

**0.4mm Pitch,0.8mm Height,Board-to-Board/Board-to-FPC Connectors  
(BB10 Series)**

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**Product Specification  
(For External Use)**

| Rev. | Description                        | Written/Date             | Checked/Date             | Approved/Date              |
|------|------------------------------------|--------------------------|--------------------------|----------------------------|
| A    | New Release                        | Bian Sen<br>08-04-2012   | Tiger<br>08-08-2012      | Dickson Guan<br>08-10-2012 |
| B    | B×3                                | Bian Sen<br>09-05-2014   | Tiger<br>09-05-2014      | Dickson Guan<br>09-05-2014 |
| C    | C×1<br>Add Part Number(6 pin、8pin) | Bian Sen<br>01-22-2015   | Tiger<br>01-22-2015      | Dickson Guan<br>01-23-2015 |
| D    | D×2<br>Modify PCB mounting pattern | Bian Sen<br>06-01-2015   | Tiger<br>06-01-2015      | Dickson Guan<br>06-02-2015 |
| E    | E<br>Add Test Item                 | Bian Sen<br>01-27-2016   | Tiger<br>01-27-2016      | Dickson Guan<br>01-27-2016 |
| F    | F<br>Add Part Number(4 pin)        | Bian Sen<br>07-02-2016   | Tiger<br>07-02-2016      | Dickson Guan<br>07-02-2016 |
| G    | Logo changed                       | Tyler Liu<br>03-07-2018  | Jason bian<br>03-07-2018 | Dickson Guan<br>03-07-2018 |
| H    | Change of packaging                | Maggie Yan<br>11-07-2019 | Jim Wang<br>11-07-2019   | Jason bian<br>11-07-2019   |

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|               |                                                         |                                                                                           |                                                                                      |
|---------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Rating</b> | Rated current<br>0.5A/PIN<br>Rated voltage<br>60V AC/DC | Operating temperature range :<br>-55℃ to +85℃<br>Operating humidity range :<br>20% to 80% | Storage temperature range:<br>-55℃ to +85℃<br>Storage humidity range :<br>20% to 80% |
|---------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

| Item                            | Specification                                                                                                                                                                                                                                                                                           | Conditions                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 1. Insulation resistance        | 1000 MΩ min.                                                                                                                                                                                                                                                                                            | 250V DC                                                                                    |
| 2. Withstanding voltage         | No flashover or insulation breakdown.                                                                                                                                                                                                                                                                   | 250V AC /one minute                                                                        |
| 3. Contact resistance           | 50 mΩ max initial 90 mΩ max final                                                                                                                                                                                                                                                                       | Subject mated contacts assembled in housing to 20mV maximum open circuit at 10 mA maximum  |
| 4. 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 |
| 5. Humidity                     | Contact resistance: 90 mΩ max.<br>Insulation resistance: 100 MΩ min.                                                                                                                                                                                                                                    | 120 hours at temperature of 40℃±2℃ and RH of 90% to 95%                                    |
| 6. Temperature cycle            | Contact resistance: 90 mΩ max.<br>Insulation resistance: 100 MΩ min.                                                                                                                                                                                                                                    | Temperature: -55℃/+5℃/+35℃/+85℃<br>Duration: 30/10/10/30 (Minutes) 5 cycles                |
| 7. Durability                   | Contact resistance: 50 mΩ max.                                                                                                                                                                                                                                                                          | 100 cycles                                                                                 |
| 8. Resistance to soldering heat | No deformation of components affecting performance.                                                                                                                                                                                                                                                     | Reflow: At the recommended temperature profile<br>Manual soldering: 300℃ for 3 seconds     |
| 9. Salt water spray             | 1). Appearance shall not be distinct damage.<br>2). Resistance value after test<br>After test: 90mΩ Maximum.<br>Insulation:<br>1). Initial: 1000 MΩ Minimum.<br>2). After test: 100 MΩ Minimum.                                                                                                         | Temperature: 35℃±2℃<br>Density of salt water : 5±1%<br>Duration: 48 hours.                 |
| 10. Mating&Unmating Force       | Initial<br>Mating force:<br>Maximum 100grams/terminal x total terminals.<br>Unmating force:<br>Minimum 30grams/terminal x total Terminals.<br>After 50 times durable<br>Mating force:<br>Maximum 100grams/terminal x total terminals.<br>Unmating force:<br>Minimum 20grams/terminal x total Terminals. | Measure force necessary to mate assemblies at maximum rate of 25±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 4u”<br>Min,Ni 80-150u” |         |
|            |           |                 |               | Solder area:Au 4u”<br>Min,Ni 80-150u”  |         |
|            | Hold down | Phosphor bronze | plating       | Matte Tin 100-200u” ,<br>Ni 80-150u”   |         |
| Plug       | Insulator | LCP             | Color : Black |                                        | UL94V-0 |
|            | Contacts  | Phosphor bronze | plating       | Contact area:Au 3u”<br>Min,Ni 80-150u” |         |
|            |           |                 |               | Solder area:Au 3u”<br>Min,Ni 80-150u”  |         |
|            | Hold down | Phosphor bronze | plating       | Matte Tin 100-200u” ,<br>Ni 80-150u”   |         |

