

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
B	Replace Socket Pcb	Jim 04-17-2019	Jason 04-17-2019	Dickson Guan 04-17-2019

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

Rating	Rated current: Signal Pin: 0.5A/Pin Rated current: Power Pin: 6A/Pin Rated voltage: 60V AC/DC	Operating temperature range : -55°C to +85°C Operating humidity range : 20% to 80%	Storage temperature range: -55°C to +85°C Storage humidity range : 20% to 80%
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Item	Specification	Conditions
1. Insulation resistance	1000 M Ω 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: 50m Ω max. After test: Δ 20m Ω Power Pin: Initial: 10m Ω max. After test: 15m Ω max.	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100 mA maximum
5. 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
6. Humidity	Contact resistance: Signal Pin: Initial: 50m Ω max. After test: Δ 20m Ω Power Pin: Initial: 10m Ω max. After test: 15m Ω max. Insulation resistance: 1000 M Ω min.	120 hours at temperature of 40°C $\pm$ 2°C and RH of 90% to 95%
7. Temperature cycle	Contact resistance: Signal Pin: Initial: 50m Ω max. After test: Δ 20m Ω Power Pin: Initial: 10m Ω max. After test: 15m Ω max. Insulation resistance: 1000 M Ω 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: 50m Ω max. After test: Δ 20m Ω Power Pin: Initial: 10m Ω max. After test: 15m Ω 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: $50\text{m}\Omega$ max. After test: $\Delta 20\text{m}\Omega$ Power Pin: Initial: $10\text{m}\Omega$ max. After test: $15\text{m}\Omega$ max. Insulation: 1). Initial: $1000\text{ M}\Omega$ Minimum. 2). After test: $1000\text{ M}\Omega$ Minimum.	Temperature: $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Density of salt water : $5 \pm 1\%$ 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"	
				Solder area: Au 4u" Min, Ni 80-150u"	
	Hold down	Phosphor bronze	plating	Au 4u" Min, Ni 80-150u"	

Ordering information (Socket)

YXT-BTR20-08S-02 (LC)

1 2 3 4 5

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)
5.Customer: LC

Ordering information (Plug)

