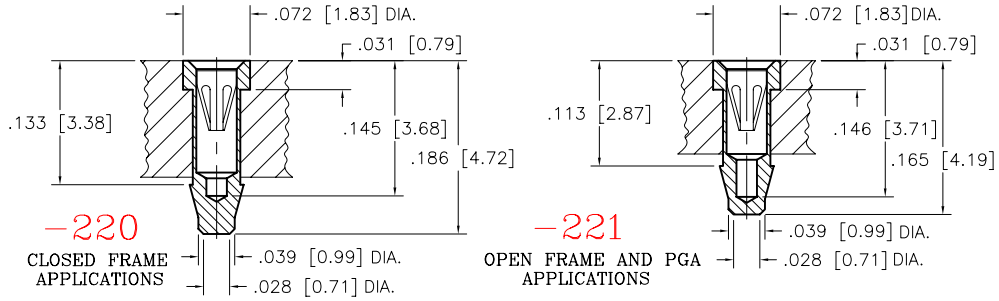
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

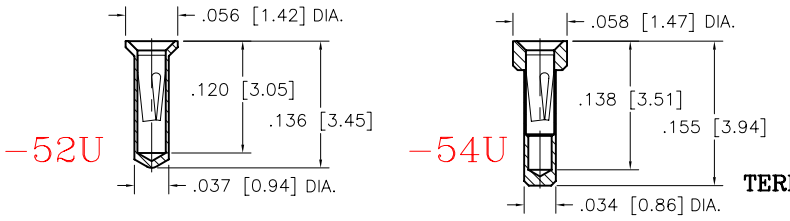
TERMINAL STYLES
SURFACE MOUNT TERMINALS



FLOATING TERMINALS



ULTRA−MINI TERMINALS
FOR .100 AND .070 PITCH APPLICATIONS



ORDERING INFORMATION

XXX−PXX

TERMINAL STYLE — CONTACT TYPE — PLATING

TECHNICAL SPECIFICATIONS

MATERIAL

• TERMINAL	BRASS PER ASTM−B16
• CONTACT	BeCu PER ASTM−B194

MECHANICAL DATA

• SOLDERABILITY	EXCEED MIL−STD−202 METHOD 208

PLATING CHART

−P29	TERMINAL	TIN−LEAD
	CONTACT	GOLD 10 µ INCHES
−P30	TERMINAL	GOLD 4 µ INCHES
	CONTACT	GOLD 4 µ INCHES
−P31	TERMINAL	TIN−LEAD
	CONTACT	GOLD 4 µ INCHES
−P32	TERMINAL	TIN−LEAD
	CONTACT	TIN

CONTACT TYPE

S: STANDARD DIP	INSERTION FORCE	9.0 oz. AVG.
	WITHDRAWAL FORCE	2.0 oz. MIN.
M: STANDARD PGA	INSERTION FORCE	1.6 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.
L: INTERSTITIAL PGA	INSERTION FORCE	1.0 oz. MAX.
	WITHDRAWAL FORCE	0.3 oz. MIN.
H: HIGH FORCE	INSERTION FORCE	18.3 oz. MAX.
	WITHDRAWAL FORCE	4.2 oz. MIN.
U: ULTRA MINI (SMALLER DIAMETER)	INSERTION FORCE	2.8 oz. MAX.
	WITHDRAWAL FORCE	0.5 oz. MIN.

NOTE: EXCEPT FOR "U" CONTACT, S, M, L, H CAN BE USED IN ANY TERMINAL ASSEMBLY

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333−0388 / FAX (401) 333−0287
E−MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

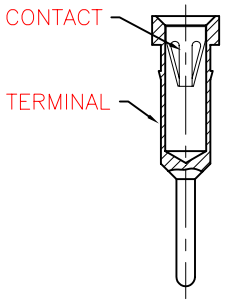
ANDON
INTERCONNECTION SPECIALISTS

OPTIONAL PLATINGS

TERMINAL ASSEMBLY PLATING:

–P15	TERMINAL	GOLD 10 µ INCH MIN.
	CONTACT	GOLD 30 µ INCH MIN.
–P17	TERMINAL	TIN–LEAD 150 – 250 µ INCH TIN–LEAD RATIO 90/10
	CONTACT	GOLD 30 µ INCH MIN.
–P29	TERMINAL	TIN–LEAD 150 – 250 µ INCH TIN–LEAD RATIO 90/10
	CONTACT	GOLD 10 µ INCH MIN.
–P31	TERMINAL	TIN–LEAD 150 – 250 µ INCH TIN–LEAD RATIO 90/10
	CONTACT	GOLD 4 µ INCH MIN.
–P32	TERMINAL	TIN–LEAD 150 – 250 µ INCH TIN–LEAD RATIO 90/10
	CONTACT	TIN 200 – 300 µ INCH MIN.

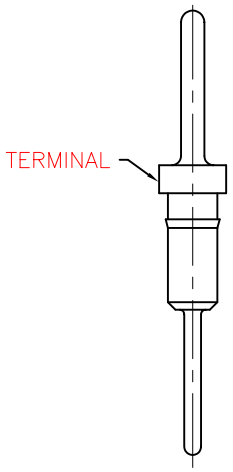
CONSULT FACTORY FOR OTHER AVAILABLE PLATINGS



TERMINAL PLATING:

–G04	TERMINAL	GOLD 4 µ INCH MIN.
–G10	TERMINAL	GOLD 10 µ INCH MIN.
–G15	TERMINAL	GOLD 15 µ INCH MIN.
–G30	TERMINAL	GOLD 30 µ INCH MIN.
–TL	TERMINAL	TIN–LEAD 150 – 250 µ INCH TIN–LEAD RATIO 90/10
–T	TERMINAL	TIN 200 – 300 µ INCH MIN.

CONSULT FACTORY FOR OTHER AVAILABLE PLATINGS



 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PIN GRID ARRAY SOCKETS (PGA)
HI-TEMP • 150°C INSULATION

HI-REL PGA SOCKETS WITH A VARIETY OF CONTACT FORCES TO SUIT YOUR SPECIFIC REQUIREMENTS

We developed the first precision in-house manufactured contacts under strict quality control.
PGA sockets are used to accept microprocessors and PGA adapters which are also produced by Andon.
Over (200??) footprints available.
Modular mold tooling to quickly provide you with your own configurations.
Standard PGA sockets and ASIC sockets made-to-order.

Series 510 Standard PGA Sockets Molded Insulators
Series 575 Custom PGA Sockets (FR-4 and Polyimide, Hi-Temp, 240°C)

Easy to specify drawing format to fax to our factory for fast response.
Large variety of terminals to suit your specific application.
Let us submit our value engineered analysis of your requirements for Product Improvement and Cost Reduction.
Consult our factory for design and specification assistance.
We are the industry innovators.

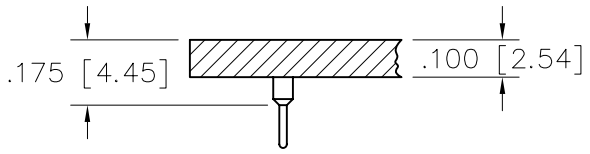
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PIN GRID ARRAY SOCKETS (PGA)

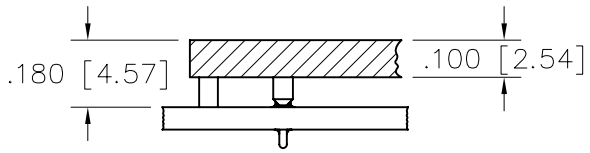
SERIES 510



STANDARD OFF THE SHELF

-S10= HIGH TEMP NYLON 46, 150°C
SUITABLE FOR INFRARED SOLDERING
OTHER MATERIALS AVAILABLE

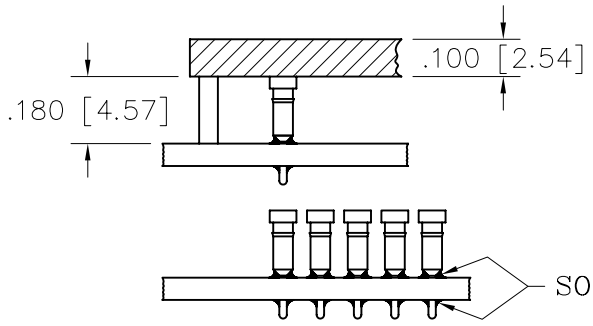
SERIES 540



INSULATOR WITH STANDOFFS
FOR SOLDER FILLET TOP AND BOTTOM OF PCB

-S10= HIGH TEMP NYLON 46, 150°C
SUITABLE FOR INFRARED SOLDERING
OTHER MATERIALS AVAILABLE

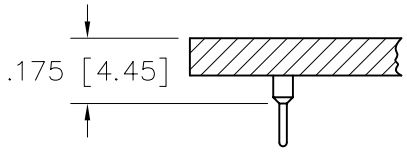
SERIES 550



PULL-OFF CARRIER SOCKET
DISCARDABLE INSULATOR WITH STANDOFFS
FOR SOLDER FILLET TOP AND BOTTOM OF PCB

-S10= HIGH TEMP NYLON 46, 150°C
SUITABLE FOR INFRARED SOLDERING
(DISCARD PLASTIC WAFER AFTER SOLDERING)
OTHER MATERIALS AVAILABLE

SERIES 575



MATERIAL FOR CUSTOM DESIGN

-N10=.062[1.57] THICK GLASS EPOXY, FR4 140°C
-L10=.050[1.27] THICK GLASS EPOXY, FR4 140°C
-H10=.062[1.57] THICK POLYIMIDE HI-TEMP, 240°C

ORDERING INFORMATION

5XX-XX-XX-XXX-XXX-PXX-S10
575-XX-XX-XXX-XXX-PXX-XXX

SERIES
GRID
FOOTPRINT
NUMBER OF PINS
TERMINAL ASSEMBLY
SEE TERMINAL STYLES
PLATING
MATERIAL

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

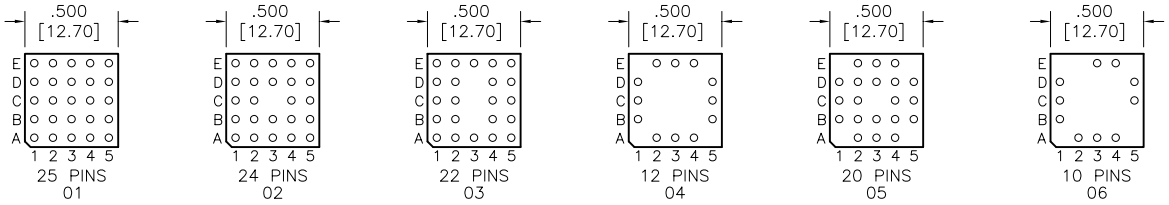
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

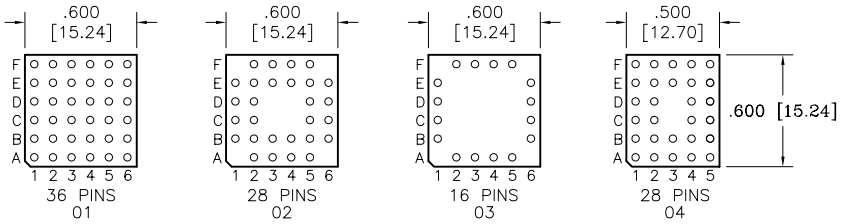
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

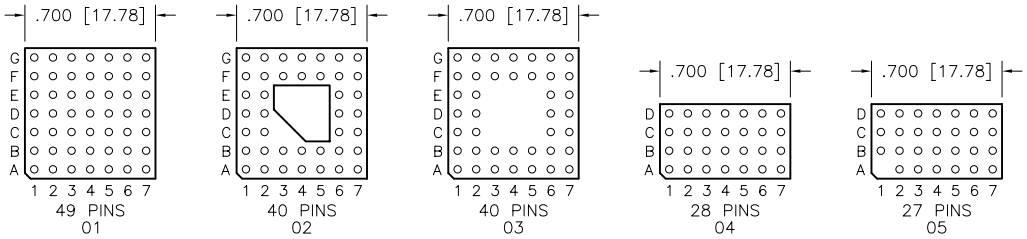
5 X 5



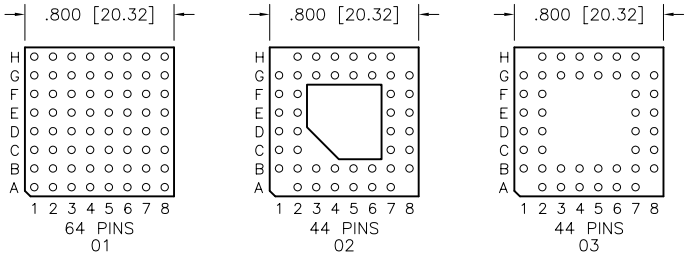
6 X 6



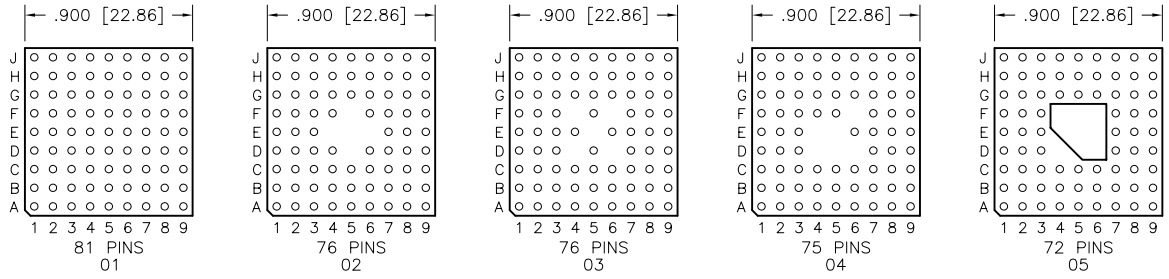
7 X 7



8 X 8



9 X 9



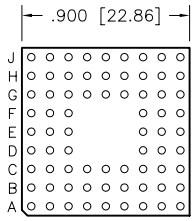
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

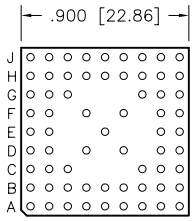
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

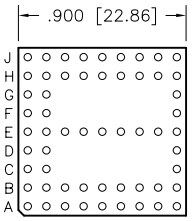
9 X 9



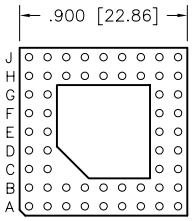
72 PINS
06



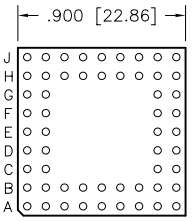
65 PINS
07



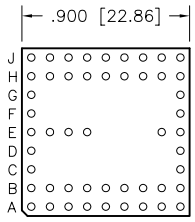
57 PINS
08



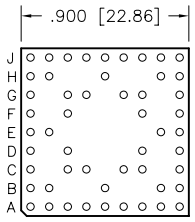
56 PINS
09



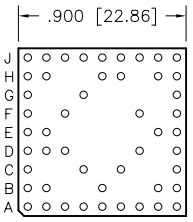
56 PINS
10



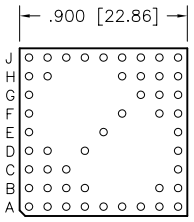
50 PINS
11



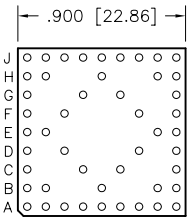
52 PINS
12



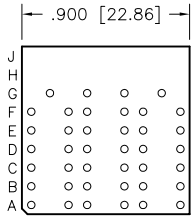
49 PINS
13



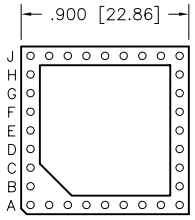
49 PINS
14



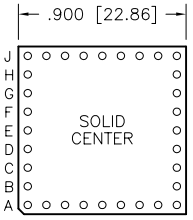
48 PINS
15



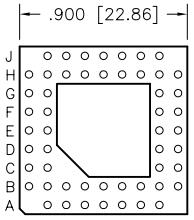
40 PINS
16



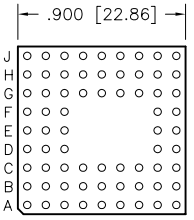
32 PINS
17



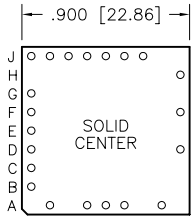
32 PINS
18



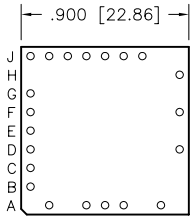
52 PINS
19



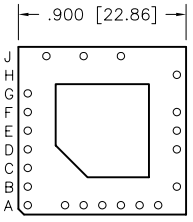
69 PINS
20



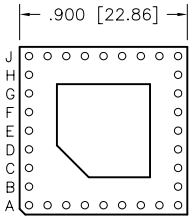
21 PINS
21



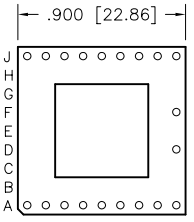
21 PINS
22



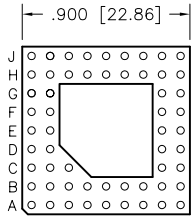
21 PINS
23



32 PINS
24



20 PINS
25



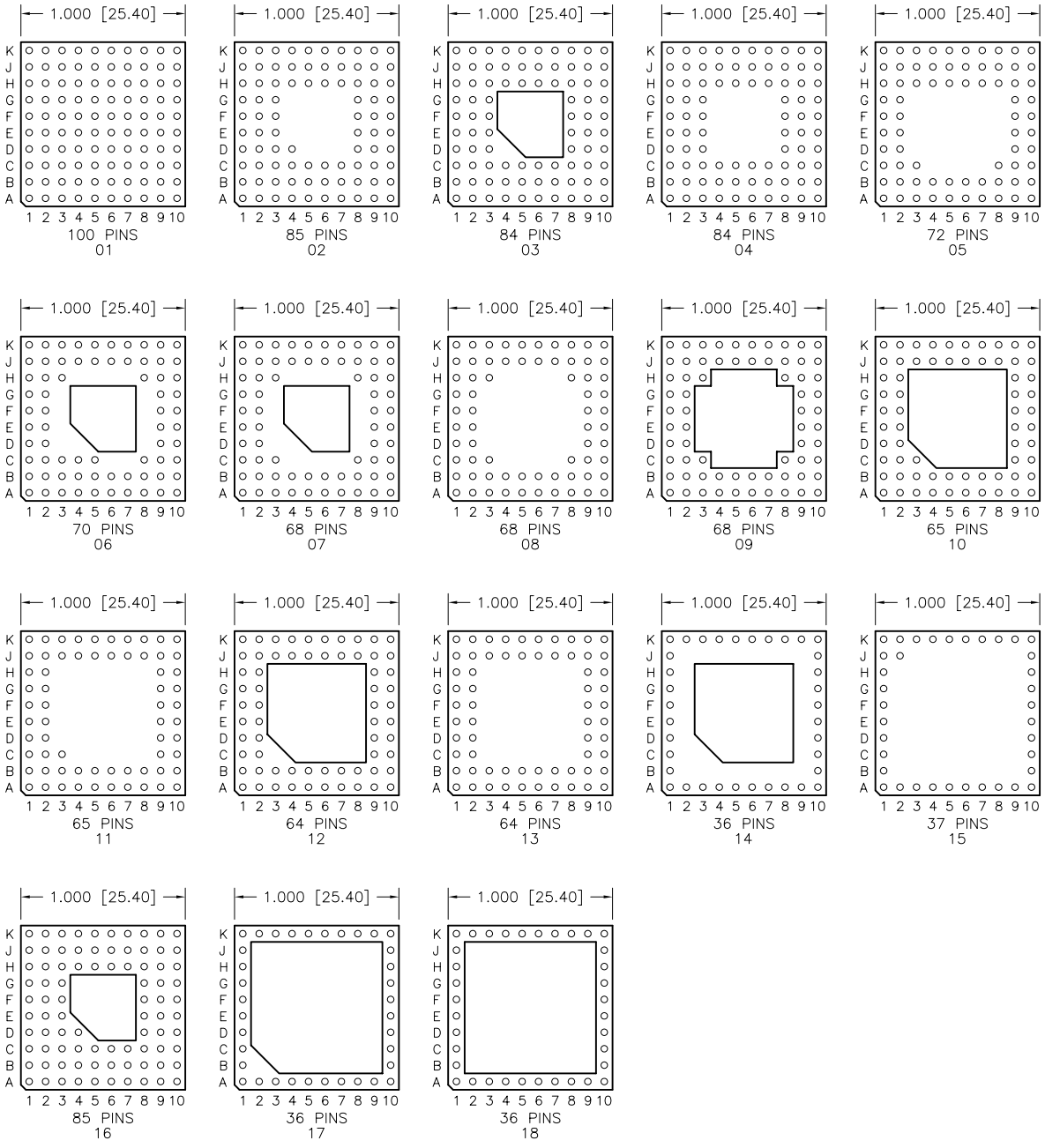
57 PINS
26

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

10 X 10



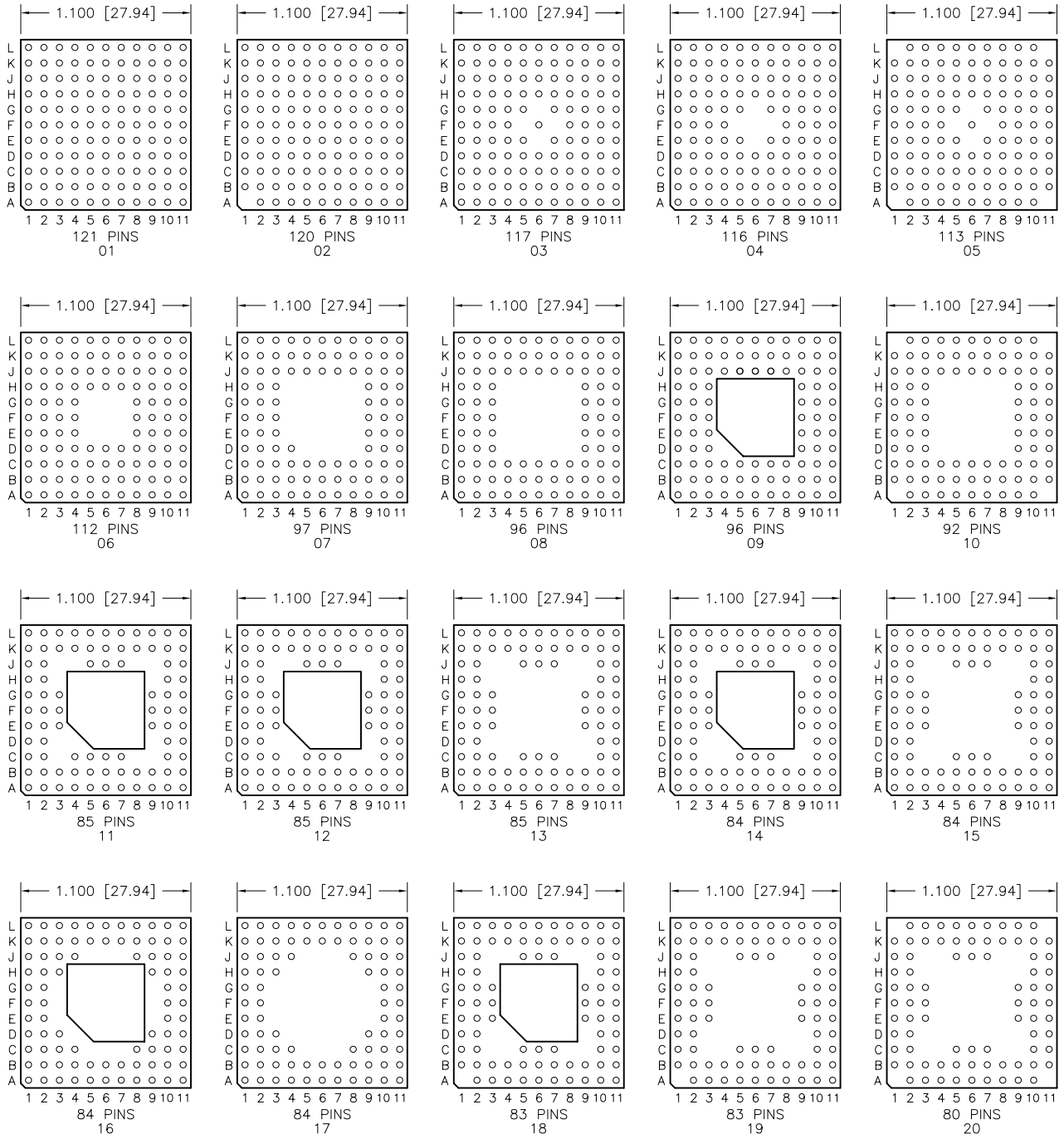
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

11 X 11



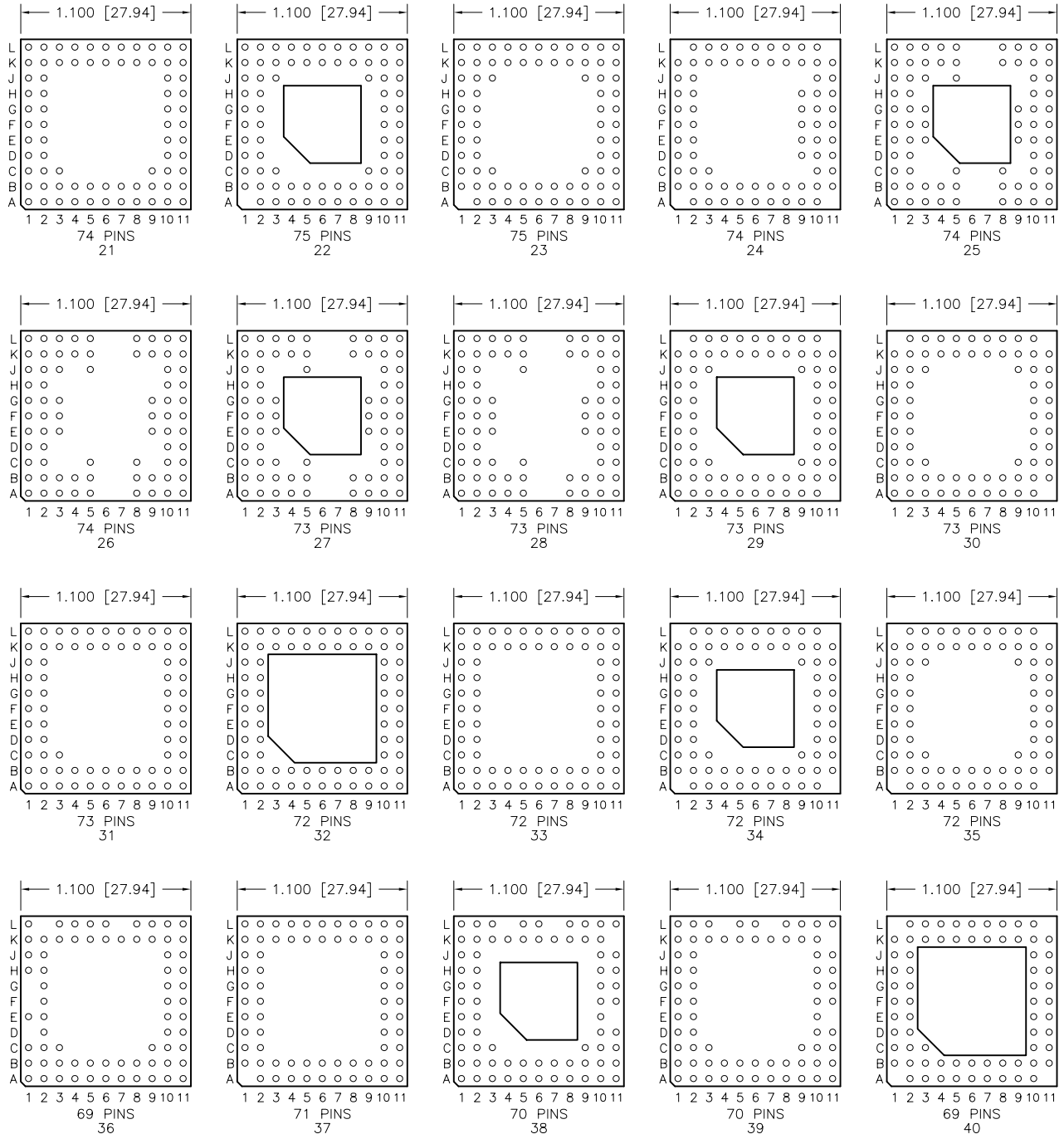
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

11 X 11



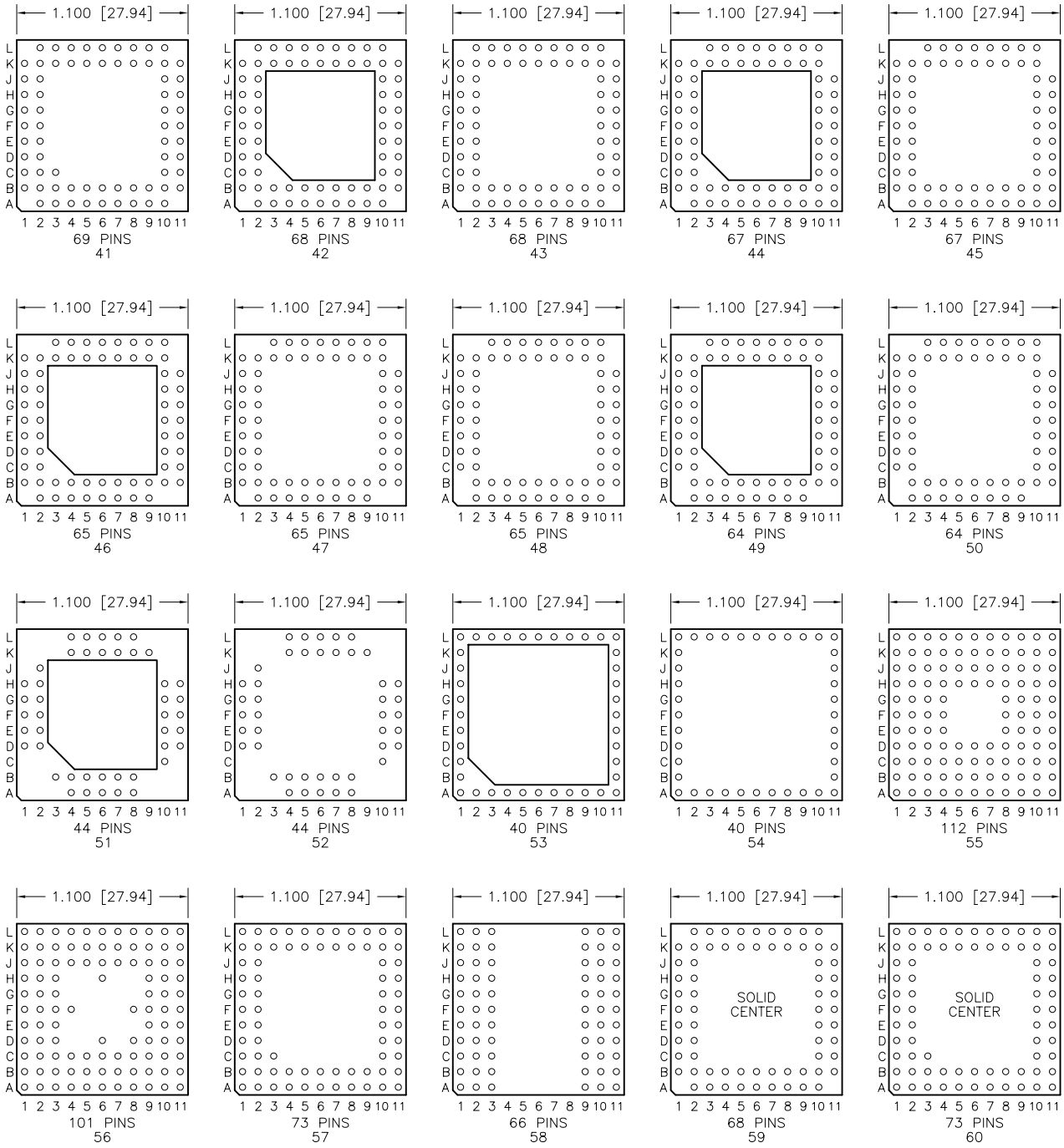
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

11 X 11



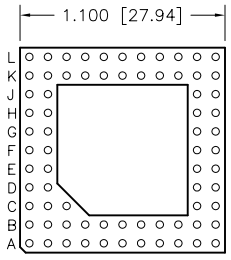
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

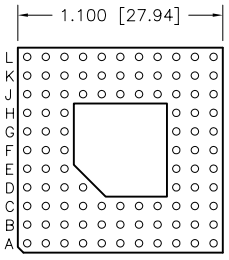
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

11 X 11

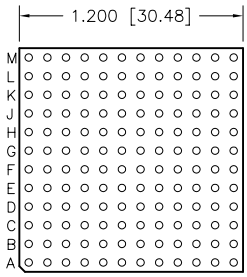


73 PINS
61

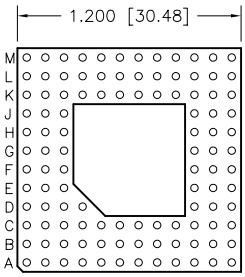


97 PINS
62

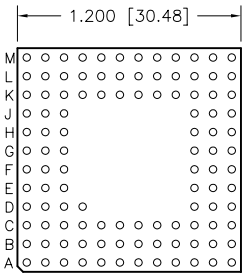
12 X 12



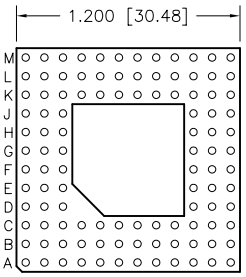
144 PINS
01



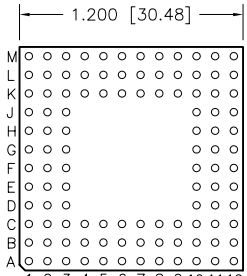
109 PINS
02



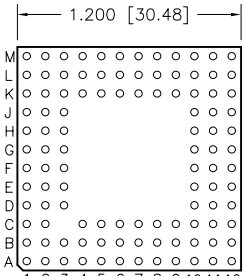
109 PINS
03



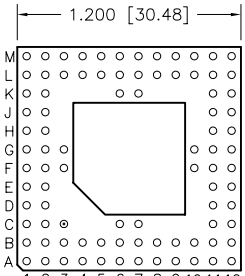
108 PINS
04



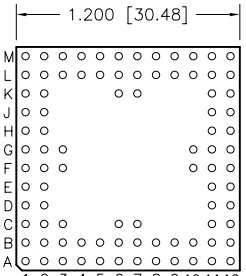
108 PINS
05



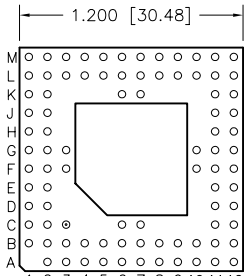
107 PINS
06



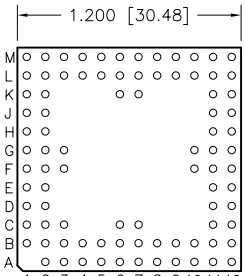
89 PINS
07



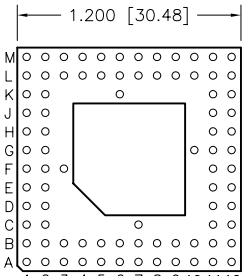
89 PINS
08



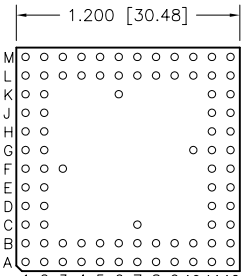
88 PINS
09



88 PINS
10



84 PINS
11



84 PINS
12

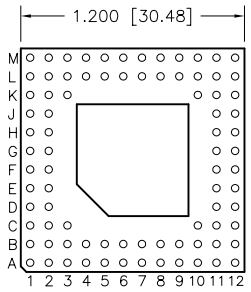
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

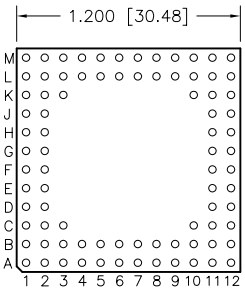
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

