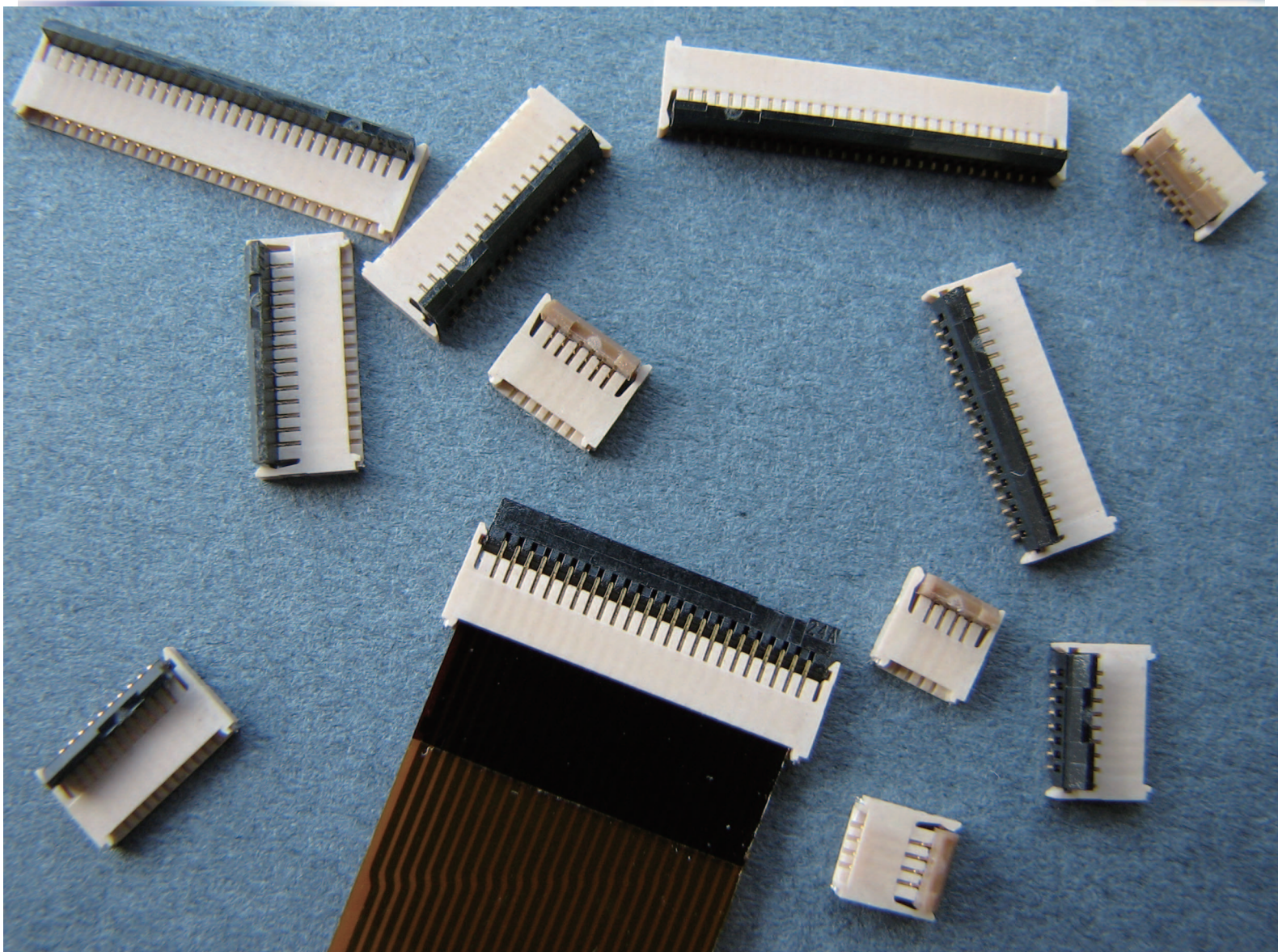


FPC / FFC Connector MINIFLEX SERIES

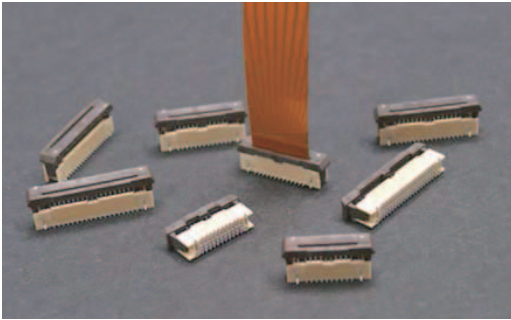
Lead-Free Compliance



Product Overview

Pitch	Type	Product Name	P/N	Profile Height	Pin Count	Applicable Thickness of FPC/FFC	Page			
0.3mm	Vertical ZIF Slider type	MINIFLEX3-VT	20348-***E-11	4.0mm	33p,39p,45p	0.2mm	2			
0.5mm	Horizontal Rear Drive Locking type	MINIFLEX5-BF	20397-***E-**	1.0mm	4p, 8p, 10p, 12p 14p, 16p, 18p, 20p 22p, 24p, 26p	0.3mm	3・4			
	Horizontal Rear Drive Locking type	MINIFLEX5-BF II	20403-***E	2.0mm	10p, 22p, 30p, 33p 40p, 45p	0.3mm	5・6			
	Vertical NON-ZIF type	MINIFLEX5-NV	20305-***E-***	4.0mm	6p, 8p, 10p, 12p, 14p 16p, 18p, 20p, 22p 24p, 26p, 28p, 30p	0.3mm	7			
	Horizontal ZIF Slider type Type-A Top contact	MINIFLEX5-LC	20306-***EA**	2.0mm	6p, 7p, 8p, 9p, 10p 12p, 13p, 14p, 16p 18p, 20p, 24p, 26p	0.3mm	9			
	Horizontal ZIF Slider type Type-A Bottom Contact		20307-***EA**				10			
	Horizontal ZIF Slider type Type-A [HSG:9TPA] Top Contact		20357-***EA**				11			
	Horizontal ZIF Slider type Type-A [HSG:9TPA] Bottom Contact		20358-***EA**				12			
	Horizontal ZIF Slider type Type-B [HSG:9TPA] Top Contact		20359-***EA**				13			
	Horizontal ZIF Slider type Type-B [HSG:9TPA] Bottom Contact		20360-***EA**				14			