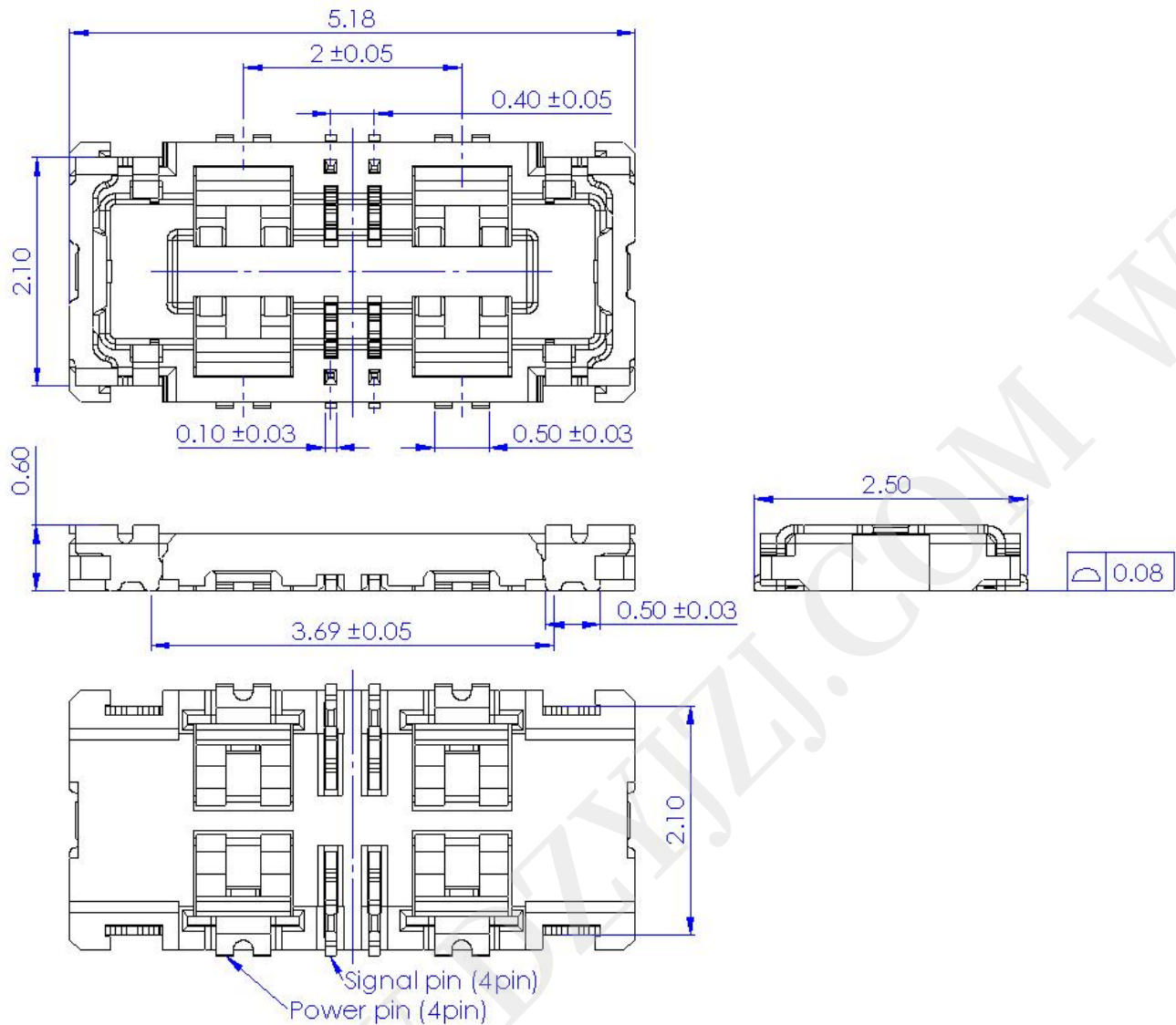
YXT-BTR20-08P-02 (LC)

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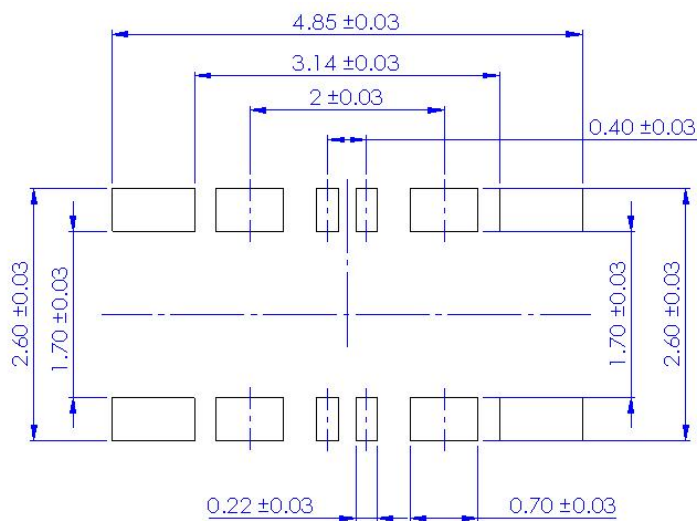
Socket (CAD Data)