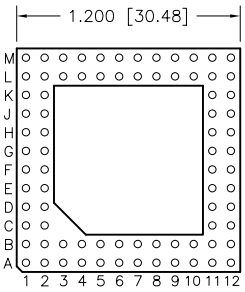
12 X 12



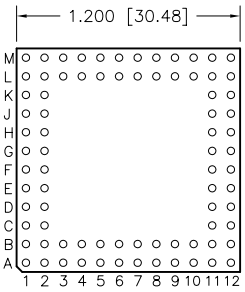
84 PINS
13



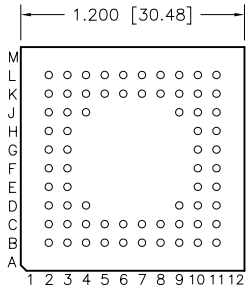
84 PINS
14



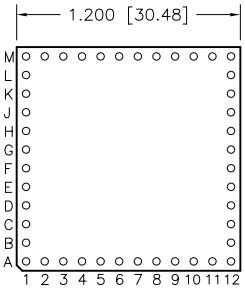
80 PINS
15



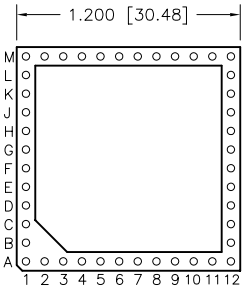
80 PINS
16



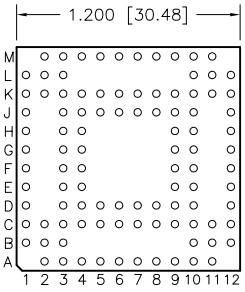
68 PINS
17



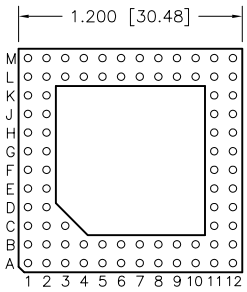
44 PINS
18



44 PINS
19



100 PINS
20



81 PINS
21

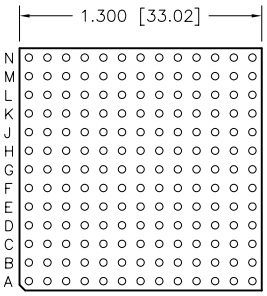
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

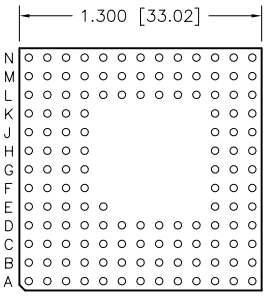
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

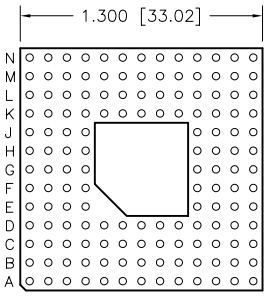
13 X 13



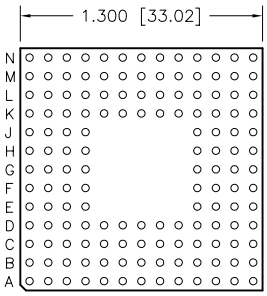
169PINS
01



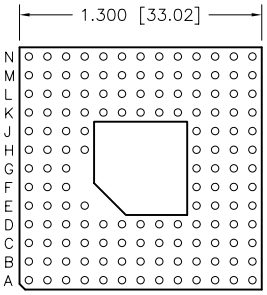
134 PINS
02



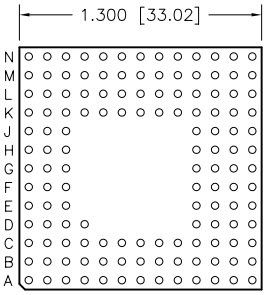
144 PINS
03



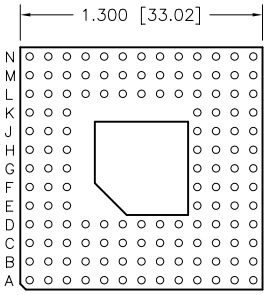
144 PINS
04



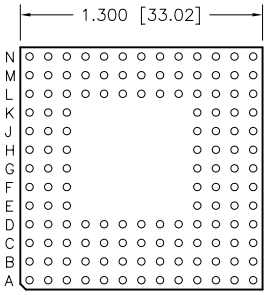
142 PINS
05



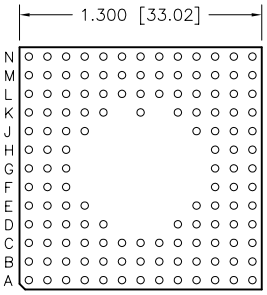
134 PINS
06



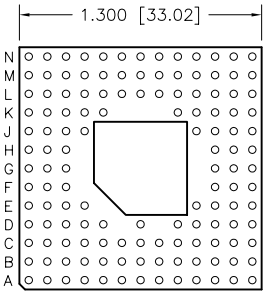
133 PINS
07



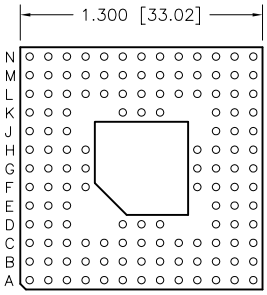
133 PINS
08



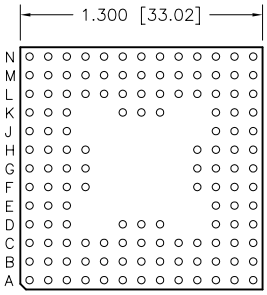
133 PINS
09



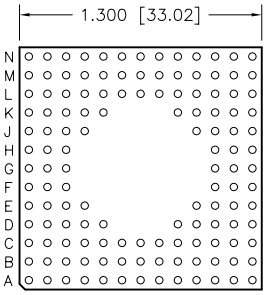
133 PINS
10



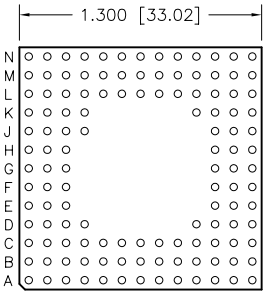
132 PINS
11



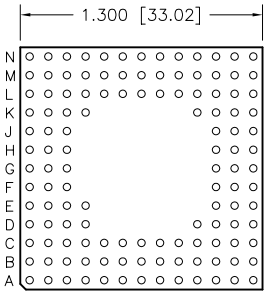
132 PINS
12



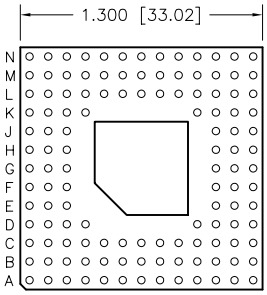
132 PINS
13



125 PINS
14



125 PINS
15



124 PINS
16

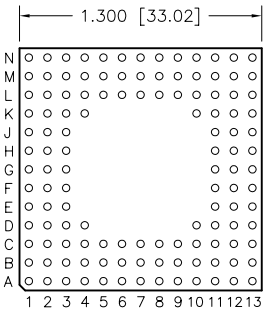
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

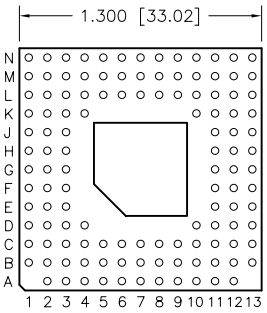
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

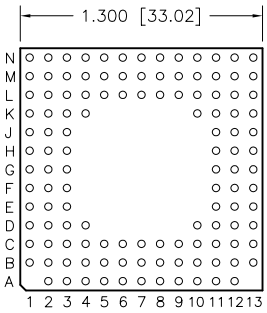
13 X 13



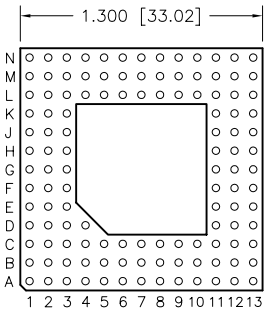
124 PINS
17



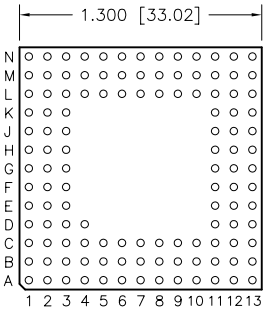
122 PINS
18



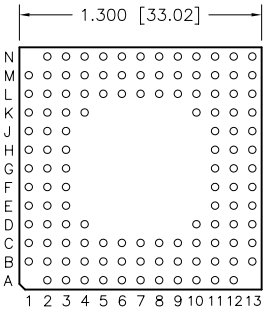
122 PINS
19



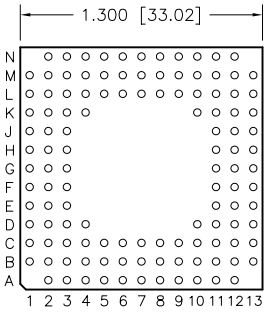
121 PINS
20



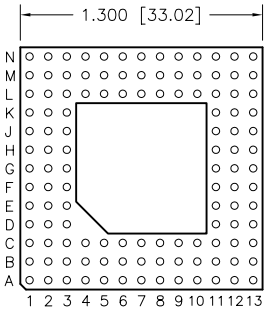
121 PINS
21



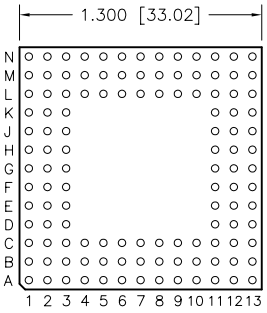
121 PINS
22



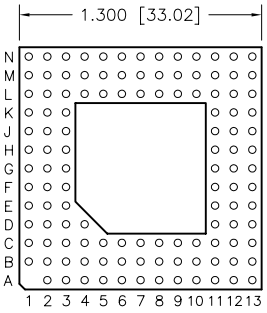
120 PINS
23



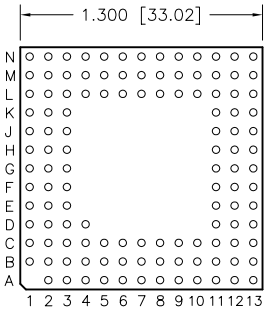
120 PINS
24



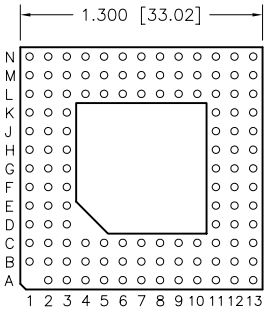
120 PINS
25



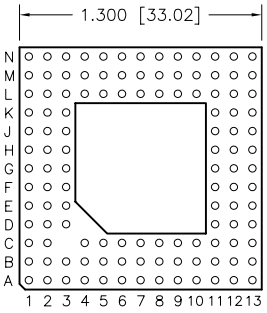
120 PINS
26



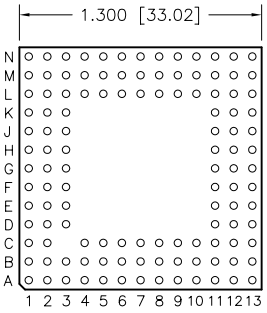
120 PINS
27



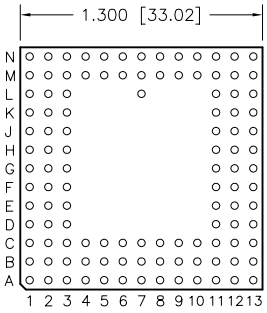
119 PINS
28



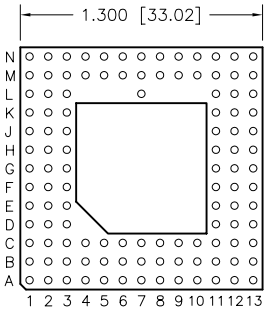
119 PINS
29



119 PINS
30



114 PINS
31



114 PINS
32

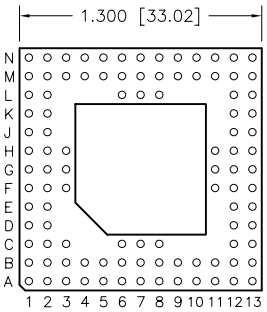
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

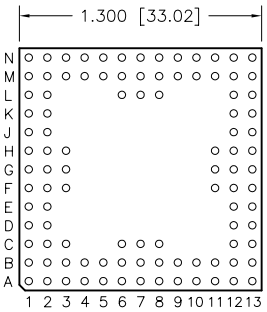
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

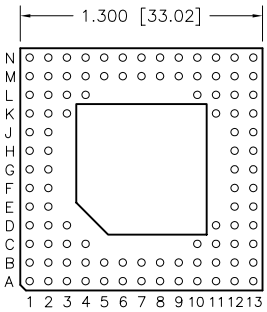
13 X 13



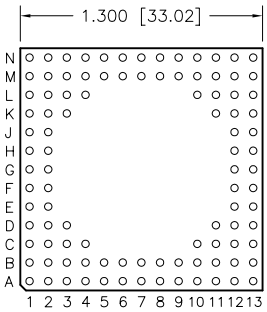
101 PINS
33



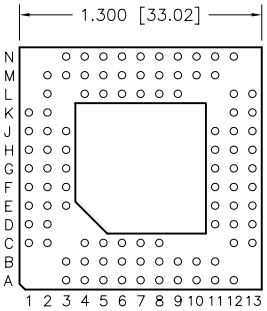
101 PINS
34



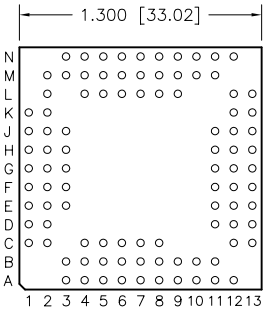
100 PINS
35



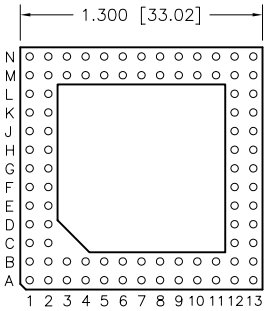
100 PINS
36



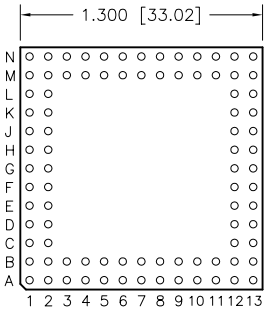
96 PINS
37



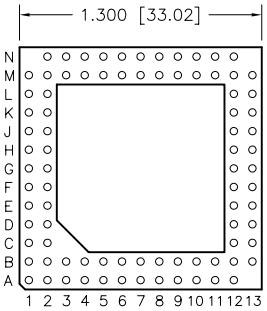
96 PINS
38



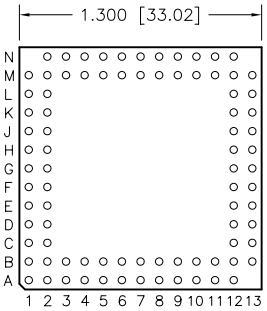
88 PINS
39



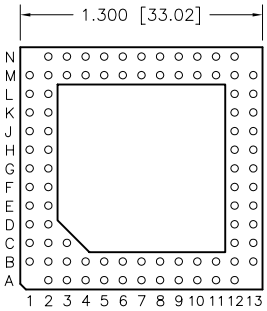
88 PINS
40



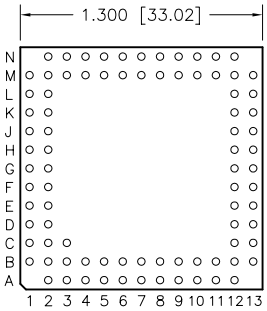
85 PINS
41



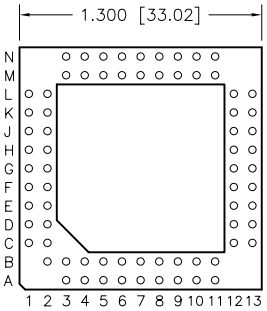
85 PINS
42



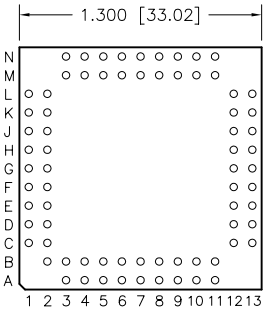
85 PINS
43



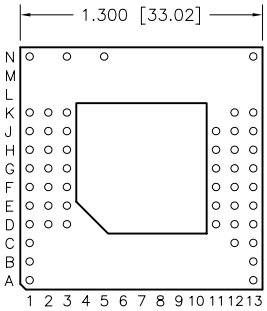
85 PINS
44



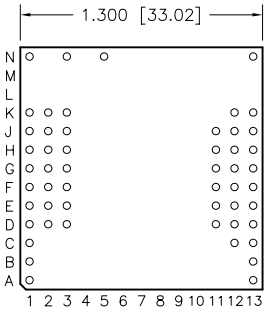
73 PINS
45



73 PINS
46



52 PINS
47



52 PINS
48

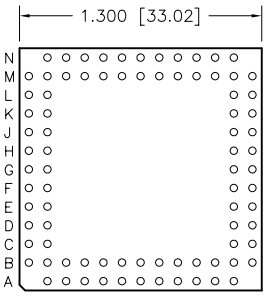
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

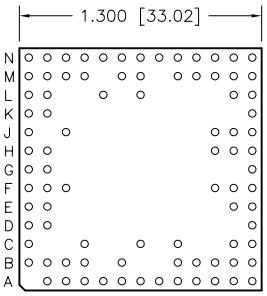
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

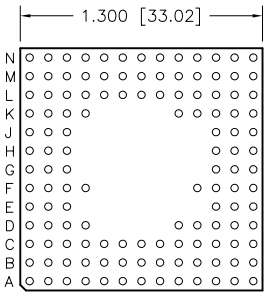
13 X 13



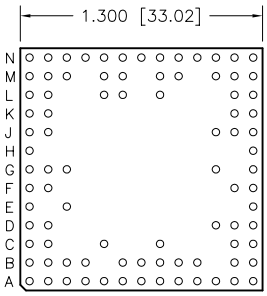
84 PINS
49



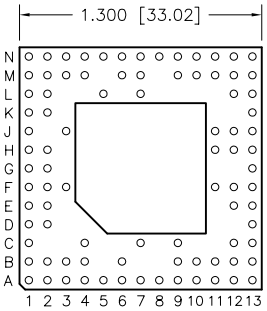
87 PINS
50



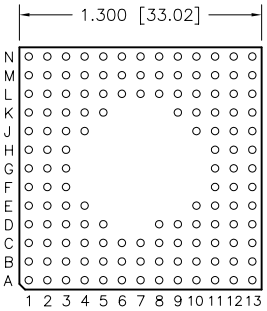
128 PINS
51



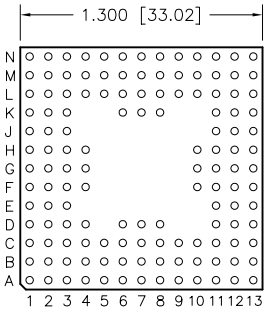
88 PINS
52



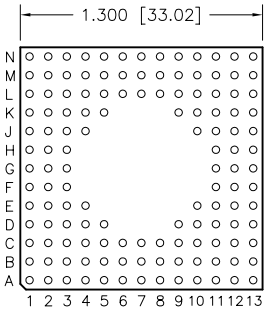
88 PINS
53



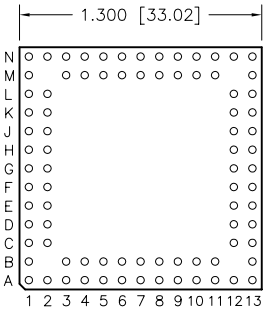
133 PINS
54



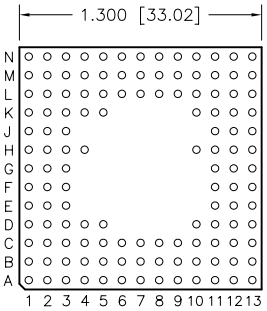
133 PINS
55



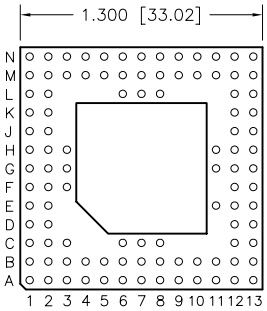
132 PINS
56



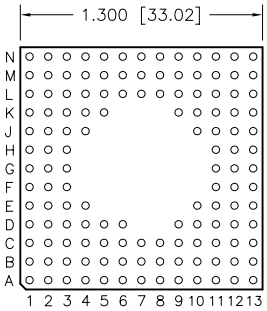
84 PINS
57



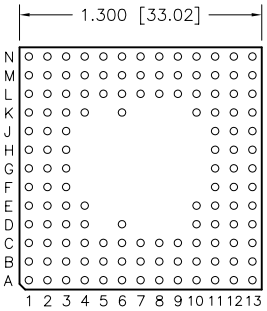
128 PINS
58



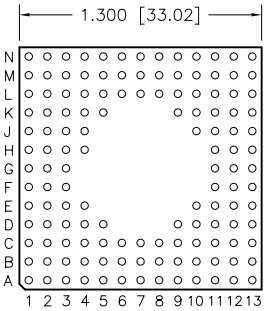
101 PINS
59



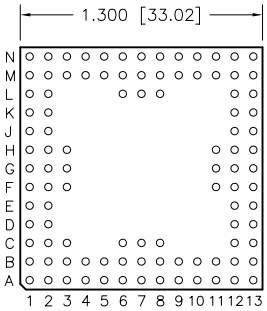
133 PINS
60



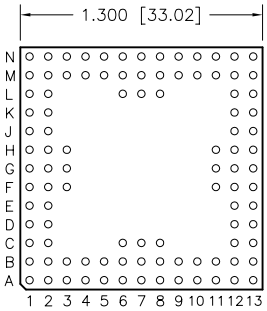
128 PINS
61



133 PINS
62



101 PINS
63



100 PINS
64

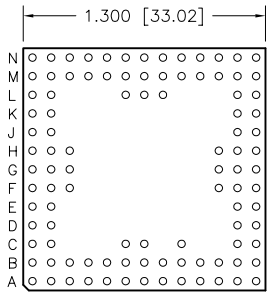
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

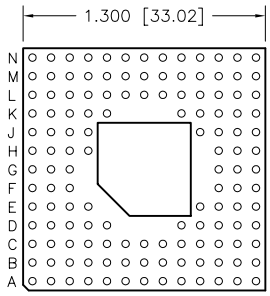
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

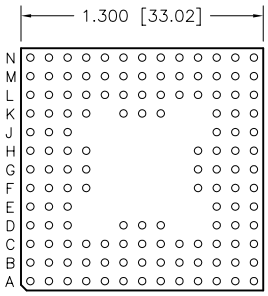
13 X 13



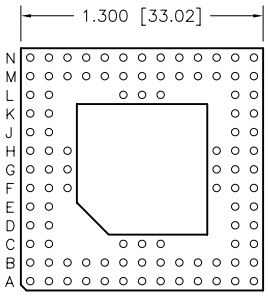
100 PINS
65



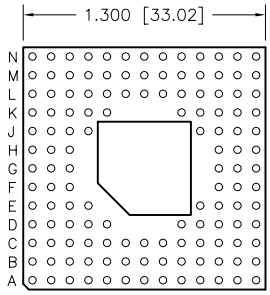
133 PINS
66



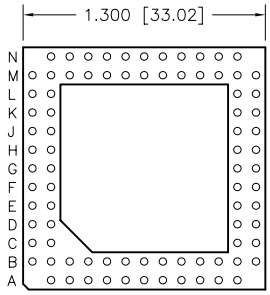
133 PINS
67



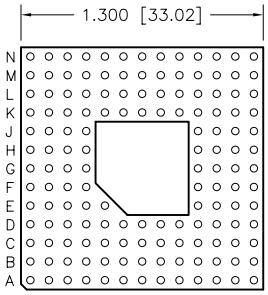
100 PINS
68



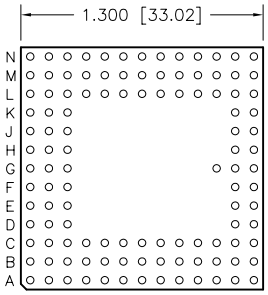
132 PINS
69



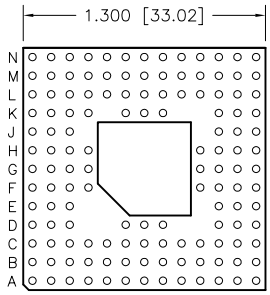
84 PINS
70



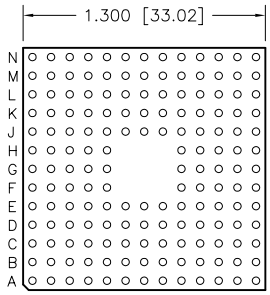
145 PINS
71



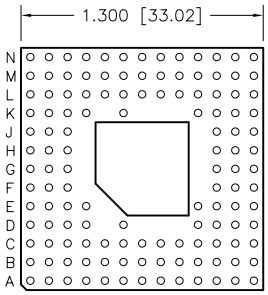
114 PINS
72



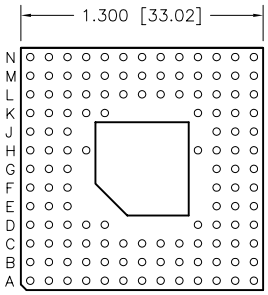
133 PINS
73



160 PINS
74

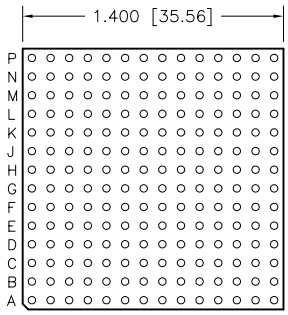


128 PINS
75

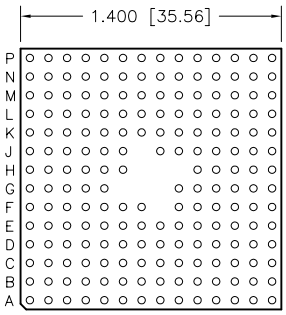


128 PINS
76

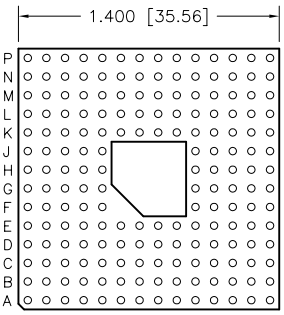
14 X 14



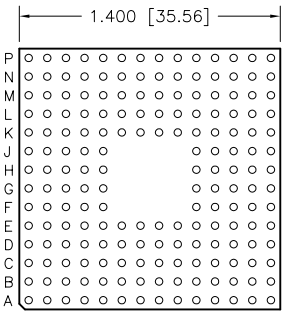
196 PINS
01



188 PINS
02



180 PINS
03



180 PINS
04

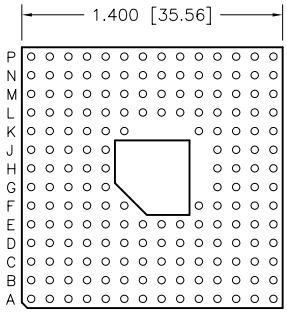
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

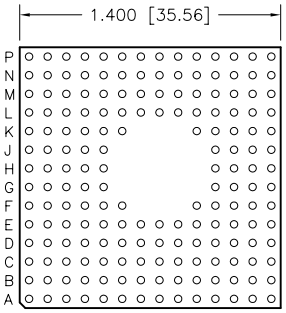
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

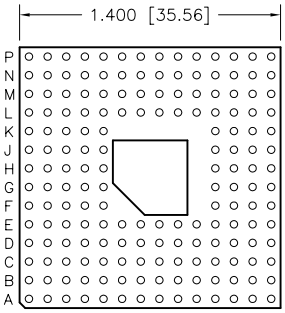
14 X 14



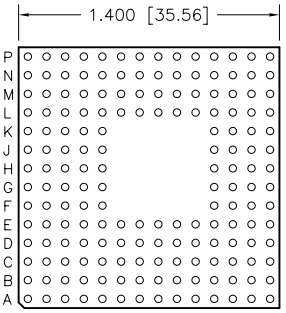
175 PINS
05



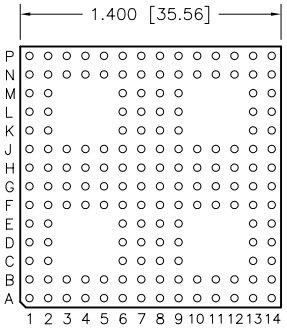
175 PINS
06



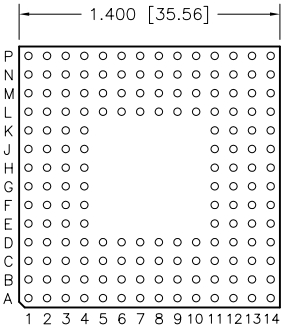
171 PINS
07



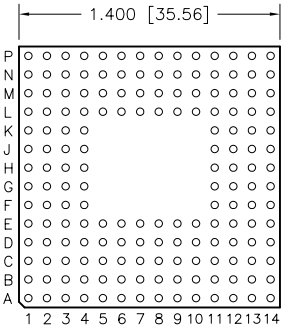
171 PINS
08



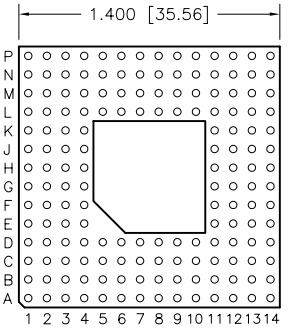
160 PINS
09



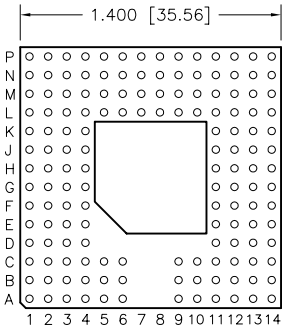
160 PINS
10



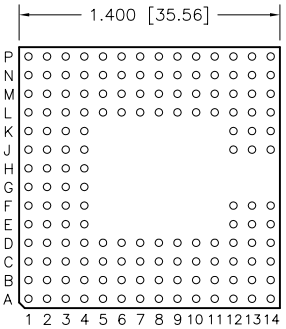
166 PINS
11



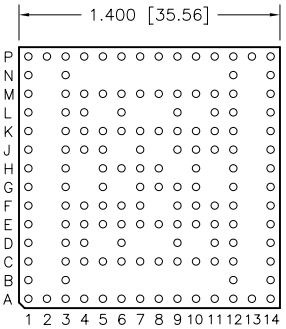
160 PINS
12



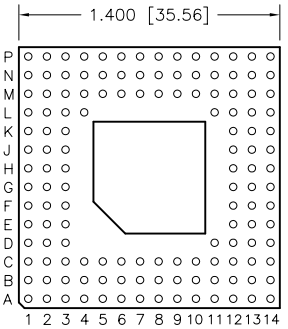
148 PINS
13



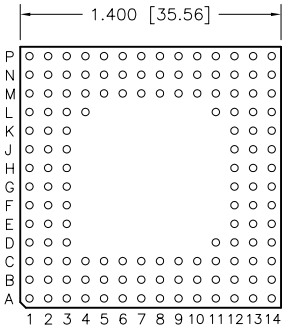
148 PINS
14



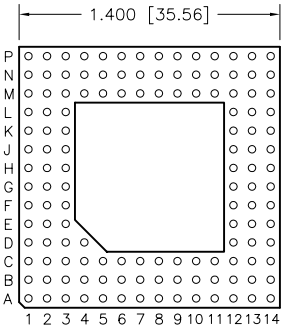
139 PINS
15



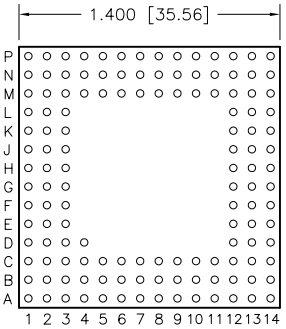
135 PINS
16



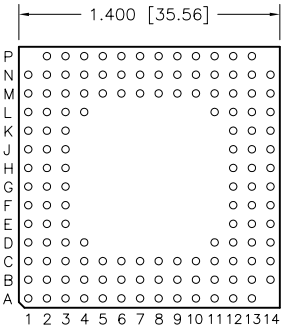
135 PINS
17



133 PINS
18



133 PINS
19



133 PINS
20

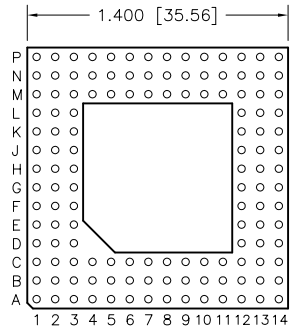
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

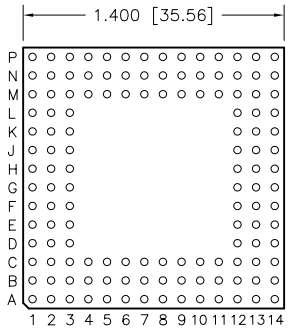
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

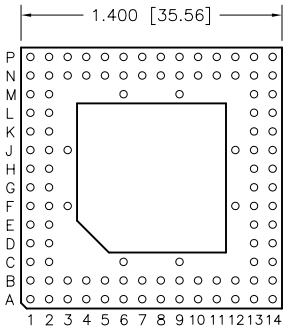
14 X 14



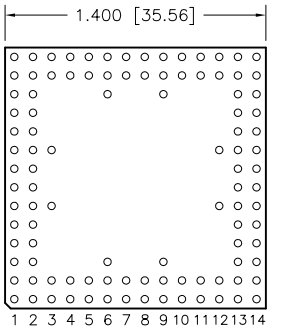
132 PINS
21



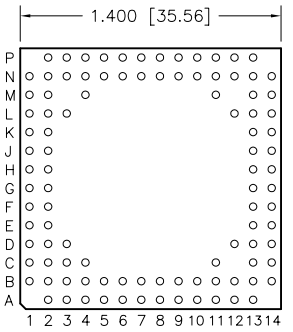
132 PINS
22



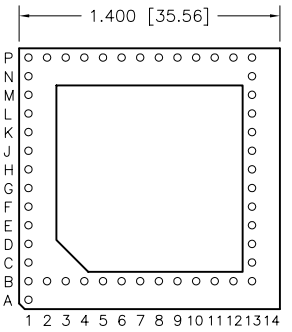
104 PINS
23



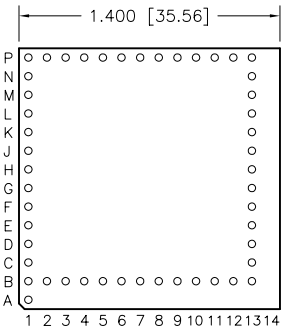
104 PINS
24



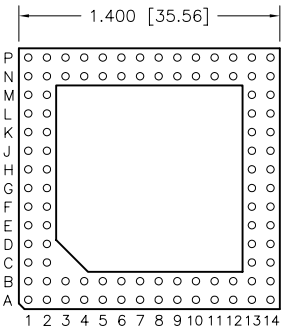
101 PINS
25



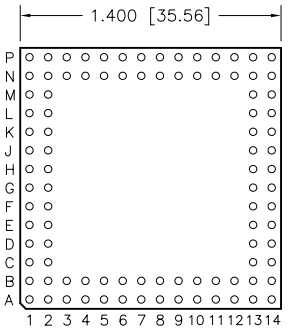
49 PINS
26



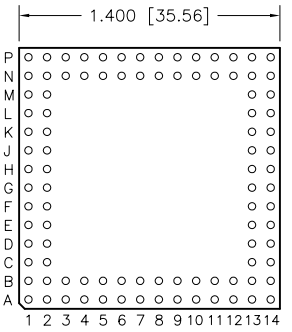
49 PINS
27



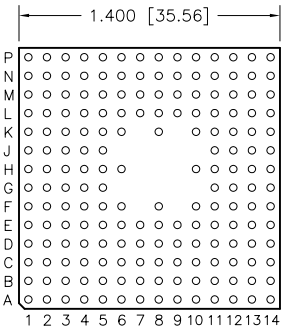
96 PINS
28



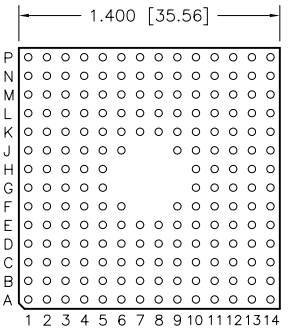
96 PINS
29



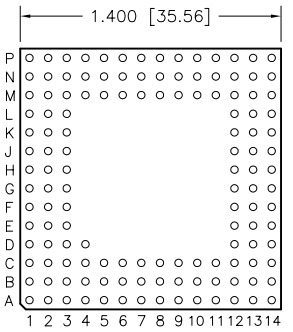
96 PINS
30



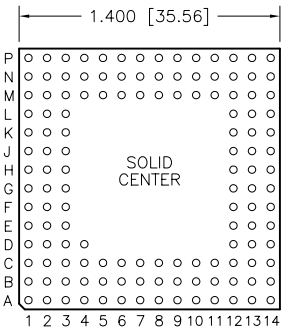
179 PINS
31



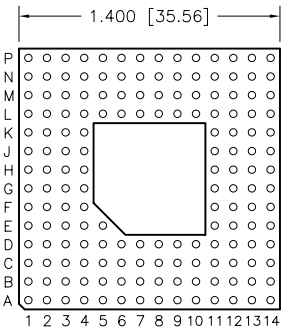
184 PINS
32



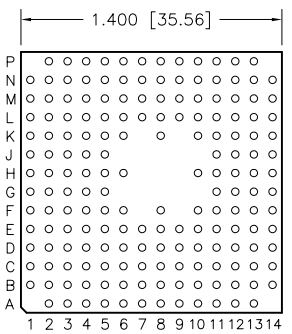
133 PINS
33



133 PINS
34



161 PINS
35



175 PINS
36

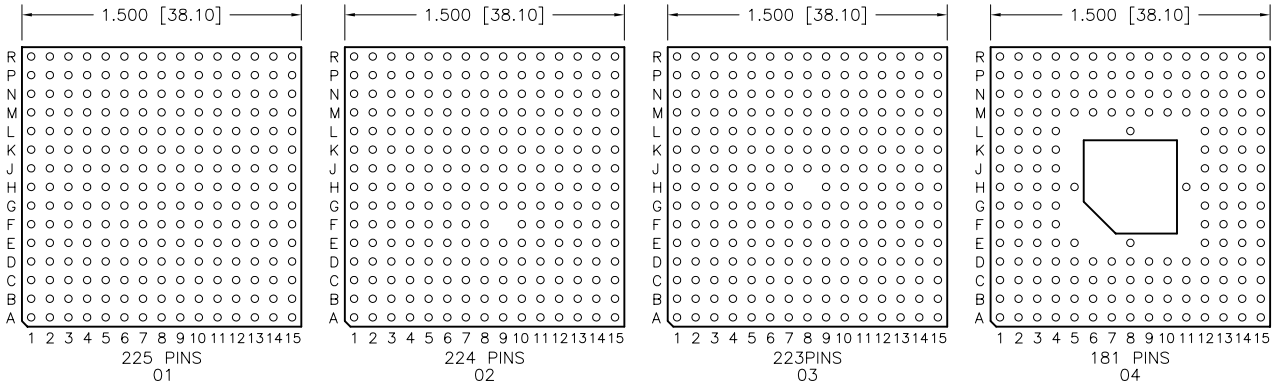
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