MINIFLEX3-VT 0.3mm Pitch Vertical ZIF (Zero Insertion Force) Slider Type



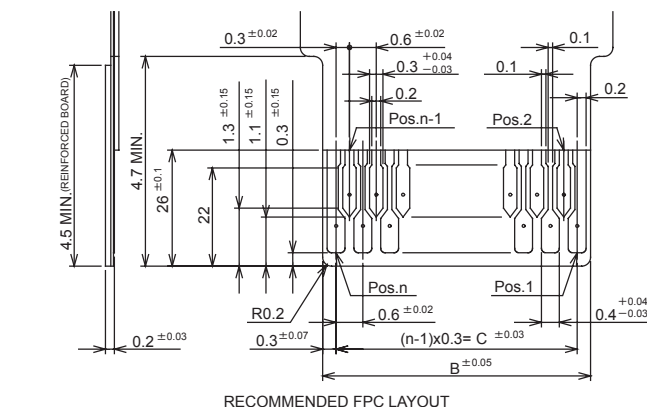
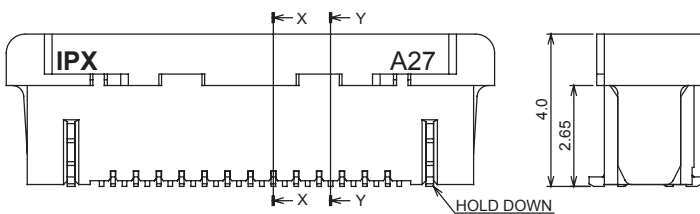
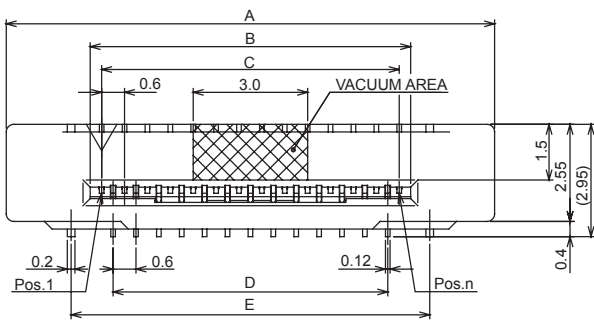
- >Reduced 30% of occupied area on PCB as compared with other horizontal type
- >ZIF (Zero Insertion Force) design makes easy FPC insertion
- >Temporary hold mechanism of FPC
- >Adopt the no lift down design of slider easily at FPC insertion

【Part Number】

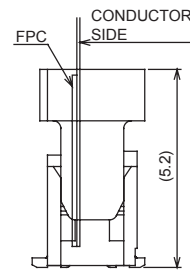
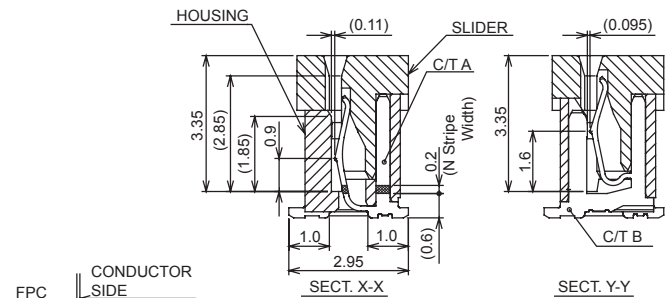
20348-0E-11**

Packing : Emboss Tape
1reel : 2,000pcs

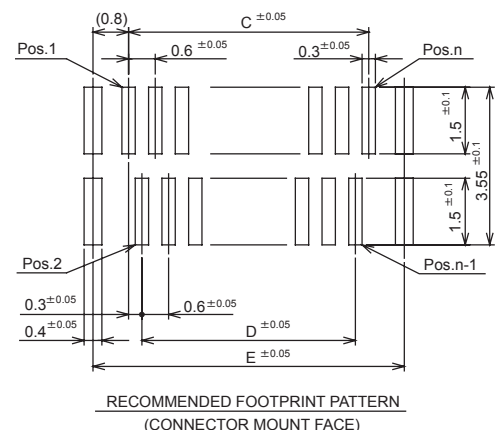
PART NO.	POS.	A	B	C	D	E
20348-033E-11	33p	14.6	10.2	9.6	9.0	11.2
20348-039E-11	39p	16.4	12.0	11.4	10.8	13.0
20348-045E-11	45p	18.2	13.8	13.2	12.6	14.8



RECOMMENDED FPC LAYOUT



SLIDER OPENED STATE

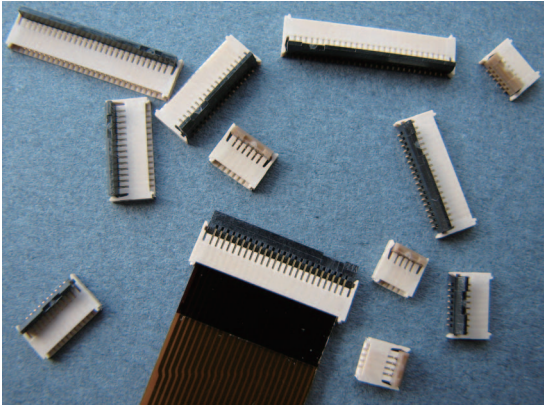


RECOMMENDED FOOTPRINT PATTERN (CONNECTOR MOUNT FACE)

【Material and Finish】

Parts	Material	Plating / Color	Note
HOUSING	LCP UL94V-0	NATURAL	
SLIDER	9TPA UL94V-0	BROWN	
CONTACT	COPPER ALLOY	Au	C/T A : With Ni Strips
HOLD DOWN	COPPER ALLOY	Sn	

MINIFLEX5-BF 0.5mm Pitch Horizontal Rear Drive Locking Type



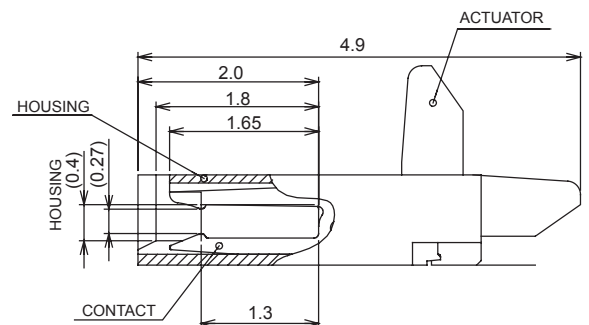
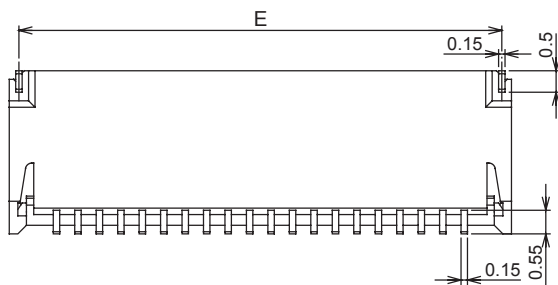
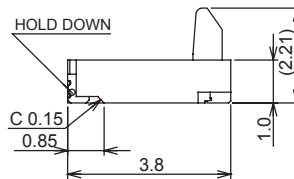
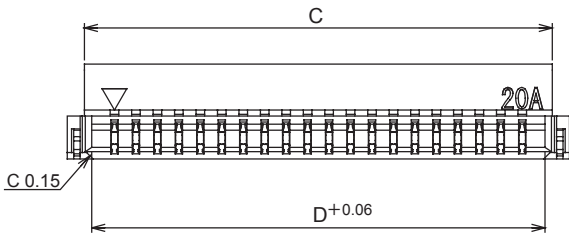
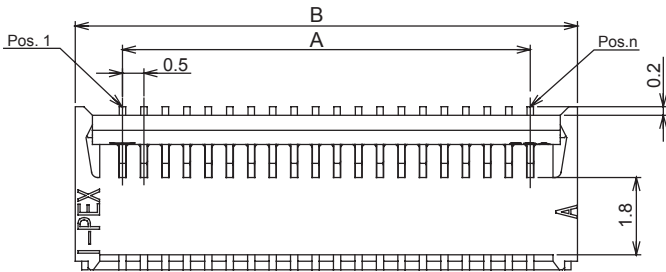
- > Profile Height 1.0mm and Width 4.9mm, Smaller Connector size than Any for 0.3mm thick FPC
- > Higher reliability with Sufficient Effective Mating length at 1.3mm and FPC Insertion Depth at 1.8mm
- > Strong for FPC Peeling with “ Rear Drive ” Locking
- > Easy FPC Connecting Operation with Open Position of Actuators on Shipping
- > Double Spring contact Design Available for Either of FPC Conductor Sides, Top or Bottom