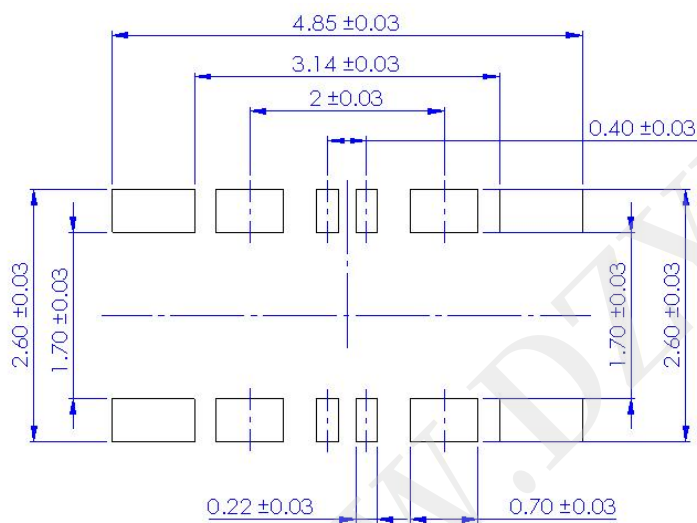
General tolerance: ± 0.10

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

Recommended PCB mounting pattern

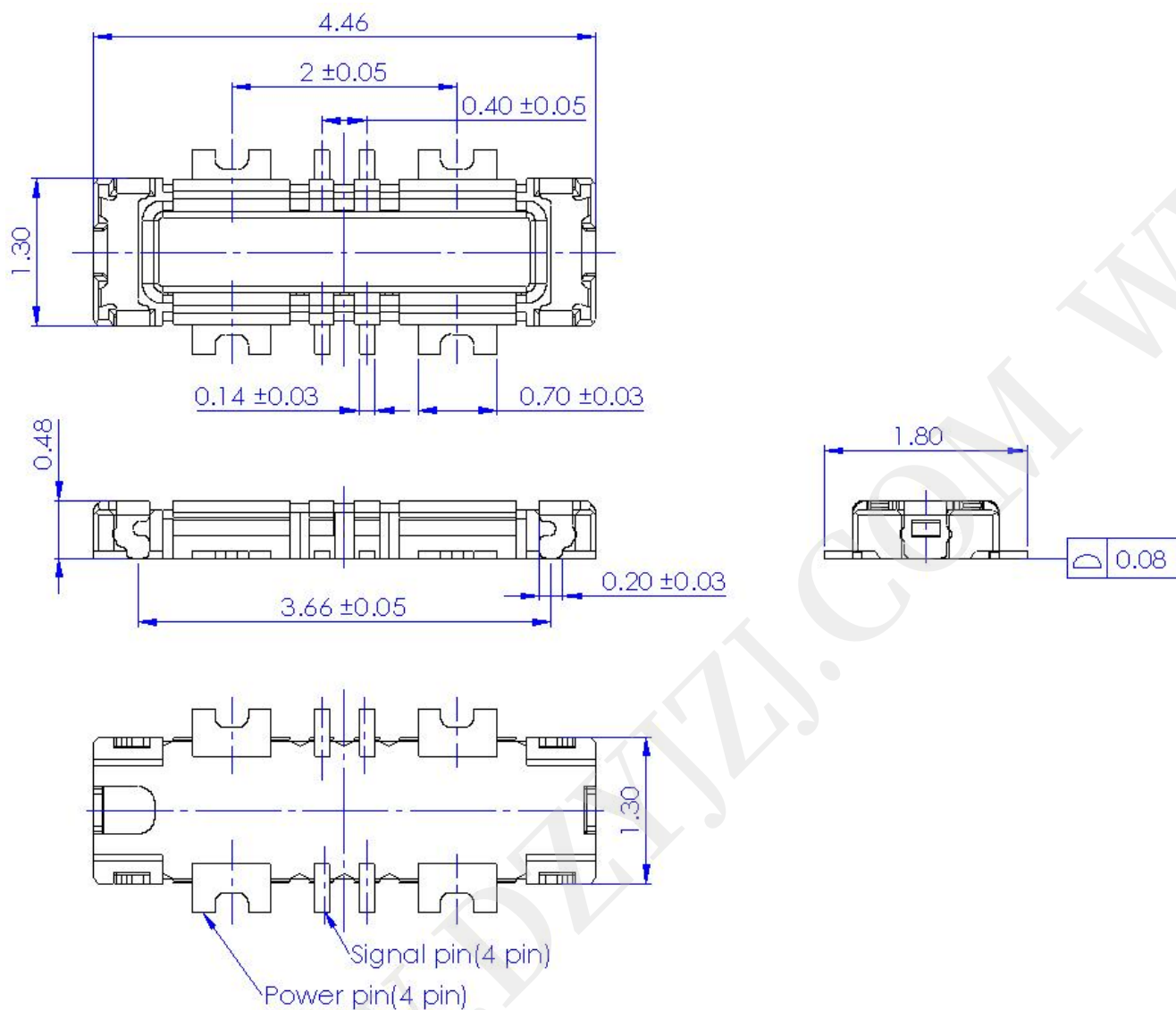


Recommended metal mask mounting pattern