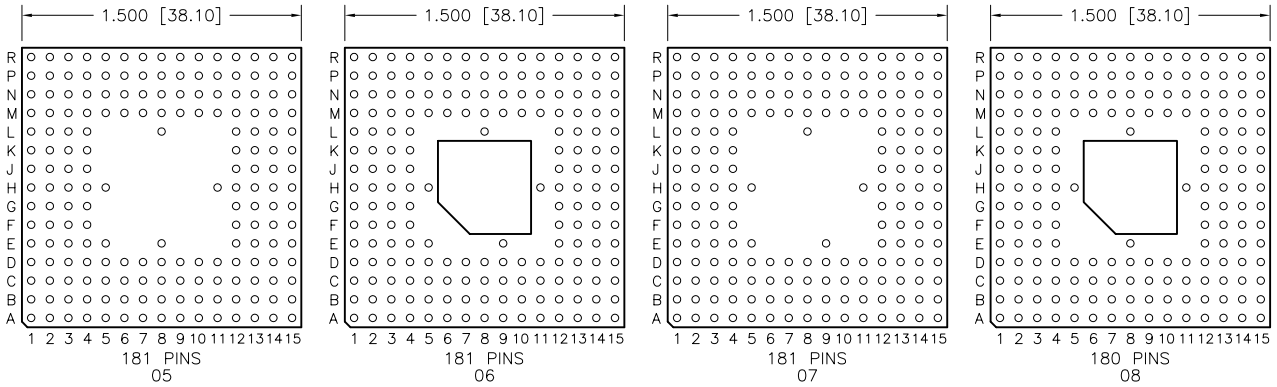
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

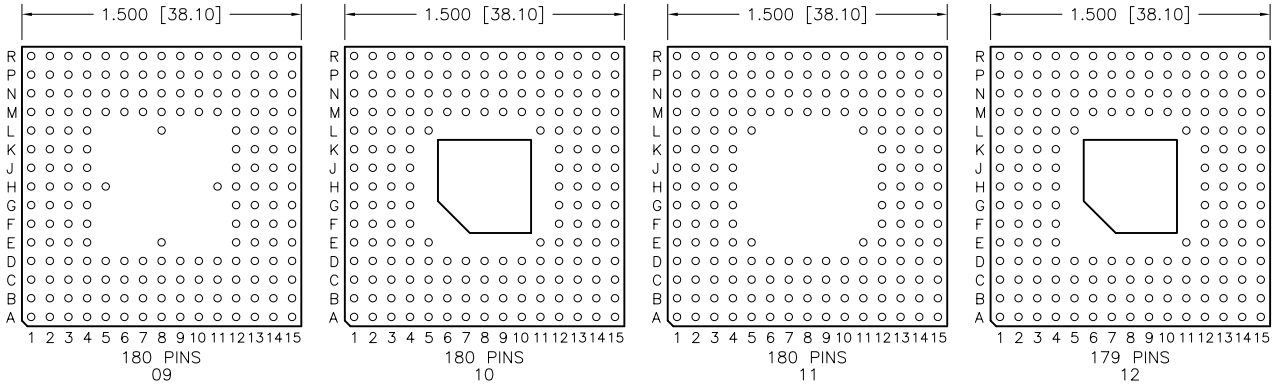
ANDON
INTERCONNECTION SPECIALISTS

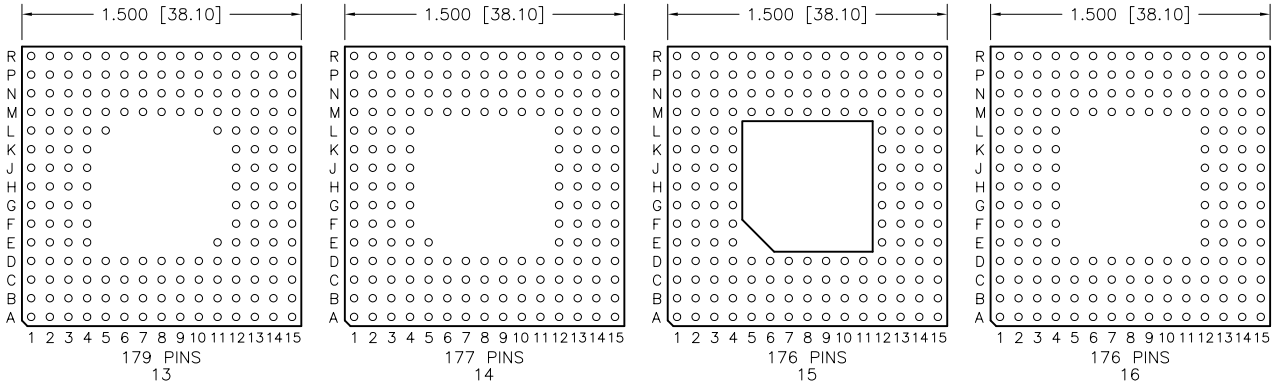
PGA SOCKET FOOTPRINTS

15 X 15









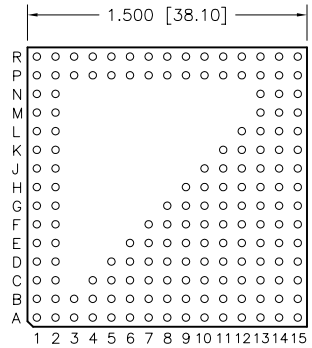
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

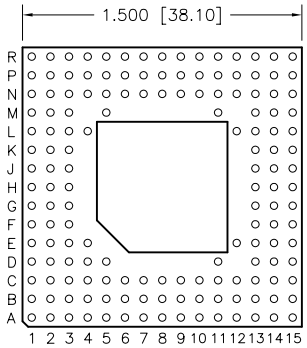
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

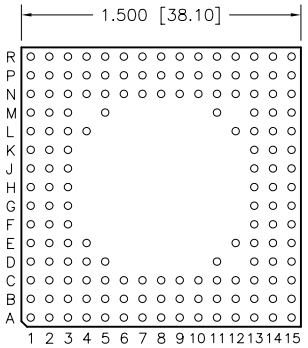
ANDON
INTERCONNECTION SPECIALISTS

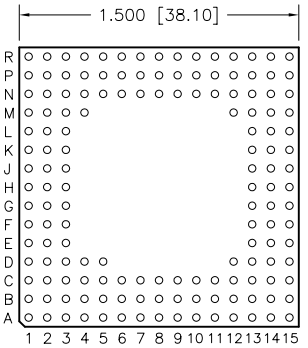
PGA SOCKET FOOTPRINTS

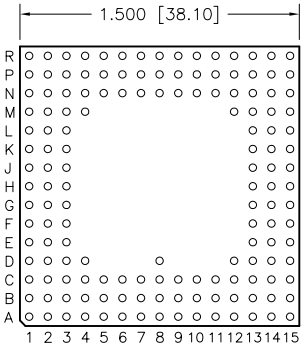
15 X 15

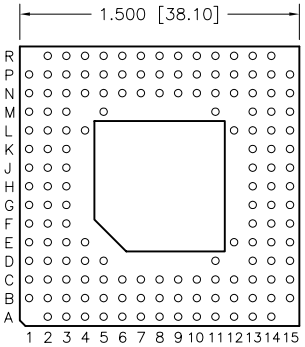


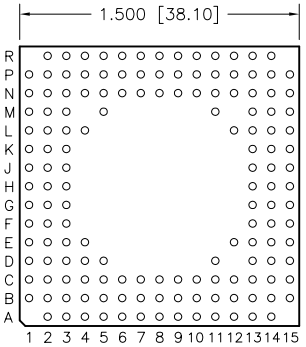


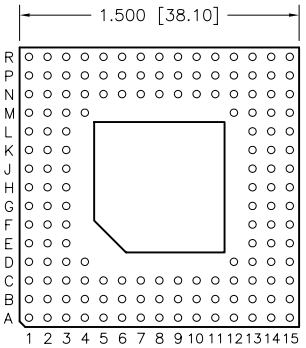


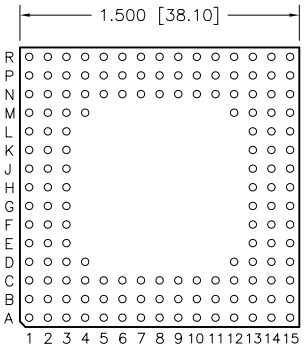


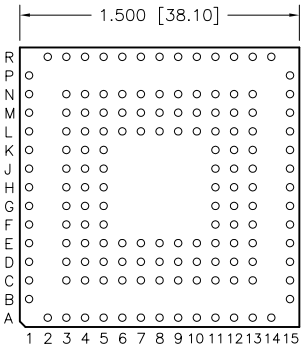


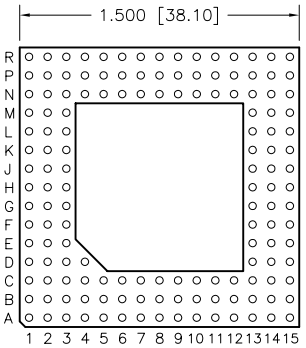


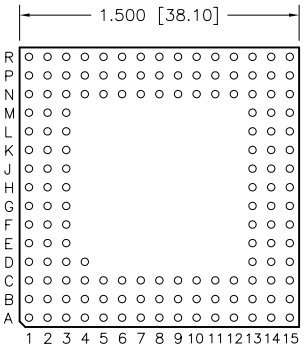


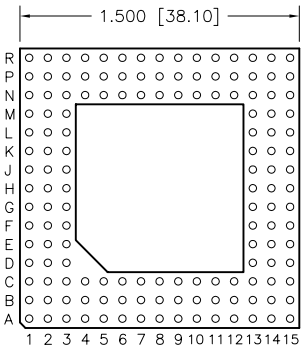


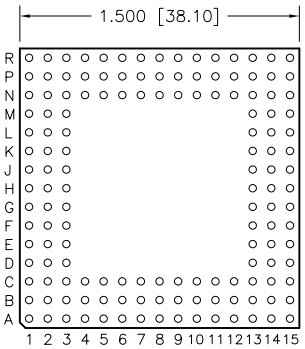


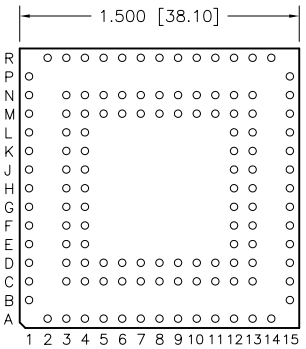


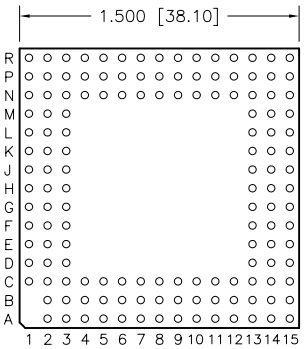












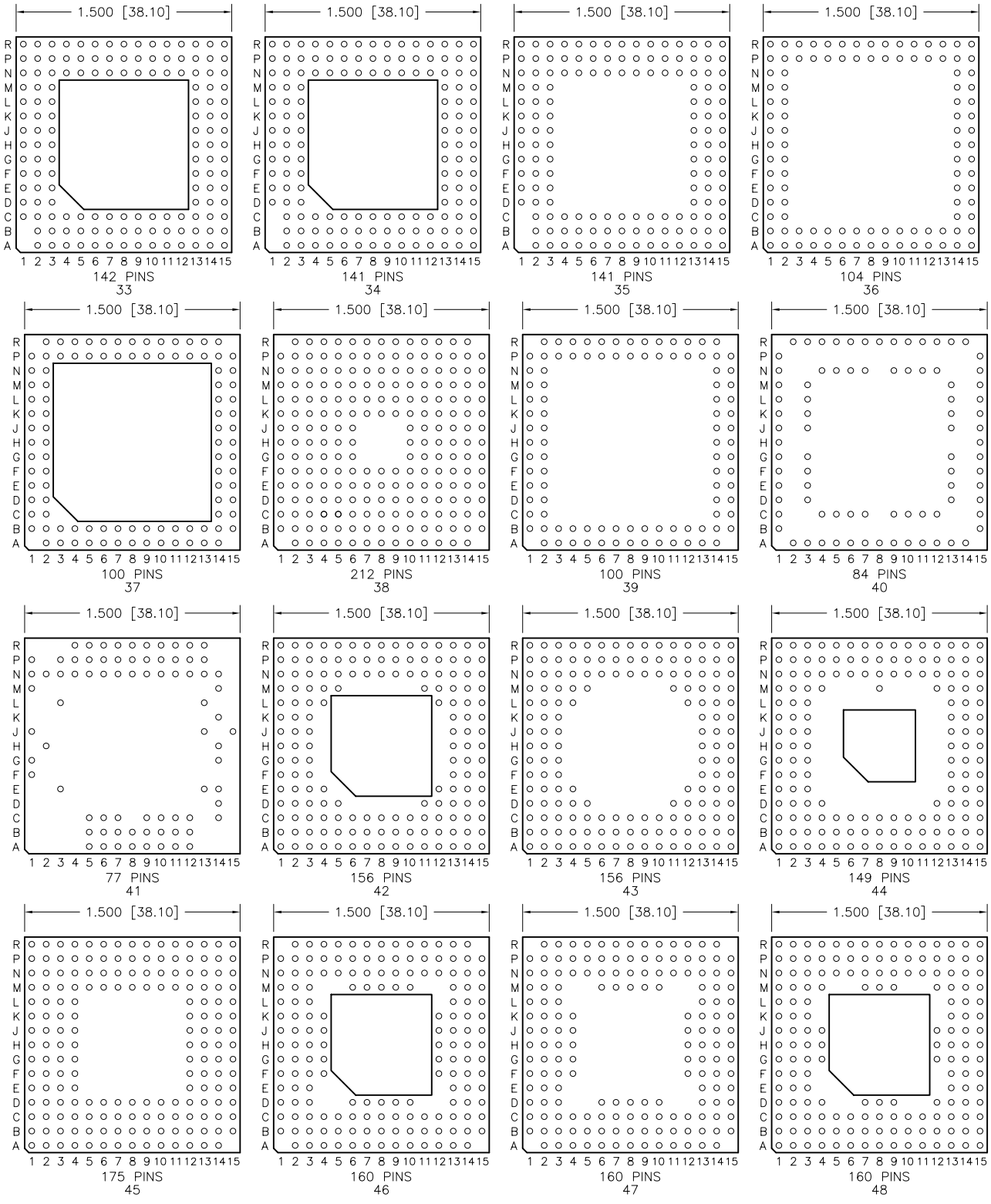
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

15 X 15



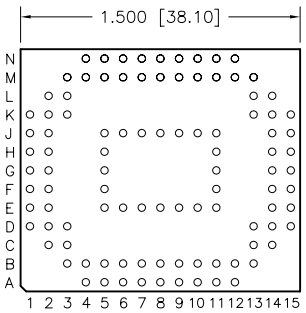
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

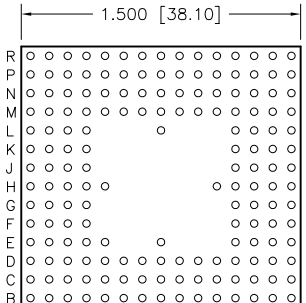
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

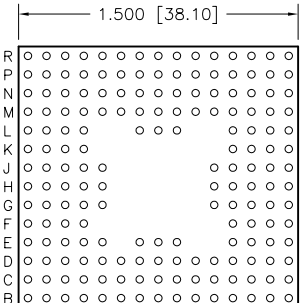
15 X 15



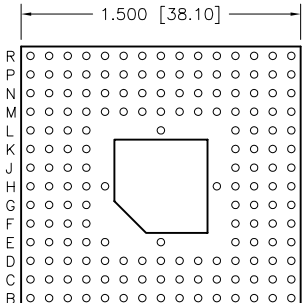
100 PINS
49
FR-4 ONLY



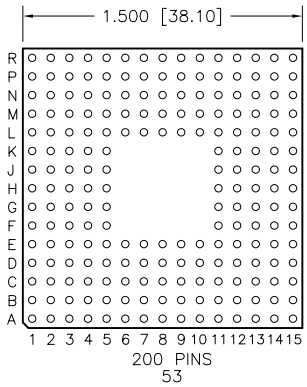
181 PINS
50



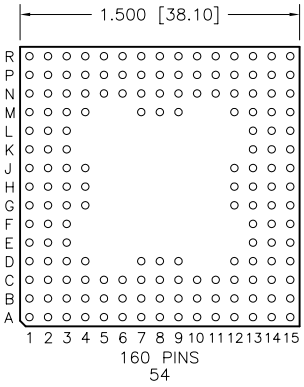
189 PINS
51



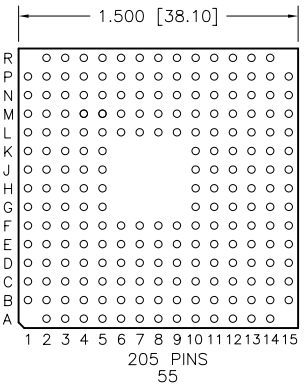
180 PINS
52



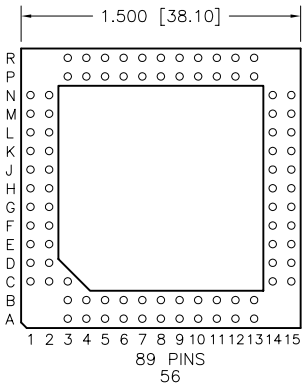
200 PINS
53



160 PINS
54



205 PINS
55



89 PINS
56

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

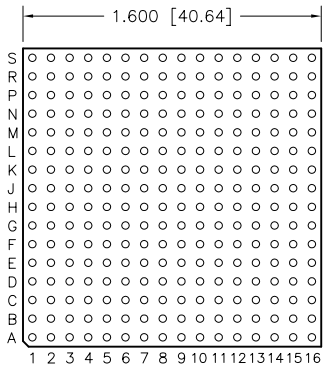
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

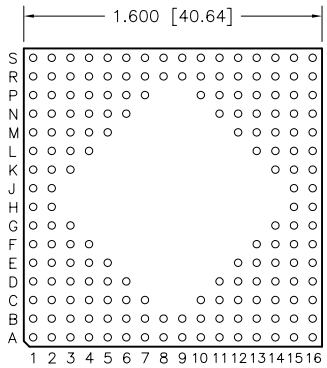
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

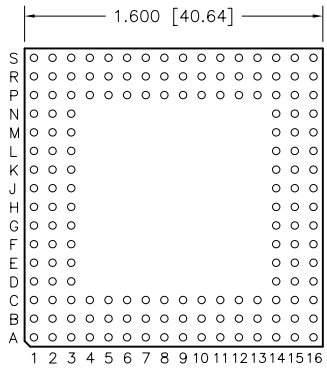
16 X 16



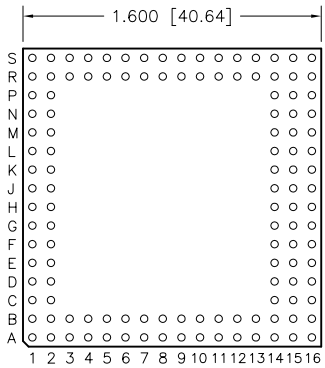
256 PINS
01



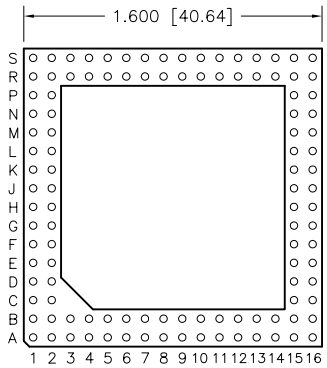
172 PINS
02



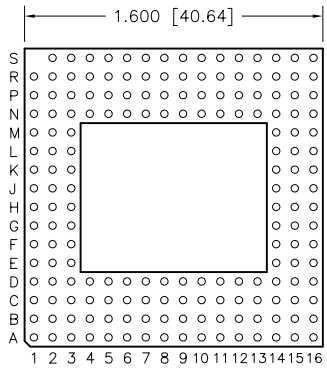
156 PINS
03



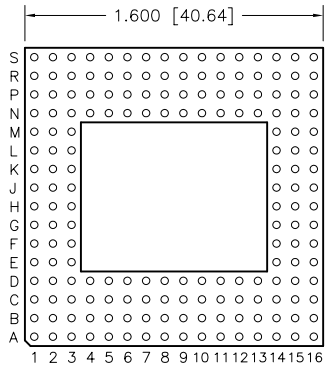
124 PINS
04



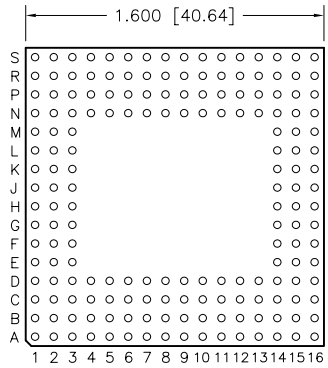
112 PINS
05



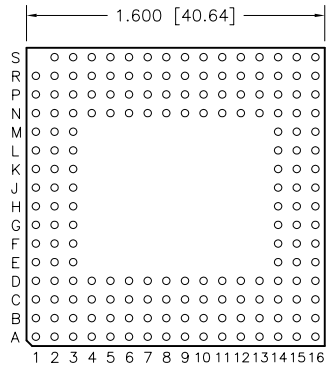
175 PINS
06



176 PINS
07



176 PINS
08



175 PINS
09

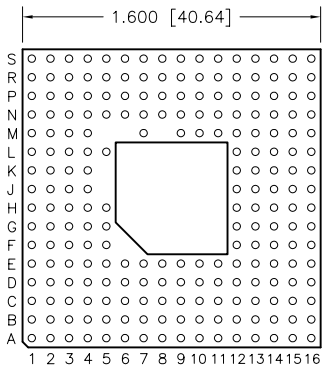
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

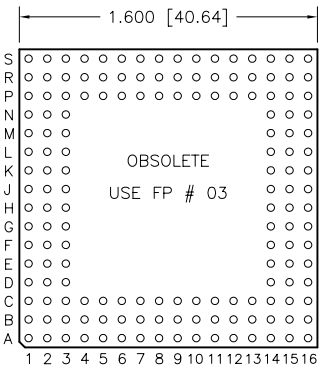
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

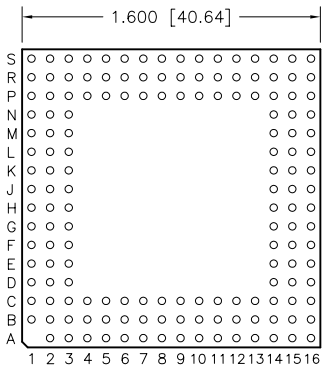
16 X 16



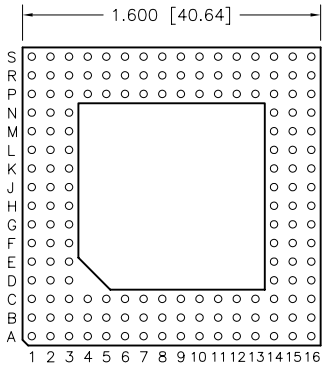
215 PINS
10



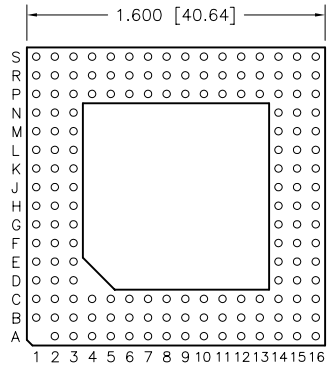
156 PINS
11



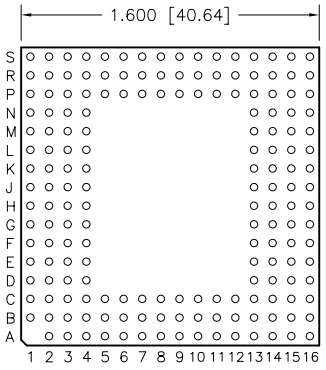
155 PINS
12



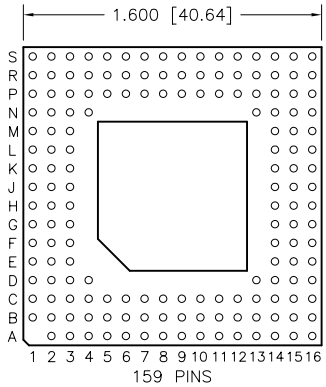
156 PINS
13



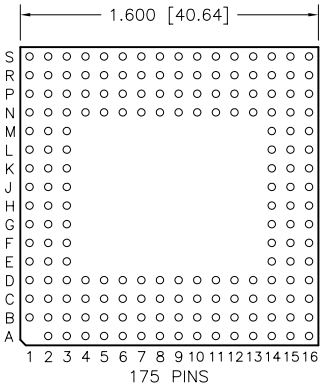
155 PINS
14



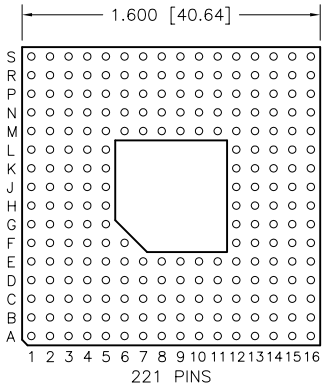
175 PINS
15



159 PINS
16



175 PINS
17



221 PINS
18

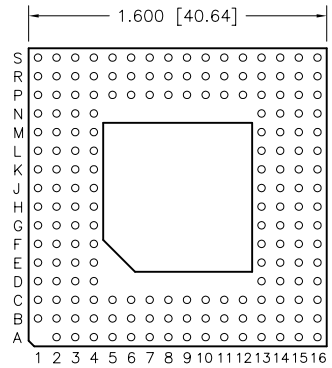
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

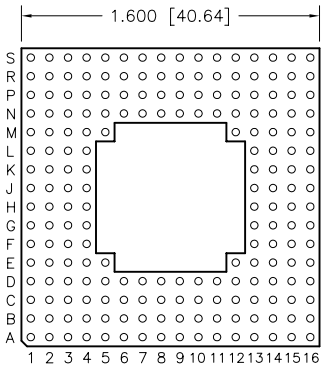
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

16 X 16

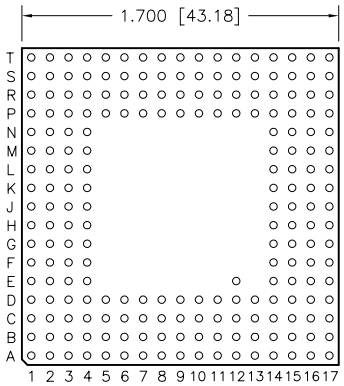


175 PINS
19

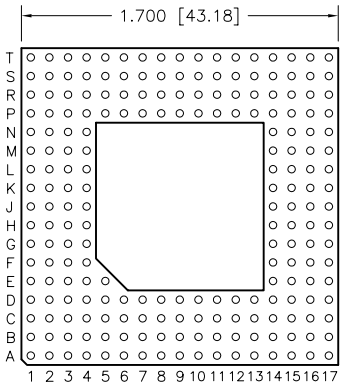


196 PINS
20

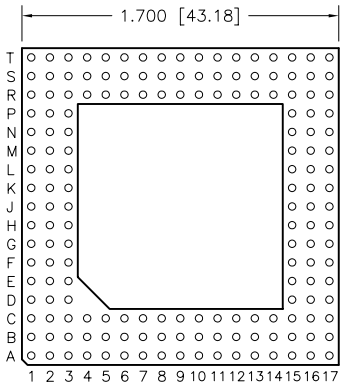
17 X 17



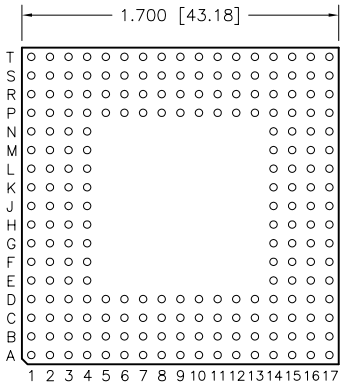
209 PINS
01



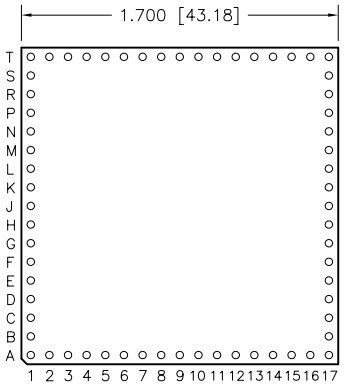
209 PINS
02



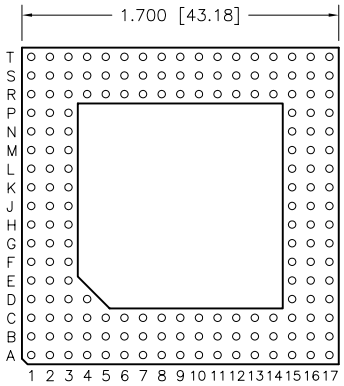
168 PINS
03



208 PINS
04



64 PINS
05



169 PINS
06

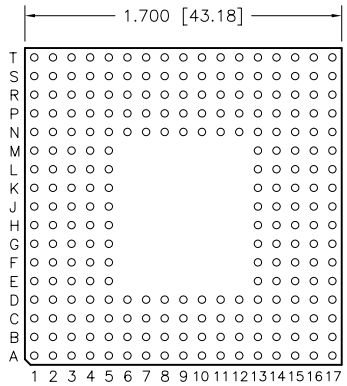
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

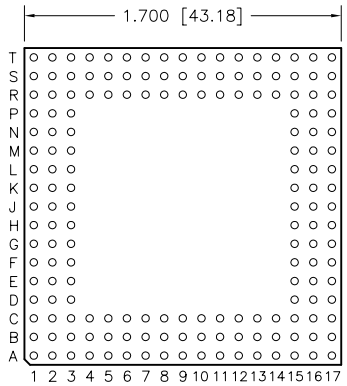
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

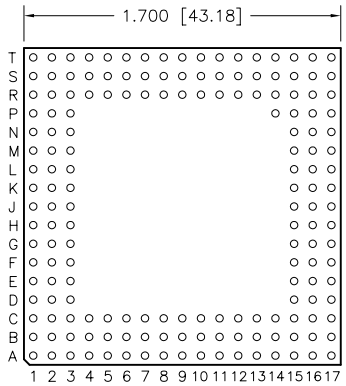
17 X 17



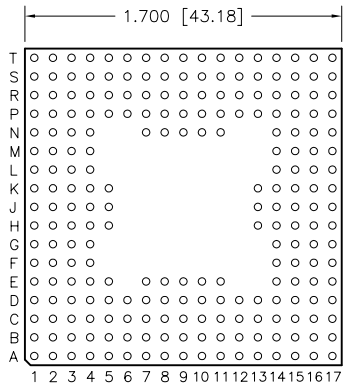
233 PINS
07



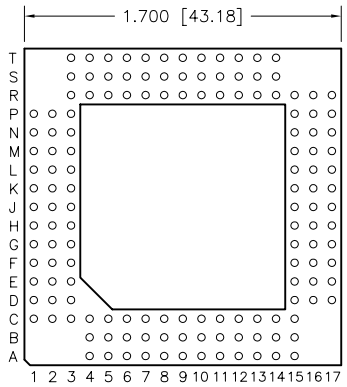
168 PINS
08



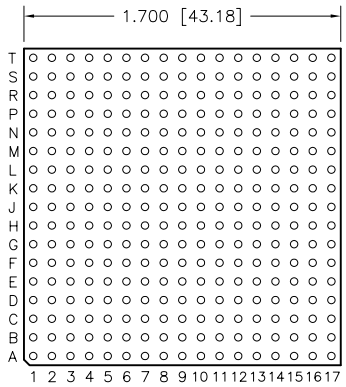
169 PINS
09



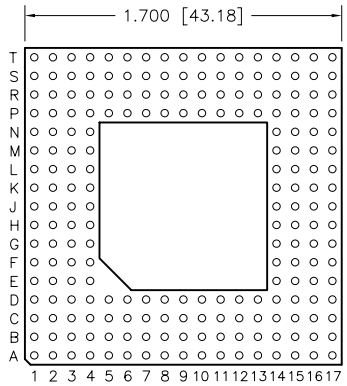
225 PINS
10



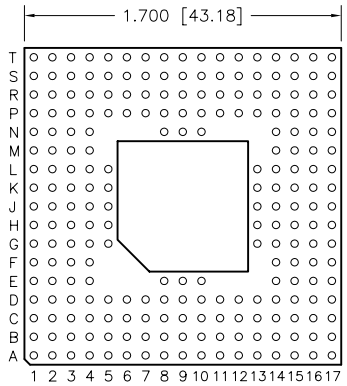
144 PINS
11



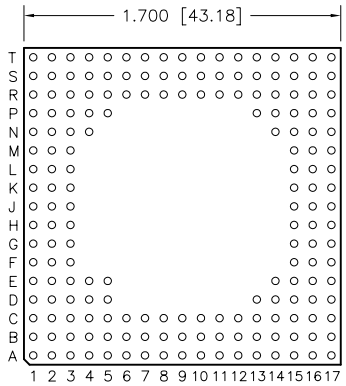
289 PINS
12



208 PINS
13



225 PINS
14



181 PINS
15

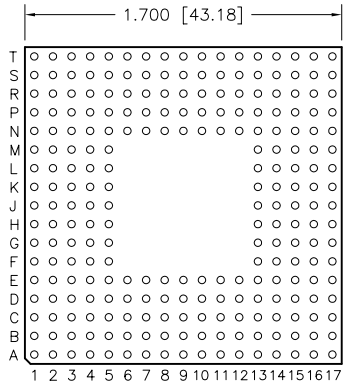
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

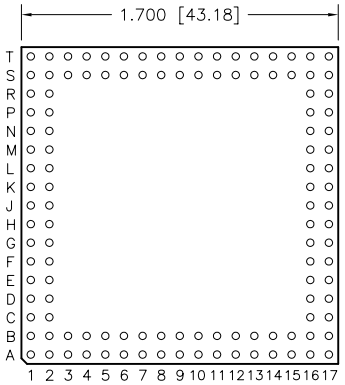
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