### Ordering information (Socket)

**YXT-BB10-\*\*-S-02**

**1      2      3      4**

|                                                                                           |
|-------------------------------------------------------------------------------------------|
| 1. YXT: YXT PRECISION TECHNOLOGY CO., LTD.                                                |
| 2. Series name: BB10(0.4mm pitch 0.8mm height Board to Board/FPC Connectors)              |
| 3. Number of positions: 06, 08, 10, 14, 16, 20, 24, 30, 34, 40, 50, 60, 70, 80 S-(Socket) |
| 4. 02(standard,with hold down)                                                            |

### Ordering information (Plug)

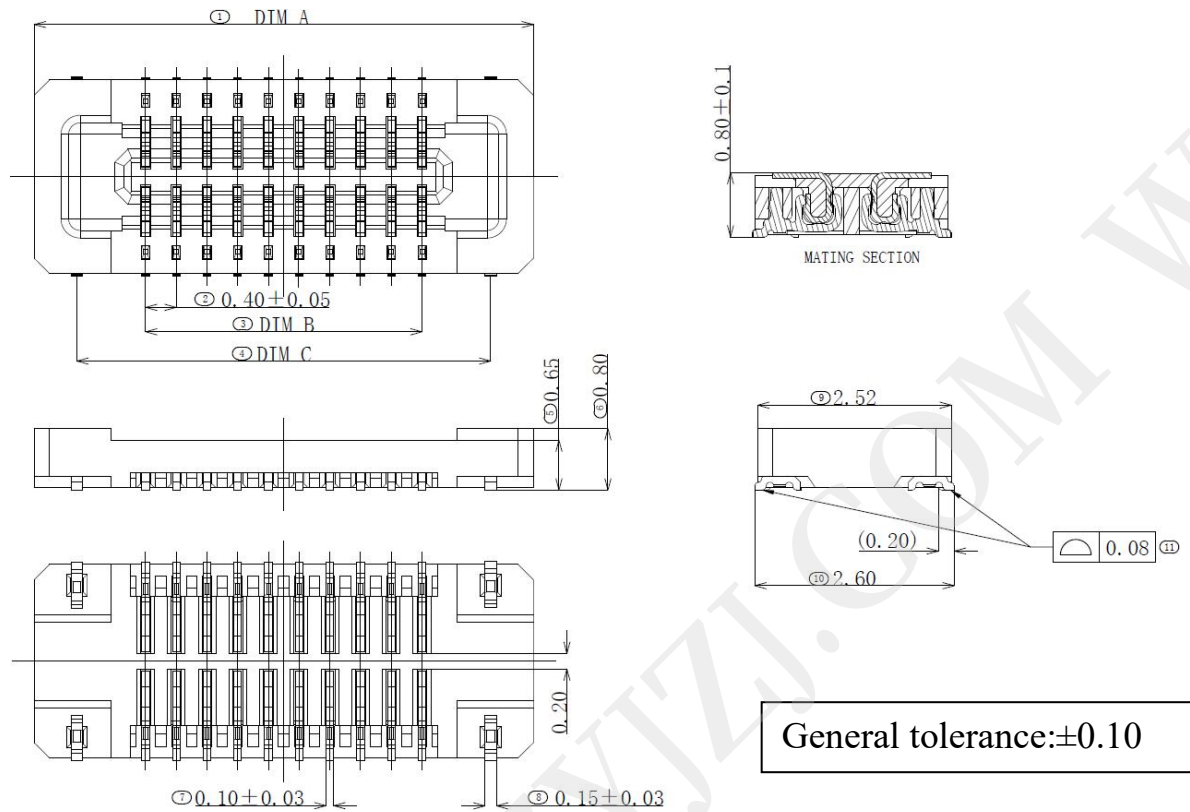
**YXT-BB10-\*\*-P-02**

**1      2      3      4**

|                                                                                         |
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| 4. 02(standard,with hold down)                                                          |