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

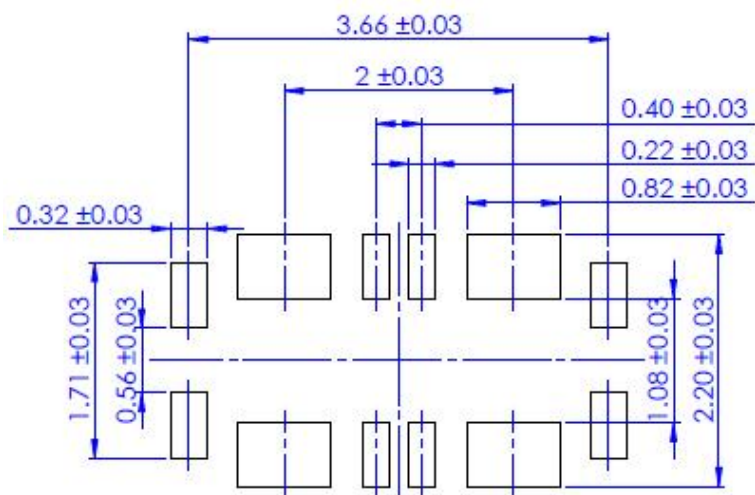
Plug (CAD Data)



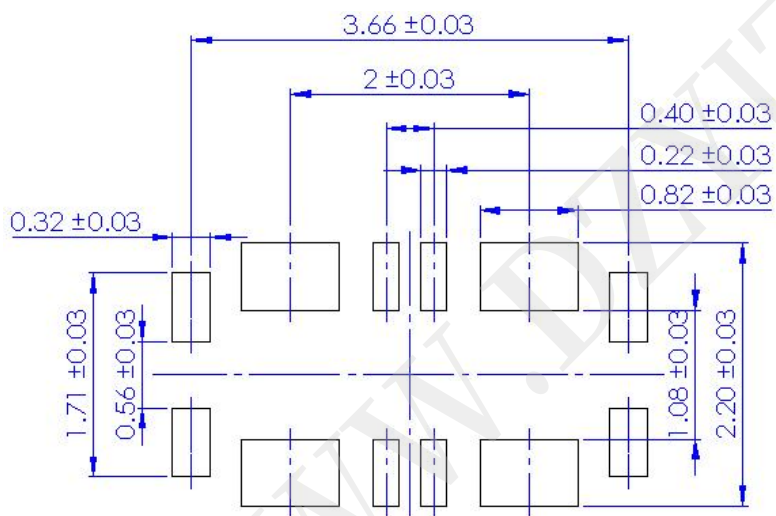
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0.8mm Pitch, 0.6mm Height, Board-to-Board Battery Connectors (BTR20 Series)