【Part Number】

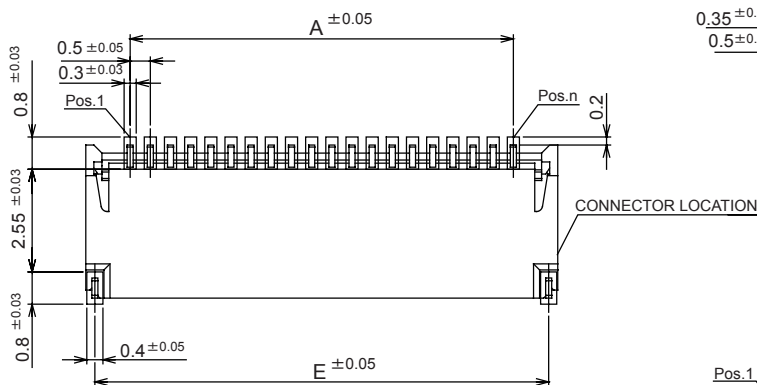
20397-0 E- ##**

Packing : Emboss Tape
1reel : 3,500pcs

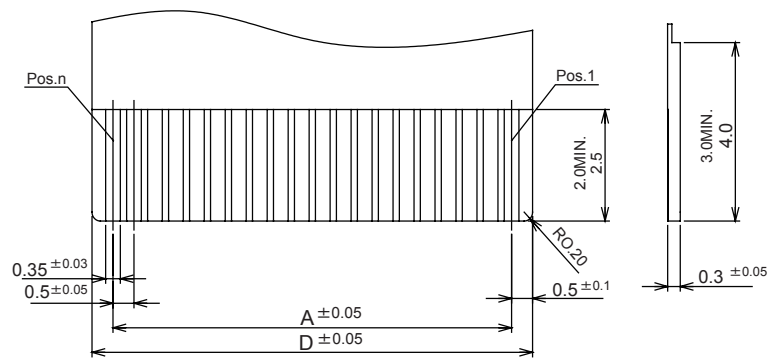
PART NO.	ACTUATOR Color	NOTE
20397-0**E	BLACK	Normal Type
20397-0**E-M1	BROWN	Low C/T force type (4p ~14p)



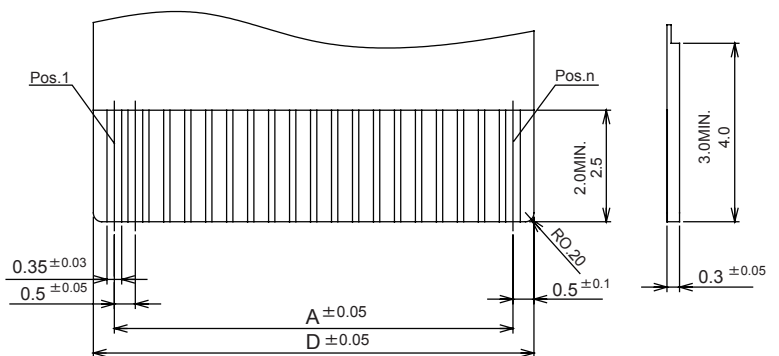
PART NO.	POS.	A	B	C	D	E
20397-004E-##	4p	1.5	3.7	2.9	2.5	3.25
20397-008E-##	8p	3.5	5.7	4.9	4.5	5.25
20397-010E-##	10p	4.5	6.7	5.9	5.5	6.25
20397-012E-##	12p	5.5	7.7	6.9	6.5	7.25
20397-014E-##	14p	6.5	8.7	7.9	7.5	8.25
20397-016E	16p	7.5	9.7	8.9	8.5	9.25
20397-018E	18p	8.5	10.7	9.9	9.5	10.25
20397-020E	20p	9.5	11.7	10.9	10.5	11.25
20397-022E	22p	10.5	12.7	11.9	11.5	12.25
20397-024E	24p	11.5	13.7	12.9	12.5	13.25
20397-026E	26p	12.5	14.7	13.9	13.5	14.25



RECOMMENDED FOOTPRINT PATTERN



RECOMMENDED FPC LAYOUT (TOP CONTACT TYPE)



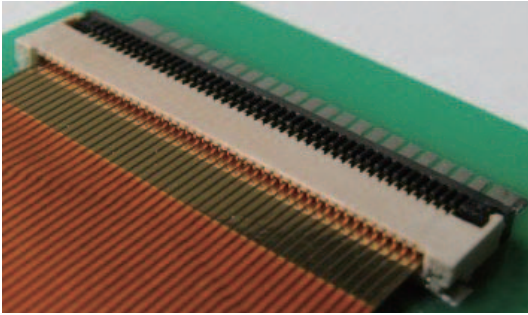
RECOMMENDED FPC LAYOUT (BOTTOM CONTACT TYPE)

【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	NATURAL
ACTUATOR	PPS UL94V-0	BLACK or BROWN
CONTACT	COPPER ALLOY	Au
HOLD DOWN	COPPER ALLOY	Sn

MINIFLEX5-BF II 0.5mm Pitch Horizontal

Rear Drive Locking Type

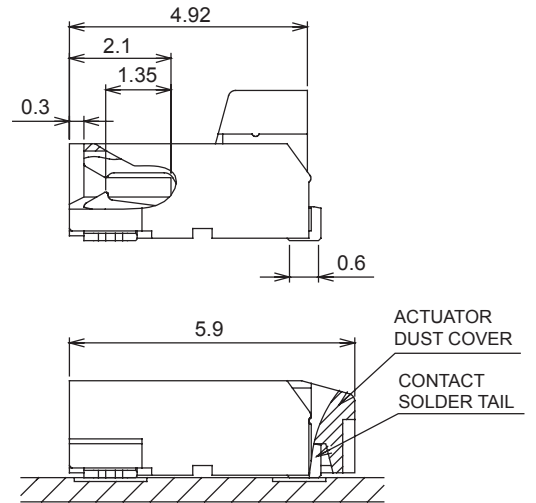
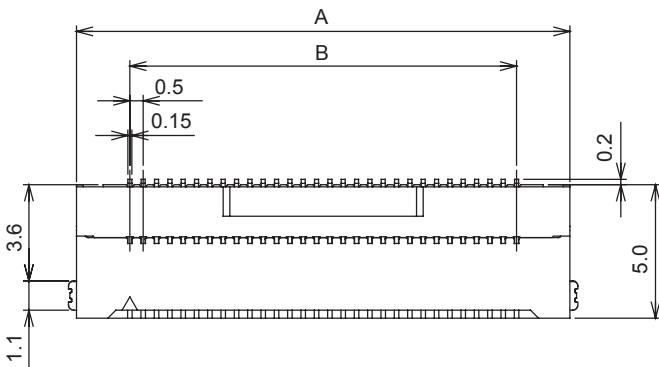


