

**0.8mm Pitch, 0.6mm Height, Board-to-Board Battery Connectors
(BTR20 Series)**

**Product Specification
(For External Use)**

Rev.	Description	Written/Date	Checked/Date	Approved/Date
A	New Release	Jim 08-24-2017	Jason 08-24-2017	Dickson Guan 08-25-2017

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Rating	Rated current: Signal Pin: 0.5A/Pin	Operating temperature range : -55°C to +85°C	Storage temperature range: -55°C to +85°C
	Rated current: Power Pin: 6A/Pin		
	Rated voltage: 60V AC/DC	Storage humidity range : 20% to 80%	

Item	Specification	Conditions
1. Insulation resistance	1000 MΩ min.	250V DC /one minute
2. Withstanding voltage	No flashover or insulation breakdown.	150V AC /one minute
3. Temperature rise	The temperature rise should not exceed 30°C	6A rated current is passed on testing specimens for 3 hours
4. Contact resistance	Signal Pin: Initial: 50mΩ max. After test: Δ20mΩ Power Pin: Initial: 10mΩ max. After test: 15mΩ max.	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100 mA maximum
5. Vibration	No electrical discontinuity of 1 μs or more	Frequency: 10 to 55 Hz, single amplitude of 1.5mm, 2 hours along each X,Y,Z, total 6 hours
6. Humidity	Contact resistance: Signal Pin: Initial: 50mΩ max. After test: Δ20mΩ Power Pin: Initial: 10mΩ max. After test: 15mΩ max. Insulation resistance: 1000 MΩ min.	120 hours at temperature of 40°C ±2°C and RH of 90% to 95%
7. Temperature cycle	Contact resistance: Signal Pin: Initial: 50mΩ max. After test: Δ20mΩ Power Pin: Initial: 10mΩ max. After test: 15mΩ max. Insulation resistance: 1000 MΩ min.	Temperature: -55°C/+5°C/+35°C/+85°C Duration: 30/10/10/30 (Minutes) 5 cycles
8. Durability	Contact resistance: Signal Pin: Initial: 50mΩ max. After test: Δ20mΩ Power Pin: Initial: 10mΩ max. After test: 15mΩ max.	50 cycles
9. Resistance to soldering heat	No deformation of components affecting performance.	Reflow: At the recommended temperature profile Manual soldering: 300°C for 3 seconds

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Item	Specification	Conditions
10. Salt water spray	1). Appearance shall not be distinct damage. 2). Resistance value after test Signal Pin: Initial: 50mΩ max. After test: Δ20mΩ Power Pin: Initial: 10mΩ max. After test: 15mΩ max. Insulation: 1). Initial: 1000 MΩ Minimum. 2). After test: 1000 MΩ Minimum.	Temperature: 35°C ± 2°C Density of salt water : 5 ± 1% Duration: 48 hours.
11. Mating&Unmating Force	Mating force: 40 N Maximum. Unmating force: 1). Initial: 10 N Minimum. 2). After test: 7 N Minimum.	Measure force necessary to mate assemblies at maximum rate of 25 ± 3 mm per minute.

Materials and Finishes

Connectors	Component	Material	Finish	Remarks	
Socket	Insulator	LCP	Color : BLACK	UL94V-0	
	Contacts	nickel-copper	plating		Contact area: Au 4u” Min, Ni 80-150u”
					Solder area: Au 4u” Min, Ni 80-150u”
Hold down	Phosphor bronze	plating	Au 4u” Min, Ni 80-150u”		
Plug	Insulator	LCP	Color : BLACK	UL94V-0	
	Contacts	nickel-copper	plating		Contact area: Au 4u” Min, Ni 80-150u”
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Hold down	Phosphor bronze	plating	Au 4u” Min, Ni 80-150u”		

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Ordering information (Socket)

YXT-BTR20-08S-02

1 2 3 4

1. YXT: YXT PRECISION TECHNOLOGY CO., LTD.
2. Series name: BTR20(0.8mm pitch 0.6mm height Board to Board Battery Connectors)
3. Number of positions:08 S-(Socket)
4. 02(standard, with hold down)

Ordering information (Plug)

