

Board to Board Connectors



Features:

- Robust, shrouded design with screw-machined terminals and multi-finger contacts can withstand the rigorous demands of blind mating and mating/unmating cycles.
- At 3 amps per pin, more contacts can be assigned to data/signal transfer (fewer pins needed to handle power and ground).
- High density - over 400 contacts per square inch.
- Industry standard footprints in four mated heights.
- Precision molded with integral polarization keying features.

Specifications:

Terminals:

Brass - Copper Alloy
(C36000) ASTM-B-16

Contacts:

Beryllium Copper
(C17200) ASTM-B-194

Solder Ball:

Standard: 63Sn/37Pb
Lead-free: 95.5Sn/4.0Ag/0.5Cu

Plating:

G - Gold over Nickel
Gold per ASTM-B-488
Nickel per QQ-N-290

B2B® High Density SMT Connectors .050/(1.27mm) Pitch

Table of Models

Female	<p>Description: Molded B2B® Connector (BB) Material: High Temp. Liquid Crystal Polymer (LCP) Index: -40°C to 260°C (-40°F to 500°F)</p>
Male	<p>Description: Molded B2B® Connector (BA) Material: High Temp. Liquid Crystal Polymer (LCP) Index: -40°C to 260°C (-40°F to 500°F)</p>

Performance

Mated Height	Differential Insertion Loss	Differential Return Loss
6.00mm	-20dB @ 1.70 GHz -50dB @ 3.30 GHz	-10dB @ 3.30 GHz -15dB @ 1.70 GHz
8.00mm	-15dB @ 1.30 GHz -50dB @ 2.50 GHz	-10dB @ 2.50 GHz -15dB @ 1.30 GHz
12.70mm	-20dB @ 1.70 GHz -51dB @ 3.40 GHz	-10dB @ 3.40 GHz -15dB @ 1.70 GHz
19.05mm	-60dB @ 2.20 GHz -20dB @ 1.40 GHz	-10dB @ 2.20 GHz -15dB @ 1.40 GHz

Insertion Force (6.00mm, 300 position):
50g average (per pin)

Durability (mated cycles):
500 cycles (<10mΩ change in resistance)

Extraction Force (6.00mm, 300 position):
45g average (per pin)

Additional performance and test data available online.

How To Order

Female

BB XXX - XXX G G -TR

Body Type —
RoHS Compliant Insulator:
BB = Female

Number of Positions —
240, 300, 400, 500* standard
(Consult factory for custom)

SMT Terminal Type —
For mated height of .236/(6.00):
Sn/Pb Solder Ball: **-783** Lead-free Solder Ball: **-794**
For mated height of .315/(8.00), .500/(12.70), or .750/(19.05):
Sn/Pb Solder Ball: **-739** Lead-free Solder Ball: **-793**

Packaging Options**
TR - Tape and Reel
(includes pick-up dot)

Contact Plating
RoHS Compliant:
G - Gold

Terminal Plating
RoHS Compliant:
G - Gold

*500 pos. available in 6mm mated height only.

**If no packaging code is indicated, female connectors are supplied with pick-up dots in standard trays.

Male

BA XXX - XXX G -TR

Body Type —
RoHS Compliant Insulator:
BA = Male

Number of Positions —
240, 300, 400, 500* standard
(Consult factory for custom)

SMT Terminal Type —

Connector	Sn/Pb Solder Ball	Lead-free Solder Ball
Mated Height		
.236/(6.00)	-741	-795
.315/(8.00)	-742	-796
.500/(12.70)	-743	-797
.750/(19.05)	-748	-798

Packaging Option**
TR - Tape and Reel
(includes pick-up cap)

Terminal Plating
RoHS Compliant:
G - Gold

*500 pos. available in 6mm mated height only.

**If no packaging code is indicated, male connectors are supplied with pick-up caps in standard trays.



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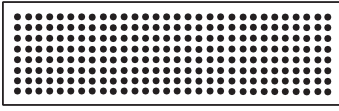
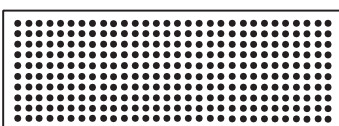
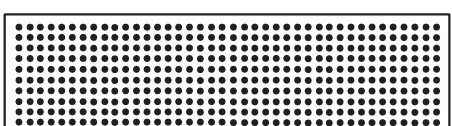
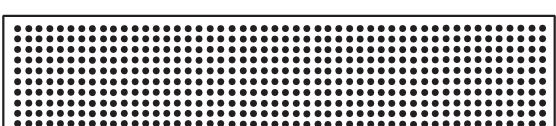
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inch/(mm)