- > 0.3mm thick FPC durable for rugged operation is applicable
- > Reliable design to assure effective mating length, long FPC insertion guide, and high FPC retention force
- > Strong for FPC Peeling with "Rear Drive" Locking
- > Double Spring contact Design Available for Either of FPC Conductor Sides, Top or Bottom
- > Actuator on locking position protects damage and short circuit of solder leg area with dust particles and rugged operation

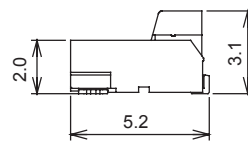
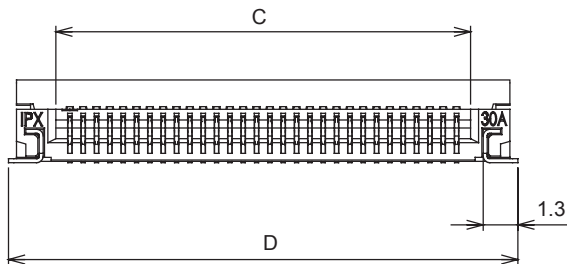
【Part Number】

20403-0 E**

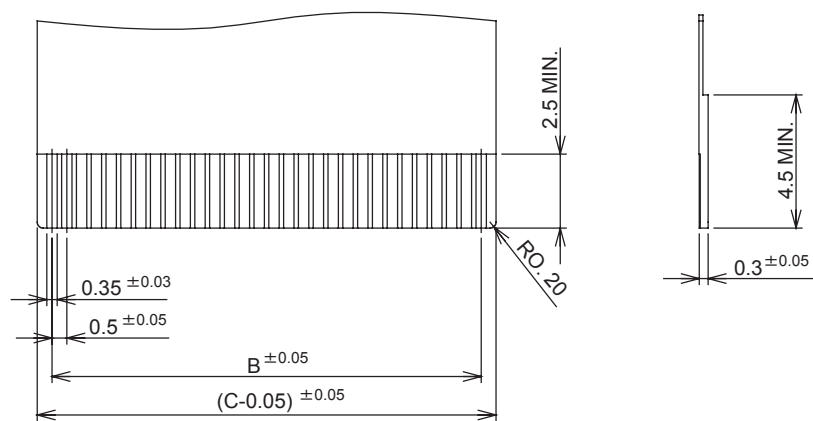
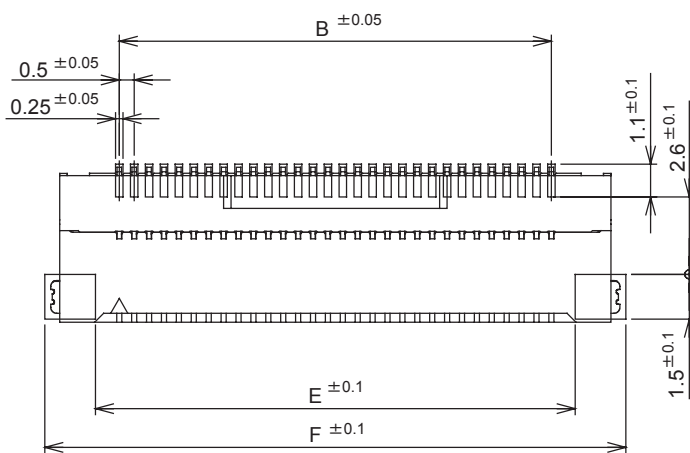
Packing : Emboss Tape
1reel : 2,000pcs



ACTUATOR CLOSED STATE



PART NO.	POS.	A	B	C	D	E	F
20403-010E	10p	8.5	4.5	5.55	9.1	6.1	9.5
20403-022E	22p	14.5	10.5	11.55	15.1	12.1	15.5
20403-030E	30p	18.5	14.5	15.55	19.1	16.1	19.5
20403-033E	33p	20.0	16.0	17.05	20.6	17.6	21.0
20403-040E	40p	23.5	19.5	20.55	24.1	21.1	24.5
20403-045E	45p	26.0	22.0	23.05	26.6	23.6	27.0

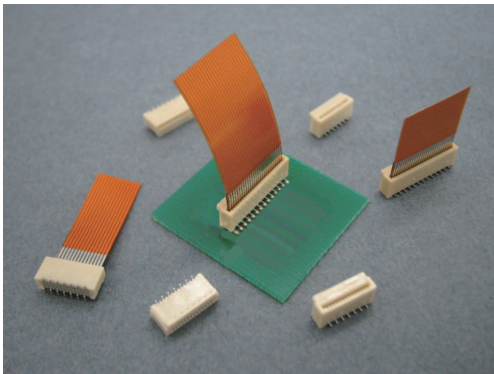


【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	NATURAL
ACTUATOR	PPS UL94V-0	BLACK
CONTACT	COPPER ALLOY	Au
HOLD DOWN	COPPER ALLOY	Sn

MINIFLEX5-NV 0.5mm Pitch Vertical

NON-ZIF Type



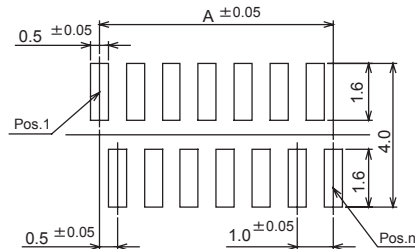
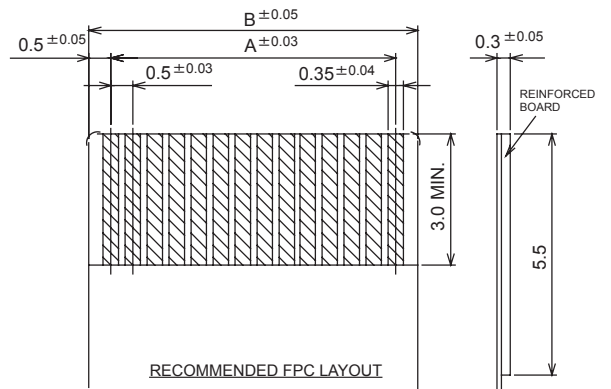
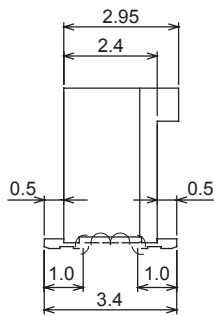
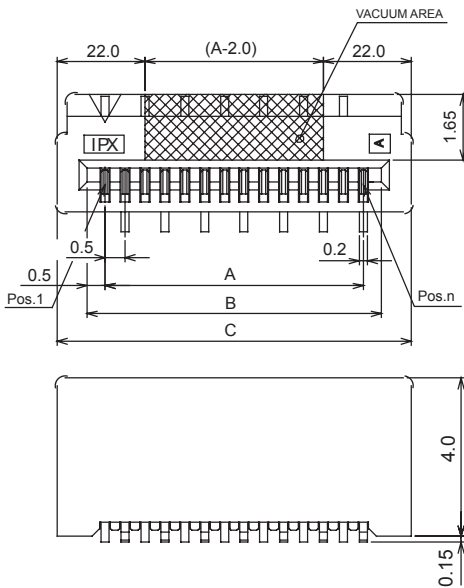
- > The Unique Design of Contact can Minimize the damage on FPC
- > Variety of Contact positions
- > Durability : 30 Cycles

[Part Number]