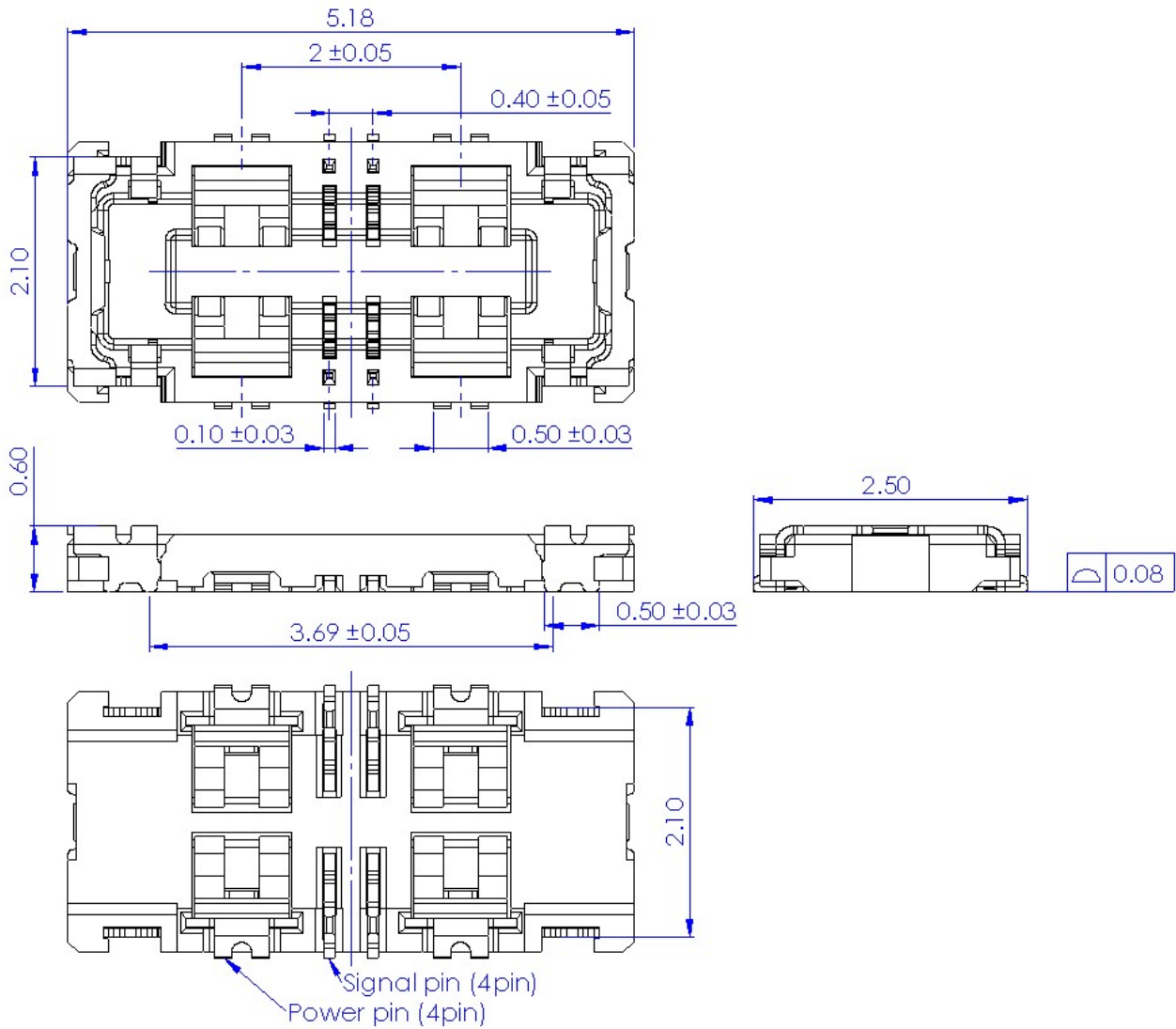
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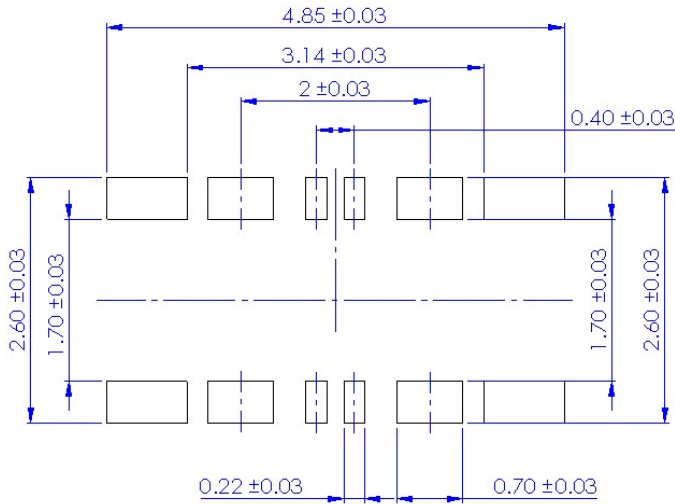
Socket (CAD Data)



