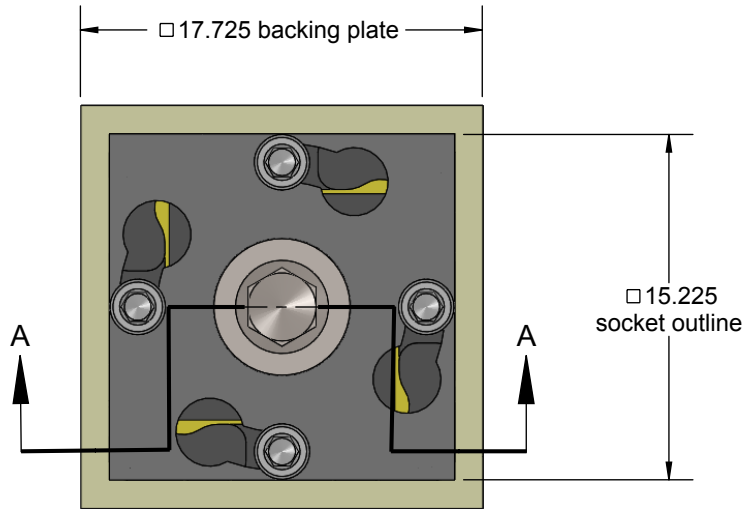


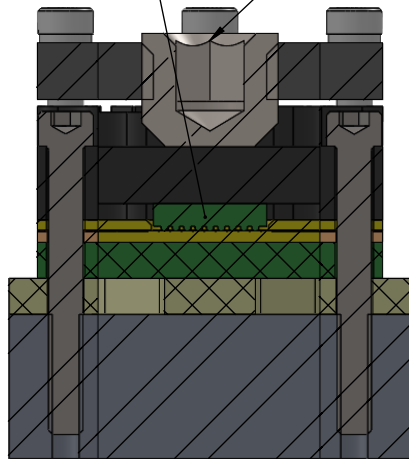
# GHz BGA Socket - Direct mount, solderless

## Features

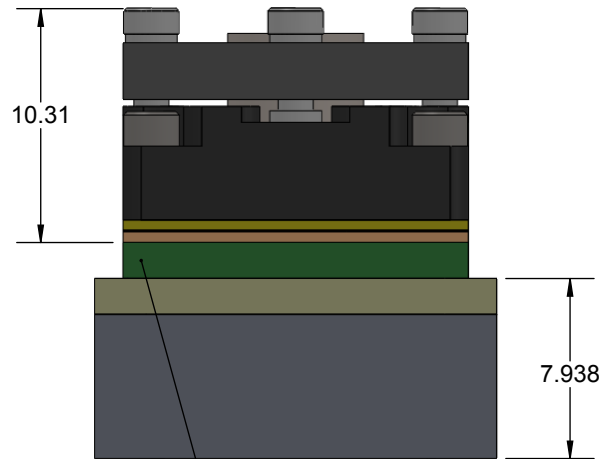
- Directly mounts to target PCB (needs tooling holes) with hardware
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Ball guide prevents over compression of elastomer
- Easily removable swivel socket lid



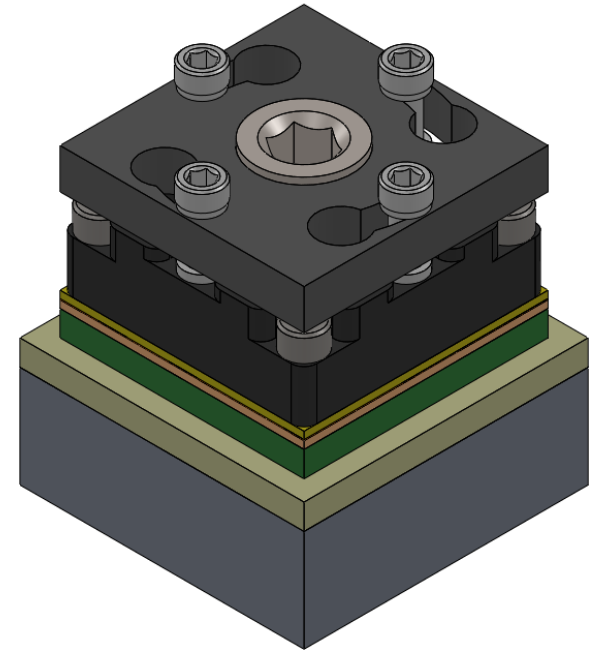
customer's BGA device      Recommended torque 1 in lb.