20305-0 E - 02**

Packing : Emboss Tape
1 reel : 2,000pcs

PART NO.	POS.	A	B	C
20305-006E-02	6p	2.5	3.5	4.9
20305-008E-02	8p	3.5	4.5	5.9
20305-010E-02	10p	4.5	5.5	6.9
20305-012E-02	12p	5.5	6.5	7.9
20305-014E-02	14p	6.5	7.5	8.9
20305-016E-02	16p	7.5	8.5	9.9
20305-018E-02	18p	8.5	9.5	10.9
20305-020E-02	20p	9.5	10.5	11.9
20305-022E-02	22p	10.5	11.5	12.9
20305-024E-02	24p	11.5	12.5	13.9
20305-026E-02	26p	12.5	13.5	14.9
20305-028E-02	28p	13.5	14.5	15.9
20305-030E-02	30p	14.5	15.5	16.9



RECOMMENDED FOOTPRINT PATTERN (CONNECTOR MOUNT FACE)

[Material and Finish]

Parts	Material	Plating / Color
HOUSING	PPS UL94V-0	NATURAL
CONTACT	COPPER ALLOY	Au

MINIFLEX5-LC 0.5mm Pitch Horizontal ZIF (Zero Insertion Force) Slider Type



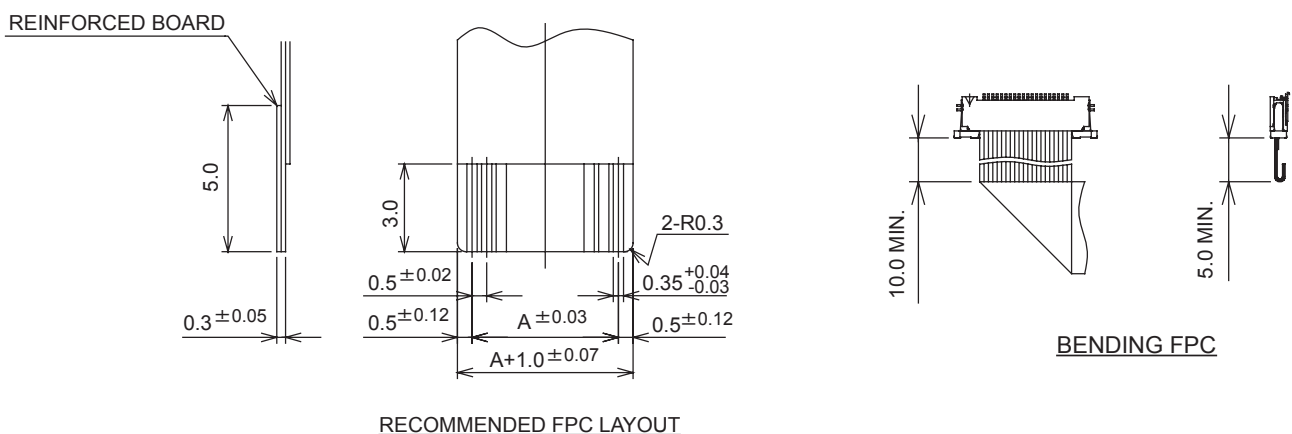
- > “Top Contact” and “Bottom Contact” are provided meeting to versatile FPC application
- > Two different Footprint Pattern
- > Friendly FPC-application by ZIF structure
- > Precise co-planality of the contacts for the surface mount soldering

【Overview】

P/N	Type	Footprint pattern Type	Housing Material	Pin Count
20306-***EA**	Top contact	Type-A	PPS	6p, 7p, 8p, 9p, 10p 12p, 13p, 14p, 16p 18p, 20p, 24p, 26p 30p, 32p, 35p 40p, 42p, 45p 48p, 50p
20307-***EA**	Bottom Contact	Type-A	PPS	
20357-***EA**	Top Contact	Type-A	9TPA	
20358-***EA**	Bottom Contact	Type-A	9TPA	
20359-***EA**	Top Contact	Type-B	9TPA	
20360-***EA**	Bottom Contact	Type-B	9TPA	

【Material and Finish】

Parts	Material	Plating / Color
HOUSING	PPS or 9TPA UL94V-0	BLACK
SLIDER	PPS UL94V-0	NATURAL
CONTACT	COPPER ALLOY	Au
HOLD DOWN	COPPER ALLOY	Sn



TOP Contact Type-A HSG : PPS

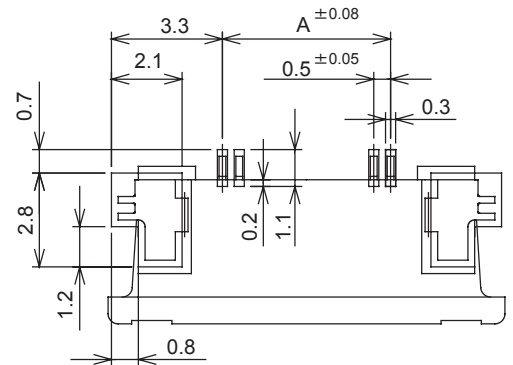
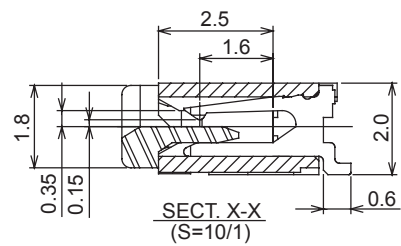
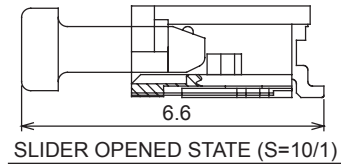
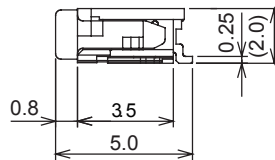
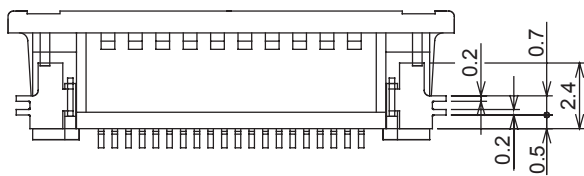
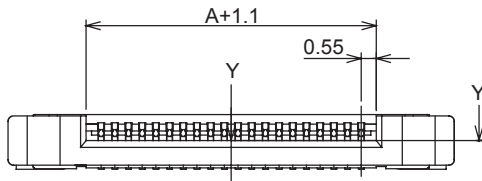
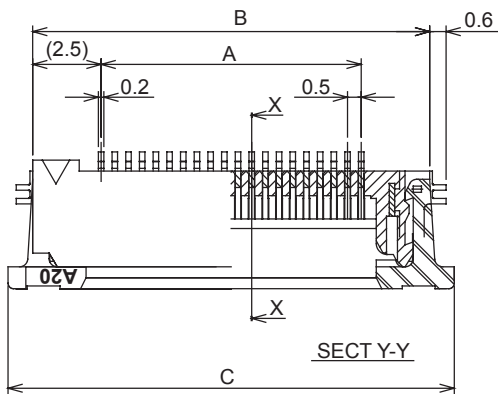
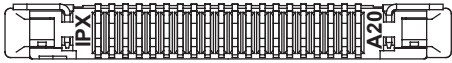
【Part Number】

20306-0** EA # 1

Packing : Emboss Tape

1reel : 2,000pcs

PART NO.	Contact
20306-0**EA01	Au
20306-0**EAB1	Au (Ni Stripe)