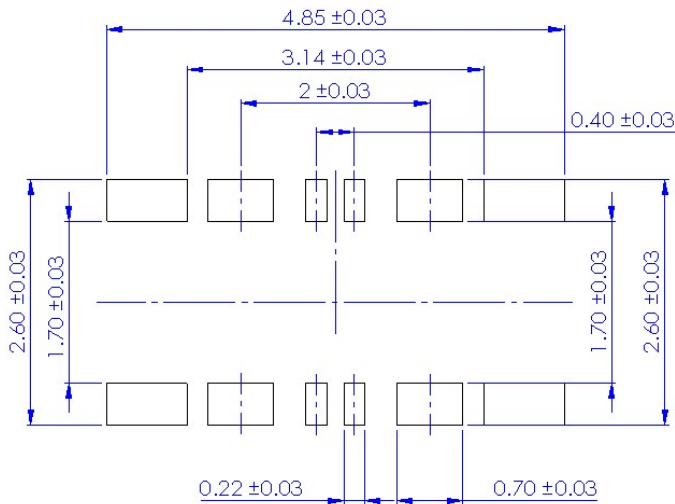
General tolerance: ± 0.10

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Recommended PCB mounting pattern

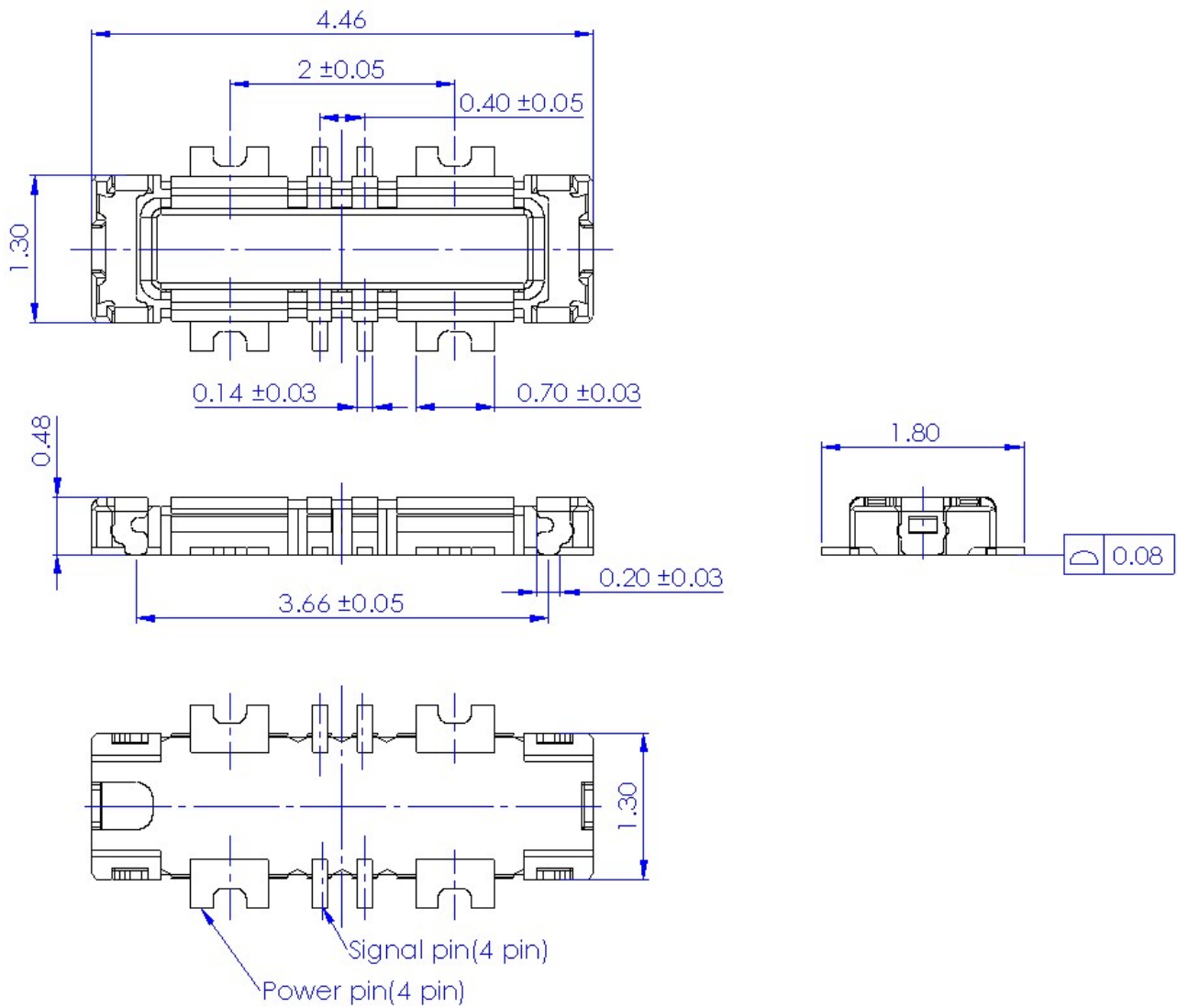


