

Product Specification (For External Use)

Rev.	Description	Written/Date	Checked/Date	Approved/Date
A	NEW RELEASE	Sunzheng 05-15-2020	Jason 05-15-2020	Jason 05-15-2020

**0.35mm Pitch,0.70mm Height,Board-to-Board/Board-to-FPC Connectors
(BB31 Series)**

Rating	Rated current signal pin: 0.3A /PIN HOLD DOWN:5A/PIN Rated voltage 60V AC/DC	Operating temperature range : -55ç to +85ç Operating humidity range : 20% to 80%	Storage temperature range: -55ç to +85ç Storage humidity range : 20% to 80%
	Item	Specification	Conditions
1. Insulation resistance	100 M Ω min.	250V DC /one minute	
2. Withstanding voltage	No flashover or insulation breakdown.	250V AC /one minute	
3. Contact resistance	Signal pin: 80 m Ω max hold down: 30 m Ω max	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100 mA maximum	
4. Vibration	No electrical discontinuity of 1 μ s or more	Frequency: 10 to 55 Hz, single amplitude of 1.5mm, 2 hours along each X,Y,Z, total 6 hours	
5. Humidity	Contact resistance:signal pin:100 m Ω max.hold down :40 m Ω max. Insulation resistance: 50M Ω min.	120 hours at temperature of 40ç \pm 2ç and RH of 90% to 95%	
6. Temperature cycle	Contact resistance: signal pin:100 m Ω max.hold down :40 m Ω max. Insulation resistance: 50 M Ω min.	Temperature: -55ç/+5ç/+35ç/+85ç Duration: 30/10/10/30 (Minutes) 5 cycles	
7. Durability	Contact resistance: signal pin:100 m Ω max.hold down :40 m Ω max.	30 cycles	
8. Resistance to soldering heat	No deformation of components affecting performance.	Reflow: At the recommended temperature profile Manual soldering: 300ç for 3 seconds	
9. Salt water spray	1). Appearance shall not be distinct damage. 2). Resistance value after test After test: signal pin:100 m Ω max.hold down :40 m Ω max. Insulation resistance: 1). Initial: 100 M Ω Minimum. 2). After test: 50 M Ω Minimum.	Temperature: 35 $^{\circ}$ C \pm 2 $^{\circ}$ C Density of salt water : 5 \pm 1% Duration: 48 hours.	
10. Mating&Unmating Force	Mating force: Maximum 100grams/terminal x total terminals. Unmating force: Minimum 30grams/terminal x total Terminals.	Measure force necessary to mate assemblies at maximum rate of 25 \pm 3 mm per minute.	



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Materials and Finishes

Connectors	Component	Material	Finish		Remarks
Socket	Insulator	LCP	Color : Black		UL94V-0
	Contacts	Phosphor bronze	plating	Contact area: Au 2.5u” Min, Ni 80-150u”	
				Solder area: Au 2.5u” Min, Ni 80-150u”	
Plug	Insulator	LCP	Color : Black		UL94V-0
	Contacts	Phosphor bronze	plating	Contact area: Au 3u” Min, Ni 80-150u”	
				Solder area: Au 3u” Min, Ni 80-150u”	

Ordering information (Socket)

YXT-BB31-S-02**

1 2 3 4

1. YXT:YXT Precision Technology Co. Ltd.
2. Series name: BB31(0.35mm pitch 0.70mm height Board to Board Connectors)
3. Number of contacts: 6, 8, 10, 12, 16, 20, 24, 30, 40, 50 S-(Socket)
4. 02(standard)

Ordering information (Plug)