RECOMMENDED FOOTPRINT PATTERN

PART NO.	POS.	A	B	C
20306-006EA*1	6p	2.5	7.5	9.3
20306-007EA*1	7p	3.0	8.0	9.8
20306-008EA*1	8p	3.5	8.5	10.3
20306-009EA*1	9p	4.0	9.0	10.8
20306-010EA*1	10p	4.5	9.5	11.3
20306-012EA*1	12p	5.5	10.5	12.3
20306-013EA*1	13p	6.0	11.0	12.8
20306-014EA*1	14p	6.5	11.5	13.3
20306-016EA*1	16p	7.5	12.5	14.3
20306-018EA*1	18p	8.5	13.5	15.3
20306-020EA*1	20p	9.5	14.5	16.3
20306-024EA*1	24p	11.5	16.5	18.3
20306-026EA*1	26p	12.5	17.5	19.3

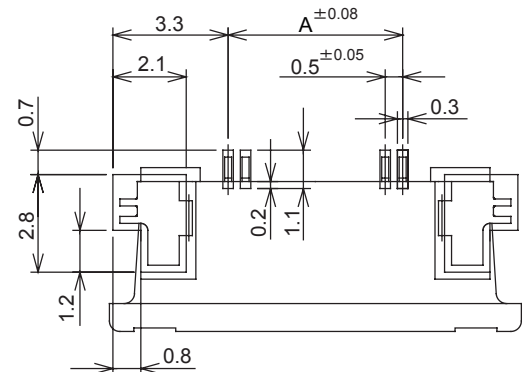
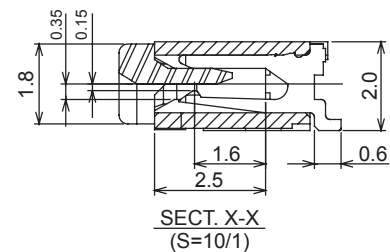
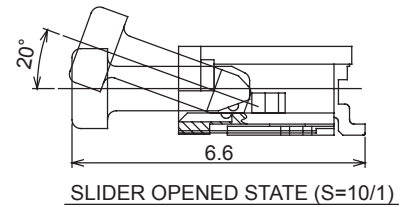
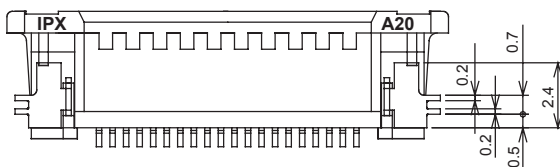
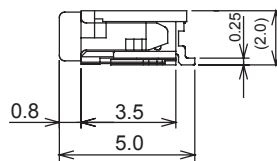
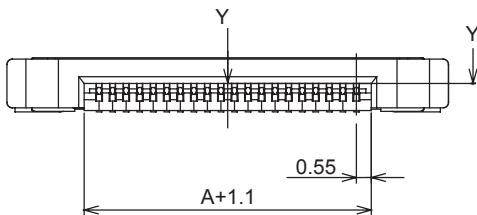
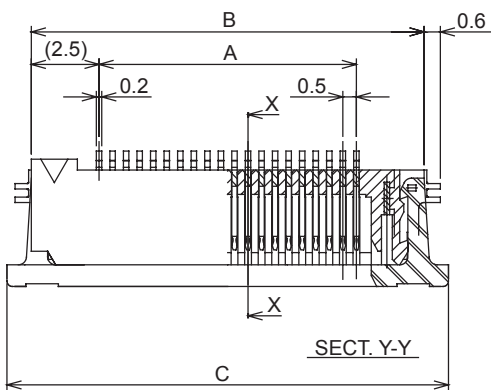
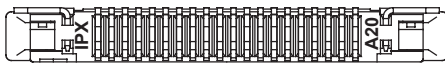
Bottom Contact Type-A HSG : PPS

【Part Number】

20307-0 EA # 1**

Packing : Emboss Tape
1reel : 2,000pcs

PART NO.	Contact
20307-0**EA01	Au
20307-0**EAB1	Au (Ni Stripe)



PART NO.	POS.	A	B	C
20307-006EA*1	6p	2.5	7.5	9.3
20307-007EA*1	7p	3.0	8.0	9.8
20307-008EA*1	8p	3.5	8.5	10.3
20307-009EA*1	9p	4.0	9.0	10.8
20307-010EA*1	10p	4.5	9.5	11.3
20307-012EA*1	12p	5.5	10.5	12.3
20307-013EA*1	13p	6.0	11.0	12.8
20307-014EA*1	14p	6.5	11.5	13.3
20307-016EA*1	16p	7.5	12.5	14.3
20307-018EA*1	18p	8.5	13.5	15.3
20307-020EA*1	20p	9.5	14.5	16.3
20307-024EA*1	24p	11.5	16.5	18.3
20307-026EA*1	26p	12.5	17.5	19.3

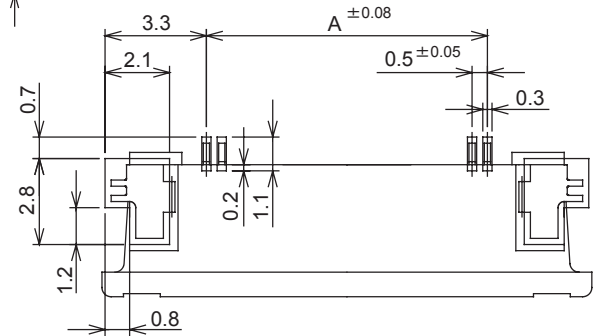
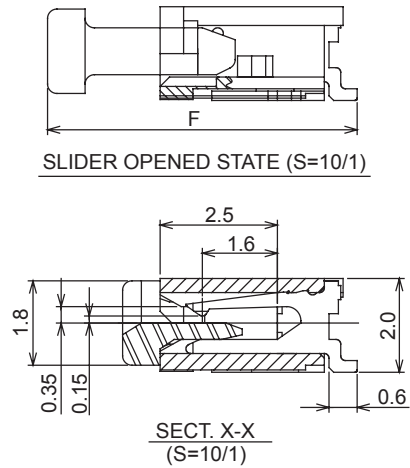
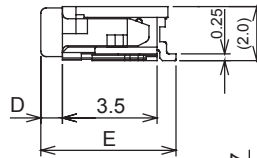
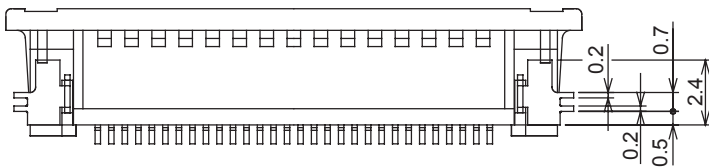
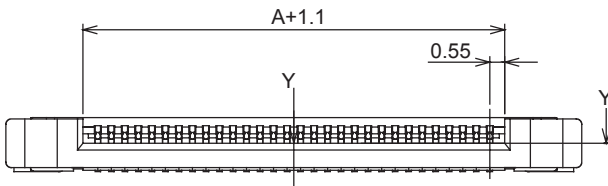
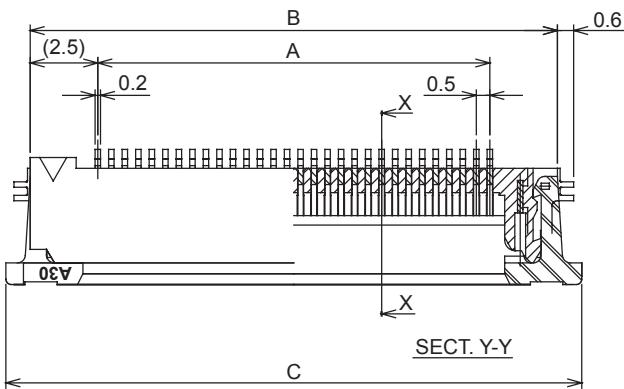
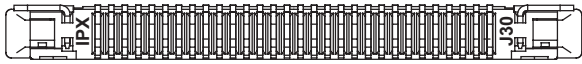
TOP Contact Type-A HSG : 9TPA