Recommended metal mask mounting pattern



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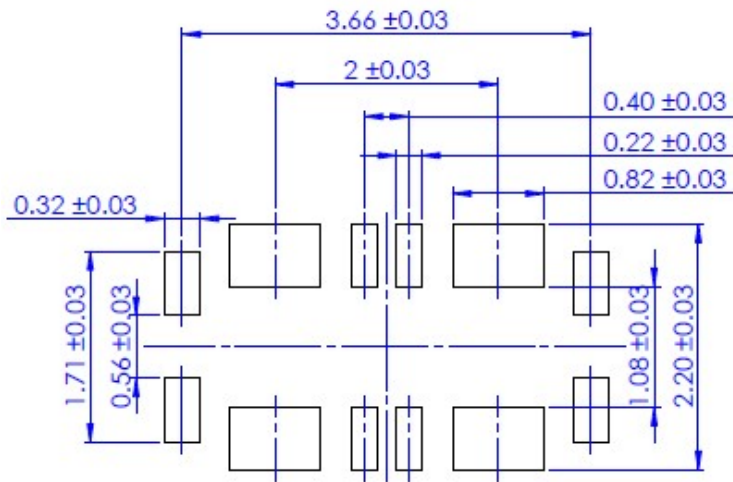
Plug (CAD Data)