YXT-BB31-P-02**

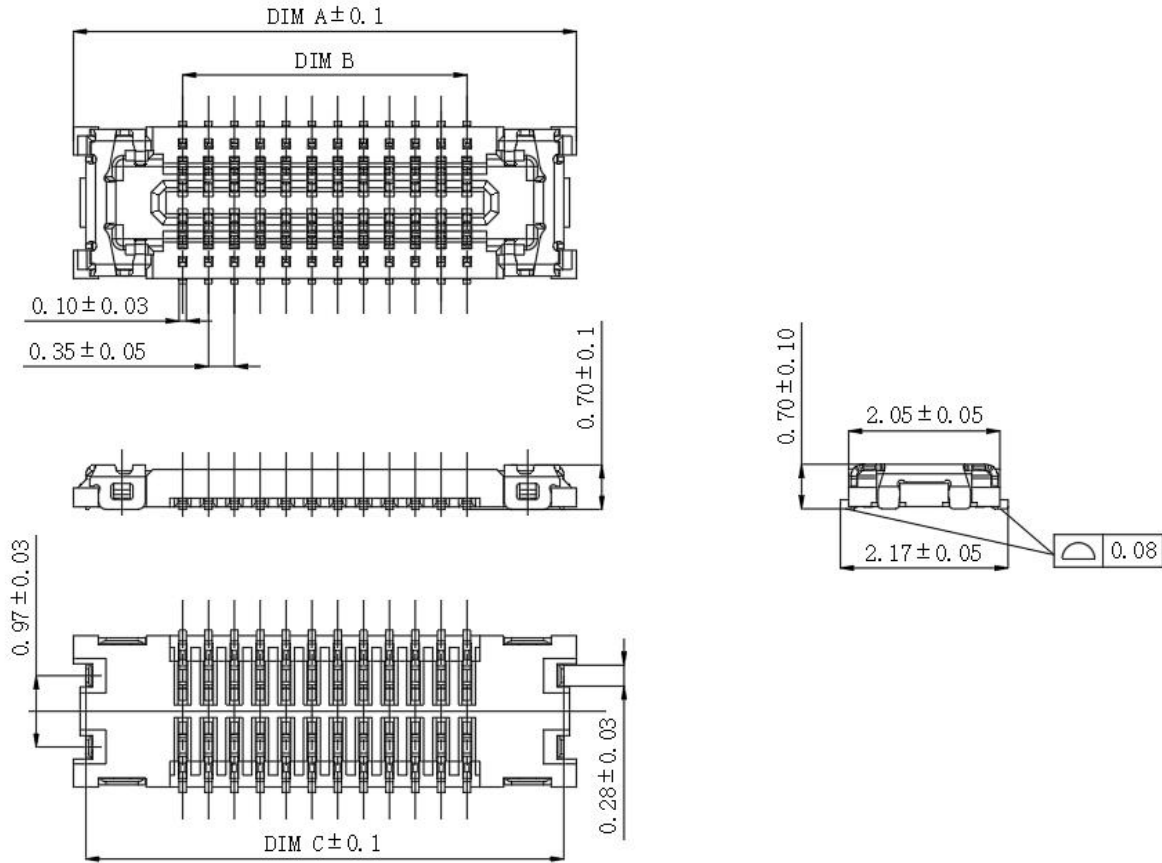
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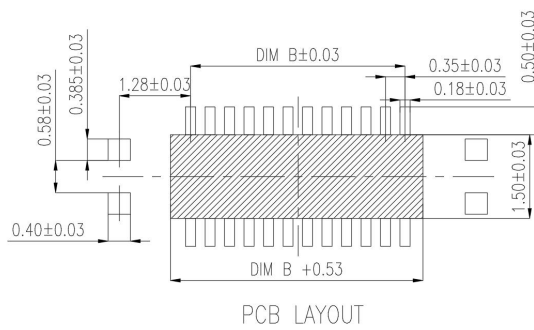
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Socket (CAD Data)



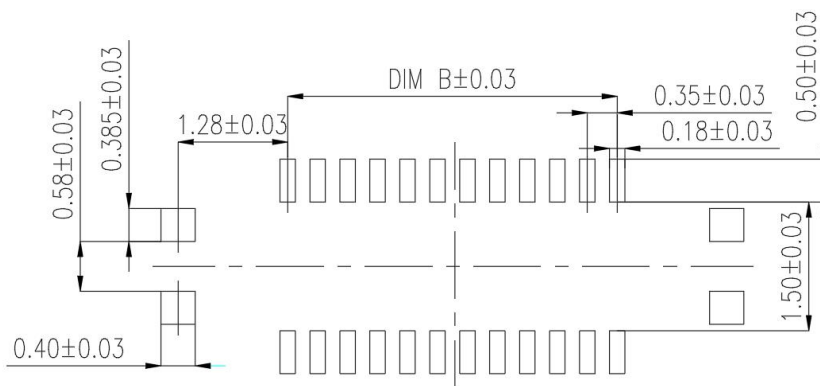
Recommended PCB mounting pattern

Dimension table (Unit: mm)