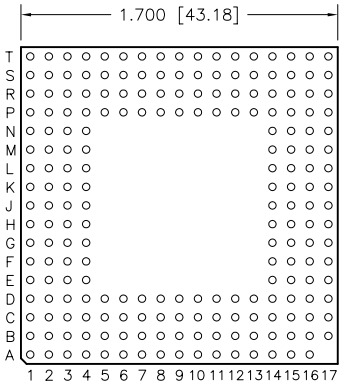
17 X 17



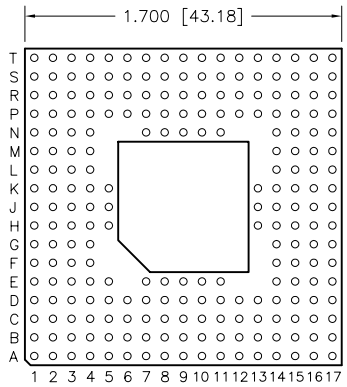
240 PINS
16



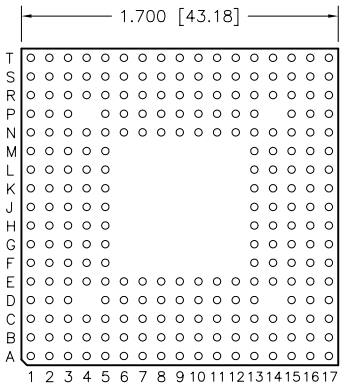
120 PINS
17



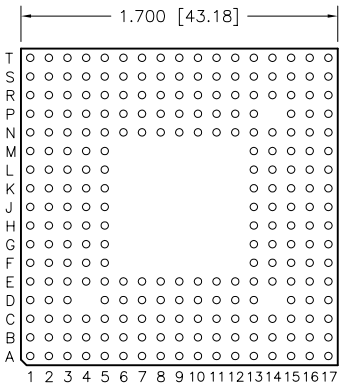
207 PINS
18



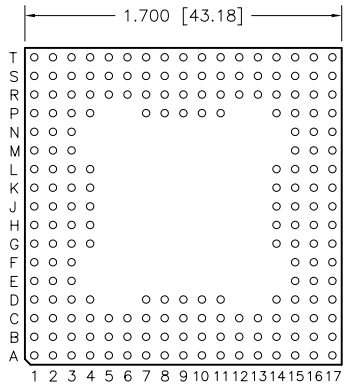
225 PINS
19



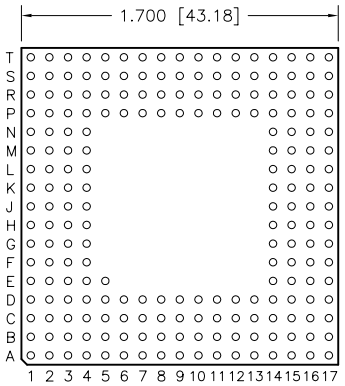
236 PINS
20



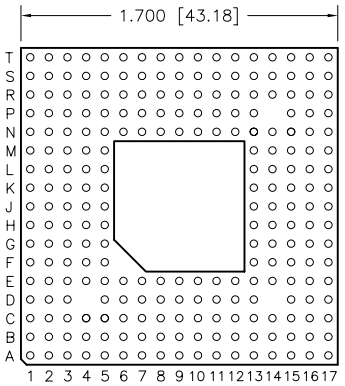
237 PINS
21



192 PINS
22



209 PINS
23



237 PINS
24

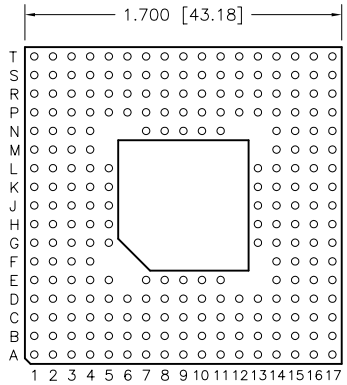
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

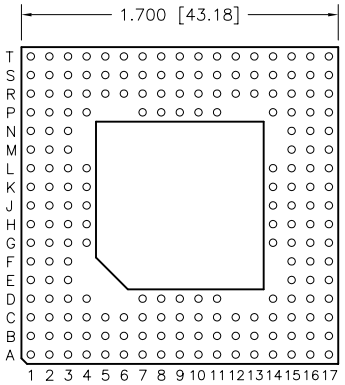
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

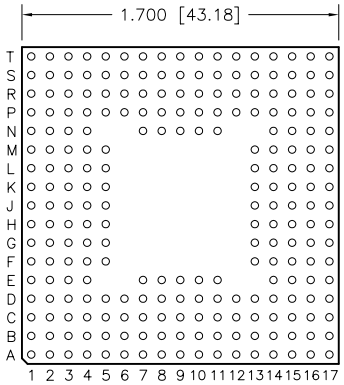
17 X 17



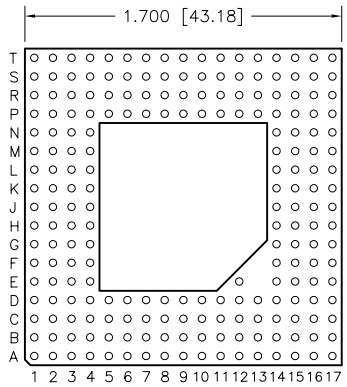
229 PINS
25



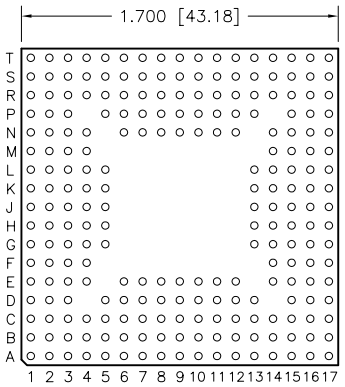
192 PINS
26



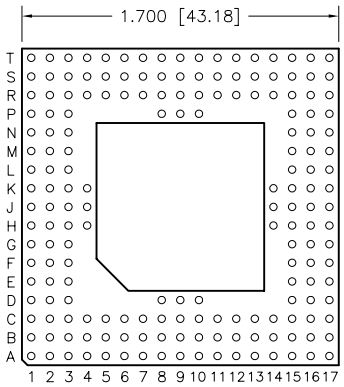
232 PINS
27



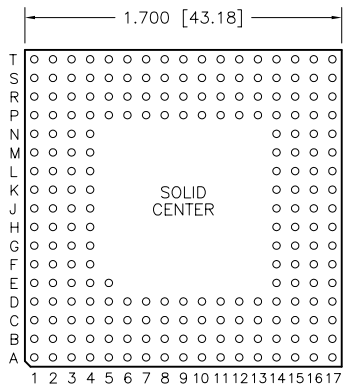
209 PINS
28



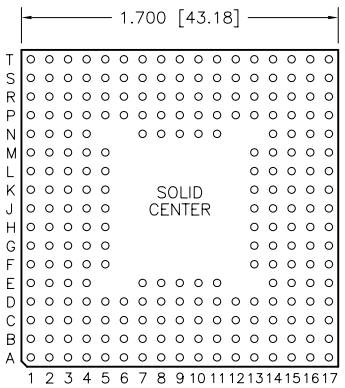
228 PINS
29



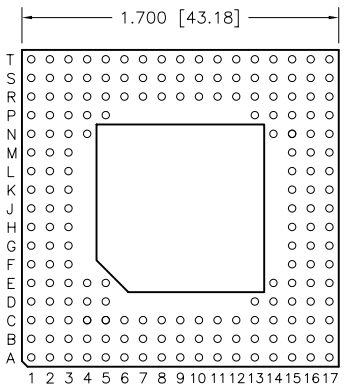
180 PINS
30



209 PINS
31



232 PINS
32



181 PINS
33

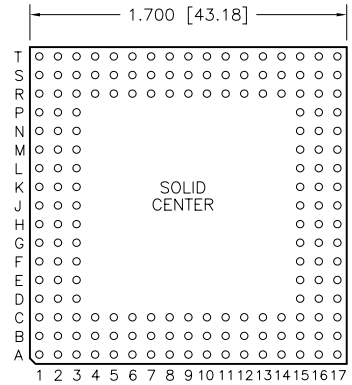
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

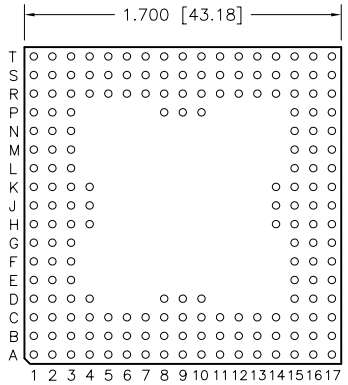
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

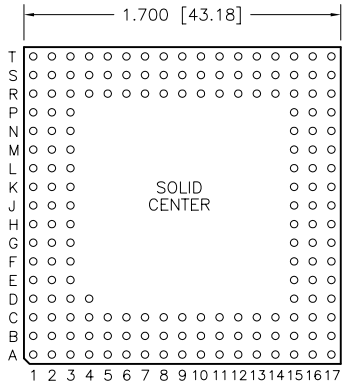
17 X 17



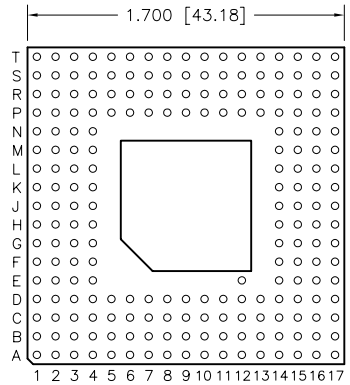
168 PINS
34



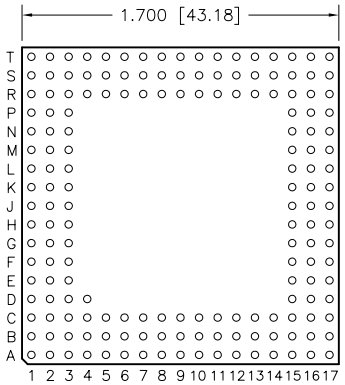
181 PINS
35



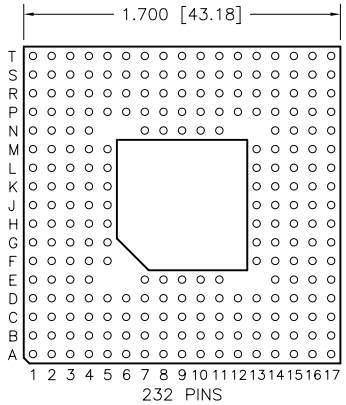
169 PINS
36



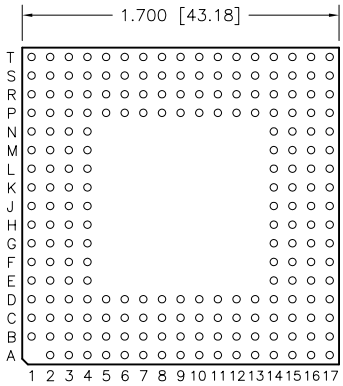
209 PINS
37



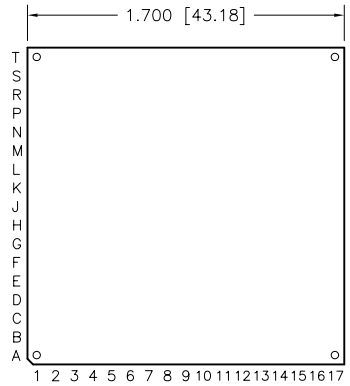
169 PINS
38



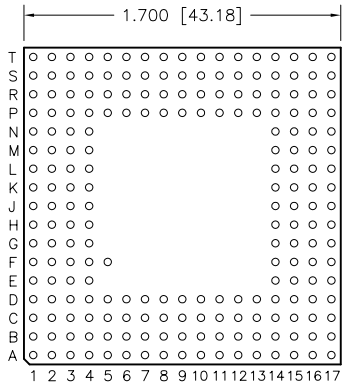
232 PINS
39



207 PINS
40



4 PINS
41



209 PINS
42

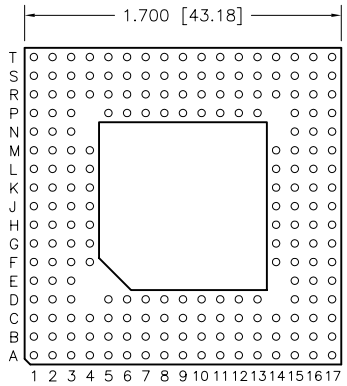
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

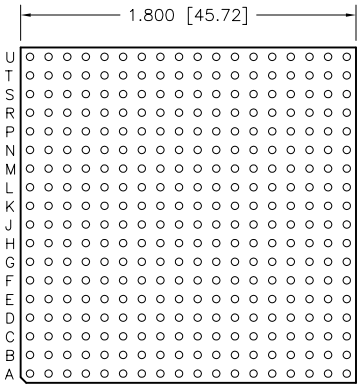
PGA SOCKET FOOTPRINTS

17 X 17

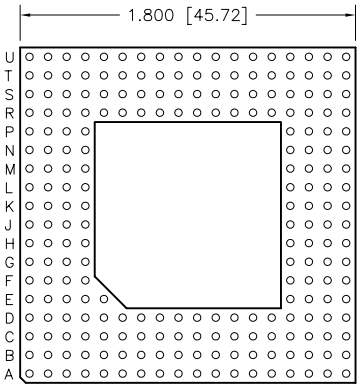


232 PINS
43

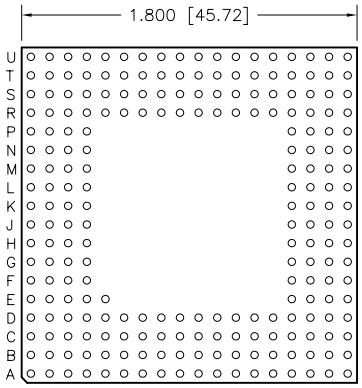
18 X 18



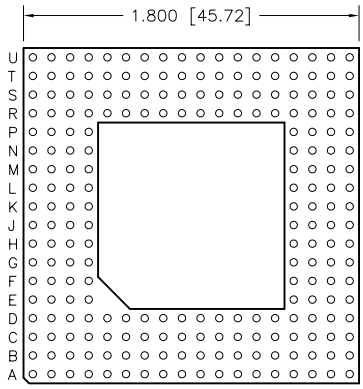
324 PINS
01



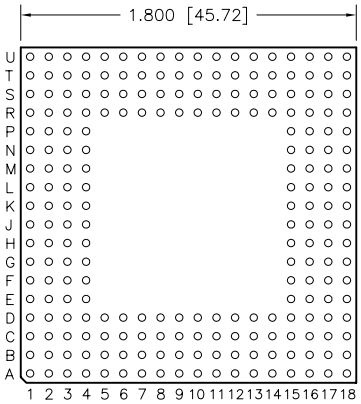
225 PINS
02



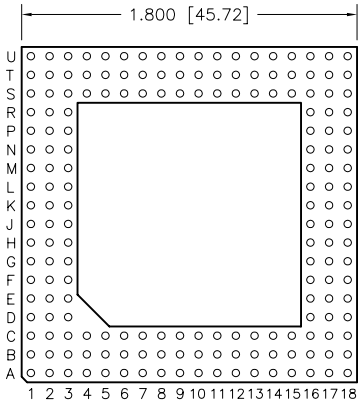
225 PINS
03



224 PINS
04



224 PINS
05



180 PINS
06

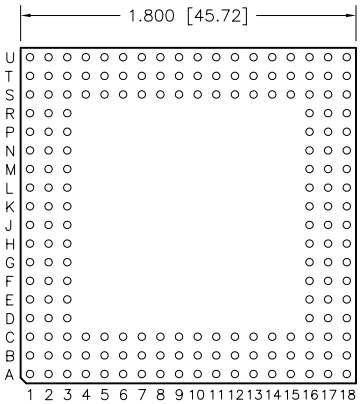
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

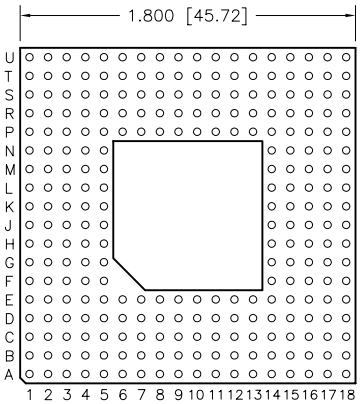
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

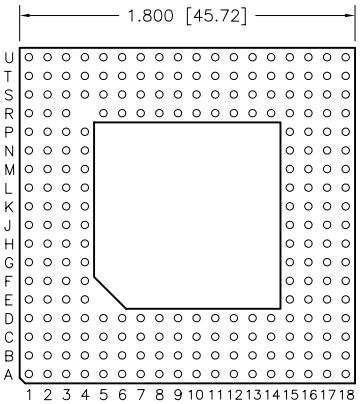
18 X 18



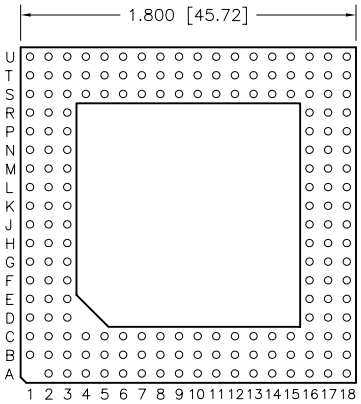
180 PINS
07



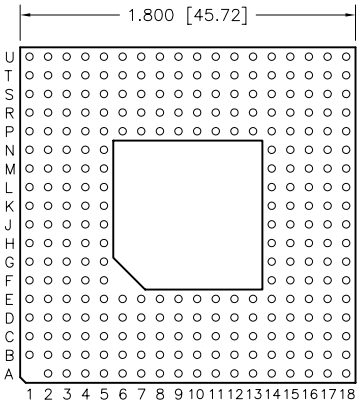
260 PINS
08



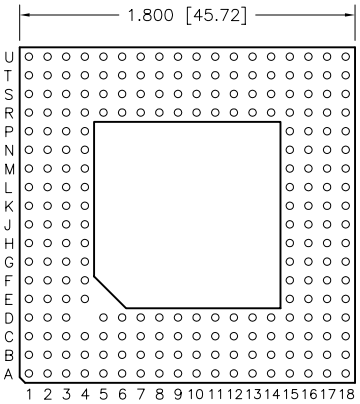
223 PINS
09



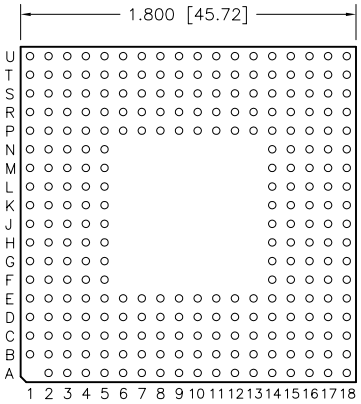
179 PINS
10



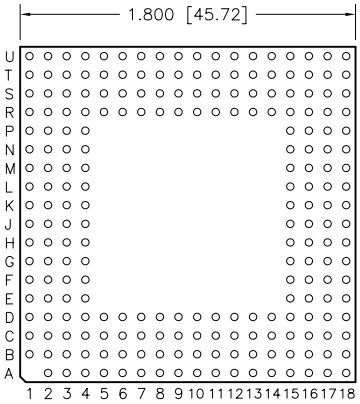
259 PINS
11



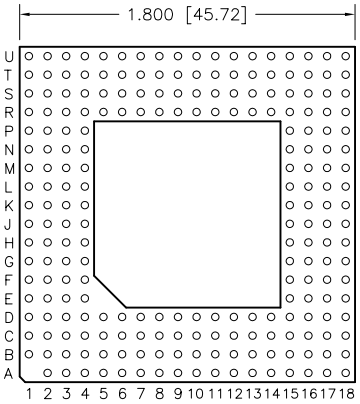
223 PINS
12



259 PINS
13



223 PINS
14



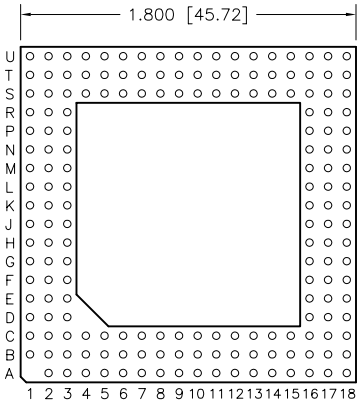
223 PINS
15

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

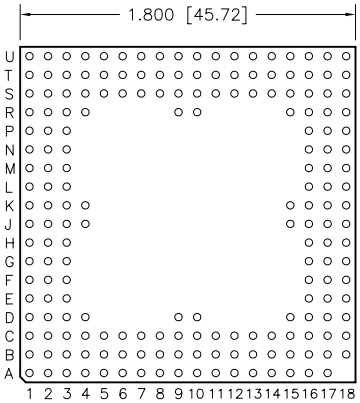
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

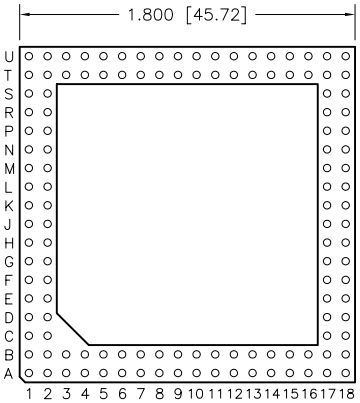
18 X 18



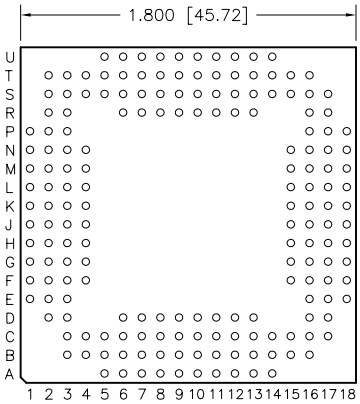
179 PINS
16



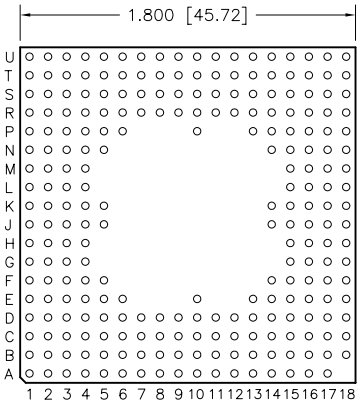
191 PINS
17



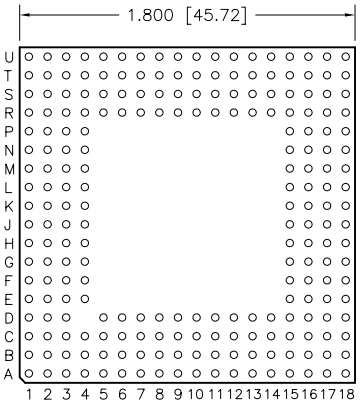
128 PINS
18



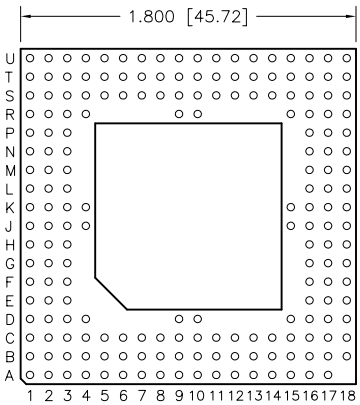
180 PINS
19



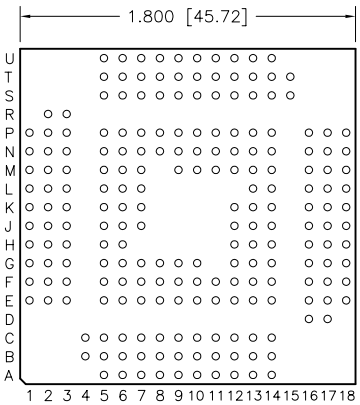
241 PINS
20



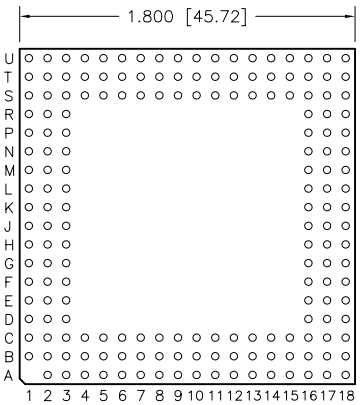
223 PINS
21



191 PINS
22



208 PINS
23



179 PINS
24

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

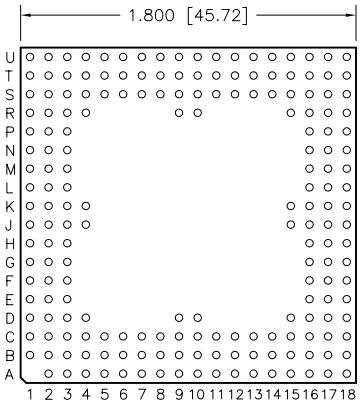
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

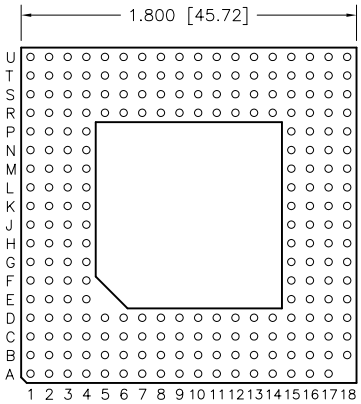
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

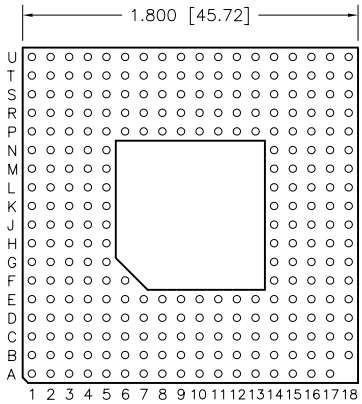
18 X 18



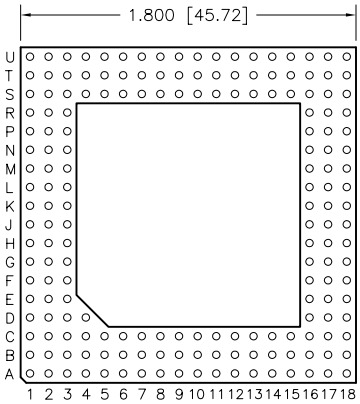
191 PINS
25



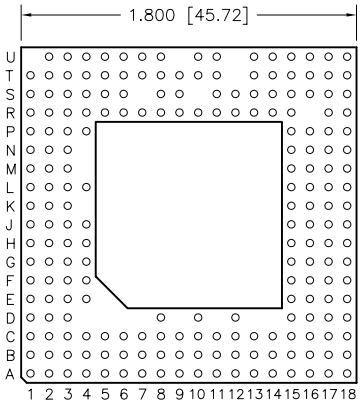
223 PINS
26



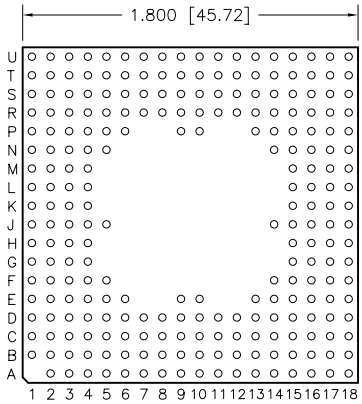
261 PINS
27



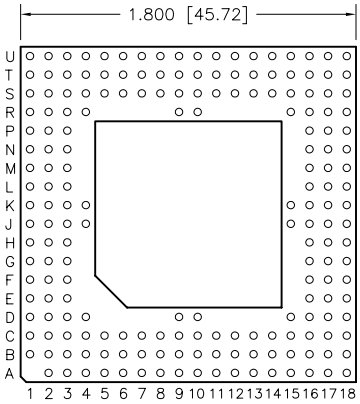
181 PINS
28



206 PINS
29



241 PINS
30



191 PINS
31

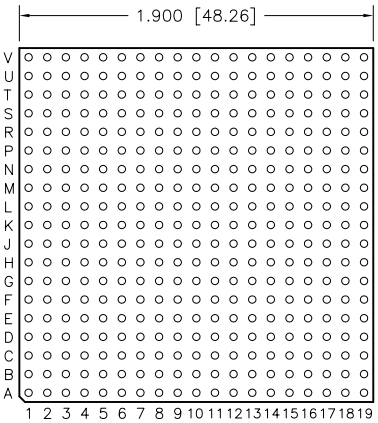
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

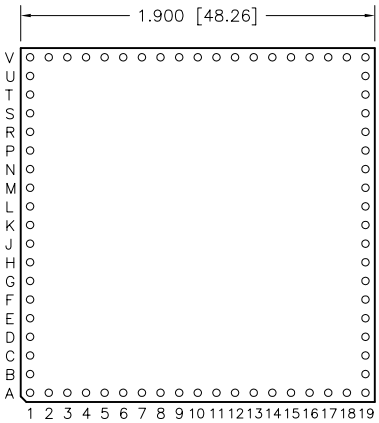
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

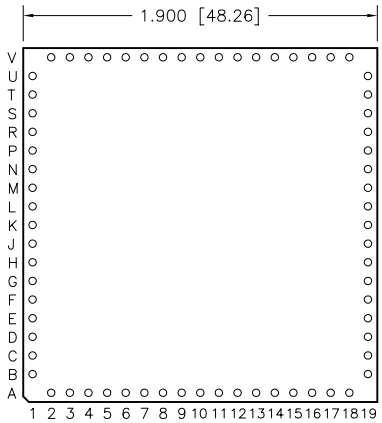
19 X 19



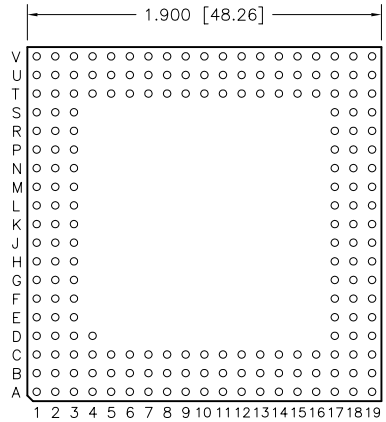
361 PINS
01



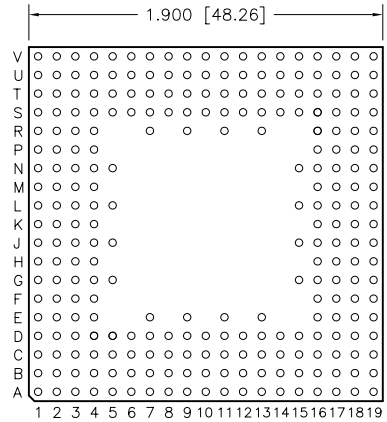
72 PINS
02



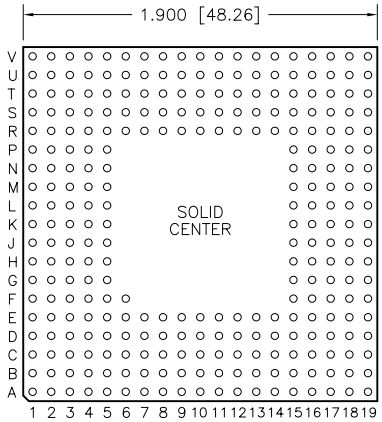
68 PINS
03



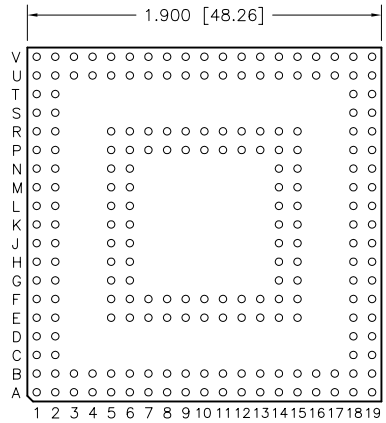
193 PINS
04



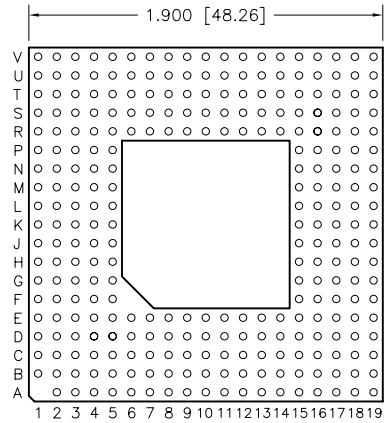
256 PINS
05



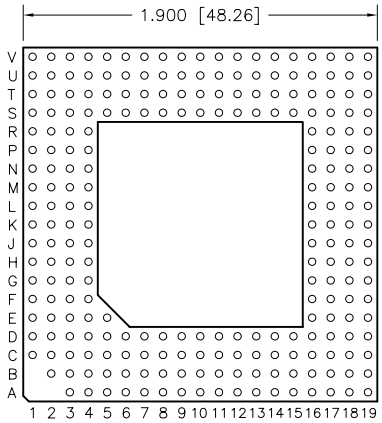
281 PINS
06



208 PINS
07



279 PINS
08



238 PINS
09

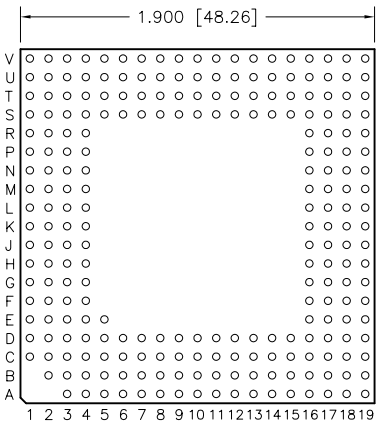
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

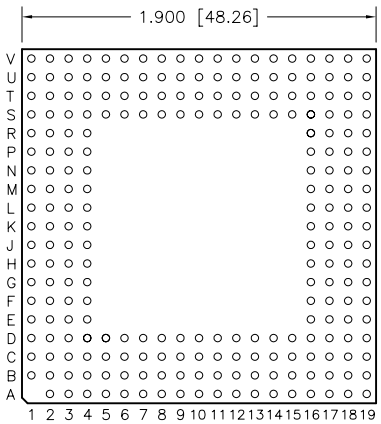
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

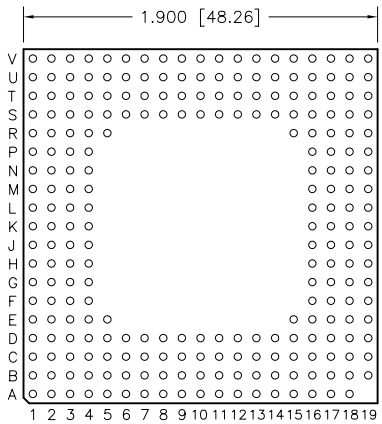
19 X 19



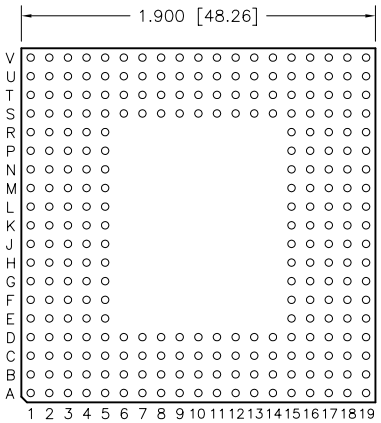
238 PINS
10



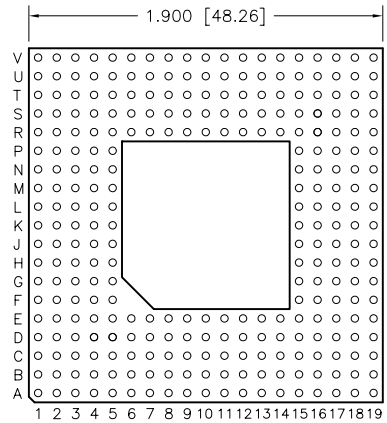
239 PINS
11



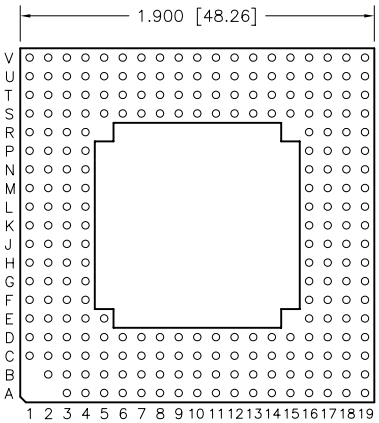
243 PINS
12



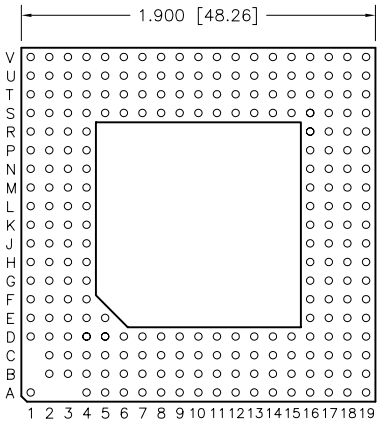
262 PINS
13



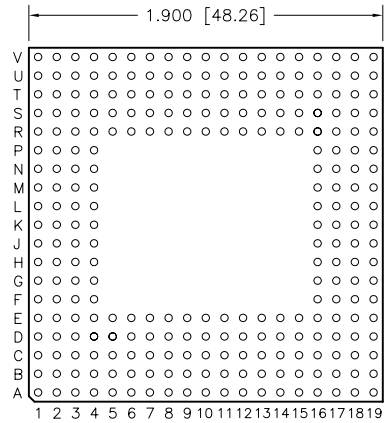
280 PINS
14



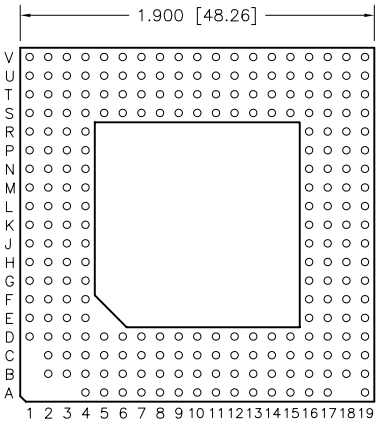
238 PINS
15



237 PINS
16



262 PINS
17



234 PINS
18

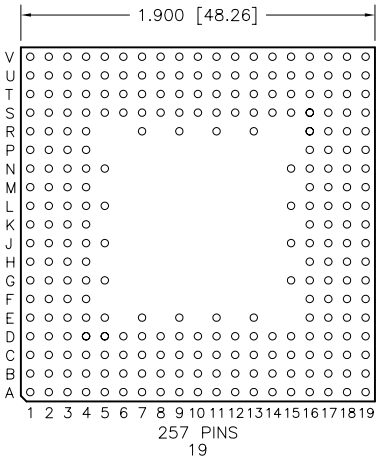
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