**SECTION A-A**




customer's target PCB



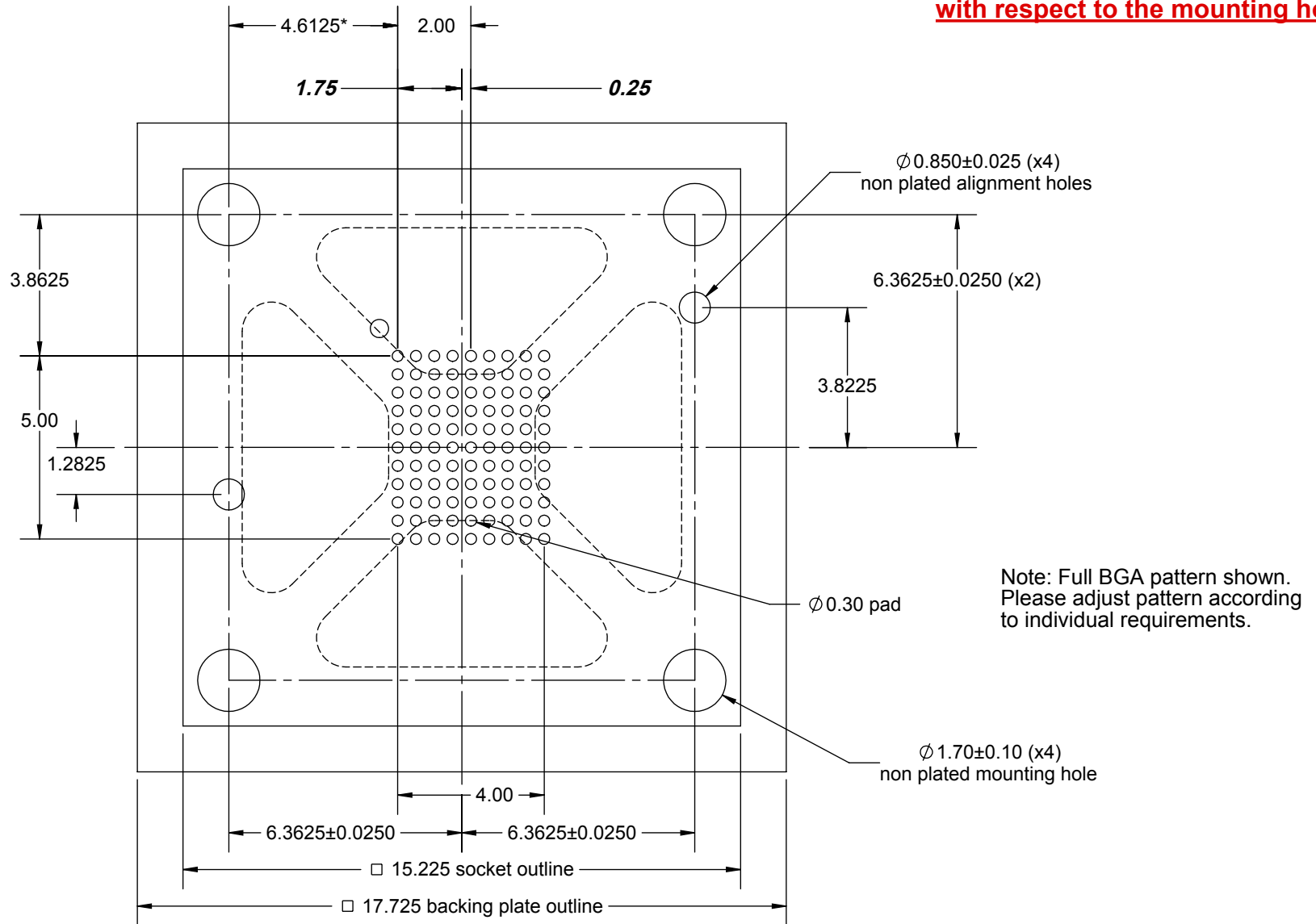
## Description: Elastomer socket for 5x6mm, 9x11, 0.5mm pitch

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <p><b>SG-BGA-7263 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 12.05</p>	<p>STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-7263 Dwg</p>	<p>SHEET: 1 OF 5 DRAWN BY: M. Raske DATE: 10/07/2013</p>	<p>REV. B SCALE: 3:1</p>

**\*Note: BGA pattern is not symmetrical with respect to the mounting holes.**




Note: Full BGA pattern shown. Please adjust pattern according to individual requirements.