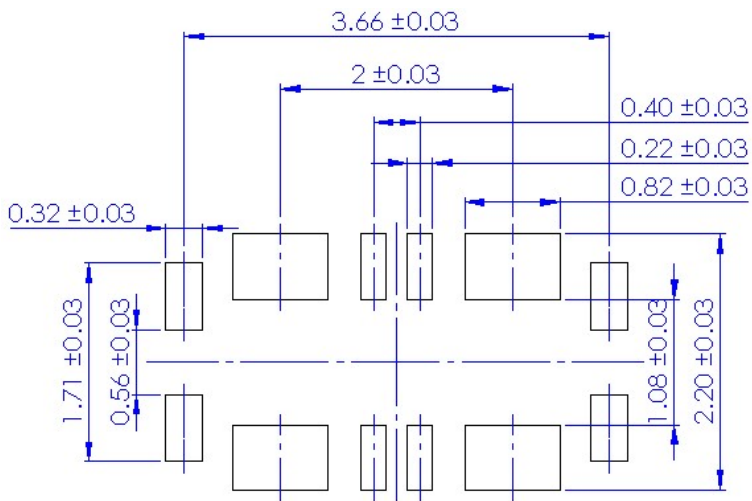
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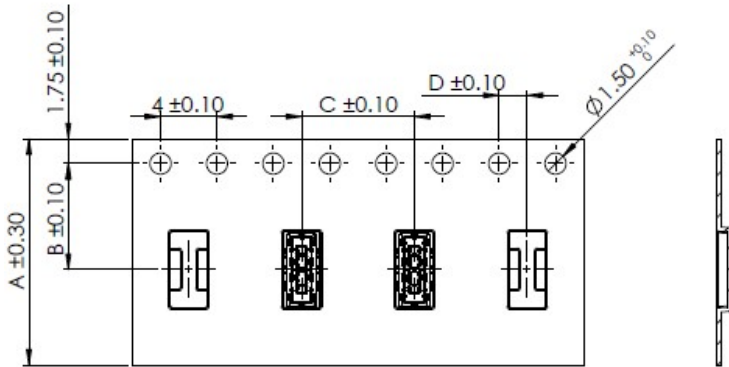
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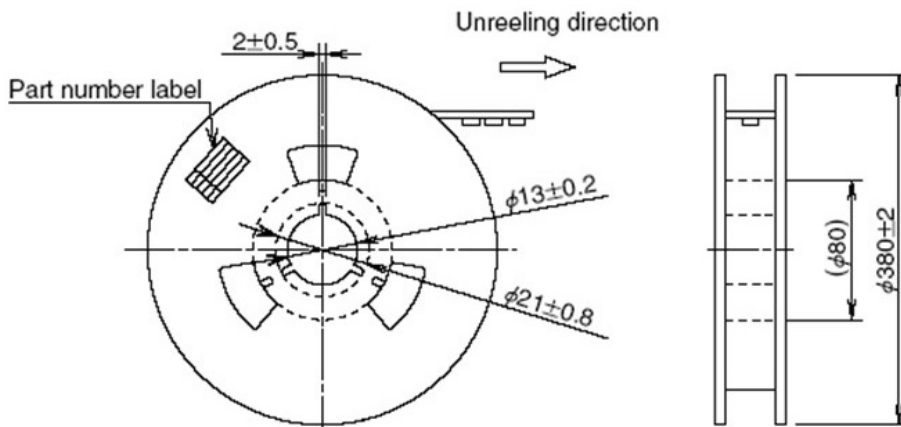
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Packing Specification

Embossed Carrier Tape Dimensions-Socket



Reel Dimensions--Socket



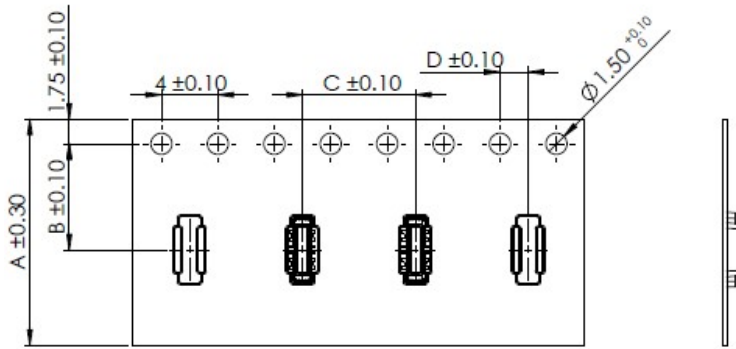
Dimension table (Unit: mm)

Part Number	A	B	C	D	Quantity(PC/REEL)
YXT-BTR20-08S-02	16	7.5	8	2	5000

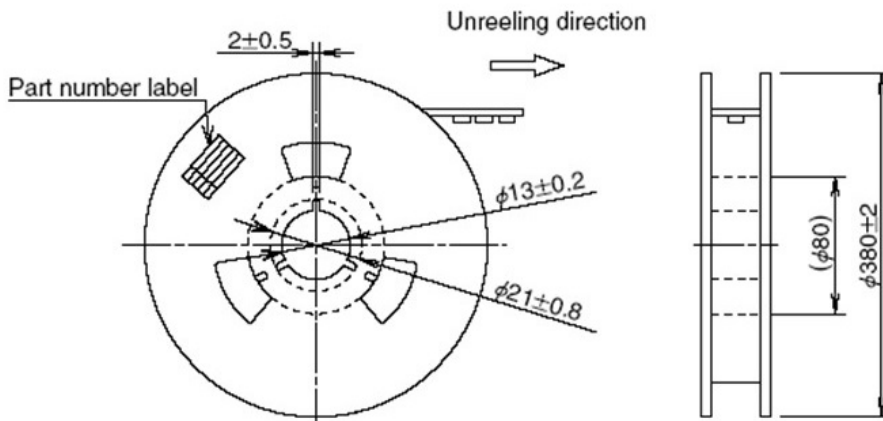
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Reel Dimensions—Plug



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