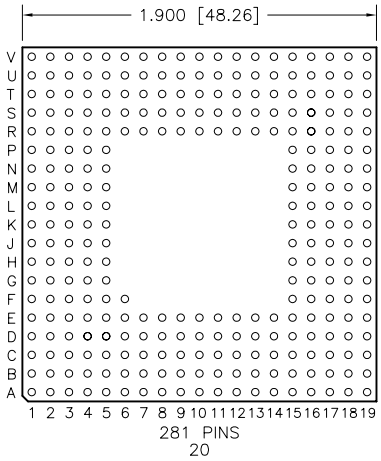
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

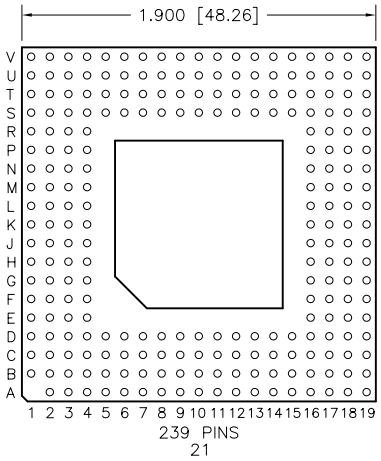
19 X 19



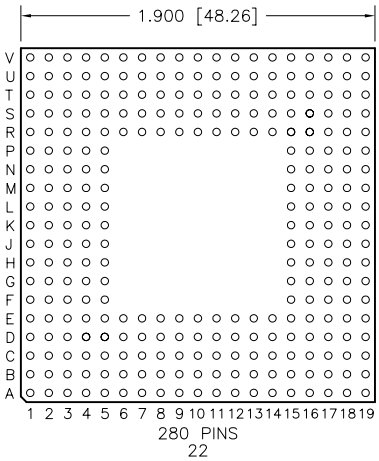
257 PINS
19



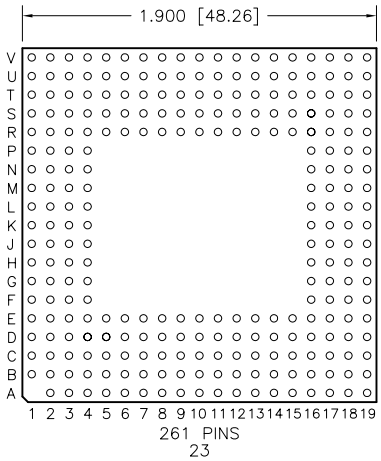
281 PINS
20



239 PINS
21



280 PINS
22



261 PINS
23

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

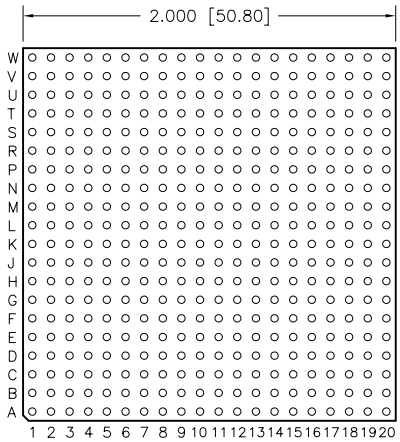
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

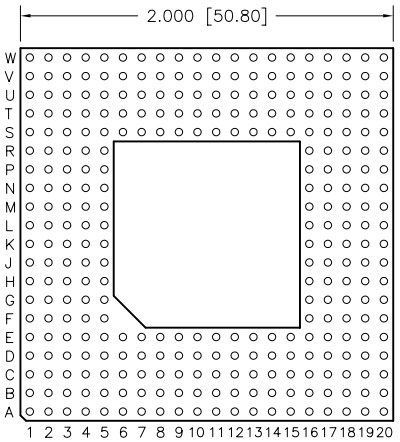
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

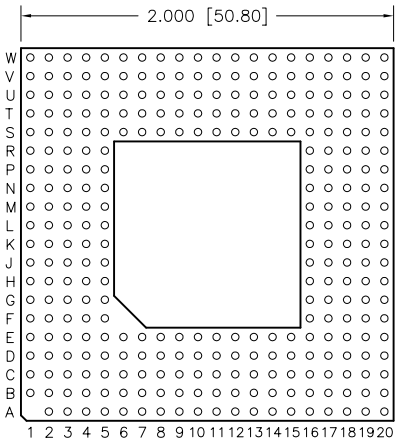
20 X 20



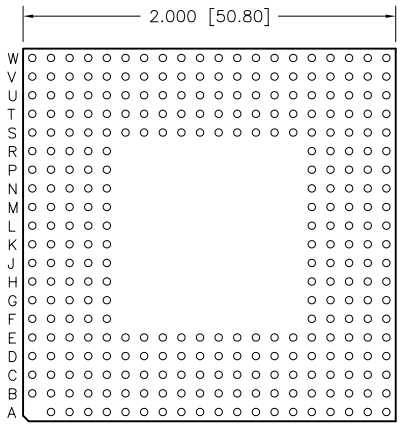
400 PINS
01



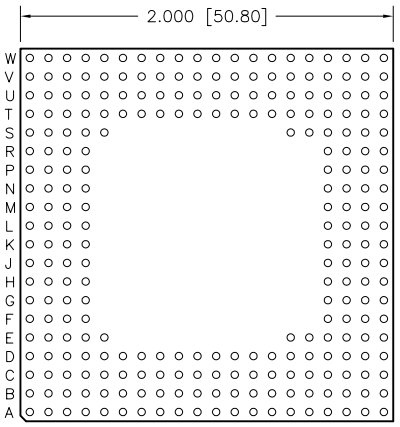
300 PINS
02



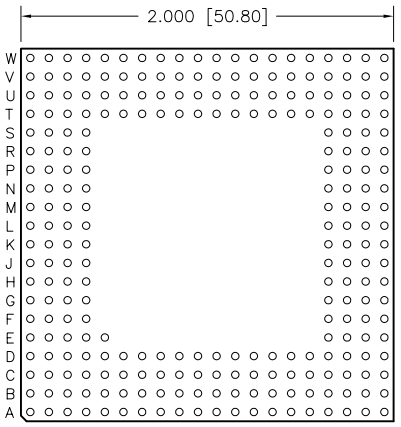
299 PINS
03



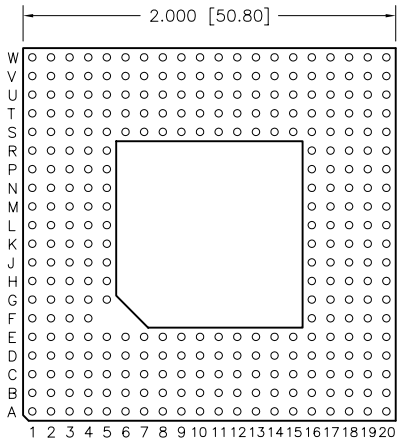
299 PINS
04



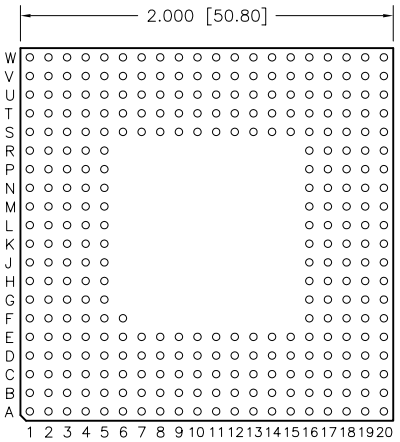
262 PINS
05



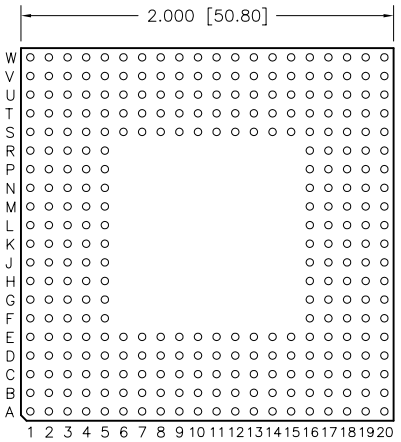
257 PINS
06



299 PINS
07



301 PINS
08



300 PINS
09

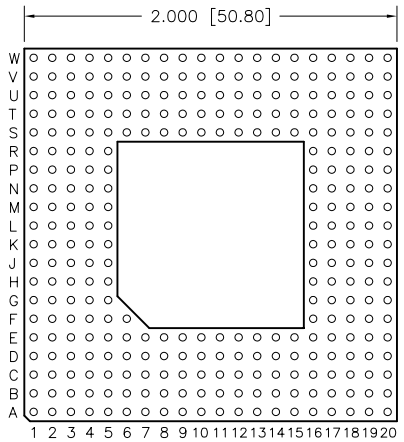
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

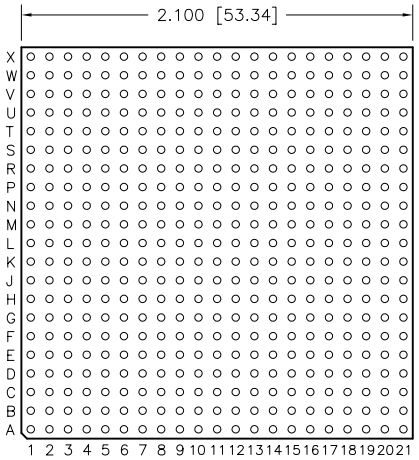
PGA SOCKET FOOTPRINTS

20 X 20

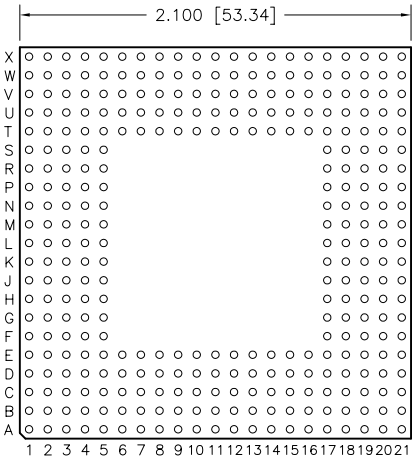


301 PINS
11

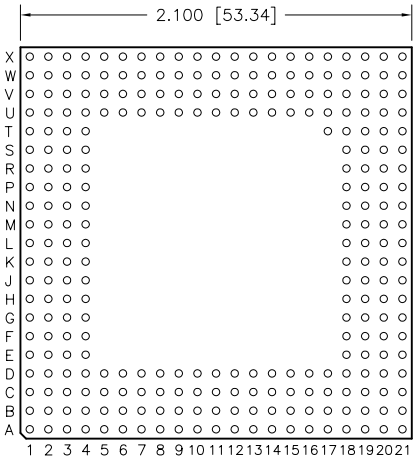
21 X 21



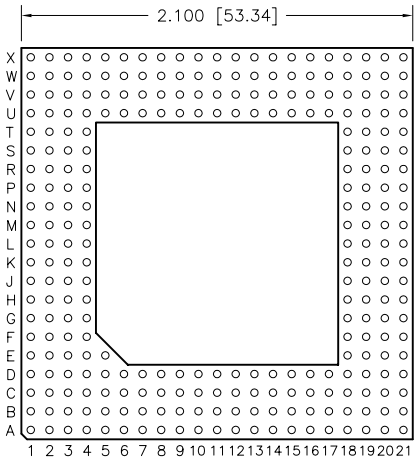
441 PINS
01



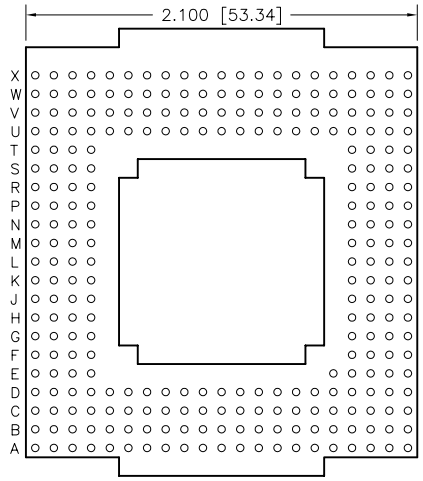
320 PINS
02



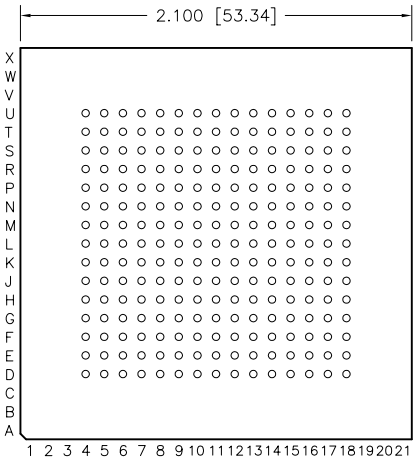
273 PINS
03



273 PINS
04



273 PINS
05



225 PINS
06

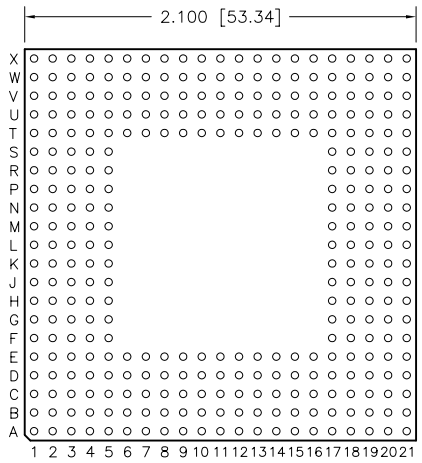
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

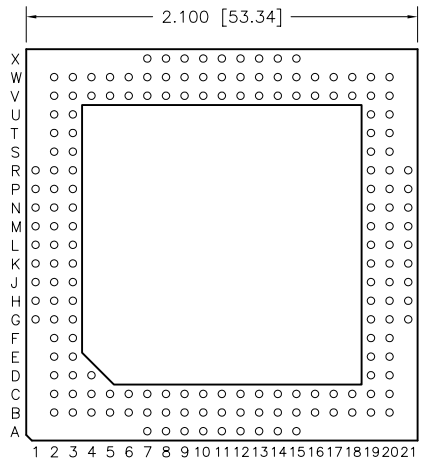
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

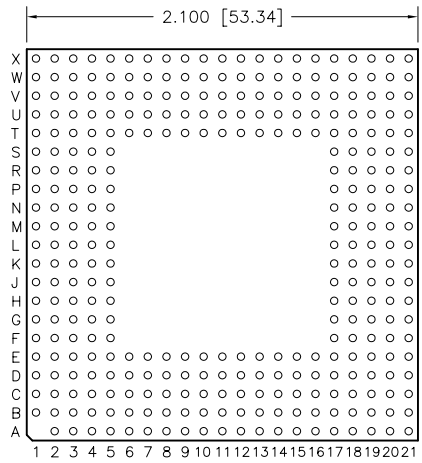
ANDON
INTERCONNECTION SPECIALISTS

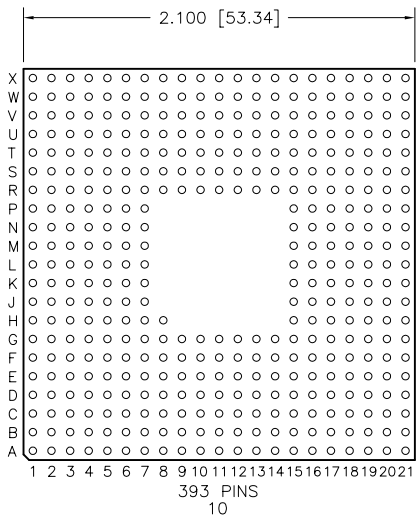
PGA SOCKET FOOTPRINTS

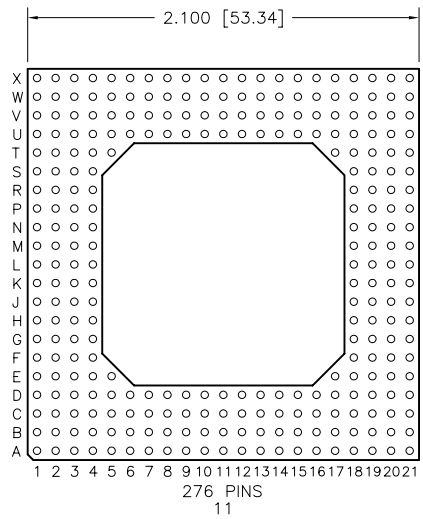
21 X 21

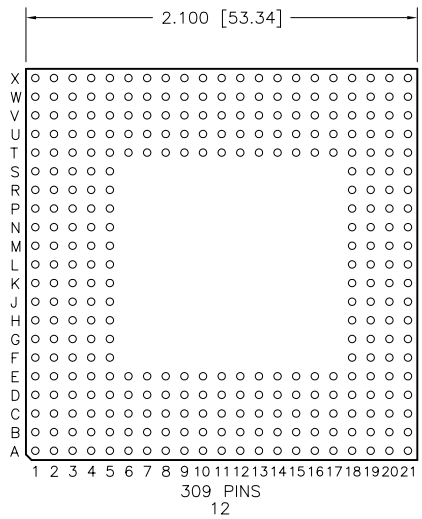




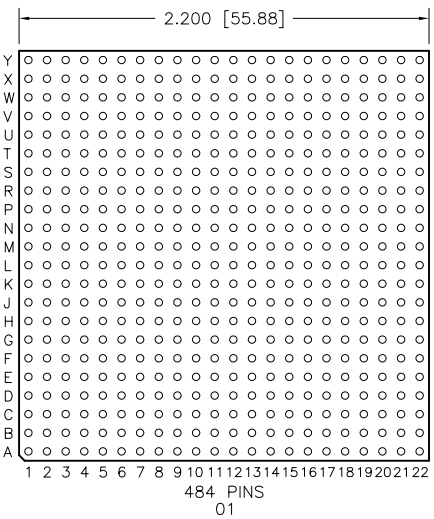


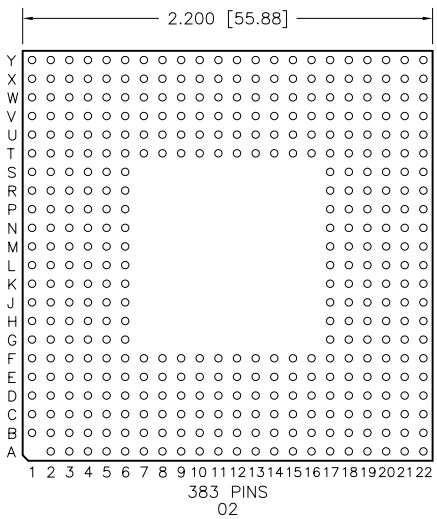






22 X 22





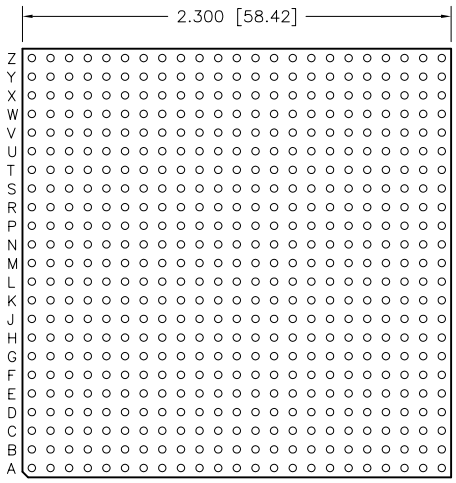
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

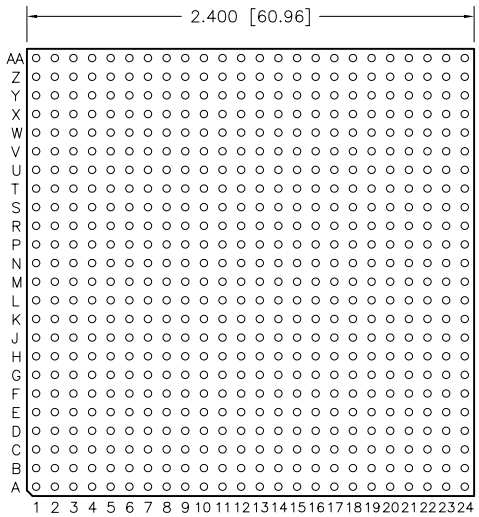
PGA SOCKET FOOTPRINTS

23 X 23

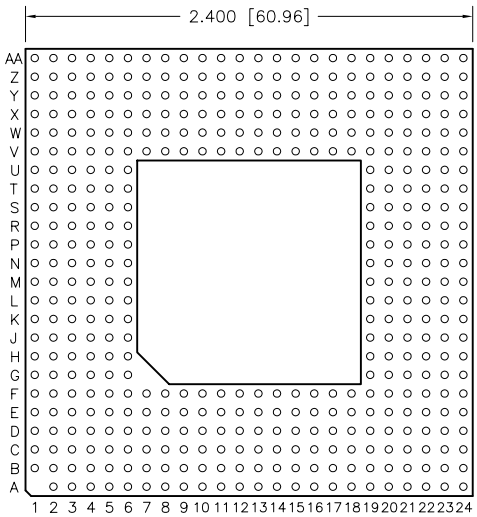


529 PINS
01

24 X 24



576 PINS
01



431 PINS
02

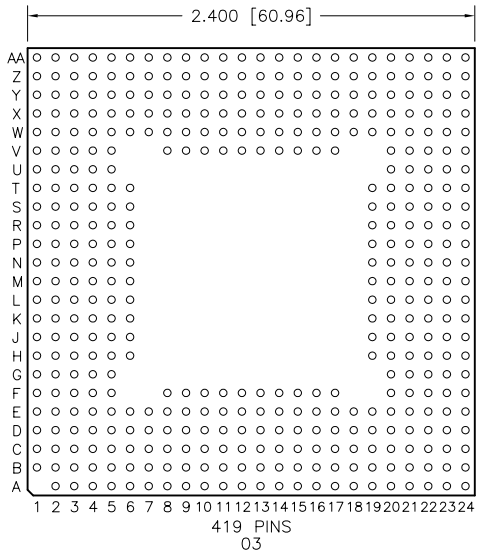
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

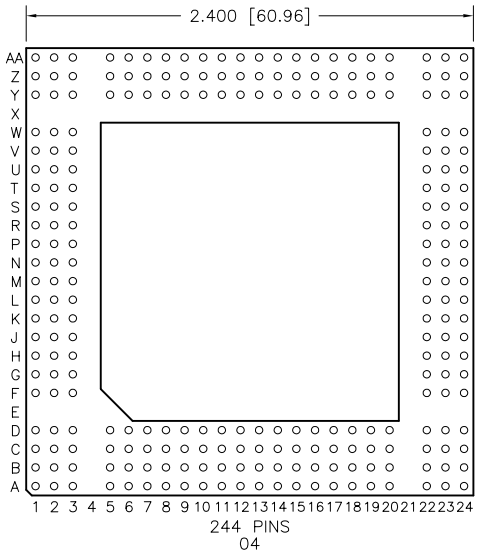
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

24 X 24

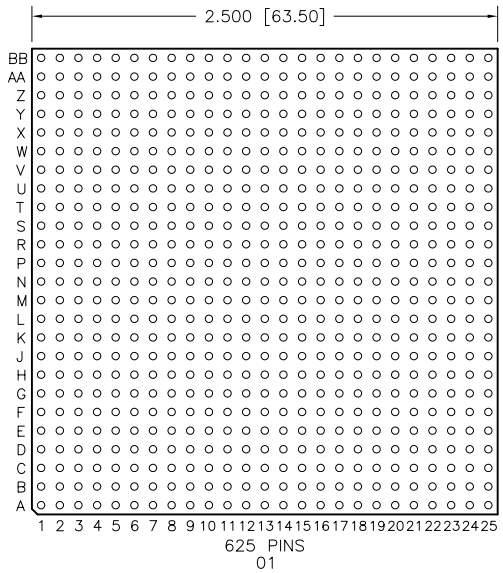


419 PINS
03

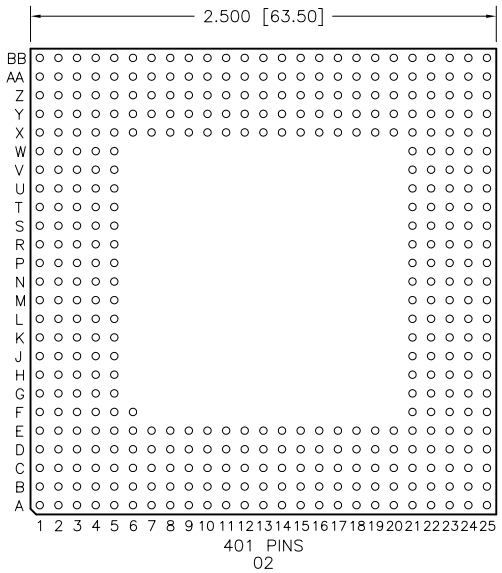


244 PINS
04

25 X 25



625 PINS
01



401 PINS
02

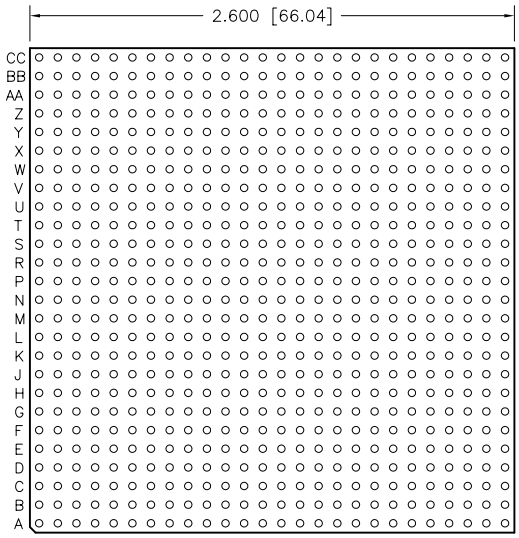
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

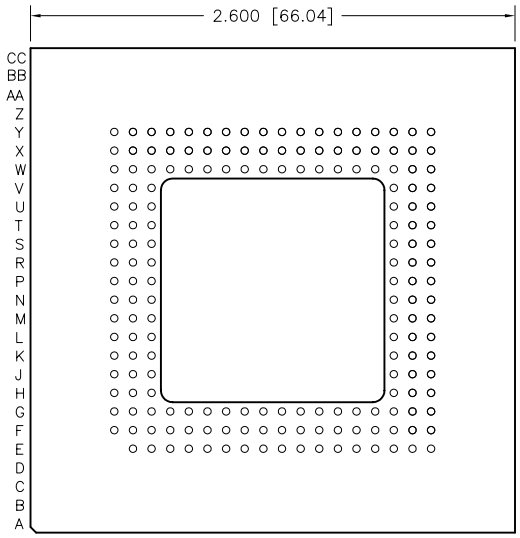
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

26 X 26



676 PINS
01



179 PINS
03

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

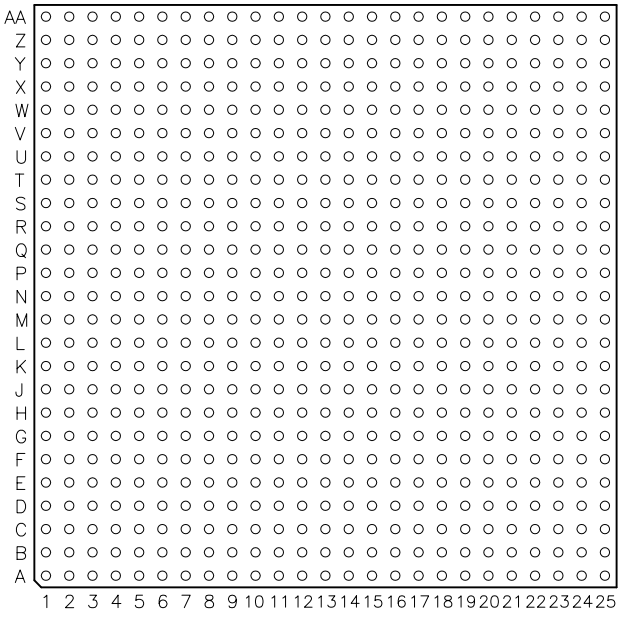
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

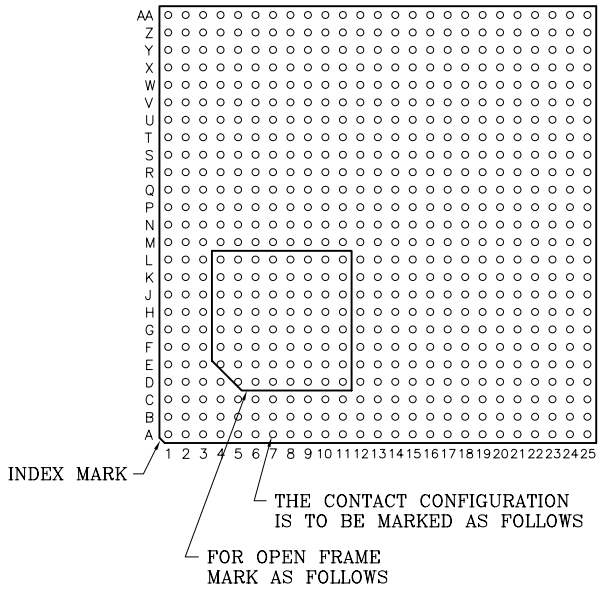
ANDON
INTERCONNECTION SPECIALISTS

PGA SOCKET FOOTPRINTS

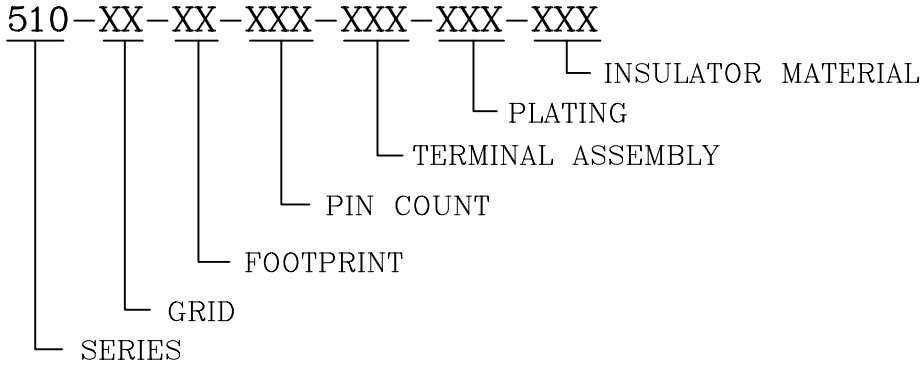
THE PIN GRID ARRAY FOOTPRINTS SHOWN IN THIS CATALOG REPRESENT OUR STANDARD CONFIGURATIONS. IF YOU REQUIRE A CUSTOM CONFIGURATION, PLEASE USE THE CUSTOM GRID PATTERN BELOW TO INDICATE YOUR SPECIFIC REQUIREMENTS BY MARKING THE CIRCLES AT THE DESIRED LOCATION OF EACH CONTACT (SEE EXAMPLE BELOW). ONCE COMPLETED, FILL OUT THE REST OF THE REQUIRED INFORMATION AND SEND A COPY. ANDON WILL RESPOND TO YOUR REQUEST AS SOON AS WE RECEIVE IT.



CUSTOM PGA
TOP VIEW



PART NUMBER ORDERING INFORMATION



CUSTOM GRID PATTERN SIZE

NUMBER OF PINS: PGA PIN DIAMETER: PIN LENGTH:

REQUIRED SOCKET QUANTITY:

YOUR NAME AND ADDRESS

COMPANY:	
NAME:	DIVISION:
ADDRESS 1:	ADDRESS 2:
CITY:	STATE: ZIP:
PHONE:	FAX:

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA SOCKETS
(IPGA)

HI-REL EXCLUSIVE SOCKET CONTACT DESIGN
(1.0 Ounce [28 Gram] Insertion)
(0.5 Ounces [14 Gram] Withdrawal)

ONLY FROM ANDON

This unique 4-finger, stamped and formed contact design solves an industry microprocessor to socket tolerance problem.
Contacts produced in-house, under strict quality control.
A larger entrance diameter to provide tolerance correction and to reduce microprocessor insertion forces.
Reduces damage to microprocessor pins and substrate.
Any pin configuration or footprint can be provided.
Prototypes in FR-4 insulators for fast delivery of ASICS.
Production quantities in Hi-Temp insulators suitable for SMD.

Series 585 Hi-Reliability IPGA Sockets (FR-4 insulator)
Series 586 Hi-Reliability IPGA Sockets (Hi-temp Molded)

Certified Test Reports Available.
Consult our factory for design and specification assistance.

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 585 HI-RELIABILITY INTERSTITIAL PGA SOCKET

FEATURES UNIQUE ANDON 1 OZ. INSERTION-CERTIFIED CONTACTS MADE IN HOUSE UNDER STRICT QUALITY CONTROL

FEATURES

- UNIQUE 1 OZ. INSERTION FORCE (PER PIN) CONTACTS EASES INSERTION AND WITHDRAWAL ASIC OF HIGH DENSITY DEVICES.
- CONTACT DESIGN PROVIDES .005 IN. [0.127 MM] GREATER POSITIONAL TOLERANCE CRITICAL IN HIGH PIN OUT DEVICE MATING.
- GLASS EPOXY SOCKET INSULATOR MATCHES THERMAL COEFFICIENT OF EXPANSION OF PCB.

TECHNICAL SPECIFICATIONS

MATERIAL DATA

INSULATOR	FR4 GLASS EPOXY .093 [2.36] THICK
TERMINAL	BRASS, PER ASTM-B16
CONTACT	BeCu, PER ASTM-B194

ELECTRICAL DATA

CURRENT RATING	1 AMP
CAPACITANCE	2 pF MAX.
INSULATION RESISTANCE	>50,000 MΩ
DIELECTRIC WITHSTANDING VOLTAGE	1000 VAC
OPERATING TEMPERATURES	-55°C TO +140°C

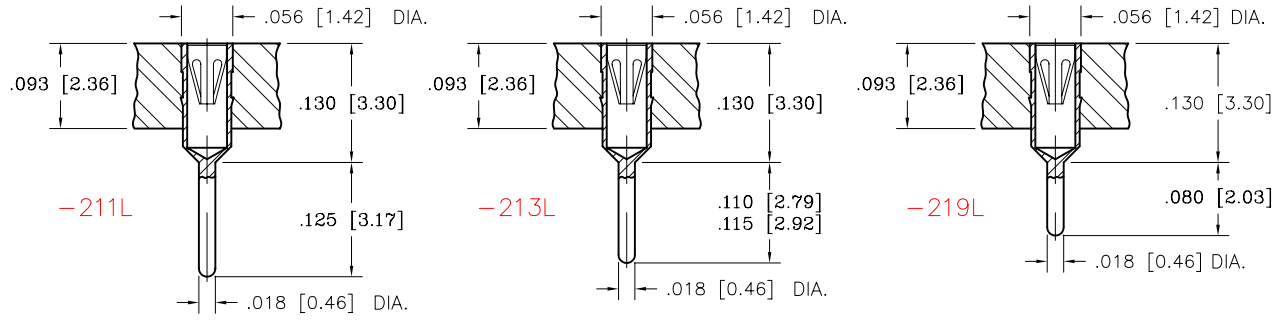
CONTACT FORCE

INSERTION FORCE	1.00 oz.
WITHDRAWAL FORCE	0.50 oz.

PLATING

P15	TERMINAL: GOLD 10µ IN. CONTACT: GOLD 30µ IN.
P17	TERMINAL: TIN-LEAD CONTACT: GOLD 30µ IN.
P29	TERMINAL: TIN-LEAD CONTACT: GOLD 10µ IN.