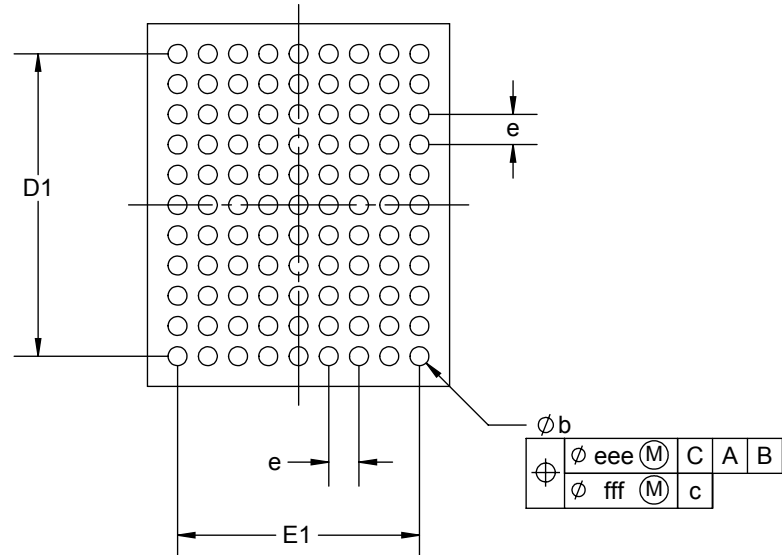
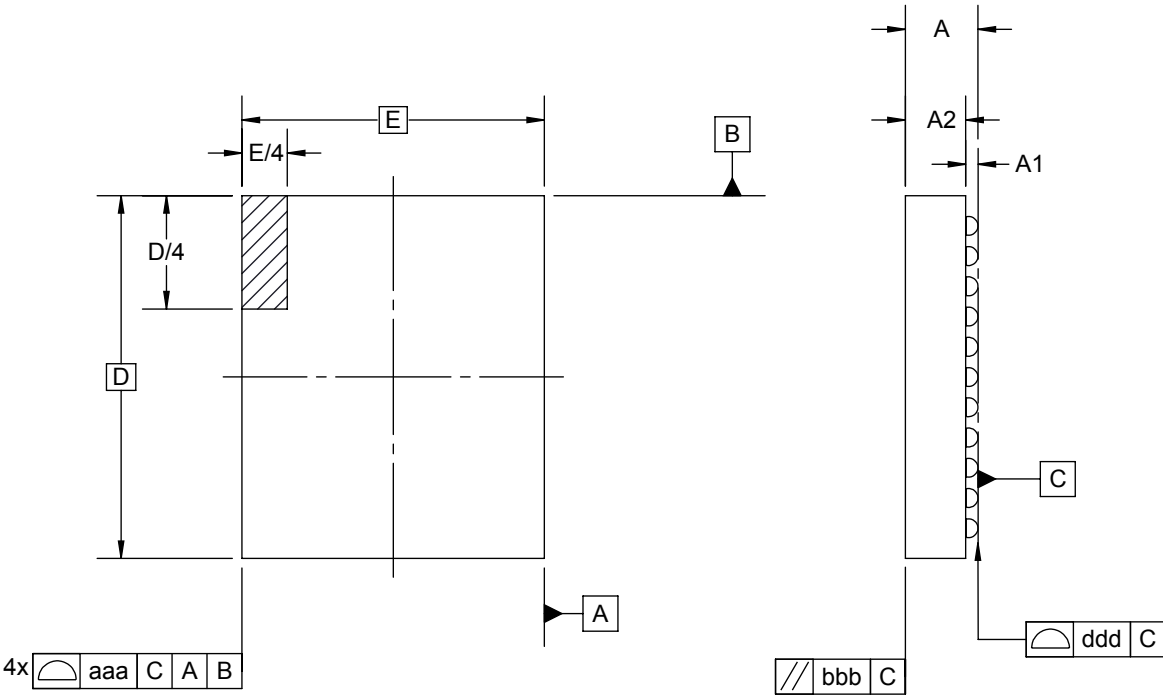
**Target PCB Recommendations**  
 Total thickness: 1.6mm min.  
 Plating: Gold or Solder finish  
 PCB Pad height: Same or higher than solder mask