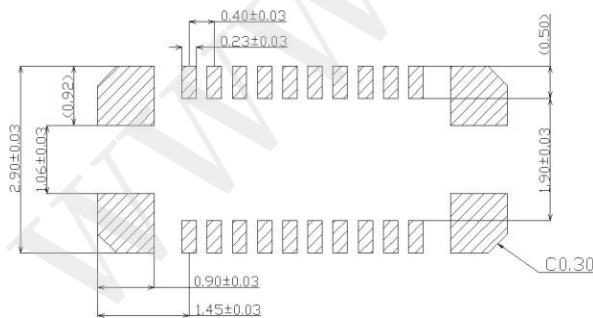
# 0.4mm Pitch,0.8mm Height,Board-to-Board/Board-to-FPC Connectors (BB10 Series)

## Socket (CAD Data)



## Recommended PCB mounting pattern

## Dimension table (Unit: mm)

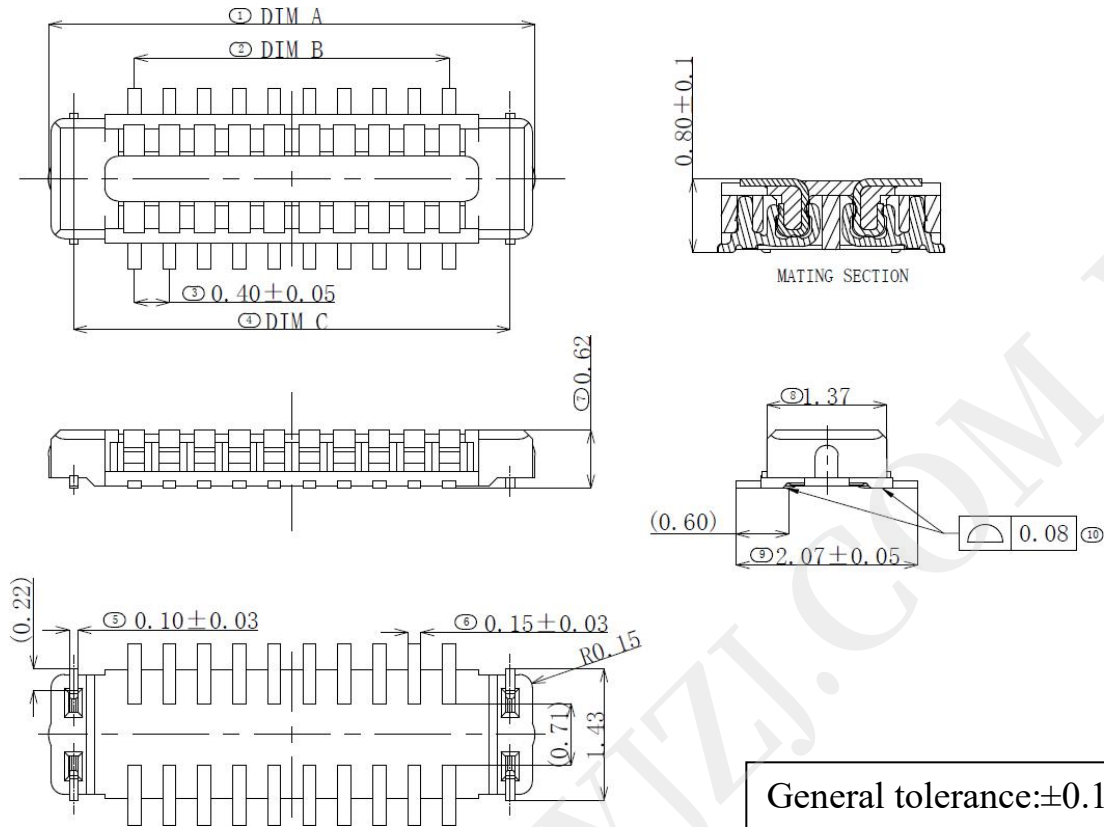


B

| Part Number     | Number of positions | DIM A | DIM B | DIM C |
|-----------------|---------------------|-------|-------|-------|
| YXT-BB10-06S-02 | 06                  | 3.70  | 0.80  | 2.59  |
| YXT-BB10-08S-02 | 08                  | 4.10  | 1.20  | 2.99  |
| YXT-BB10-10S-02 | 10                  | 4.50  | 1.60  | 3.39  |
| YXT-BB10-14S-02 | 14                  | 5.30  | 2.40  | 4.19  |
| YXT-BB10-16S-02 | 16                  | 5.70  | 2.80  | 4.59  |
| YXT-BB10-20S-02 | 20                  | 6.50  | 3.60  | 5.39  |
| YXT-BB10-24S-02 | 24                  | 7.30  | 4.40  | 6.19  |
| YXT-BB10-30S-02 | 30                  | 8.50  | 5.60  | 7.39  |
| YXT-BB10-34S-02 | 34                  | 9.30  | 6.40  | 8.19  |
| YXT-BB10-40S-02 | 40                  | 10.50 | 7.60  | 9.39  |
| YXT-BB10-50S-02 | 50                  | 12.50 | 9.60  | 11.39 |
| YXT-BB10-60S-02 | 60                  | 14.50 | 11.60 | 13.39 |
| YXT-BB10-70S-02 | 70                  | 16.50 | 13.60 | 15.39 |
| YXT-BB10-80S-02 | 80                  | 18.50 | 15.60 | 17.39 |