[Part Number]

20357-0 EA # 1**

Packing : Emboss Tape
1reel : 2,000pcs

PART NO.	Contact
20357-0**EA01	Au
20357-0**EAB1	Au (Ni Stripe)



RECOMMENDED FOOTPRINT PATTERN

PART NO.	POS.	A	B	C	D	E	F
20357-030EA*1	30p	14.5	19.5	21.3	0.8	5.0	6.6
20357-032EA*1	32p	15.5	20.5	22.3	1.5	5.7	7.3
20357-035EA*1	35p	17.0	22.0	23.8			
20357-040EA*1	40p	19.5	24.5	26.3			
20357-042EA*1	42p	20.5	25.5	27.3			
20357-045EA*1	45p	22.0	27.0	28.8			
20357-048EA*1	48p	23.5	28.5	30.3			
20357-050EA*1	50p	24.5	29.5	31.3			

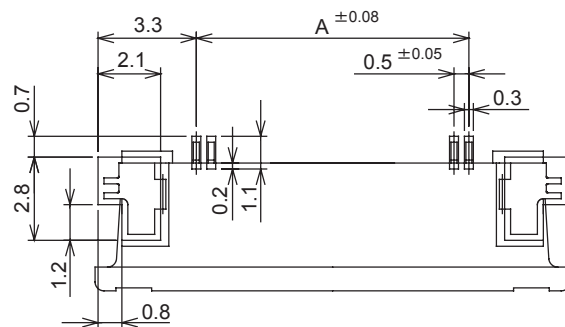
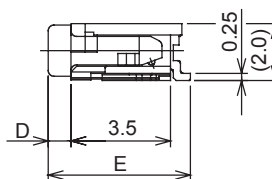
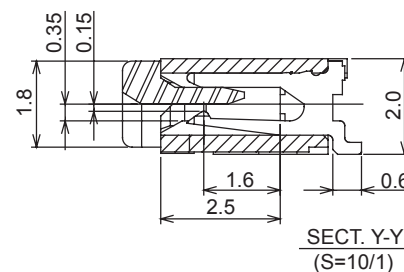
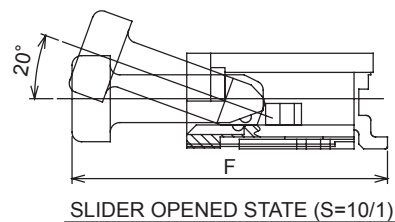
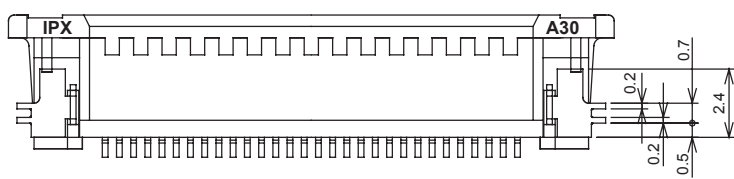
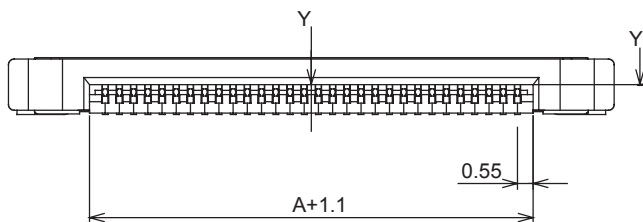
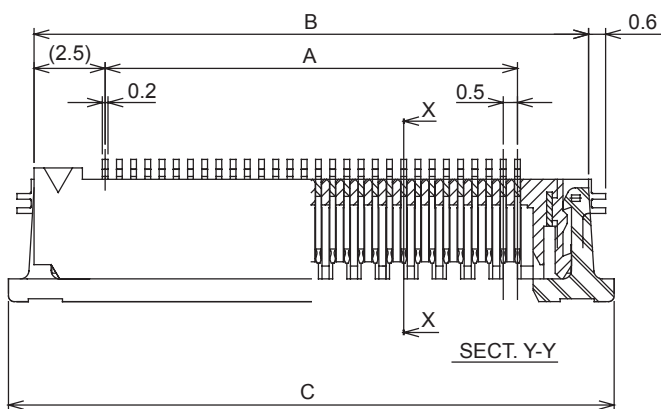
Bottom Contact Type-A HSG : 9TPA

【Part Number】

20358-0** EA # 1

Packing : Emboss Tape
1reel : 2,000pcs

PART NO.	Contact
20358-0**EA01	Au
20358-0**EAB1	Au (Ni Stripe)



RECOMMENDED FOOTPRINT PATTERN

PART NO.	POS.	A	B	C	D	E	F
20358-030EA*1	30p	14.5	19.5	21.3	0.8	5.0	6.6
20358-032EA*1	32p	15.5	20.5	22.3	1.5	5.7	7.3
20358-035EA*1	35p	17.0	22.0	23.8			
20358-040EA*1	40p	19.5	24.5	26.3			
20358-042EA*1	42p	20.5	25.5	27.3			
20358-045EA*1	45p	22.0	27.0	28.8			
20358-048EA*1	48p	23.5	28.5	30.3			
20358-050EA*1	50p	24.5	29.5	31.3			