### Description: Recommended PCB Layout

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SG-BGA-7263 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.05	STATUS: Released ENG: E. Smolentseva FILE: SG-BGA-7263 Dwg	SHEET: 2 OF 5 DRAWN BY: M. Raske DATE: 10/07/2013	REV. B SCALE: 6:1

Ironwood Package Code BGA99A



DIM	MIN	MAX
A	-	1.20
A1	0.15	-
A2		1.00
b	0.25	0.35
D		6
D1		5
E		5
E1		4
e		0.50
aaa		0.15
bbb		0.20
ddd		0.08
eee		0.15
fff		0.05

Dimensions are in millimeters.

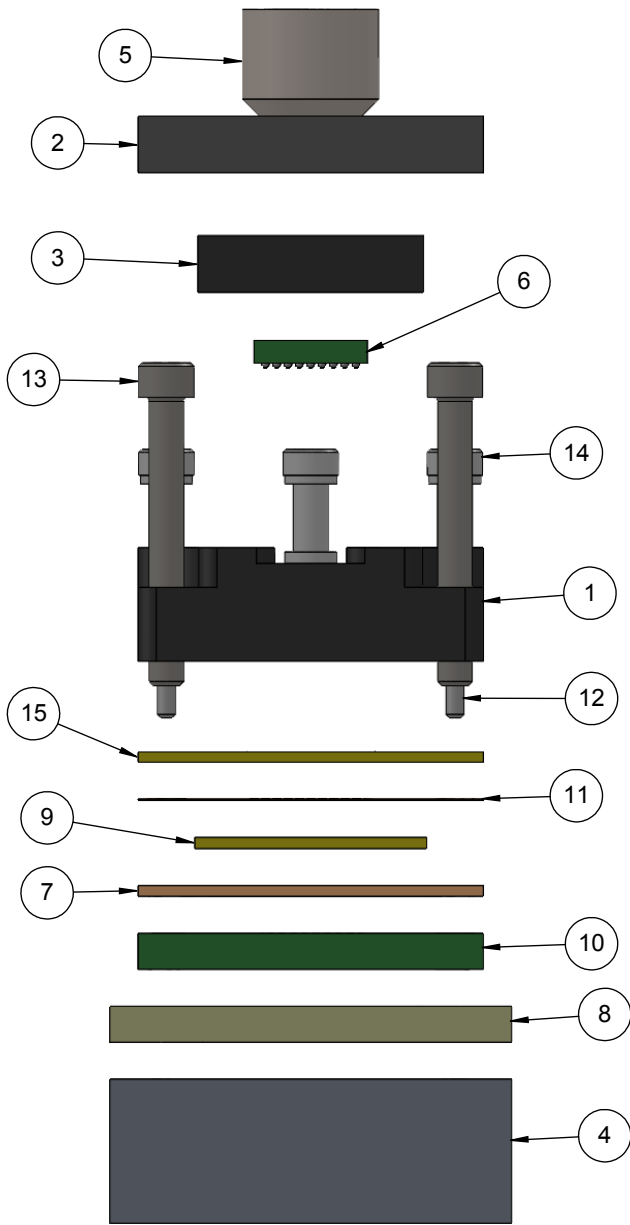
1. Interpret dimensions and tolerances per ASME Y14.5M-1994.
2. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane C.
3. Datum C (seating plane) is defined by the spherical crowns of the solder balls.
4. Parallelism measurement shall exclude any effect of mark on top surface of package.