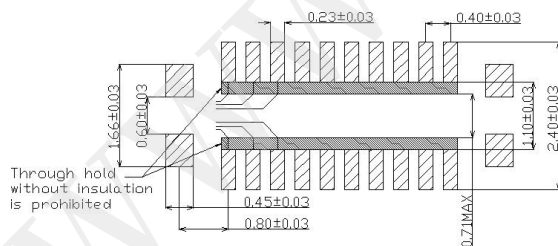
# 0.4mm Pitch,0.8mm Height,Board-to-Board/Board-to-FPC Connectors (BB10 Series)

## Plug (CAD Data)



## Recommended PCB mounting pattern

## Dimension table (Unit: mm)



| Part Number     | Number of positions | DIM A | DIM B | DIM C |
|-----------------|---------------------|-------|-------|-------|
| YXT-BB10-06P-02 | 06                  | 2.76  | 0.80  | 2.19  |
| YXT-BB10-08P-02 | 08                  | 3.16  | 1.20  | 2.59  |
| YXT-BB10-10P-02 | 10                  | 3.56  | 1.60  | 2.99  |
| YXT-BB10-14P-02 | 14                  | 4.36  | 2.40  | 3.79  |
| YXT-BB10-16P-02 | 16                  | 4.76  | 2.80  | 4.19  |
| YXT-BB10-20P-02 | 20                  | 5.56  | 3.60  | 4.99  |
| YXT-BB10-24P-02 | 24                  | 6.36  | 4.40  | 5.79  |
| YXT-BB10-30P-02 | 30                  | 7.56  | 5.60  | 6.99  |
| YXT-BB10-34P-02 | 34                  | 8.36  | 6.40  | 7.79  |
| YXT-BB10-40P-02 | 40                  | 9.56  | 7.60  | 8.99  |
| YXT-BB10-50P-02 | 50                  | 11.56 | 9.60  | 10.99 |
| YXT-BB10-60P-02 | 60                  | 13.56 | 11.60 | 12.99 |
| YXT-BB10-70P-02 | 70                  | 15.56 | 13.60 | 14.99 |
| YXT-BB10-80P-02 | 80                  | 17.56 | 15.60 | 16.99 |