Recommended PCB mounting pattern



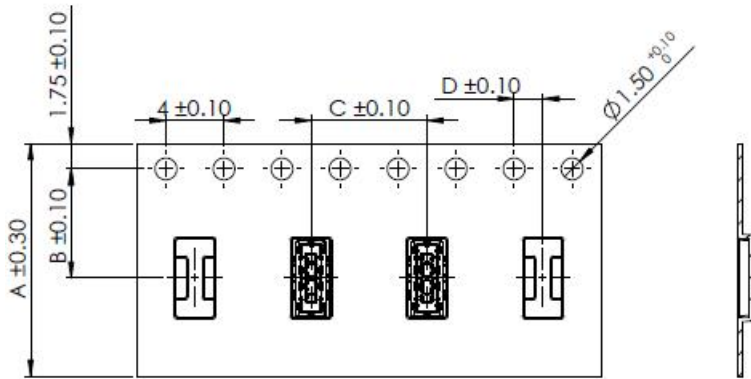
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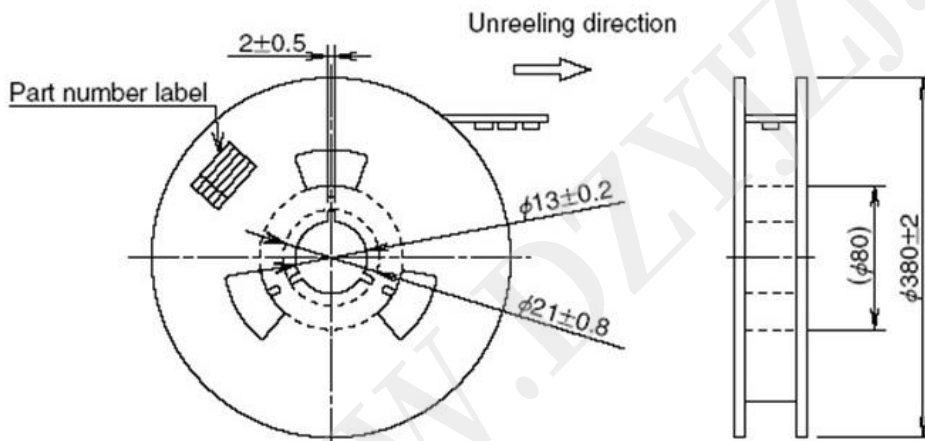
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Packing Specification

Embossed Carrier Tape Dimensions-Socket



Reel Dimensions--Socket



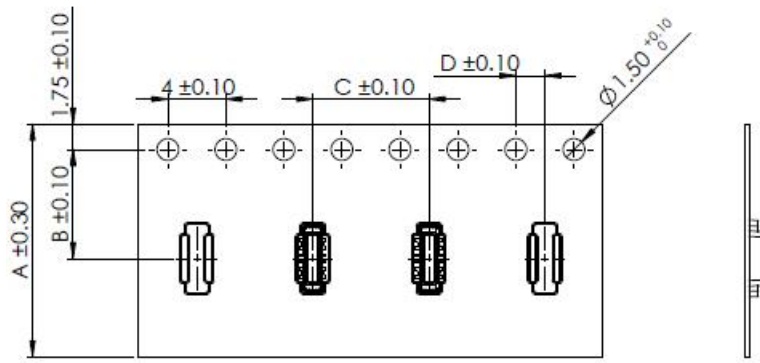
Dimension table (Unit: mm)

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

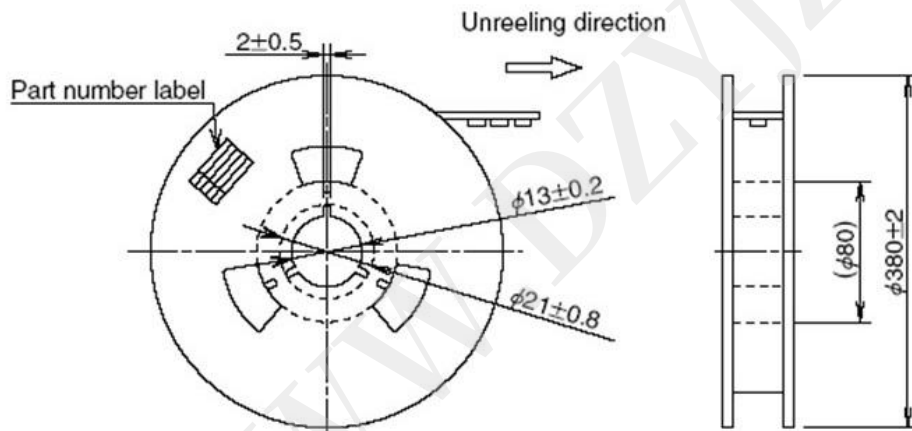
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Packing Specification

Embossed Carrier Tape Dimensions-Plug



Reel Dimensions—Plug



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