Description: Compatible Device

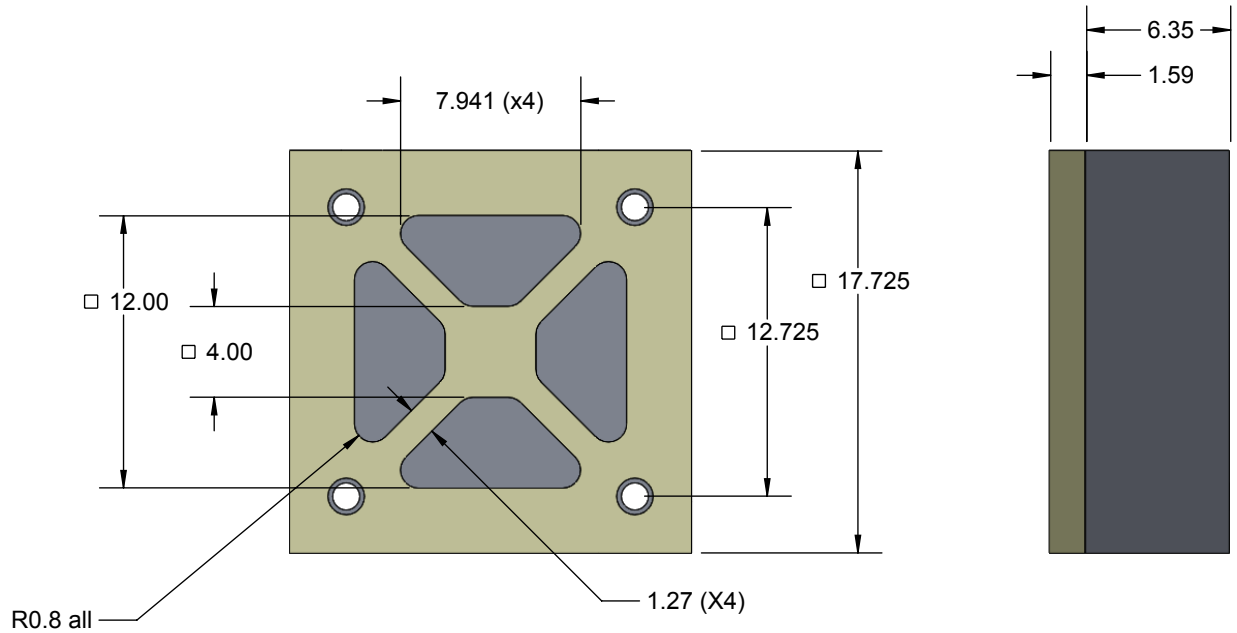
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

9 x 11 array

 <p><b>SG-BGA-7263 Drawing</b>                  Ironwood Electronics, Inc.                  Tele: (800) 404-0204                  www.ironwoodelectronics.com</p>	<p>Material: N/A                  Finish: N/A                  Weight: 12.05</p>	STATUS: Released	SHEET: 3 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 8:1
		FILE: SG-BGA-7263 Dwg	DATE: 10/07/2013	




ITEM NO.	DESCRIPTION	Material
1	Socket Base	7075-T6 Aluminum Alloy
2	Socket Lid	7075-T6 Aluminum Alloy
3	Compression Plate	7075-T6 Aluminum Alloy
4	Backing Plate, 17.73 X 17.73	7075-T6 Aluminum Alloy
5	Compression Screw M6x1	Stainless Steel (18-8)
6	BGA test chip	Material <not specified>
7	Elastomer guide for 10mm IC	Ultem 1000
8	Insulation Plate	FR4 High temp
9	0.5mm thick, 0.05x 0.05mm pitch, 10mm sqr, Z-axis conductive angled elastomer	20 Micron dia gold plated brass filaments arranged symettrically in a silicon rubber (63.5 degree angle), Thickness: 0.5mm
10	Target PCB	FR4
11	Ball Guide, 11x11, 0.41, 0.5mm pitch	Kapton Polyimide/Cirlex
12	Dowel Pin, 1/32" x 3/16", SS	Chrome Stainless Steel
13	#0-80 x 0.5, SH Cap Screw	Alloy Steel
14	#0-80 Shoulder Screw, 0.090" thread length	Stainless Steel (303)
15	IC guide for 5x6mm device	Torlon 4203



### Description: Skt, Backing Plate Detail

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

**Tolerances:** Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.


 <b>SG-BGA-7263 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: N/A Finish: N/A Weight: 12.05	STATUS: Released	SHEET: 4 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: SG-BGA-7263 Dwg	DATE: 10/07/2013	

Rev	Date	Initials	Description
A	10/07/13	MR	Original
B	09/22/14	DH	Change IC Guide material to Torlon

## Description: Revisions

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SG-BGA-7263 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	<b>Material:</b> <b>Finish:</b> <b>Weight:</b>	STATUS: Released	SHEET: 5 OF 5	REV. B
		ENG: E. Smolentseva	DRAWN BY: M. Raske	SCALE: 3:1
		FILE: SG-BGA-7263 Dwg	DATE: 10/07/2013	