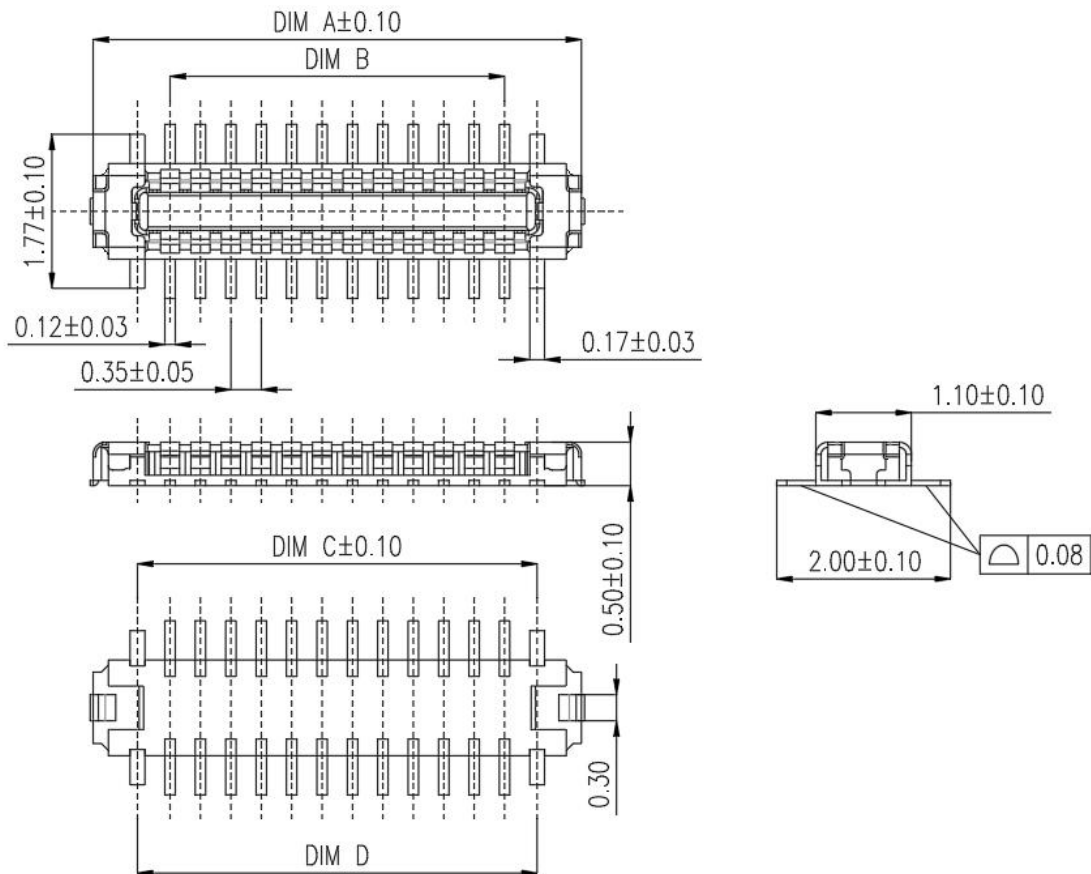


Part Number	Number of contacts	DIM A	DIM B	DIM C
YXT-BB31-06S-02	6	3.66	0.70	3.24
YXT-BB31-08S-02	8	4.01	1.05	3.59
YXT-BB31-10S-02	10	4.36	1.40	3.94
YXT-BB31-12S-02	12	4.71	1.75	4.29
YXT-BB31-16S-02	16	5.41	2.45	4.99
YXT-BB31-20S-02	20	6.11	3.15	5.69
YXT-BB31-24S-02	24	6.81	3.85	6.39
YXT-BB31-30S-02	30	7.86	4.90	7.44
YXT-BB31-40S-02	40	9.61	6.65	9.19
YXT-BB31-50S-02	50	11.36	8.40	10.94

Recommended metal mask mounting pattern



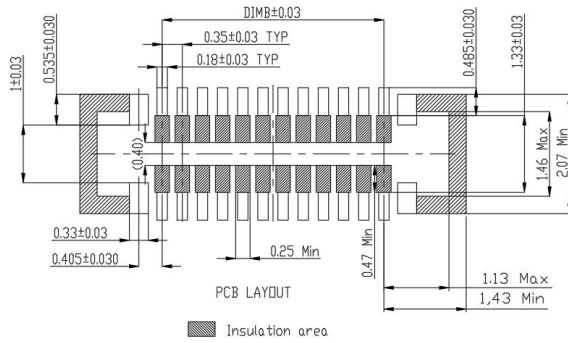
Plug (CAD Data)