TERMINAL ASSEMBLY



ORDERING INFORMATION

585-XX-XX-XXX-XXXL-PXX-N10

- SERIES
- GRID
- * FOOTPRINT
- PIN COUNT
- TERMINAL ASSEMBLY STYLE
- PLATING TYPE

* CONSULT FACTORY FOR OTHER FOOTPRINTS NOT SHOWN

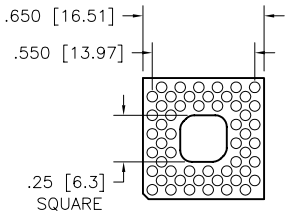
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

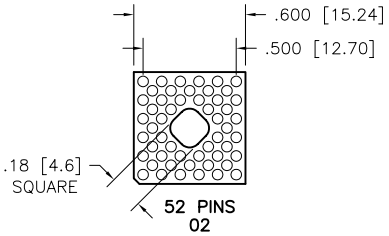
ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

6 X 6

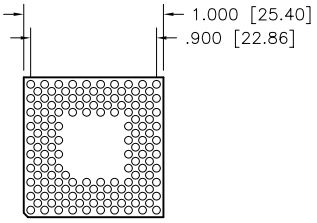


54 PINS
01



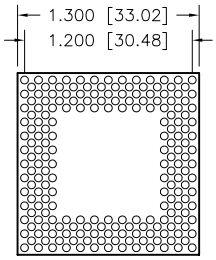
52 PINS
02

10 X 10



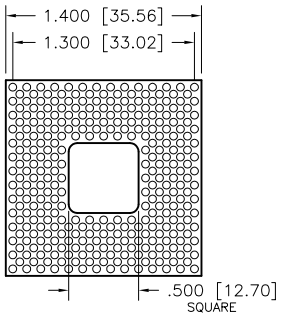
141 PINS
01

13 X 13

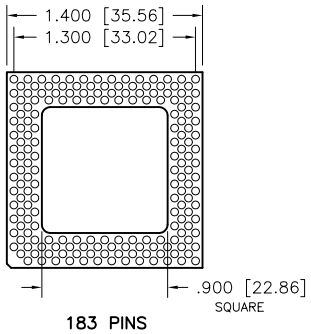


200 PINS
02

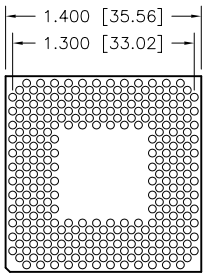
14 X 14



304 PINS
01

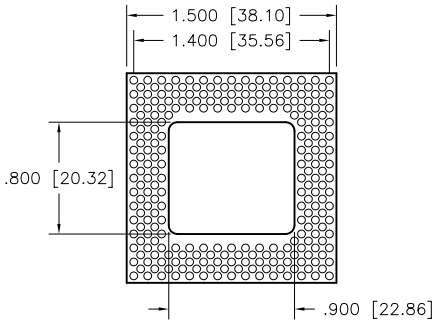


183 PINS
02



276 PINS
03

15 X 15



243 PINS
01

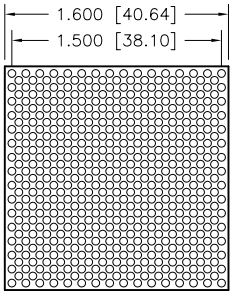
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

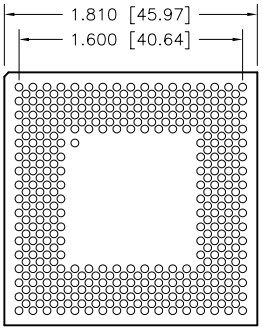
INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

16 X 16

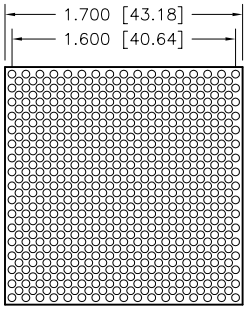


481 PINS
01

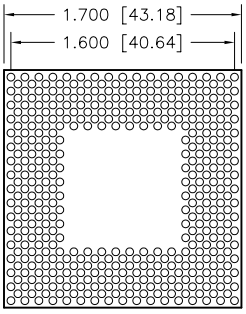
17 X 17



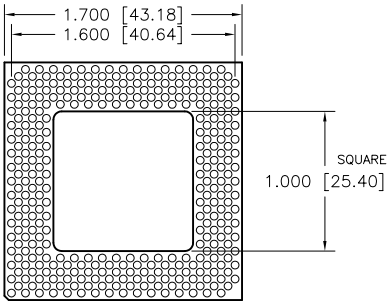
365 PINS
01



545 PINS
02

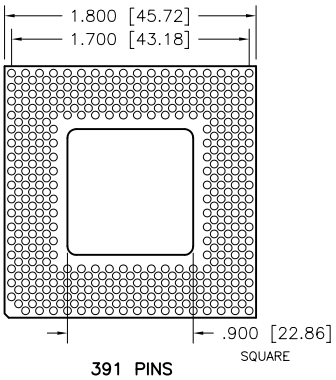


400 PINS
03

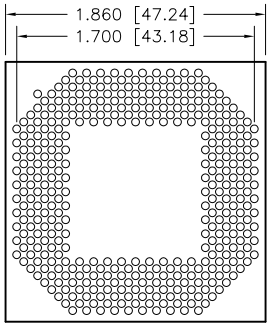


321 PINS
04

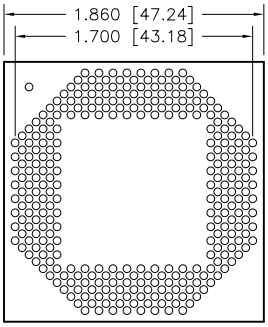
18 X 18



391 PINS
01



369 PINS
02



293 PINS
03

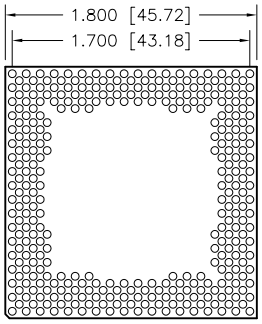
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

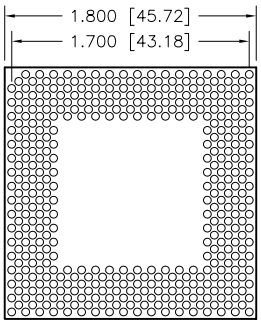
ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

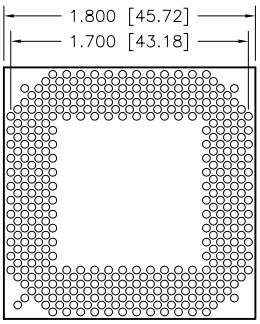
18 X 18



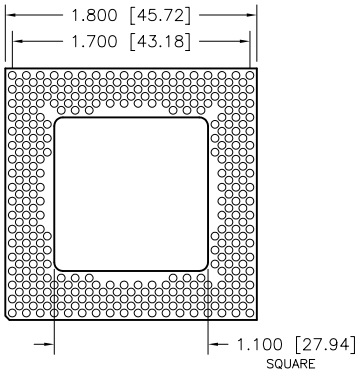
325 PINS
04



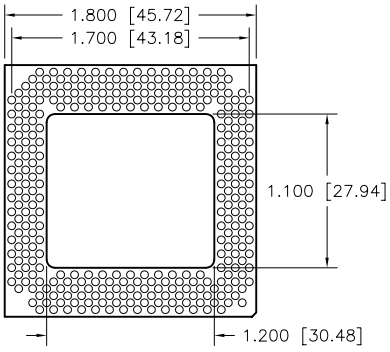
391 PINS
05



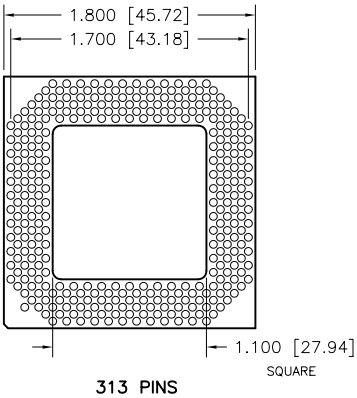
361 PINS
06



325 PINS
07

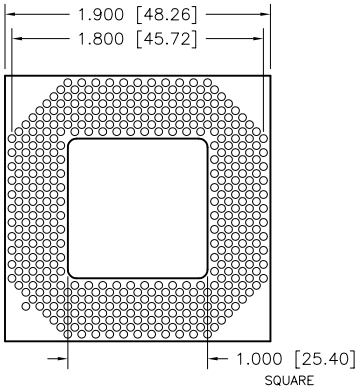


305 PINS
08

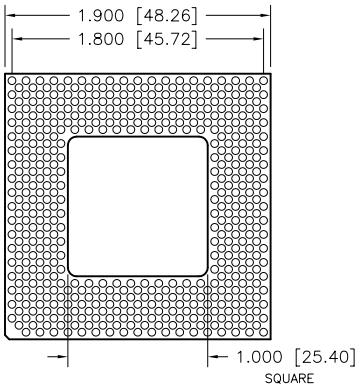


313 PINS
09

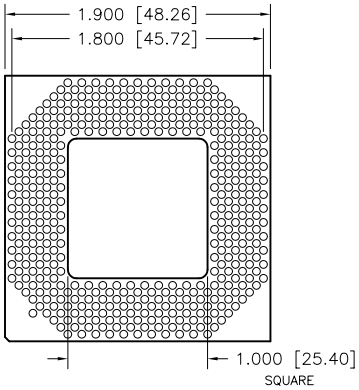
19 X 19



401 PINS
01



463 PINS
02



401 PINS
03

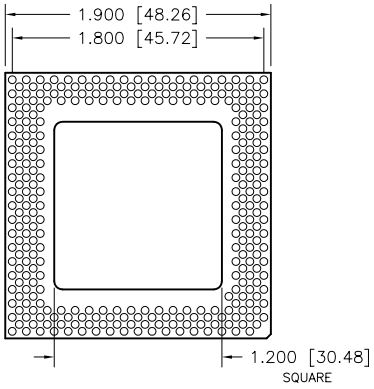
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

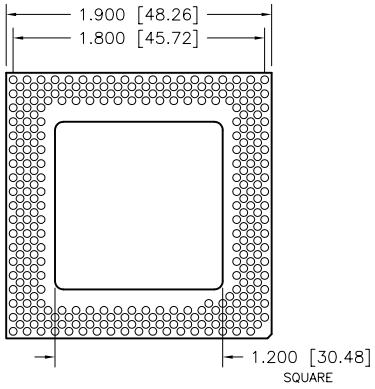
ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

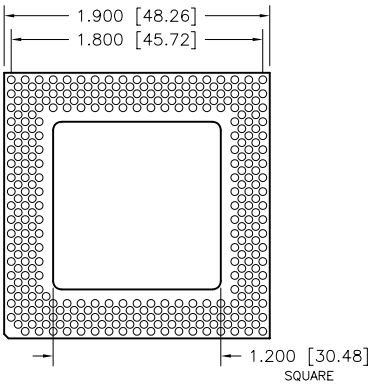
19 X 19



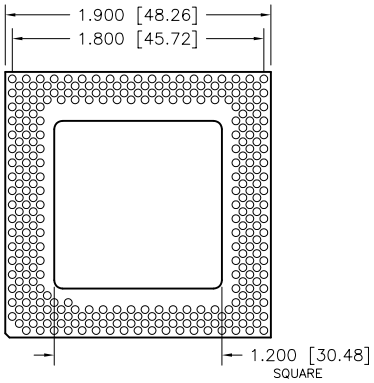
294 PINS
04



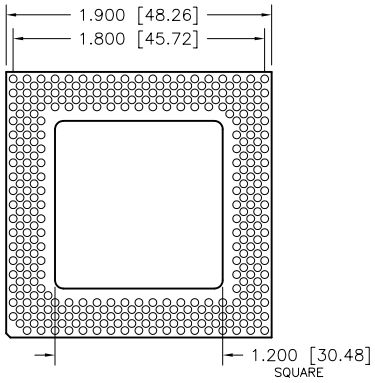
296 PINS
05



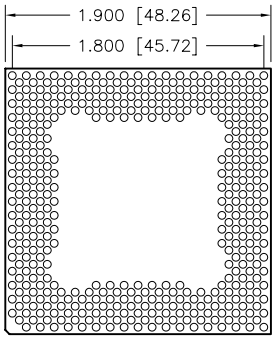
320 PINS
06



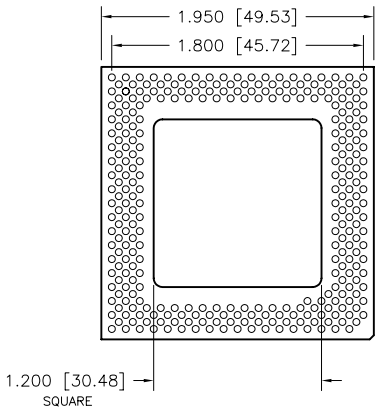
296 PINS
07



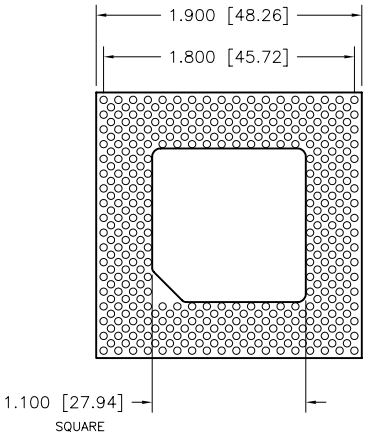
321 PINS
08



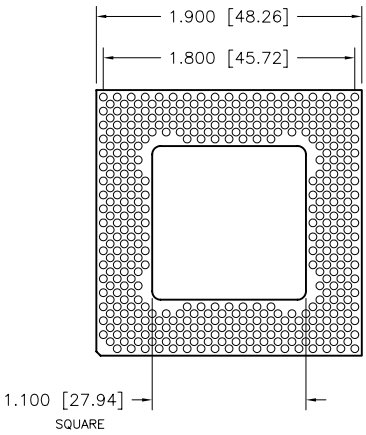
403 PINS
09



296 PINS
10



504 PINS
11



403 PINS
12

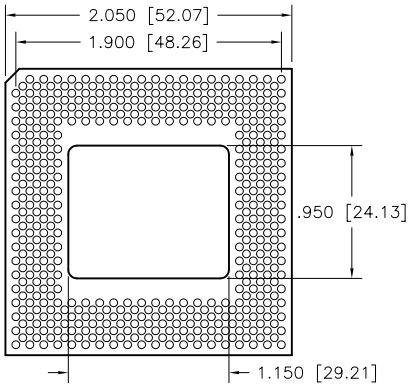
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

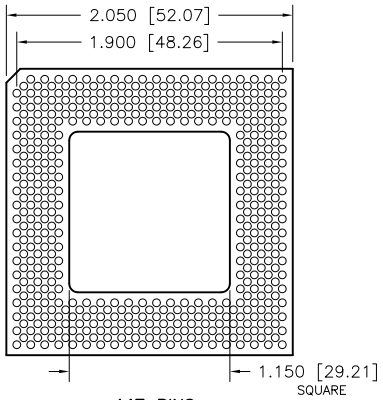
ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

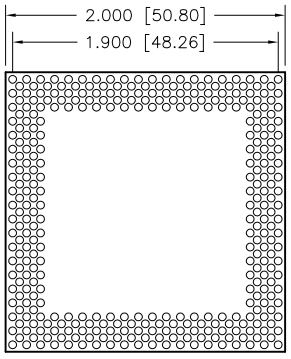
20 X 20



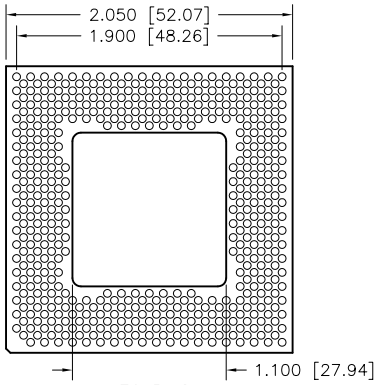
447 PINS
01



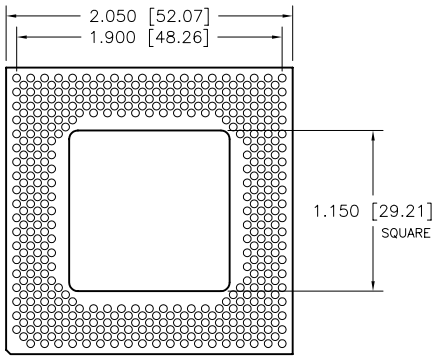
447 PINS
02



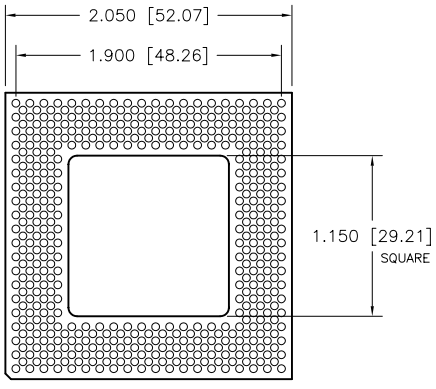
340 PINS
03



476 PINS
04



411 PINS
05



448 PINS
06

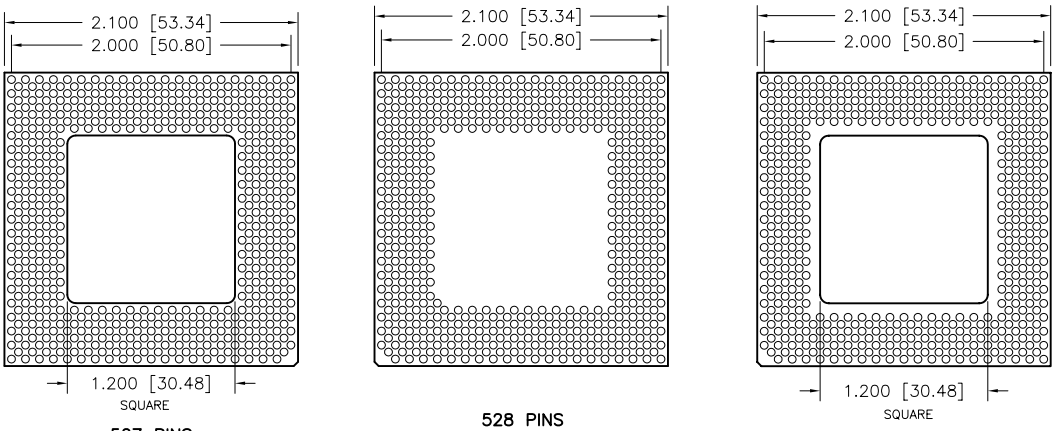
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

21 X 21

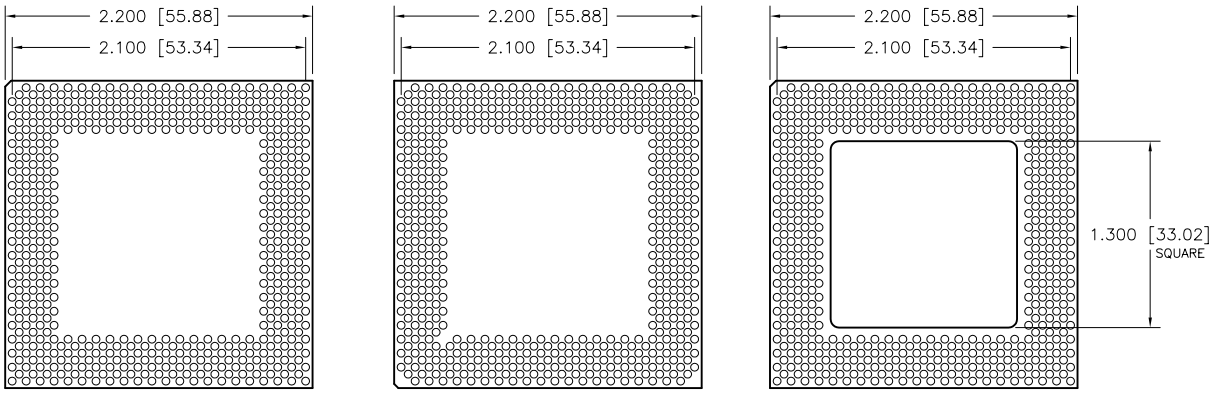


527 PINS
01

528 PINS
02

475 PINS
03

22 X 22

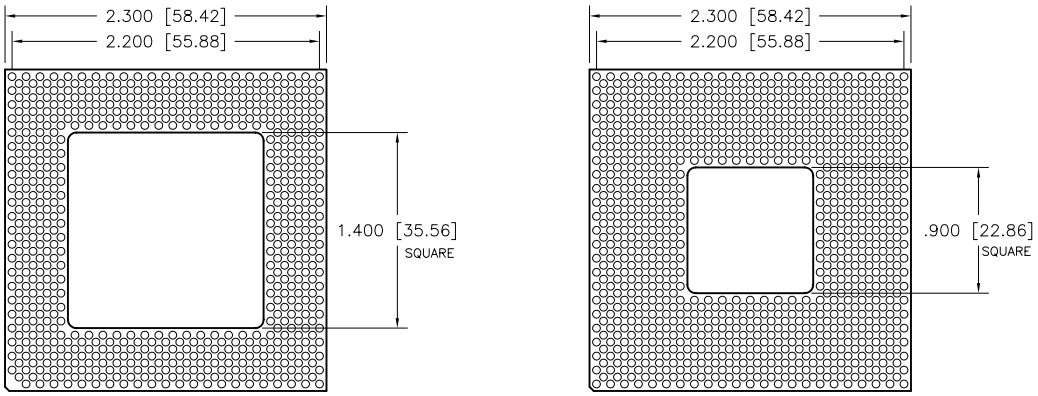


503 PINS
01

499 PINS
02

503 PINS
03

23 X 23



591 PINS
01

832 PINS
02

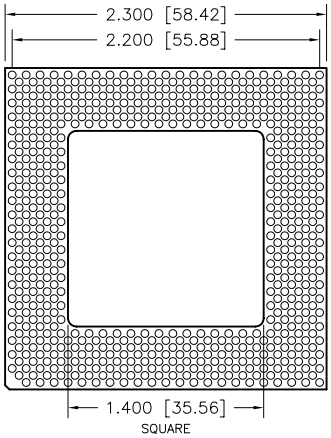
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

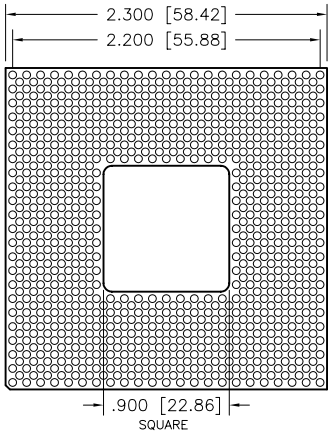
ANDON
INTERCONNECTION SPECIALISTS

INTERSTITIAL PGA FOOTPRINTS
.050 IN. [1.27 MM] X .100 IN. [2.54 MM] GRID

23 X 23



591 PINS
01



832 PINS
02

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

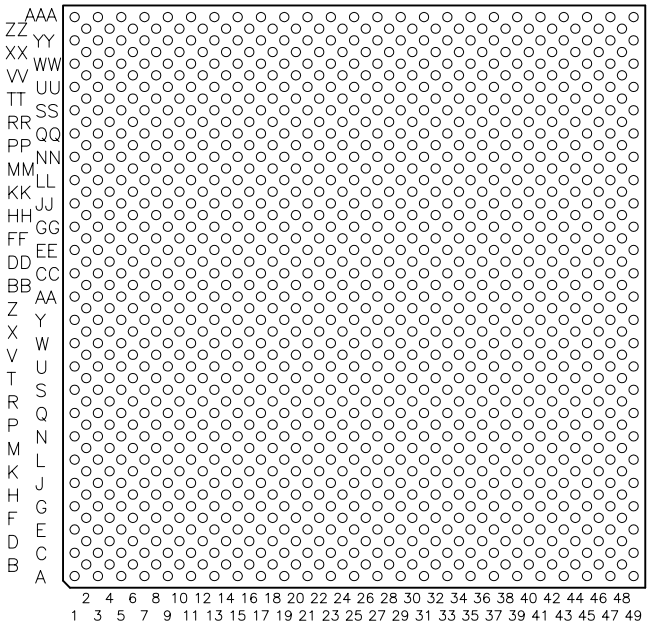
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

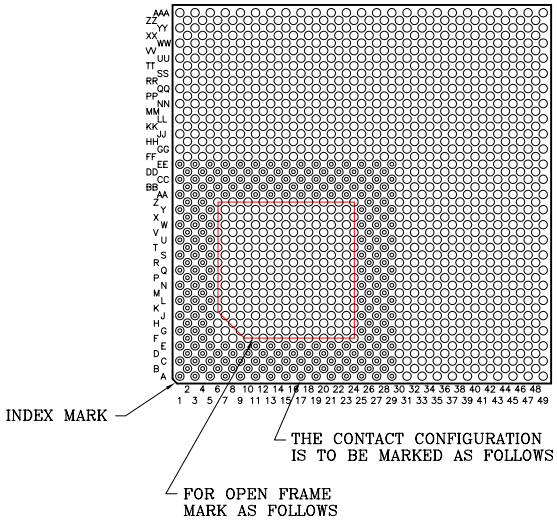
ANDON
INTERCONNECTION SPECIALISTS

IPGA SOCKET FOOTPRINTS

THE PIN GRID ARRAY FOOTPRINTS SHOWN IN THIS CATALOG REPRESENT OUR STANDARD CONFIGURATIONS. IF YOU REQUIRE A CUSTOM CONFIGURATION, PLEASE USE THE CUSTOM GRID PATTERN BELOW TO INDICATE YOUR SPECIFIC REQUIREMENTS BY MARKING THE CIRCLES AT THE DESIRED LOCATION OF EACH CONTACT (SEE EXAMPLE BELOW). ONCE COMPLETED, FILL OUT THE REST OF THE REQUIRED INFORMATION AND SEND A COPY. ANDON WILL RESPOND TO YOUR REQUEST AS SOON AS WE RECEIVE IT.



CUSTOM IPGA
TOP VIEW



PART NUMBER ORDERING INFORMATION

585–XX–XX–XXX–XXXL–XXX–XXX

- 585 – SERIES
- XX – GRID
- XX – FOOTPRINT
- XXX – PIN COUNT
- XXXL – TERMINAL ASSEMBLY
- XXX – PLATING
- XXX – INSULATOR MATERIAL

CUSTOM GRID PATTERN SIZE

NUMBER OF PINS: PGA PIN DIAMETER: PIN LENGTH:

REQUIRED SOCKET QUANTITY:

YOUR NAME AND ADDRESS

COMPANY:	
NAME:	DIVISION:
ADDRESS 1:	ADDRESS 2:
CITY:	STATE: ZIP:
PHONE:	FAX:

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

BGA
BALL GRID ARRAY
SOCKETS AND ADAPTERS

Andon's new BGA Socket and Adapter System can efficiently replace semiconductors without any risk of damaging the expensive PCB which has many other expensive components already assembled.

There is a solution to the inherent BGA assembly problems.

A BGA can be soldered onto an adapter with pins for plugging into a socket. The socket is mounted onto a PCB with thru-hole pins or surface-mount pins soldered in the conventional manner.

The adapter is approximately the same size as the BGA. Soldering the BGA to a smaller surface area of the adapter as compared to soldering to a large area of a PCB is more efficient and cost effective. Any re-work can be better facilitated as the de-soldering of a smaller surface area will reduce any risk of damage to an expensive BGA, or multi-layer PGA.

The BGA adapter socket has a reduced height and minimum length pins to improve electrical characteristics of the interconnection as compared to the larger PGA's.

The manufacturing process control in the assembly of like size BGA's and adapters will reduce rework costs and risk of damage to expensive PCB's and BGA's. Also, assuring better definable production output with less down time.

Andon has developed the capability to provide users of BGA's with adapters and sockets in any footprint and terminal/socket configuration.

Socket contacts are produced in-house under strict Qualitity Control to provide specific contact forces.

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

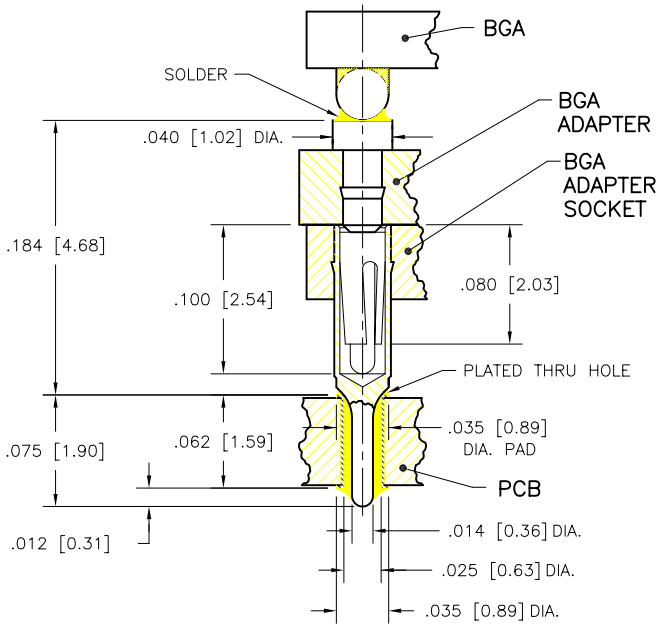
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

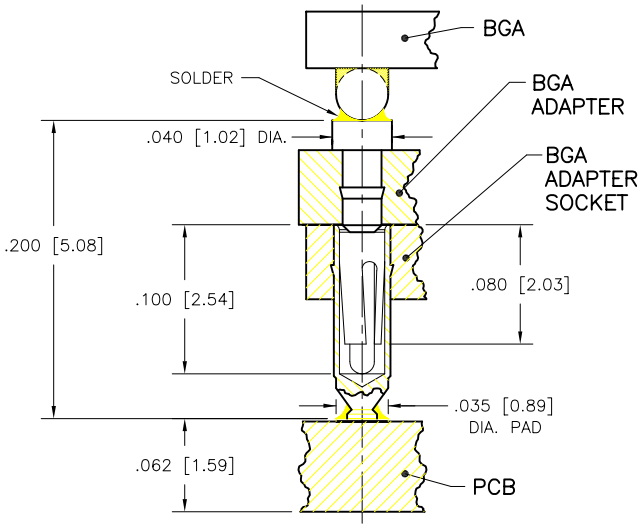
SERIES 10

BGA SOCKETS/ADAPTERS
BALL GRID ARRAY SOCKETING SYSTEM

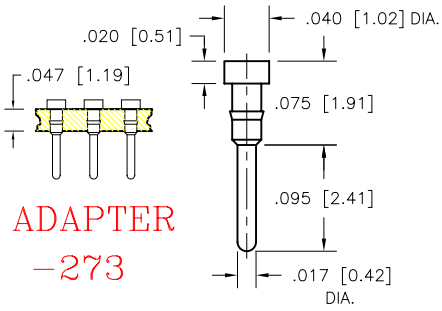
BALL GRID ARRAY SOCKETING ASSEMBLY



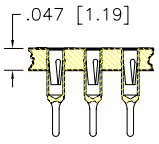
THRU HOLE



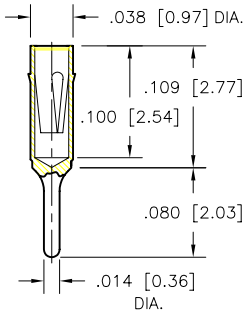
SURFACE MOUNT

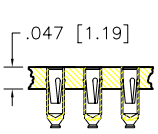


ADAPTER
-273

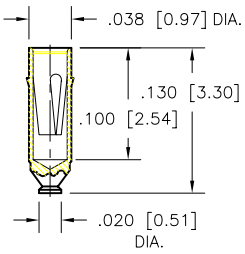


SOCKET
-274K





SM
SOCKET
-281K



TECHNICAL SPECIFICATIONS

MATERIAL	
INSULATOR:	FR-4 LAMINATE U.L. RATED 94V-0
TERMINAL:	BRASS PLATED TIN-LEAD
CONTACT:	BeCu PLATED GOLD
ADAPTER:	BRASS PLATED TIN-LEAD OR GOLD

ORDERING INFORMATION

10-XX-XX-XXX-XXX-XXX-N10

- SERIES
- GRID
- FOOTPRINT
- NO. OF PINS
- PLATING:
  - P31 SOCKET
  - TL ADAPTER
  - G04 GOLD ADAPTER
  - OTHER PLATINGS AVAILABLE
- 273 ADAPTER
- 274K SOCKET
- 281K SOCKET

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

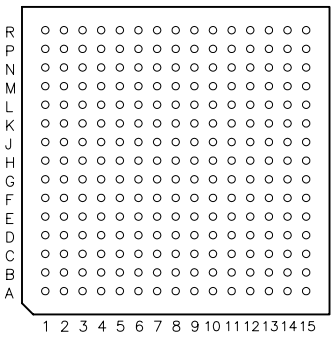
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

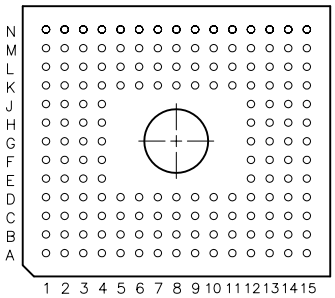
BGA ADAPTOR & SOCKET FOOTPRINTS

.050 [1.27] PITCH BGA SOCKET AND ADAPTOR FOOTPRINTS

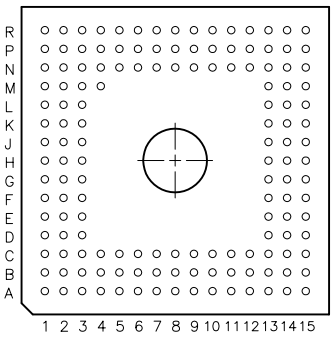
15 X 15



225 PINS
01

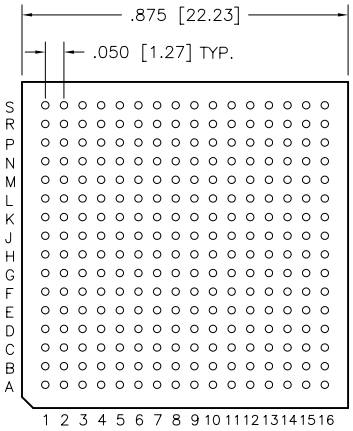


160 PINS
02

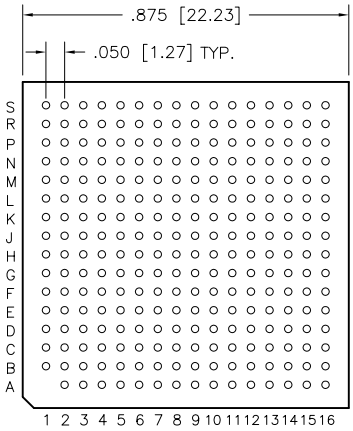


145 PINS
03

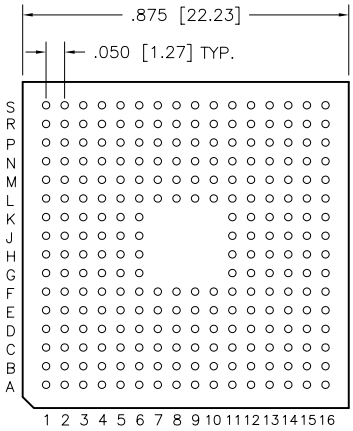
16 X 16



256 PINS
01

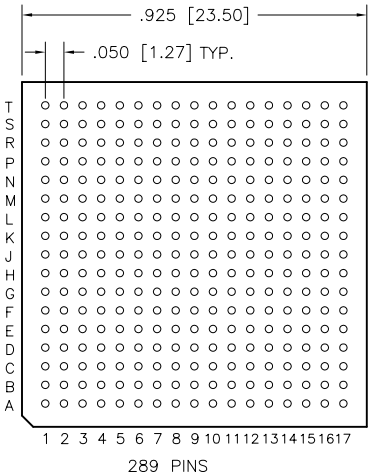


255 PINS
02

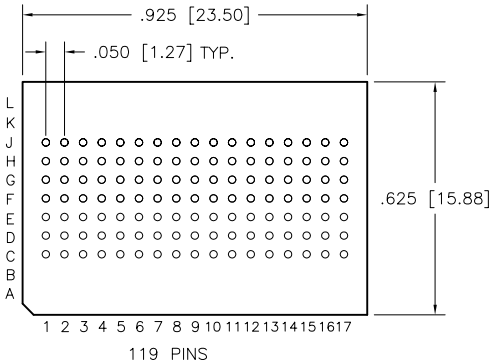


240 PINS
03

17 X 17



289 PINS
01



119 PINS
02

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

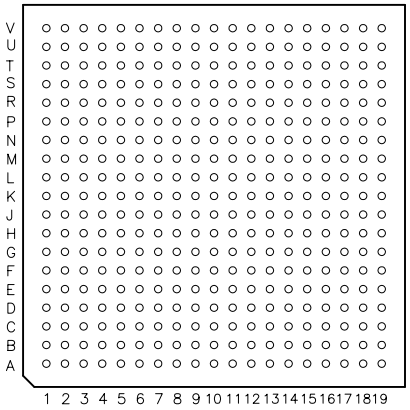
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