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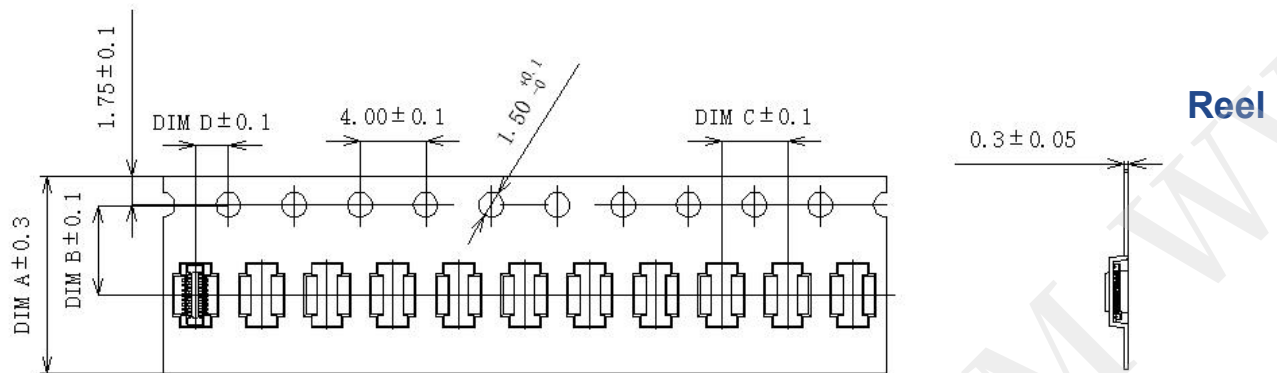
**Dimension table (Unit: mm)**

| Part Number     | DIM A | DIM B | DIM C | DIM D | Quantity(PC/REEL) |
|-----------------|-------|-------|-------|-------|-------------------|
| YXT-BB10-06S-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-08S-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-10S-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-14S-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-16S-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-20S-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-24S-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-30S-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-34S-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-40S-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-50S-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-60S-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-70S-02 | 32    | 14.5  | 4     | 2     | 10000             |
| YXT-BB10-80S-02 | 32    | 14.5  | 4     | 2     | 10000             |

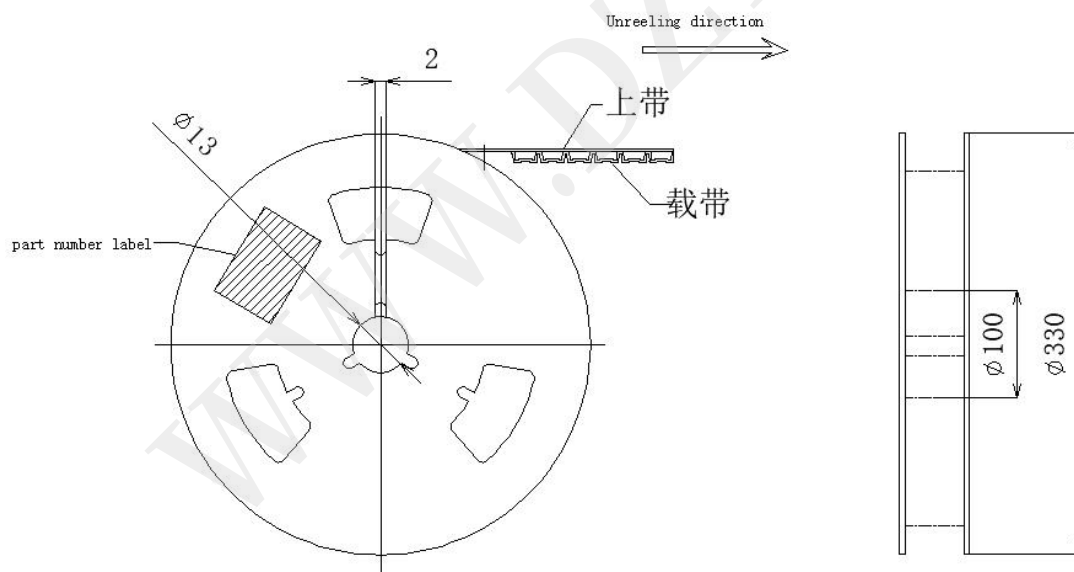
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## Packing Specification

### Embossed Carrier Tape Dimensions-Plug



### Dimensions--Plug



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**Dimention table (Unit: mm)**

| Part Number     | DIM A | DIM B | DIM C | DIM D | Quantity(PC/REEL) |
|-----------------|-------|-------|-------|-------|-------------------|
| YXT-BB10-06P-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-08P-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-10P-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-14P-02 | 12    | 5.5   | 4     | 2     | 10000             |
| YXT-BB10-16P-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-20P-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-24P-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-30P-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-34P-02 | 16    | 7.5   | 4     | 2     | 10000             |
| YXT-BB10-40P-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-50P-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-60P-02 | 24    | 11.5  | 4     | 2     | 10000             |
| YXT-BB10-70P-02 | 32    | 14.5  | 4     | 2     | 10000             |
| YXT-BB10-80P-02 | 32    | 14.5  | 4     | 2     | 10000             |