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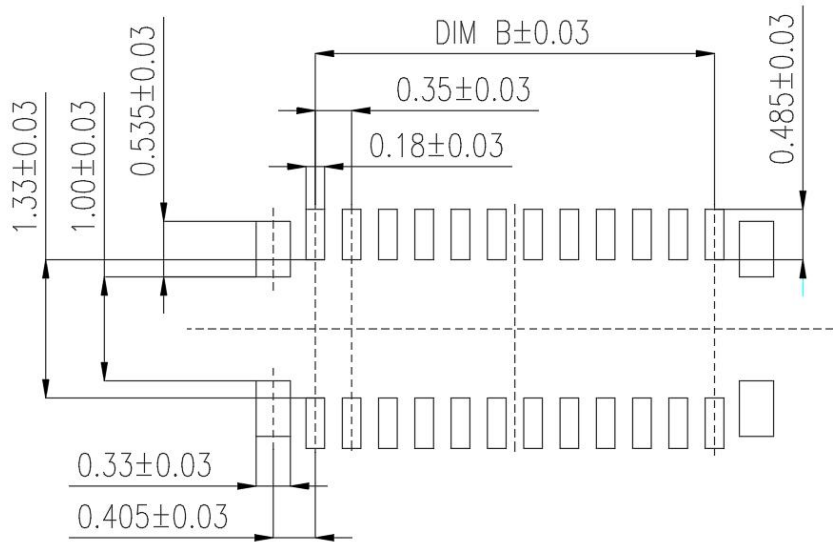
Recommended PCB mounting pattern

Dimension table (Unit: mm)



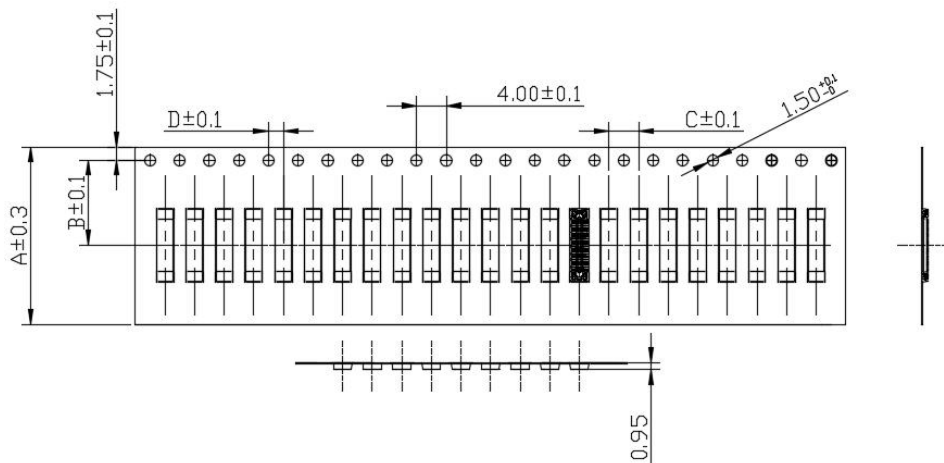
Part Number	Number of contacts	DIM A	DIM B	DIM C	DIM D
YXT-BB31-06P-02	6	2.47	0.70	1.45	2.54
YXT-BB31-08P-02	8	2.82	1.05	1.80	2.89
YXT-BB31-10P-02	10	3.17	1.40	2.15	3.24
YXT-BB31-12P-02	12	3.52	1.75	2.50	3.59
YXT-BB31-16P-02	16	4.22	2.45	3.20	4.29
YXT-BB31-20P-02	20	4.92	3.15	3.90	4.99
YXT-BB31-24P-02	24	5.62	3.85	4.60	5.69
YXT-BB31-30P-02	30	6.67	4.90	5.65	6.74
YXT-BB31-40P-02	40	8.42	6.65	7.40	8.49
YXT-BB31-50P-02	50	10.17	8.40	9.15	10.24