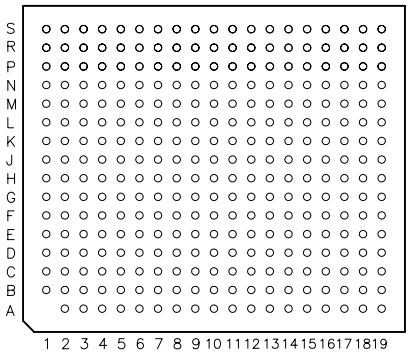
BGA ADAPTOR & SOCKET FOOTPRINTS

.050 [1.27] PITCH BGA SOCKET AND ADAPTOR FOOTPRINTS

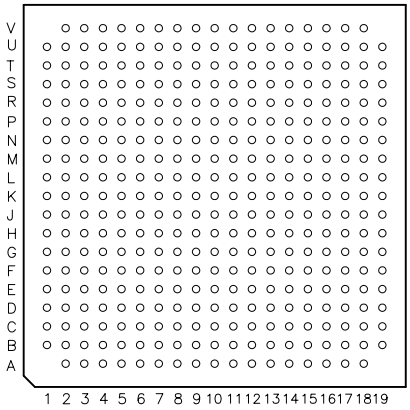
19 X 19



361 PINS
01

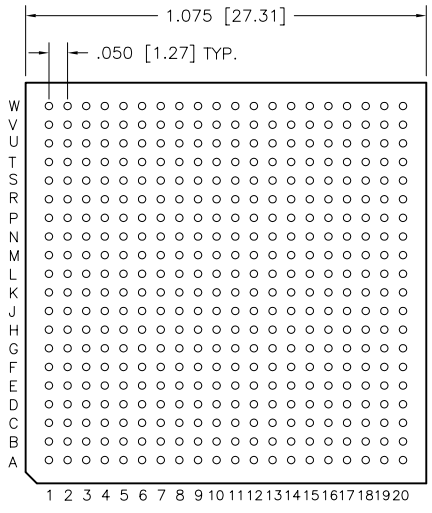


303 PINS
02

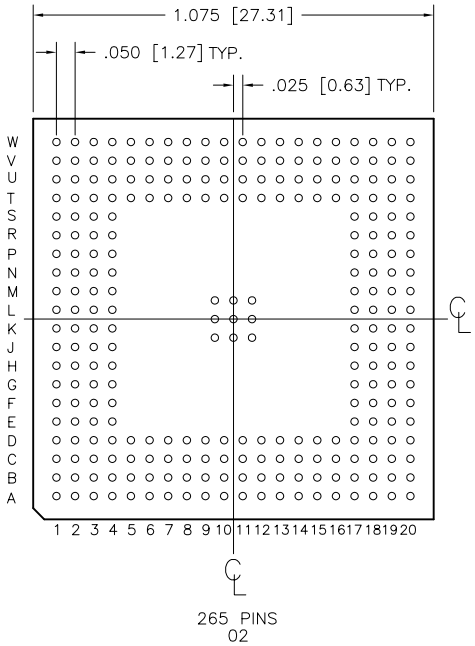


357 PINS
03

20 X 20



400 PINS
01



265 PINS
02

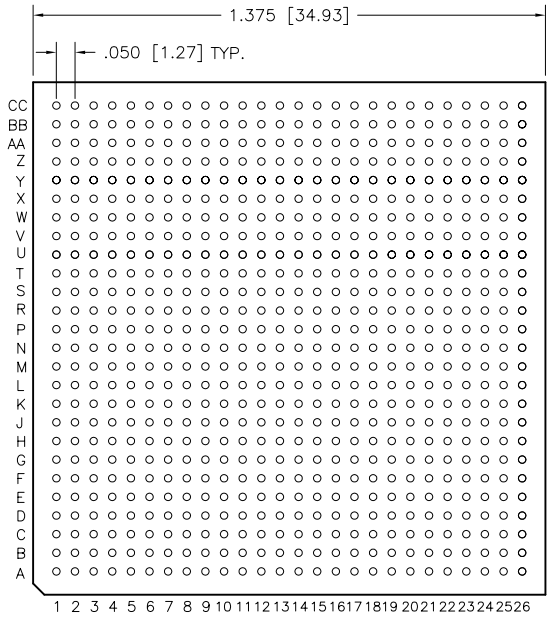
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

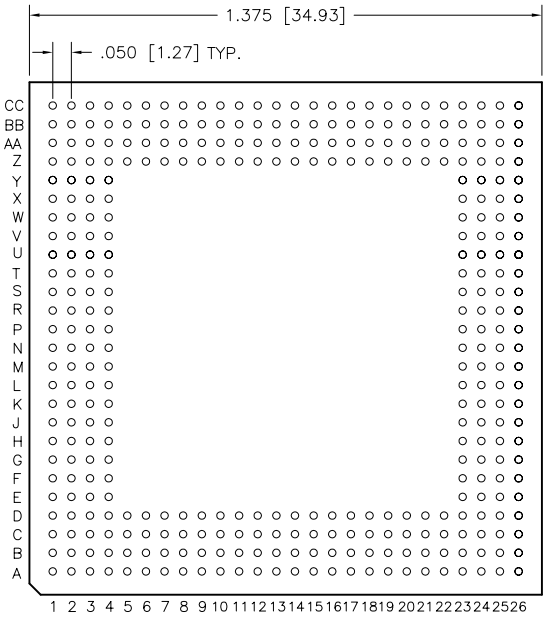
BGA ADAPTOR & SOCKET FOOTPRINTS

.050 [1.27] PITCH BGA SOCKET AND ADAPTOR FOOTPRINTS

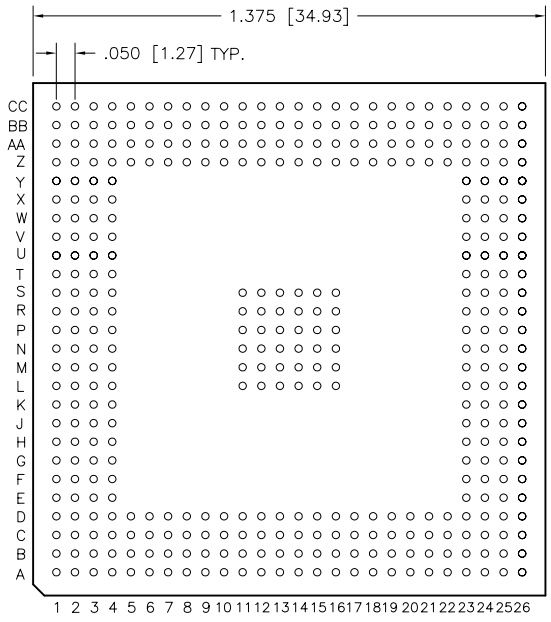
26 X 26



676 PINS
01



352 PINS
02



388 PINS
03

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

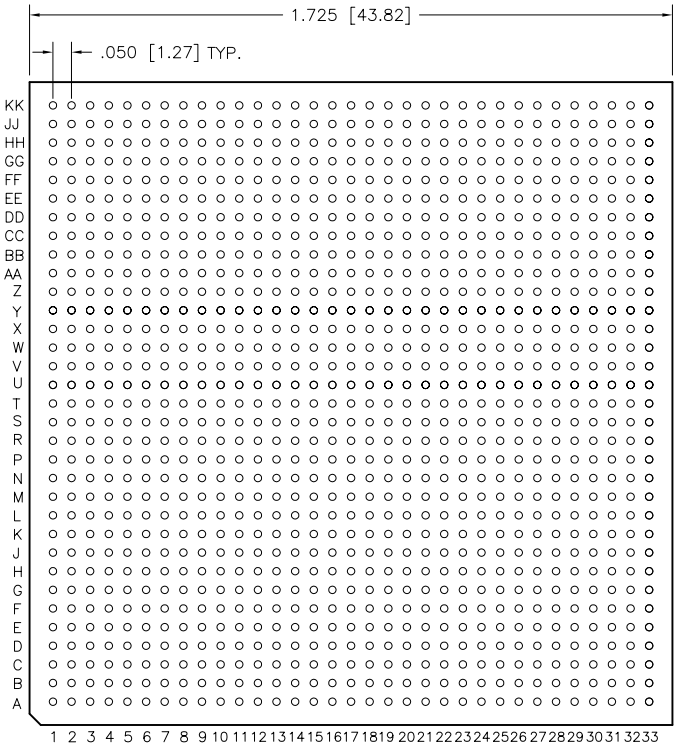
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

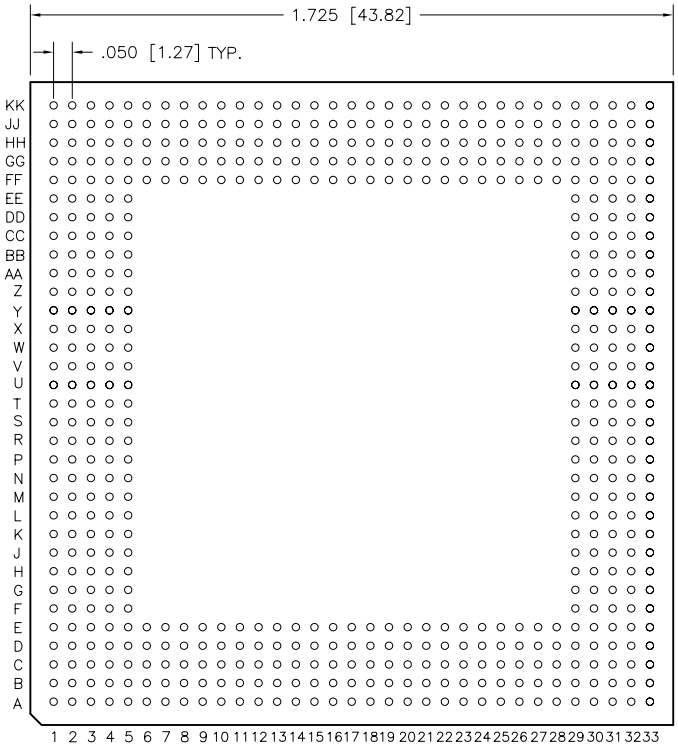
BGA ADAPTOR & SOCKET FOOTPRINTS

.050 [1.27] PITCH BGA SOCKET AND ADAPTOR FOOTPRINTS

33 x 33



1089 PINS
01



560 PINS
02

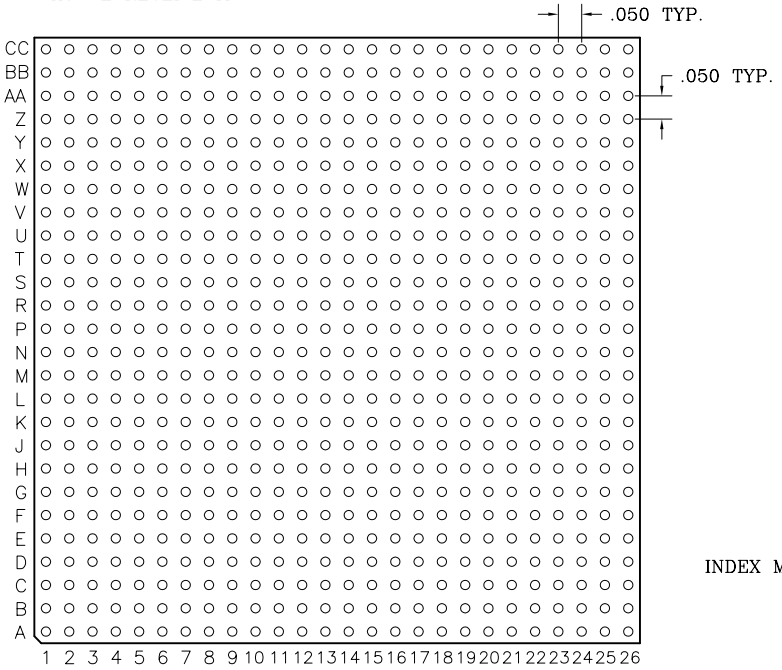
 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

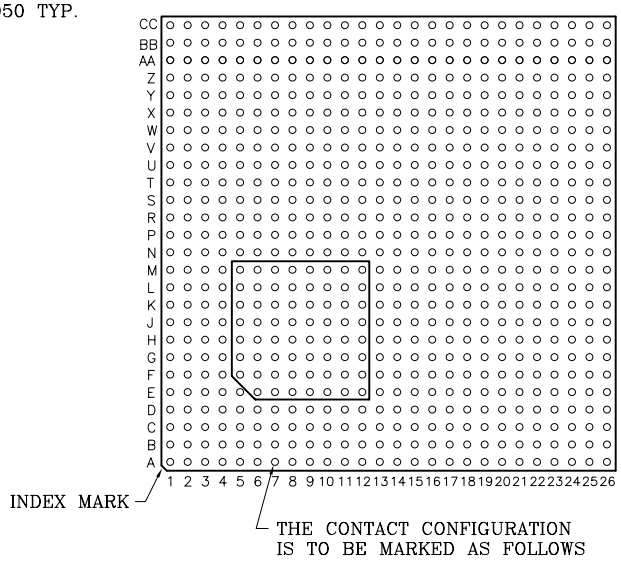
ANDON
INTERCONNECTION SPECIALISTS

BGA – MPGA SOCKET/ADAPTOR FOOTPRINTS

THE PIN GRID ARRAY FOOTPRINTS SHOWN IN THIS CATALOG REPRESENT OUR STANDARD CONFIGURATIONS. IF YOU REQUIRE A CUSTOM CONFIGURATION, PLEASE USE THE CUSTOM GRID PATTERN BELOW TO INDICATE YOUR SPECIFIC REQUIREMENTS BY MARKING THE CIRCLES AT THE DESIRED LOCATION OF EACH CONTACT (SEE EXAMPLE BELOW). ONCE COMPLETED, FILL OUT THE REST OF THE REQUIRED INFORMATION AND SEND A COPY. ANDON WILL RESPOND TO YOUR REQUEST AS SOON AS WE RECEIVE IT.



CUSTOM BGA
TOP VIEW



PART NUMBER ORDERING INFORMATION

1X–XX–XX–XXX–XXX–XXX–XXX

- 1X – SERIES
- XX – GRID
- XX – FOOTPRINT
- XXX – PIN COUNT
- XXX – TERMINAL ASSEMBLY
- XXX – PLATING
- XXX – INSULATOR MATERIAL

CUSTOM GRID PATTERN SIZE

NUMBER OF PINS: BGA PIN DIAMETER: PIN LENGTH:

REQUIRED SOCKET/ADAPTOR QUANTITY:

YOUR NAME AND ADDRESS

COMPANY:

NAME:	DIVISION:
ADDRESS 1:	ADDRESS 2:
CITY:	STATE: ZIP:
PHONE:	FAX:

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

LCC SOCKETS FOR SMD JEDEC TYPE C DEVICES

(Typical Cellular Telephone Application)

PATENTED

Andon has developed a leadless ceramic chip socket contact providing excellent electrical conductivity and excellent mechanical security.

The height of the socket is the same as the mounted height of the chip, 2.85 mm. Great space savings!

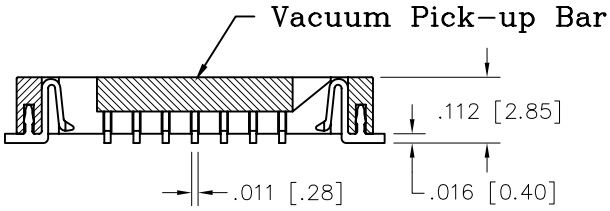
The unique tapered end of the contact fits securely into the ceramic chip castellations to compensate for a wide variety of castellation tolerances.

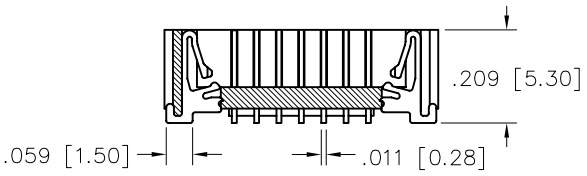
For additional mechanical security there is a 2–way clip and a 4–way clip to suit the most demanding shock and vibration environments.

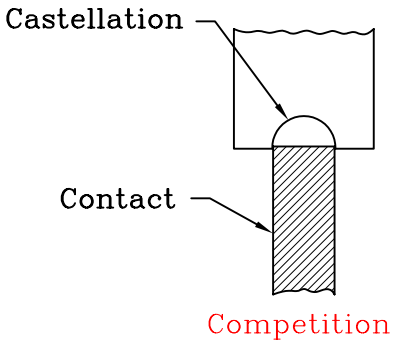
The 620 series socket is designed for automatic pick and place equipment from specially designed trays supplied by Andon. This socket has a molded–in "Vacuum Pick–up Bar" to facilitate assembly. After assembly, the "Vacuum Pick–up Bar" is removed by a slight twist–off.

For hand assembly, the 621 series has the "Vacuum Pick–up Bar" already removed.

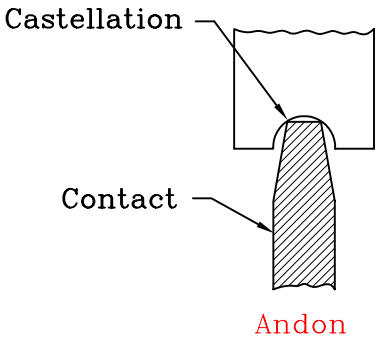
This socket is a highly reliable, side action, low profile socket with easily accessible contacts for testing circuits and solder joint inspection. High temperature molded insulation withstands SMD soldering temperature without distortion.







Competition



Andon

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 610 LCC SOCKET, 5.4 mm

FOR JEDEC TYPE C DEVICE
SMD
HI-REL SURFACE MOUNT 32 PIN
LEADLESS CHIP CARRIER SOCKETS

PATENTED

TECHNICAL SPECIFICATIONS

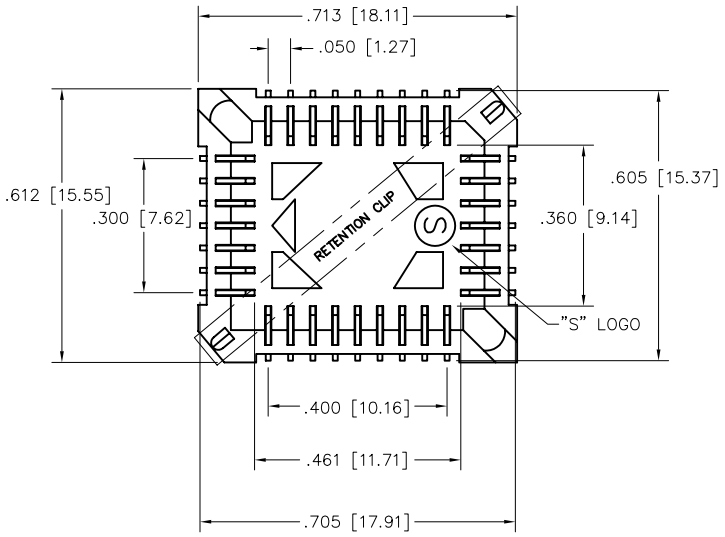
ELECTRICAL DATA

CONTACT RESISTANCE..... 30 MILLIOHMS
CURRENT RATING..... 1.0 AMP
INSULATION RESISTANCE.. 1000 MEGAOHMS
DIELECTRIC VOLTAGE..... 500 VAC

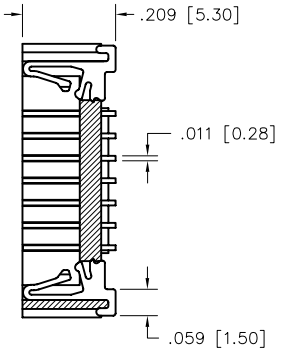
MATERIAL DATA

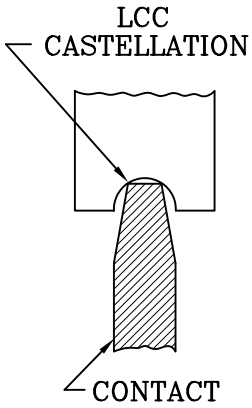
INSULATOR .... PPS; UL 94 V-0
CONTACT ..... BERYLLIUM COPPER
FINISH..... -G10 GOLD OVER NICKEL

TOP VIEW



SIDE VIEW





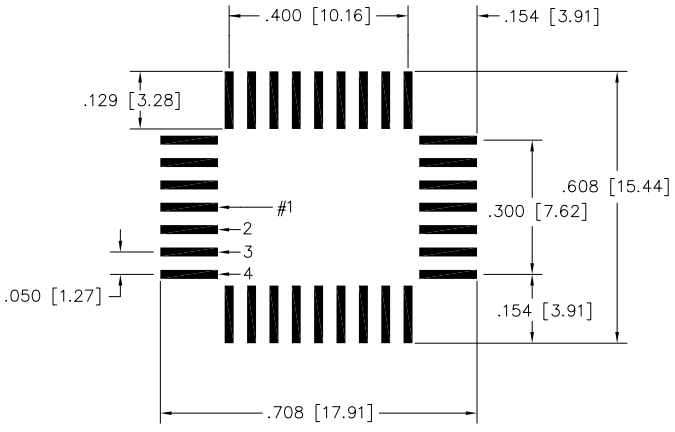
PATENT No.
5,588,847

ORDERING INFORMATION

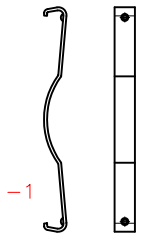
610-32-SM-G10-R12-X

- 610: SERIES
- 32: NO. OF CONTACTS
- SM: TYPE SURFACE MOUNT
- G10: CONTACT PLATING GOLD OVER NICKEL
- R12: MATERIAL AND LOGO
- X: WHEN ORDERING WITH OPTIONAL RETENTION CLIP

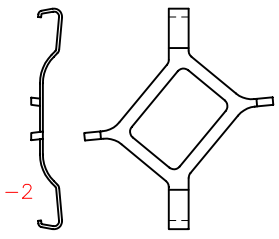
PC BOARD FOOTPRINT



OPTIONAL RETENTION CLIP



P/N: CLL-32
WHEN ORDERING SEPERATELY



P/N: CLL-32-4
WHEN ORDERING SEPERATELY

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

BACK TO TABLE OF CONTENTS

ANDON
INTERCONNECTION SPECIALISTS

SERIES 620 LCC SOCKET, 2.85mm
AUTOMATIC ASSEMBLY

621 LCC SOCKET, 2.85mm
MANUAL ASSEMBLY

FOR JEDEC TYPE C DEVICE
SMD
HI-REL SURFACE MOUNT 32 PIN
ULTRA LOW PROFILE LEADLESS CHIP CARRIER SOCKET

PATENTED

PATENT No. 5,588,847

FEATURES

- .112 in [2.85 mm] HEIGHT ABOVE BOARD SAME HEIGHT AS UNSOCKETED DEVICE
- ACCEPTS JEDEC TYPE C DEVICES .050 in [1.27 mm] PITCH, MOUNTS ON EXISTING FOOT-PRINT
- DESIGNED FOR HIGH DENSITY APPLICATIONS WHERE SPACE ON & ABOVE PCB IS CRITICAL
- 220°C INSULATOR MATERIAL WITHSTANDS HIGH TEMPERATURE SOLDER PROCESS
- UNIQUE BeCu CONTACT DESIGN ALLOWS SECURE RETENTION OF DEVICE
- OPTIONAL RETENTION CLIP AVAILABLE FOR HIGH SHOCK APPLICATIONS
- SPECIFICALLY DESIGNED FOR MOBILE/CELLULAR PHONE AND DISK DRIVE APPLICATIONS

NOTE: VACUUM PICKUP BAR IS DESIGNED TO BE TWISTED OFF BY HAND AFTER SOLDERING

TECHNICAL SPECIFICATIONS

ELECTRICAL DATA

CONTACT RESISTANCE:	30 MILLIOHMS MAX.
CURRENT RATING:	1.0 AMP
INSULATION RESISTANCE:	1000 MEGAOHMS MIN.
DIELECTRIC VOLTAGE:	500 VAC

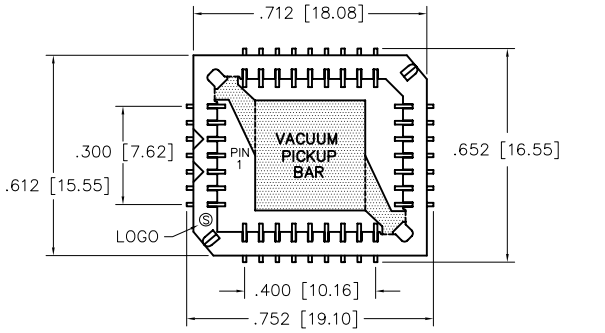
MATERIAL DATA

INSULATOR:	HIGH TEMP NYLON 46, UL94V-0
CONTACT:	BERYLLIUM COPPER
PLATING:	GOLD OVER NICKEL

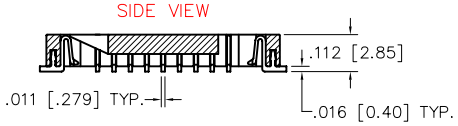
WILL ACCEPT THE FOLLOWING DEVICES
AMD # M27C010-155LC
ATMEL # AT27C010
CATALYST # CAT27C2000EI-25
FUJITSU # 276512-15
WSI # WS272561-90

620 SERIES

TOP VIEW

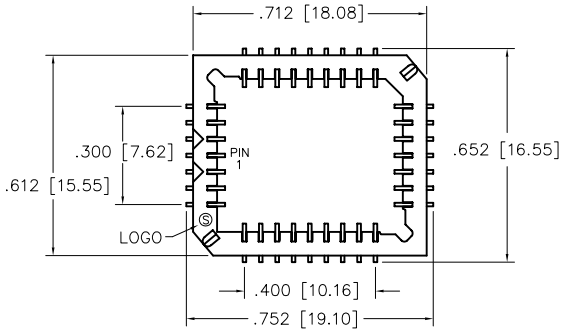


SIDE VIEW

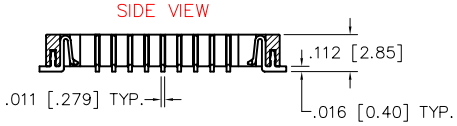


621 SERIES

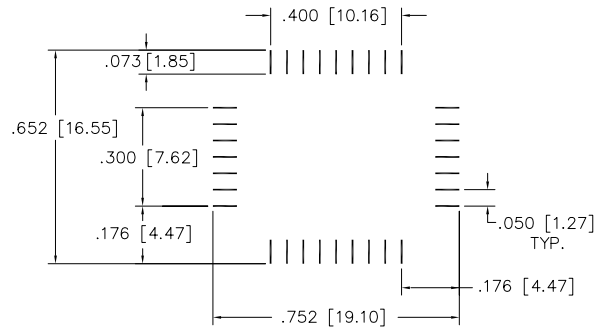
TOP VIEW



SIDE VIEW



PC BOARD FOOTPRINT

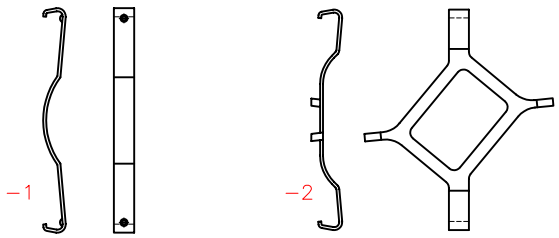


ORDERING INFORMATION

62X-32-SM-G10-S12-X

- 620 / 621 SERIES
- NO. OF CONTACTS
- TYPE SURFACE MOUNT
- CONTACT PLATING GOLD OVER NICKEL
- MATERIAL AND LOGO
- WHEN ORDERING WITH OPTIONAL RETENTION CLIP

OPTIONAL RETENTION CLIP



P/N: CLL-32
WHEN ORDERING SEPERATELY

P/N: CLL-32-4
WHEN ORDERING SEPERATELY

DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

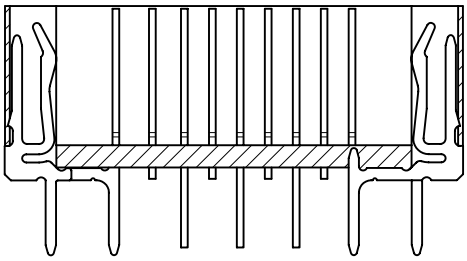
ANDON
INTERCONNECTION SPECIALISTS

PLCC SOCKETS WITH HIGH TEMPERATURE INSULATION

HIGH-REL • HIGH SHOCK • HIGH VIBRATION

SERIES 651-STO PLCC THRU HOLE SOCKETS
SERIES 651-SMO PLCC SURFACE MOUNT SOCKETS
Contact design is with flat heavy gage copper alloy.
Contact area is EDGE WIPE, Berylium Copper.
High Redundancy
Excellent for Military-Mobile-Medical-Long Life Application
Contact Feature.

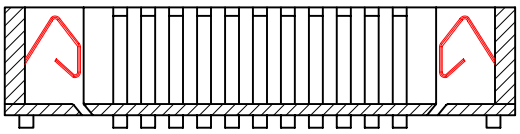
651-STO



LOW COST COMPUTER APPLICATIONS

SERIES 654-STO PLCC THRU HOLE SOCKETS
SERIES 654-SMO PLCC SURFACE MOUNT SOCKETS
Contact design with rolled-leaf copper alloy
Contact area is FACE WIPE.

654-SMO



 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 651 HI-REL PLCC
LEADED CHIP CARRIER SOCKETS

TECHNICAL SPECIFICATIONS

INSULATOR: PPS, UL 94 V-0
CONTACT MATERIAL: PHOSPHOR BRONZE
CONTACT FINISH: Sn OVER Ni
(Au OVER Ni ON REQUEST)
CONTACT SPACING: .050 IN. [1.27 MM]
OPERATING TEMP.: -65°C TO +220°C

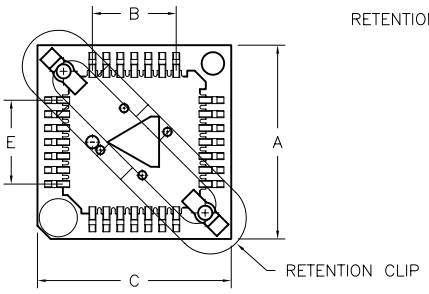
	NO. OF PINS	
	28	32
A	.693 [17.60]	.693 [17.60]
B	.300 [7.62]	.400 [10.16]
C	.693 [17.60]	.793 [20.14]
D	.500 [12.70]	.500 [12.70] .600 [15.24]
E	.300 [7.62]	.300 [7.62]

THE 32 PIN SOCKET IS RECTANGULAR

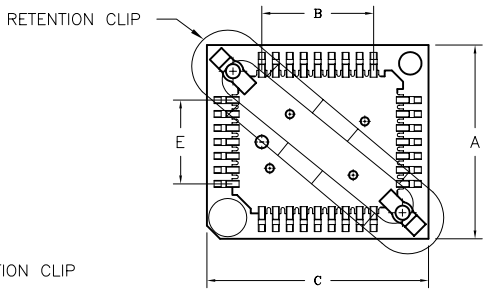
RETENTION CLIP	
28 PIN	CLP-28
32 PIN	CLP-32

PLEASE ORDER SEPARATELY!

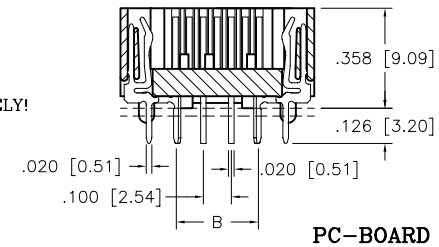
28 PIN



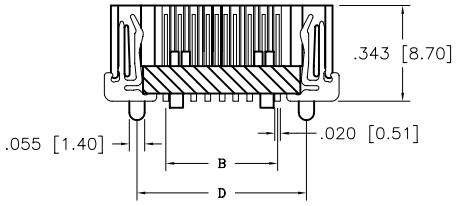
32 PIN



SOLDERTAIL-TYPE
P/N: 651-28ST0-455
P/N: 651-32ST0-455

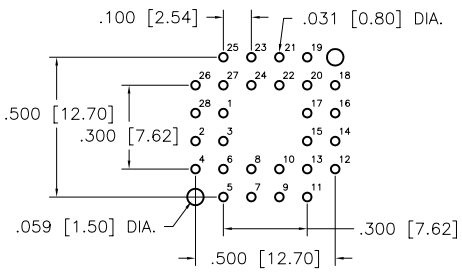


SURFACE MOUNT-TYPE
P/N: 651-28SMC-455
P/N: 651-32SMC-455

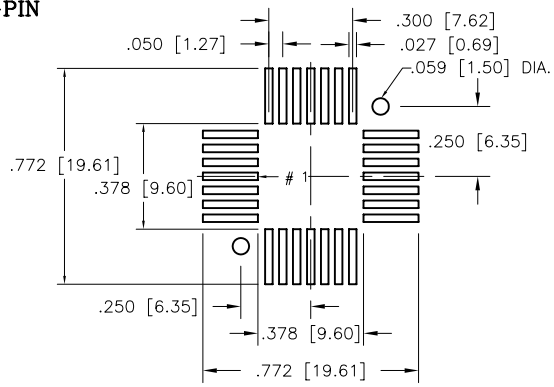


PC-BOARD LAYOUT
28-PIN

SOLDERTAIL-TYPE

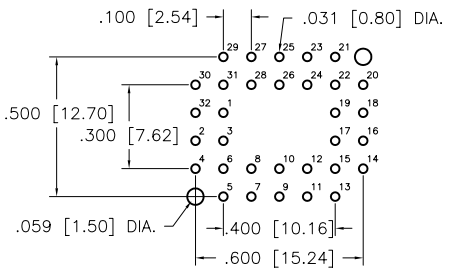


SURFACE MOUNT-TYPE

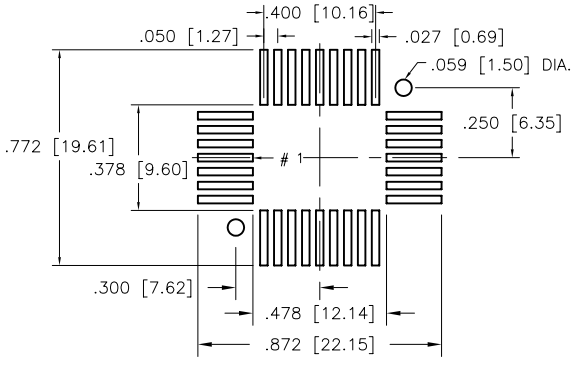


PC-BOARD LAYOUT
32-PIN

SOLDERTAIL-TYPE



SURFACE MOUNT-TYPE



 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]

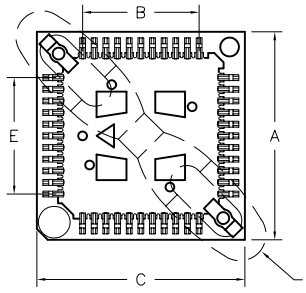
WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA

TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 651 HI-REL
LEADED CHIP CARRIER SOCKETS

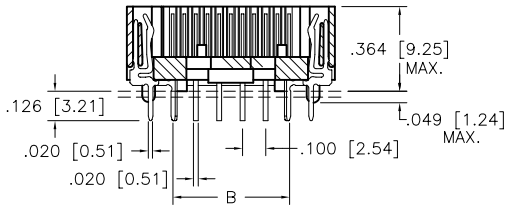


NO. OF PINS	A & C	B & E	D
44	.893 [22.68]	.500 [12.70]	.700 [17.78]
52	.993 [25.22]	.600 [15.24]	.800 [20.32]

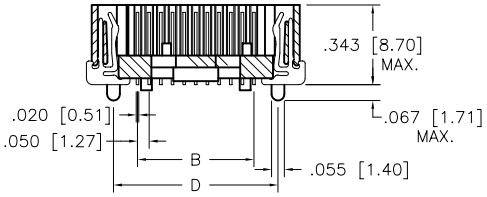
RETENTION CLIP	
44 PIN	CLP-44
52 PIN	CLP-52

PLEASE ORDER SEPARATELY!