B2B® High Density SMT Connectors .050/(1.27mm) Pitch

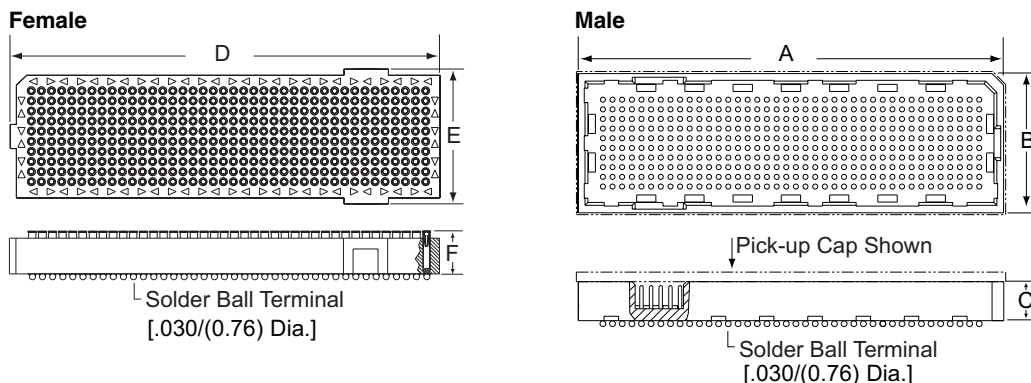
Standard Footprints

1.27mm Pitch

	<ul style="list-style-type: none"> • 240 Positions • 30x8 Rows
	<ul style="list-style-type: none"> • 300 Positions • 30x10 Rows
	<ul style="list-style-type: none"> • 400 Positions • 40x10 Rows
	<ul style="list-style-type: none"> • 500 Positions • 50x10 Rows

Consult factory for custom sizes.

Dimensional Information



Mated Board to Board Height*	A in./ (mm)	B in./ (mm)	C^ in./ (mm)	D^ in./ (mm)	E^ in./ (mm)	F^ in./ (mm)
.236/(6.00)	1.704/(43.28)	.622/(15.80)	.202/(5.13)	1.626/(41.30)	.567/(14.40)	.136/(3.45)
.315/(8.00)	1.704/(43.28)	.622/(15.80)	.273/(6.93)	1.626/(41.30)	.567/(14.40)	.211/(5.36)
.500/(12.70)	1.704/(43.28)	.622/(15.80)	.462/(11.73)	1.626/(41.30)	.567/(14.40)	.211/(5.36)
.750/(19.05)	1.704/(43.28)	.622/(15.80)	.712/(18.09)	1.626/(41.30)	.567/(14.40)	.211/(5.36)
.236/(6.00)	1.704/(43.28)	.722/(18.34)	.202/(5.13)	1.626/(41.30)	.667/(16.94)	.136/(3.45)
.315/(8.00)	1.704/(43.28)	.722/(18.34)	.273/(6.93)	1.626/(41.30)	.667/(16.94)	.211/(5.36)
.500/(12.70)	1.704/(43.28)	.722/(18.34)	.462/(11.73)	1.626/(41.30)	.667/(16.94)	.211/(5.36)
.750/(19.05)	1.704/(43.28)	.722/(18.34)	.712/(18.09)	1.626/(41.30)	.667/(16.94)	.211/(5.36)
.236/(6.00)	2.204/(55.98)	.722/(18.34)	.202/(5.13)	2.126/(54.00)	.667/(16.94)	.136/(3.45)
.315/(8.00)	2.204/(55.98)	.722/(18.34)	.273/(6.93)	2.126/(54.00)	.667/(16.94)	.211/(5.36)
.500/(12.70)	2.204/(55.98)	.722/(18.34)	.462/(11.73)	2.126/(54.00)	.667/(16.94)	.211/(5.36)
.750/(19.05)	2.204/(55.98)	.722/(18.34)	.712/(18.09)	2.126/(54.00)	.667/(16.94)	.211/(5.36)
.236/(6.00)	2.704/(68.68)	.722/(18.34)	.202/(5.13)	2.626/(66.70)	.667/(16.94)	.136/(3.45)

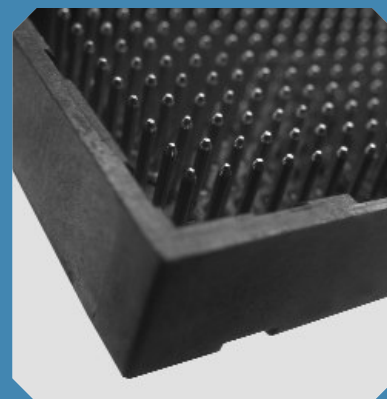
Additional mated heights coming soon. Consult factory.

*Approximate dimension after soldering. ^Dimensions do not include solder ball height.

in./ (mm)

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Board to Board Connectors



Packaging & Options:

Male connectors - supplied with a pick-up cap to protect male pins and facilitate automated pick-and-place. Pick-up cap remains in place during reflow.



Female connectors - supplied with a polyimide dot to facilitate automated pick-and-place.

Tape and Reel - Add -TR to end of part number for Tape and Reel packaging.

Standard Trays - If no packaging code is indicated, connectors are shipped in standard trays (Note: Trays are not suitable for automated pick-and-place processes.)

Available Online:

- RoHS Qualification Test Report
- Product Specification
- Test data
- Signal Integrity Data
- CAD Drawings



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500 Pos. 400 Positions 300 Positions 240 Positions