TOP Contact Type-B HSG : 9TPA

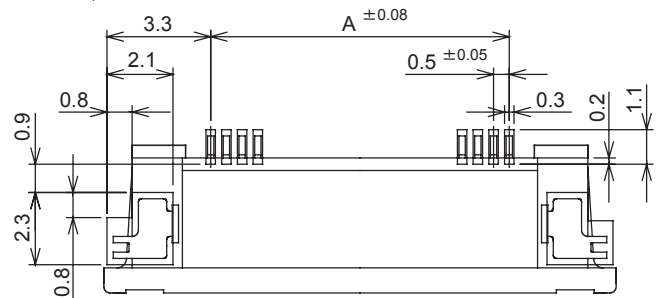
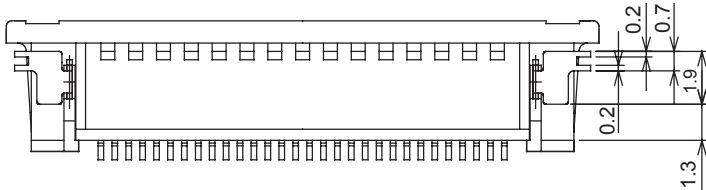
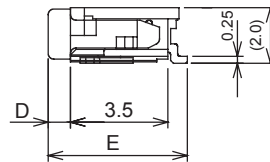
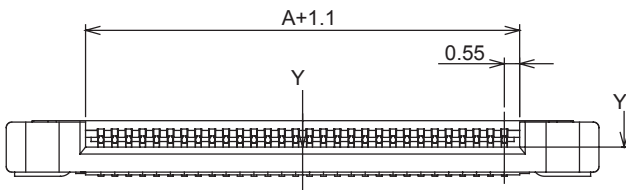
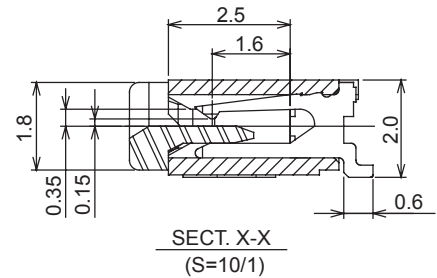
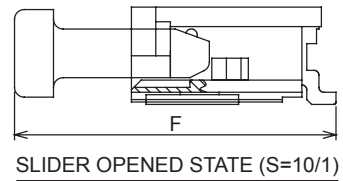
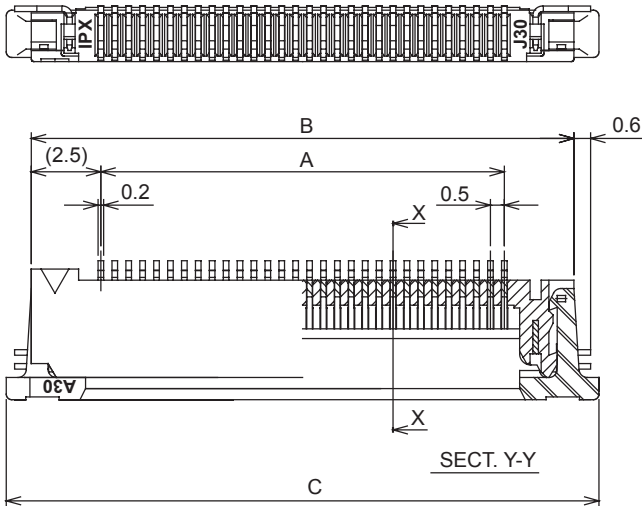
[Part Number]

20359-0** EA # 1

Packing : Emboss Tape

1reel : 2,000pcs

PART NO.	Contact
20359-0**EA01	Au
20359-0**EAB1	Au (Ni Stripe)



RECOMMENDED FOOTPRINT PATTERN

PART NO.	POS.	A	B	C	D	E	F
20359-030EA*1	30p	14.5	19.5	21.3	1.5	5.7	7.3
20359-032EA*1	32p	15.5	20.5	22.3			
20359-035EA*1	35p	17.0	22.0	23.8			
20359-040EA*1	40p	19.5	24.5	26.3			
20359-042EA*1	42p	20.5	25.5	27.3			
20359-045EA*1	45p	22.0	27.0	28.8			
20359-048EA*1	48p	23.5	28.5	30.3			
20359-050EA*1	50p	24.5	29.5	31.3			

Bottom Contact Type-B HSG : 9TPA

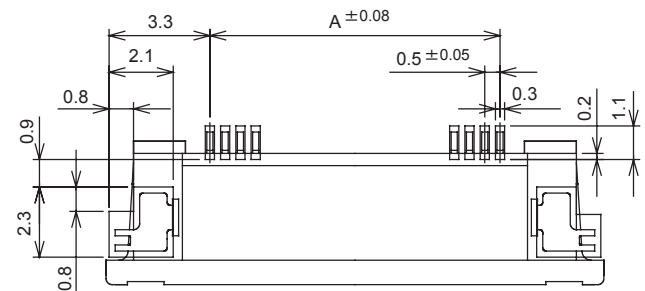
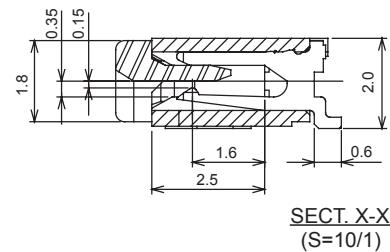
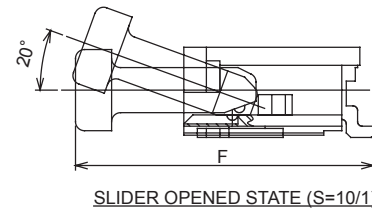
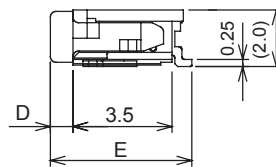
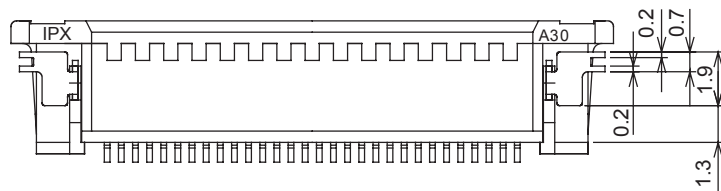
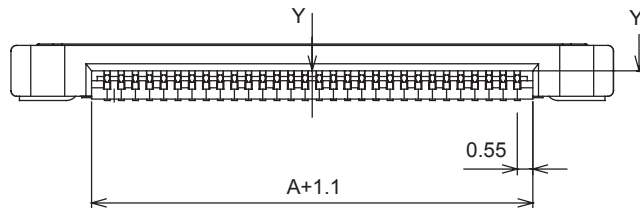
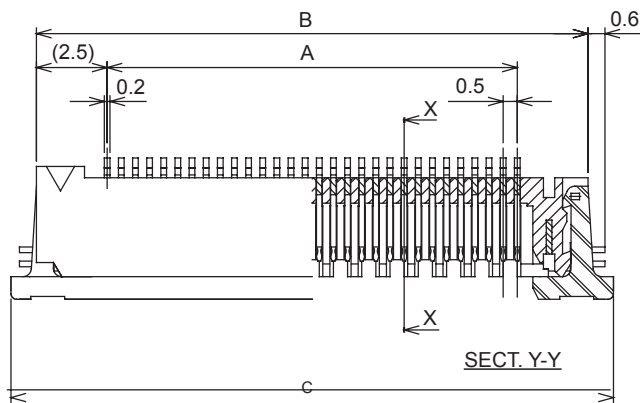
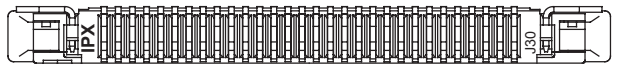
【Part Number】

20360-0** EA # 1

Packing : Emboss Tape

1reel : 2,000pcs

PART NO.	Contact
20360-0**EA01	Au
20360-0**EAB1	Au (Ni Stripe)



RECOMMENDED FOOTPRINT PATTERN

PART NO.	POS.	A	B	C	D	E	F
20360-030EA*1	30p	14.5	19.5	21.3	0.8	5.0	6.6
20360-032EA*1	32p	15.5	20.5	22.3			
20360-035EA*1	35p	17.0	22.0	23.8			
20360-040EA*1	40p	19.5	24.5	26.3			
20360-042EA*1	42p	20.5	25.5	27.3			
20360-045EA*1	45p	22.0	27.0	28.8			
20360-048EA*1	48p	23.5	28.5	30.3			
20360-050EA*1	50p	24.5	29.5	31.3	1.5	5.7	7.3



MINIFLEX SERIES CONNECTORS

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