SOLDERTAIL-TYPE
P/N: 651-44STO-455
P/N: 651-52STO-455

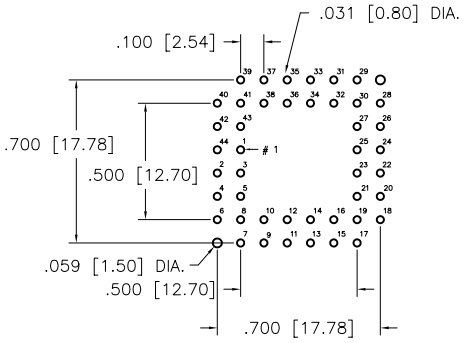


SURFACE MOUNT-TYPE
P/N: 651-44SMC-455
P/N: 651-52SMC-455

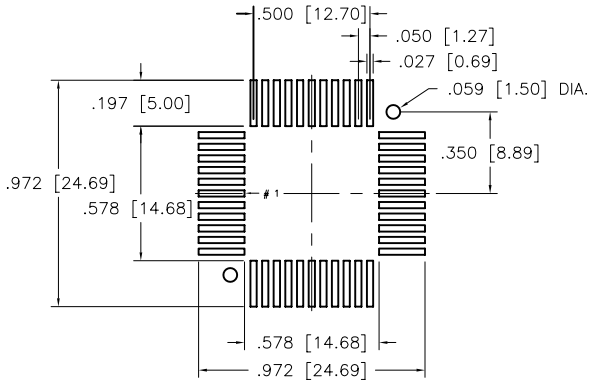


PC-BOARD LAYOUT
44-PIN

SOLDERTAIL-TYPE

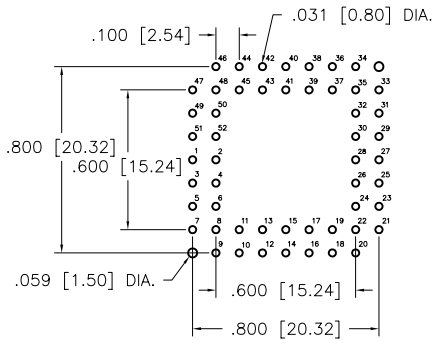


SURFACE MOUNT-TYPE

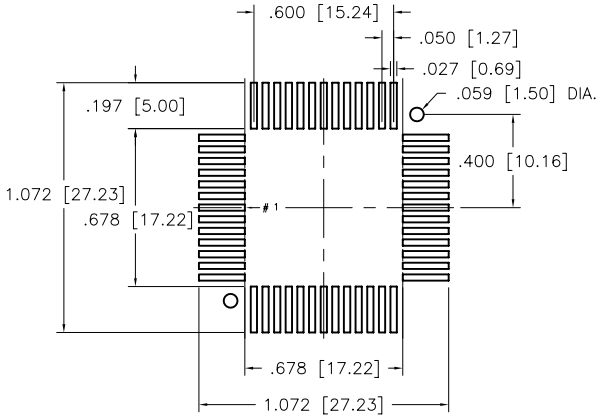


PC-BOARD LAYOUT
52-PIN

SOLDERTAIL-TYPE



SURFACE MOUNT-TYPE

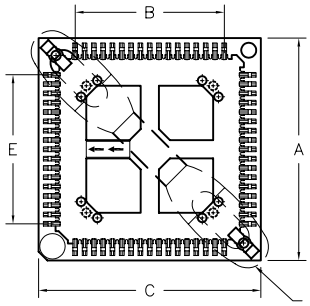


 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 651 HI-REL PLCC
LEADED CHIP CARRIER SOCKETS

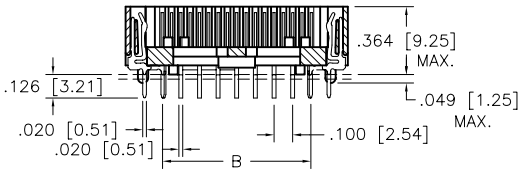


NO. OF PINS	A & C	B & E	D
68	1.193 [30.30]	.800 [20.32]	1.000 [25.40]
84	1.393 [35.38]	1.000 [25.40]	1.200 [30.48]

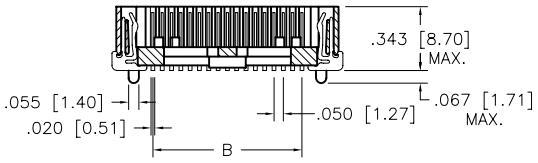
RETENTION CLIP	
68 PIN	CLP-68
84 PIN	CLP-84

PLEASE ORDER SEPARATELY!

SOLDERTAIL-TYPE
P/N: 651-68ST0-455
P/N: 651-84ST0-455

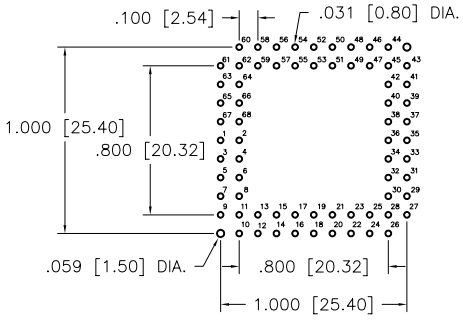


SURFACE MOUNT-TYPE
P/N: 651-68SMC-455
P/N: 651-84SMC-455

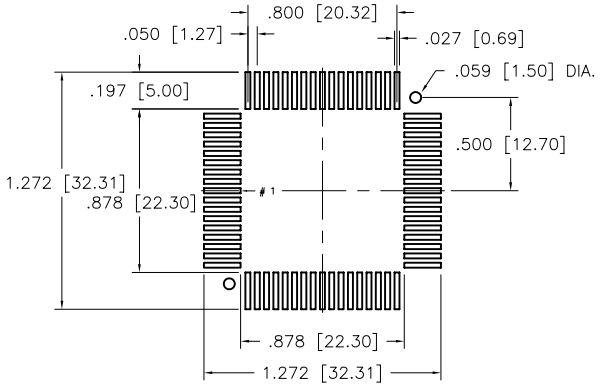


PC-BOARD LAYOUT
68-PIN

SOLDERTAIL-TYPE

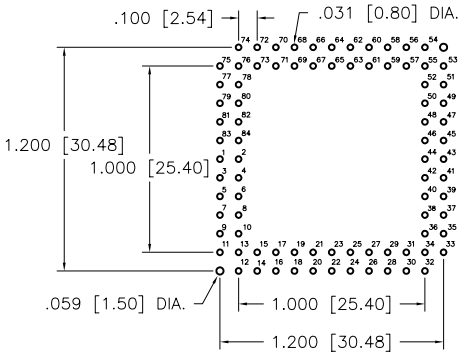


SURFACE MOUNT-TYPE

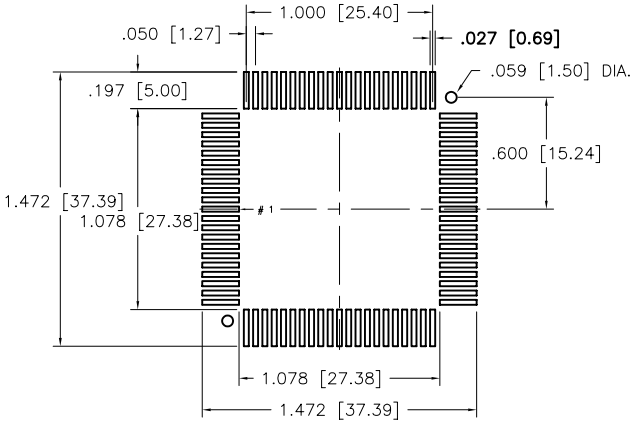


PC-BOARD LAYOUT
84-PIN

SOLDERTAIL-TYPE



SURFACE MOUNT-TYPE



 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

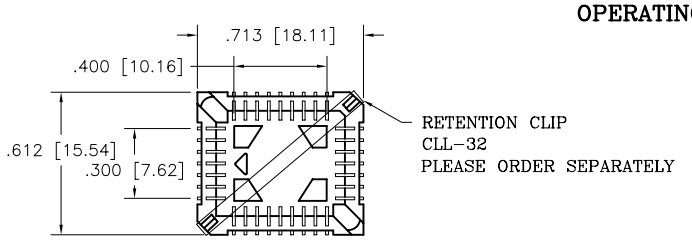
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 652 HI-REL LCC
LEADLESS CHIP CARRIER SOCKETS

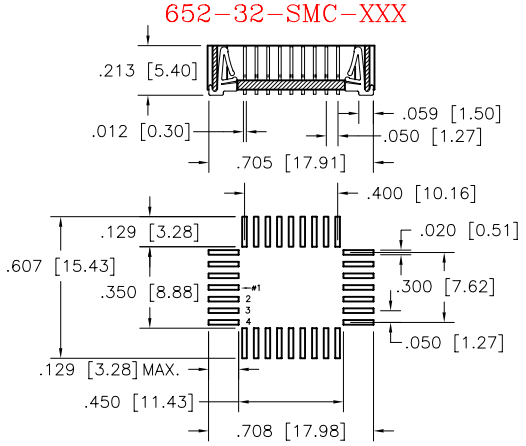
TECHNICAL SPECIFICATIONS

INSULATOR: PPS; UL 94 V-0
CONTACT MATERIAL: BERYLLIUM COPPER
CONTACT FINISH: -451 Au OVER Ni
-455 Sn OVER Ni
CONTACT SPACING: .050 IN[1.27 MM]
OPERATING TEMP.: -65°C TO +220°C

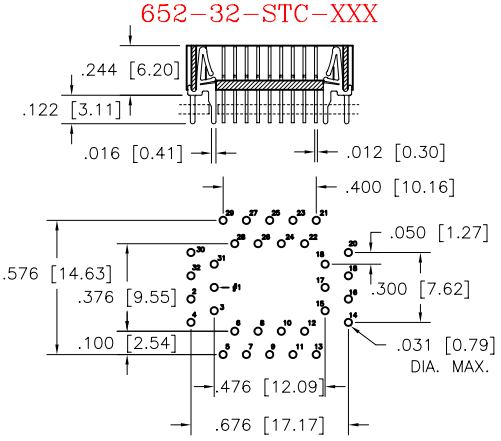


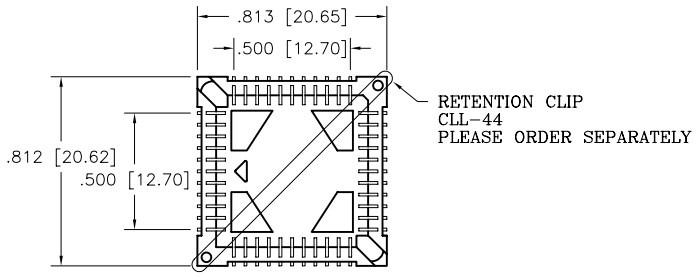
ORDERING INFORMATION
652-XX-XXX-XXX
SERIES
CONTACT COUNT
TYPE
CONTACT FINISH

652-32-SMC-XXX

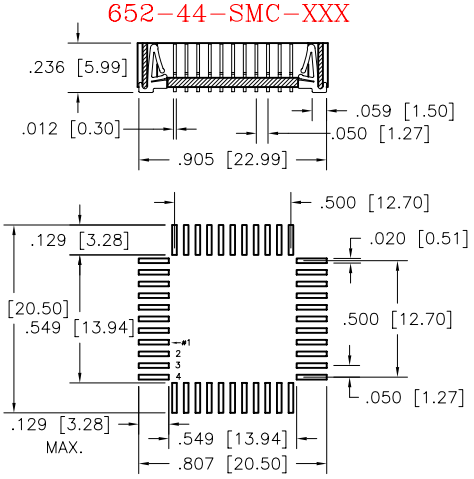


652-32-STC-XXX

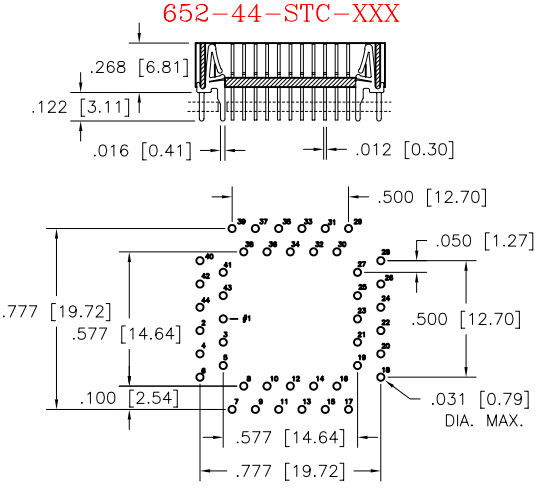




652-44-SMC-XXX



652-44-STC-XXX



 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SERIES 654-STO HI-TEMP, LOW COST PLCC THRU HOLE SOCKET

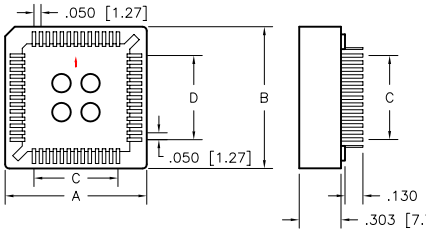
654-SMO HI-TEMP, LOW COST PLCC SURFACE MOUNT SOCKET

SERIES 654-STO HI-TEMP PLCC THRU HOLE SOCKET

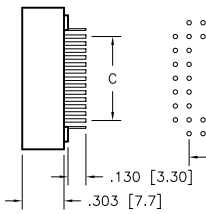
FEATURES

- ACCEPTS JEDEC MO-47 & MO-52 LEADED PLASTIC CHIP CARRIER PACKAGES
- SOLDER TERMINATIONS ON .100 [2.54] GRID
- LOW PROFILE HI-TEMP INSULATOR
- ANTI-SHORTING CONTACTS
- HIGH VISIBILITY PIN ONE INDICATOR

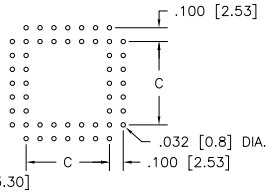
TOP VIEW



SIDE VIEW



PC BOARD LAYOUT



MATERIAL DATA

INSULATOR..... PPS
UL RATING..... 94V-0
CONTACTS..... PHOSPHOR BRONZE
PLATING .....TIN
MOUNTING.....100 IN. [2.54 MM] GRID

ELECTRICAL DATA

CONTACT RESISTANCE (MAX.)...30 MILLIOHMS
CURRENT RATING .....1.0 AMP MIN.
INSULATION RESISTANCE .....1000 MEGOHMS
WITHSTANDING VOLTAGE.....500 VAC

DIMENSIONAL FEATURES				
PART NUMBER	A ±.008 [0.2]	B ±.008 [0.2]	C ±.008 [0.2]	D ±.008 [0.2]
654-20-STO	.610 [15.50]	.610 [15.50]	.200 [5.08]	.200 [5.08]
654-28-STO	.720 [18.30]	.720 [18.30]	.300 [7.62]	.300 [7.62]
654-32-STO	.704 [17.90]	.807 [20.50]	.300 [7.62]	.400 [10.16]
654-44-STO	.923 [23.45]	.923 [23.45]	.500 [12.70]	.500 [12.70]
654-52-STO	1.018 [25.85]	1.018 [25.85]	.600 [15.24]	.600 [15.24]
654-68-STO	1.214 [30.85]	1.214 [30.85]	.800 [20.32]	.800 [20.32]
654-84-STO	1.417 [36.00]	1.417 [36.00]	1.000 [25.40]	1.000 [25.40]
654-100-STO	1.654 [42.00]	1.654 [42.00]	1.000 [25.40]	1.000 [25.40]

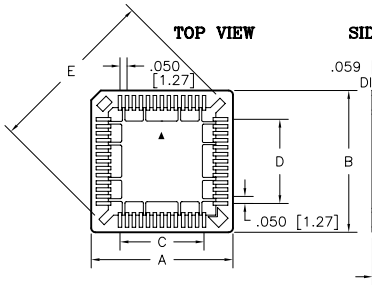
654-52-STO-455
SERIES
NO. OF CONTACTS
TYPE
PLATING

SERIES 654-SMO HI-TEMP PLCC SURFACE MOUNT SOCKET

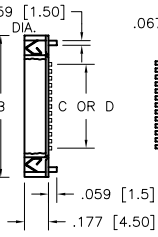
FEATURES

- ACCEPTS JEDEC MO-47 & MO-52 LEADED PLASTIC CHIP CARRIER PACKAGES
- HIGH TEMPERATURE INSULATOR - GOOD FOR VAPORPHASE AND IR SOLDERING
- LOW PROFILE INSULATOR
- UNIVERSAL MOUNTING FOOTPRINT
- VIEW PORTS FOR INSPECTING SOLDER TERMINATIONS
- HIGH VISIBILITY PIN ONE INDICATOR

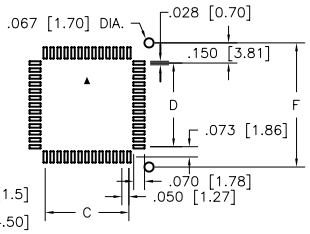
TOP VIEW



SIDE VIEW



PC BOARD LAYOUT



MATERIAL DATA

INSULATOR..... PPS
UL RATING..... 94V-0
CONTACTS ..... PHOSPHOR BRONZE
PLATING .....TIN
MOUNTING..... .050 [1.27] GRID

ELECTRICAL DATA

CONTACT RESISTANCE (MAX.)...15 MILLIOHMS
INSULATION RESISTANCE.....10,000 MEGOHMS
DIELECTRIC STRENGTH.....1000 VAC CONTINUOUS FOR 1 MINUTE

DIMENSIONAL FEATURES						
PART NUMBER	A ±.008 [0.2]	B ±.008 [0.2]	C ±.004 [0.1]	D ±.004 [0.1]	E ±.008 [0.2]	F ±.008 [0.2]
654-20-SMO	.616 [15.65]	.616 [15.65]	.200 [5.08]	.200 [5.08]	.673 [17.10]	.500 [12.70]
654-28-SMO	.716 [18.18]	.716 [18.18]	.300 [7.62]	.300 [7.62]	.814 [20.68]	.600 [15.24]
654-32-SMO	.716 [18.18]	.817 [20.75]	.300 [7.62]	.400 [10.16]	.882 [22.40]	.700 [17.78]
654-44-SMO	.917 [23.28]	.917 [23.28]	.500 [12.70]	.500 [12.70]	1.096 [27.85]	.800 [20.32]
654-52-SMO	1.017 [25.84]	1.017 [25.84]	.600 [15.24]	.600 [15.24]	1.242 [31.54]	.900 [22.86]
654-68-SMO	1.219 [30.95]	1.219 [30.95]	.800 [20.32]	.800 [20.32]	1.524 [38.70]	1.100 [27.94]
654-84-SMO	1.417 [36.00]	1.417 [36.00]	1.000 [25.40]	1.000 [25.40]	1.809 [45.95]	1.500 [38.10]

654-52-SMO-455-X
SERIES
NO. OF CONTACTS
TYPE
PLATING
STANDOFFS
1=With
2=Without

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS] WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

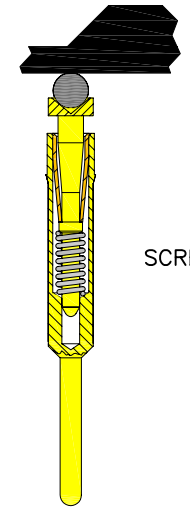
ANDON
INTERCONNECTION SPECIALISTS

ISO 9001:2000 CERTIFIED

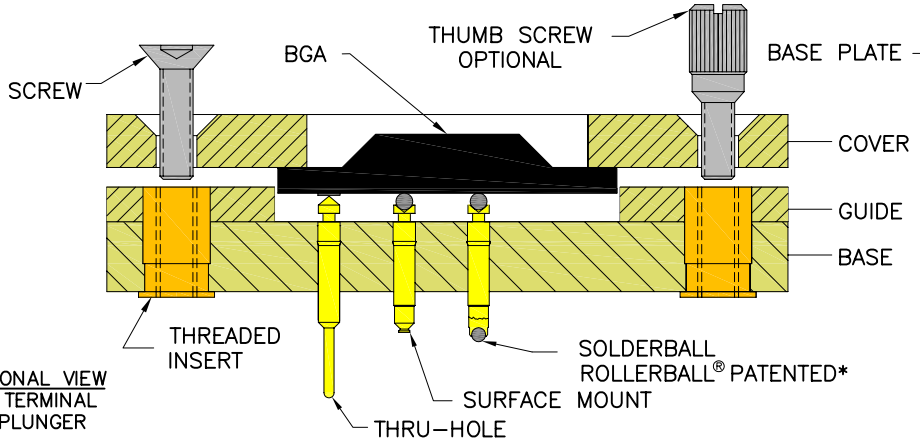
HI REL BGA & LGA TEST SOCKETS

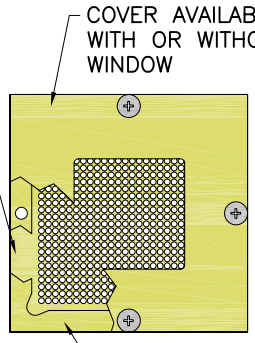
1.5mm [.059 in] and 1.27mm [.050 in] Pitch LEAD FREE AVAILABLE

- CONTACT PLUNGER & SPRING MAINTAINS PERPENDICULARITY
- ELIMINATES COPLANARITY PROBLEMS
- RELIABLE CONTACT FOR CONTINUITY
- TAPERED CUP DESIGN FOR BGA – POINTED FOR LGA
- ROLLERBALL® SMT TECHNOLOGY
- DESIGNED FOR LONGER LIFE
- AVAILABLE IN ANY GRID SIZE



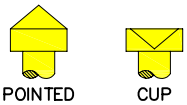
CROSS SECTIONAL VIEW
THRU HOLE TERMINAL
WITH CUP PLUNGER

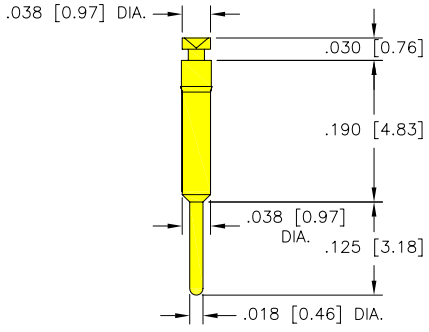




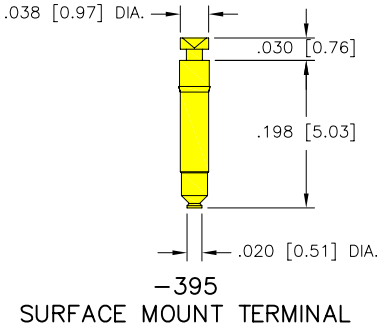
TOP VIEW

AVAILABLE IN THREE TERMINAL STYLES WITH 2 PLUNGER STYLES (POINTED OR CUP)

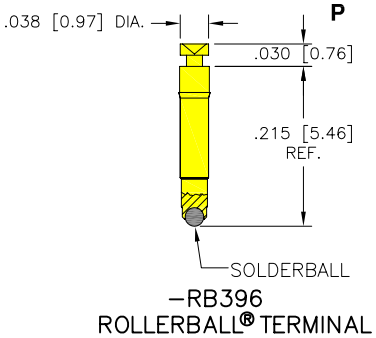




–375
THRU HOLE TERMINAL



–395
SURFACE MOUNT TERMINAL



–RB396
ROLLERBALL® TERMINAL

OTHER TERMINALS AND CUSTOM DESIGNS AVAILABLE

TECHNICAL SPECIFICATIONS

LEAD FREE AVAILABLE

MECHANICAL DATA

INDIVIDUAL CONTACT FORCE . . 60 grs AVG.
CONTACT LIFE . . . . . 10,000 CYCLES MIN.
DURABILITY . . . . . > 100 CYCLES

ELECTRICAL DATA

CONTACT RESISTANCE . . . . . < 30 MILLIOHMS
CURRENT RATING . . . . . 1.0 AMP MAX.
INSULATION RESISTANCE @ 500VDC . 10,000 MEGAOHMS

MATERIAL DATA

INSULATOR . . HIGH TEMP. 94V–0
CONTACT . . . . BERYLLIUM COPPER
PLATING . . . GOLD OVER NICKEL
TERMINAL . . . . BRASS
PLATING . . . GOLD OVER NICKEL
PLUNGER . . . . C = BERYLLIUM COPPER
B = BRASS
T = TOOL STEEL
S = STAINLESS STEEL
PLATING . . . GOLD OVER NICKEL

ORDERING INFORMATION

SEND PRINT OF THE DEVICE AND WE WILL SUPPLY THE PART NUMBER.
EVERY FOOTPRINT AVAILABLE

* U.S. PAT. No. 6,352,437
* U.S. PAT. No. 6,861,862

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

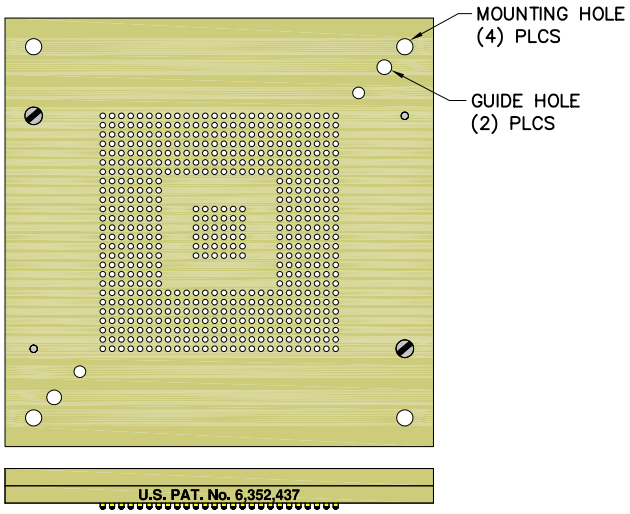
ANDON
INTERCONNECTION SPECIALISTS

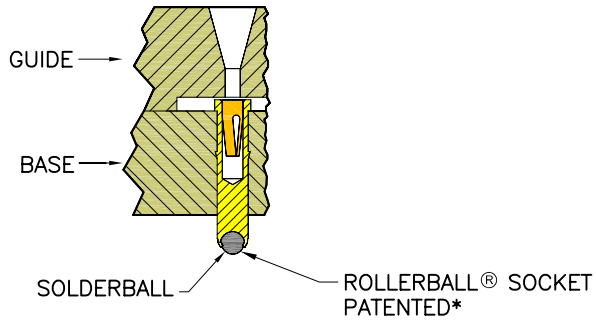
ISO 9001:2000
CERTIFIED

TEST SOCKET RECEPTACLE

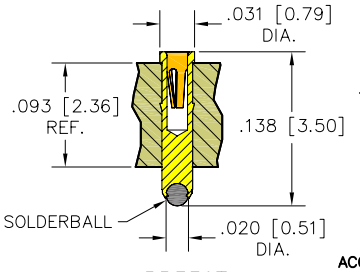
AVAILABLE ON 1.27mm [.050 in], 1.0mm [.0394 in], 0.8mm [.0315 in] & 0.75mm [.0295] PITCH

RECEPTACLE SHOWN IS 26 X 26 568 PIN ROLLERBALL® SOCKET .050 [1.27] PITCH
OTHER SOCKETS AVAILABLE – CONSULT FACTORY

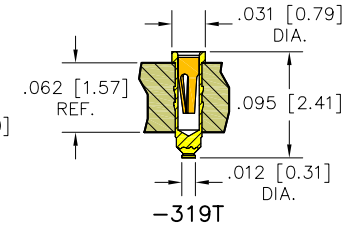




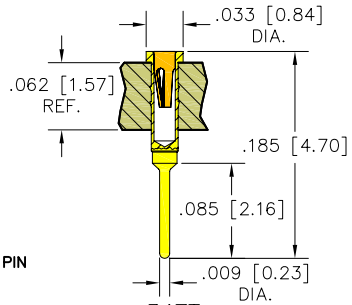
AVAILABLE IN THREE TERMINAL STYLES ROLLERBALL®, SURFACE MOUNT & THRU–HOLE.



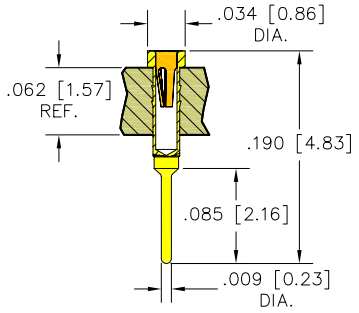
–RB339T
SURFACE MOUNT ROLLERBALL®
ACCEPTS .007 [0.18] – .012 [0.30] DIA. PIN



–319T
SURFACE MOUNT
ACCEPTS .007 [0.18] – .012 [0.30] DIA. PIN



–347T
THRU HOLE
ACCEPTS .007 [0.18] – .012 [0.30] DIA. PIN



–400T4
THRU HOLE
ACCEPTS .009 [0.23] – .014 [0.36] DIA. PIN

OTHER TERMINALS AND CUSTOM DESIGNS AVAILABLE

TECHNICAL INFORMATION

INSULATORS:	LAMINATE HI–TEMP, 94V–0
TERMINAL:	BRASS, PER ASTM–B16
CONTACT:	BeCu, PER ASTM–B194
PLATING:	TERMINAL: GOLD PLATED CONTACT: GOLD PLATED
SOLDERBALL:	63% TIN, 37% LEAD

ORDERING INFORMATION

- CONTACT FACTORY FOR ORDERING INFORMATION
- SEND PRINT OF THE DEVICE AND WE WILL SUPPLY THE PART NUMBER
- EVERY FOOTPRINT AVAILABLE

* U.S. PAT. No. 6,352,437

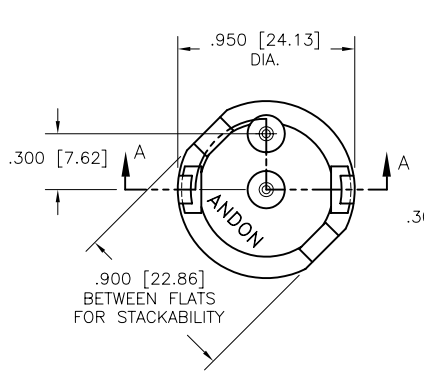
ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333–0388 / FAX (401) 333–0287
E–MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

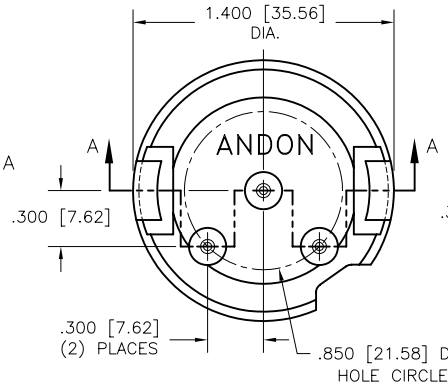
TADIRAN BATTERY SOCKETS

ISO 9001:2000 CERTIFIED

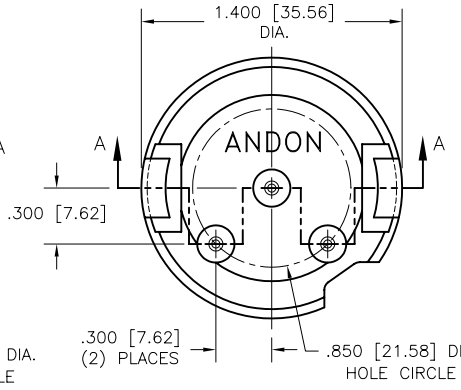
RoHS COMPLIANT



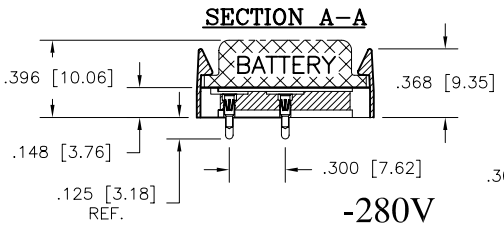
ACCEPTS TADIRAN®
TL-5186
(# TL-2186 & TL-4986)

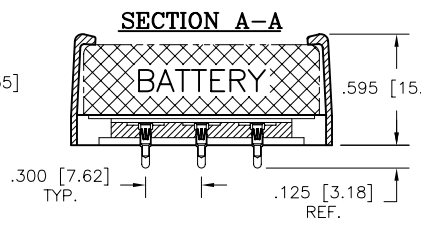


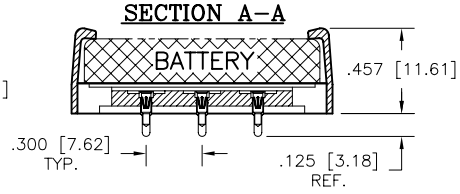
ACCEPTS TADIRAN®
TL-5135
(# TL-2135 & TL-4935)



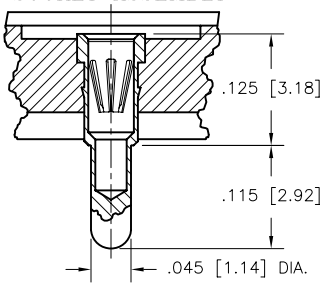
ACCEPTS TADIRAN®
TL-5134
(# TL-2134 & TL-4934)





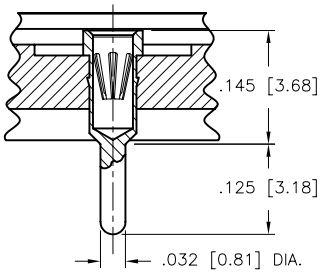


-280V
SOCKET ASSEMBLY



MOUNTING HOLE ø
.055 [1.40] / .065 [1.65] DIA.
ACCEPTS BATTERY TAIL LENGTH
.135 [3.43] / .210 [5.33]
ACCEPTS TAIL DIA.
.025 [2.64] / .037 [094]

-295V
SOCKET ASSEMBLY



MOUNTING HOLE ø
.042 [1.07] / .052 [1.32] DIA.
ACCEPTS BATTERY TAIL LENGTH
.115 [2.92] / .132 [3.35]
ACCEPTS TAIL DIA.
.025 [2.64] / .037 [094]

TECHNICAL SPECIFICATIONS

MATERIALS:
INSULATOR: UL 94V-0
TERMINAL: BRASS, PER ASTM-B16
PLATED TIN- LEAD OR
PLATED GOLD
OR PLATED TIN (RoHS COMPLIANT)
CONTACT: BeCu, PER ASTM-B194
PLATED TIN OR
PLATED GOLD

ORDERING INFORMATION

BS-XXXX-XX-2XXV-PXX-D14

- SERIES
- BATTERY TYPE: 5186, 5135, 5134
- NO. OF PINS
- TERMINAL ASSEMBLY NO.: 280V, 295V
- INSULATOR UL 94V-0
- PLATING: TERMINAL / CONTACT
  - P27: GOLD / GOLD
  - P32: TIN-LEAD / TIN
- R (RoHS COMPLIANT)
  TERMINAL: TIN PLATING

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

SPECIFICATIONS

TYPICAL INSULATOR SPECIFICATIONS

1. **PBT** POLYESTER 30% GLASS REINFORCED POLYBUTYLENE TEREPHTHALATE
   U.L. RATED: 94V-0
   HEAT DEFLECTION TEMPERATURE (@ 264 PSI): 403°F/206°C
   MAX. OPERATING TEMPERATURE: 284°F/140°C
2. **NYLON 46** HIGH TEMPERATURE 30% GLASS REINFORCED POLYTETRAMETHYLENE - ADIPAMIDE
   U.L. RATED: 94V-0
   HEAT DEFLECTION TEMPERATURE (@ 264 PSI): 534°F/279°C
   MAX. OPERATING TEMPERATURE: 302°F/150°C
3. **PPS** 30% GLASS REINFORCED POLYPHENYLENE SULFIDE
   U.L. RATED: 94V-0
   HEAT DEFLECTION TEMPERATURE (@ 264 PSI): >500°F/260°C
   MAX. OPERATING TEMPERATURE: 428°F/220°C
4. **FR-4** GLASS EPOXY LAMINATE
   U.L. RATED: 94V-0
   MAX. OPERATING TEMPERATURE: 284°F/140°C
5. **POLYIMIDE** LAMINATE
   U.L. RATED: 94V-0
   MAX. OPERATING TEMPERATURE: 464°F/240°C

CONTACT SPECIFICATIONS

CONTACT TYPE	RECOMMENDED MINIMUM PIN DIA.	RECOMMENDED MAXIMUM PIN DIA.	SPRING MATERIAL	INSERTION PIN DIA.	WITHDRAWAL PIN DIA.
U	.015 [0.38]	.021 [0.53]	BeCu	2.8 oz. MAX. .018 [0.46]	0.5 oz. MIN. .018 [0.46]
K	.015 [0.38]	.022 [0.56]	BeCu	1.0 oz. MAX. .017 [0.43]	0.4 oz. MIN. .017 [0.43]
L	.015 [0.38]	.022 [0.56]	BeCu	1.0 oz. MAX. .018 [0.46]	0.3 oz. MIN. .018 [0.46]
S	.016 [0.41]	.022 [0.56]	BeCu	9.0 oz. AVG. .018 [0.46]	2.0 oz. MIN. .018 [0.46]
H	.015 [0.38]	.022 [0.56]	BeCu	18.3 oz. MAX. .018 [0.46]	4.2 oz. MIN. .018 [0.46]
M	.015 [0.38]	.025 [0.64]	BeCu	1.6 oz. MAX. .018 [0.46]	0.5 oz. MIN. .018 [0.46]
N	.015 [0.38]	.025 [0.64]	BeNi	6.7 oz. AVG. .017 [0.43]	5.3 oz. MIN. .017 [0.43]
V	.025 [0.64]	.037 [0.94]	BeCu	4.4 oz. MAX. .026 [0.66]	1.41 oz. MIN. .026 [0.66]

 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]. WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

ANDON ELECTRONICS CORPORATION
4 COURT DRIVE, LINCOLN, R.I. 02865, USA
TEL. (401) 333-0388 / FAX (401) 333-0287
E-MAIL: info@andonelect.com
WEB SITE: http://www.andonelect.com

ANDON
INTERCONNECTION SPECIALISTS

NOTICE:

THE SELLER DOES NOT GUARANTEE THE ACCURACY, COMPLETENESS OR THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE OR APPLICATION.

THERE ARE NO WARRANTIES EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE INTENDED USE WHICH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED. THE SELLER SHALL NOT BE LIABLE TO THE USER OR ANYONE FOR ANY INJURY, NEGLIGENCE OR ANY DIRECT OR CONSEQUENTIAL DANGER SUSTAINED OR INCURRED AS A RESULT OF THE USE OF ANY OF THE SELLER PRODUCTS THAT ARE OR ARE NOT DEFECTIVE.

THE USER HAS THE RIGHT TO INSPECT, ACCEPT OR REJECT THE SELLERS PRODUCTS AT THE TIME OF RECEIPT. ONCE THE SELLERS PRODUCTS ARE ACCEPTED, USED, OR INCORPORATED INTO THE USERS PRODUCTS OR PROCESSED IN ANY MANNER BY THE USER, THE USER ASSUMES ALL RISKS AND LIABILITY.

B.C.E. s.r.l.
Via Regina Pacis, 54/c - 41049 SASSUOLO (MO) Italy
Tel. +39 0536 811.616 r.a. - Fax +39 0536 811.500
www.bce.it - E-mail: bce@bce.it