Recommended metal mask mounting pattern

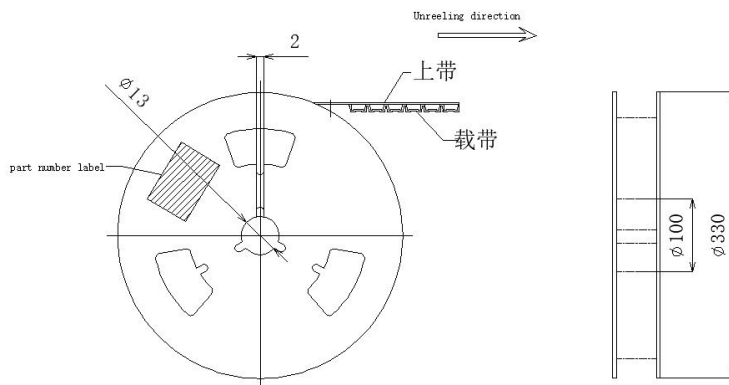


Packing Specification

Embossed Carrier Tape Dimensions-Socket



Reel Dimensions--Socket



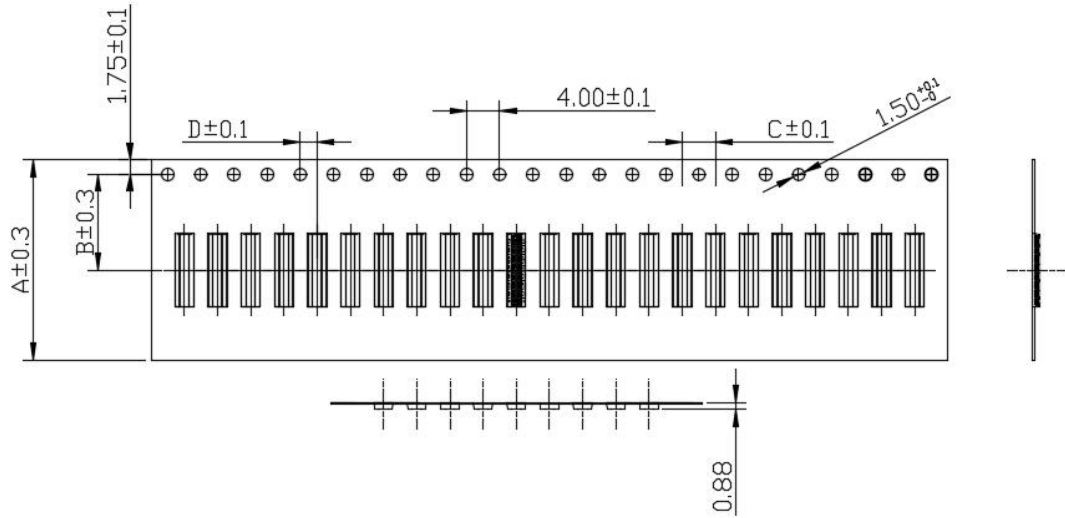
Dimension table (Unit: mm)

Part Number	A	B	C	D	Quantity(PC/REEL)
YXT-BB31-06S-02	12	5.5	4	2	10000
YXT-BB31-08S-02	12	5.5	4	2	10000
YXT-BB31-10S-02	12	5.5	4	2	10000
YXT-BB31-12S-02	12	5.5	4	2	10000
YXT-BB31-16S-02	16	7.5	4	2	10000
YXT-BB31-20S-02	16	7.5	4	2	10000
YXT-BB31-24S-02	16	7.5	4	2	10000
YXT-BB31-30S-02	16	7.5	4	2	10000
YXT-BB31-40S-02	24	11.5	4	2	10000
YXT-BB31-50S-02	24	11.5	4	2	10000

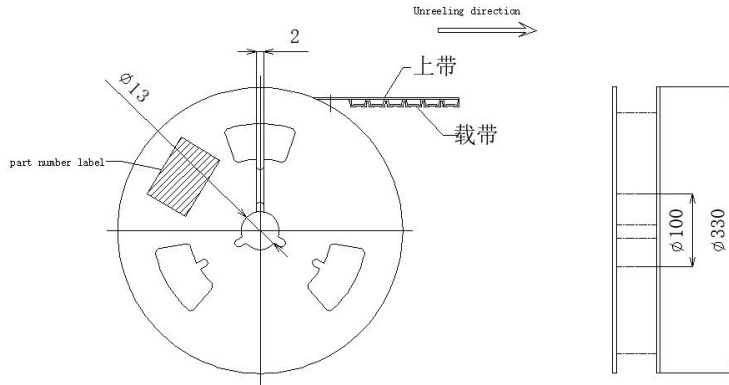
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Embossed Carrier Tape Dimensions-Plug



Reel Dimensions--Plug



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YXT-BB31-16P-02	16	7.5	4	2	10000
YXT-BB31-20P-02	16	7.5	4	2	10000
YXT-BB31-24P-02	16	7.5	4	2	10000
YXT-BB31-30P-02	16	7.5	4	2	10000
YXT-BB31-40P-02	24	11.5	4	2	10000
YXT-BB31-50P-02	24	11.5	4	2	10000

Instruction of application to usage

