

FloatCombo™ 0.50 mm Floating Board-to-Board Connectors with Power Pin

HIGH-SPEED HIGH CURRENT POWER PIN BOARD-TO-BOARD CONNECTORS

Amphenol's FloatCombo™ are 0.50mm pitch floating board-to-board connectors that support stack heights from 8.0 mm to 30.0 mm. These connectors come with 4 independent power contacts and 20 to 140 signal contacts, where the power contacts support 5 A per pin and the signal contacts provide high-speed data rates up to 10 Gb/s or 16 Gb/s. The compact connector design makes it suitable for use in applications with large current, vibration, and space-saving requirements, such as ADAS, ECUs, BMS, OBC, inverter applications in Automotive and LED Display, LED Monitor, Robotics applications in Industrial.

- High-speed transmission: 10 Gb/s (SH ≤ 15 mm), 16 Gb/s (SH > 15 mm)
- Current rating up to 5 A per power pin (5 A/pin* 4)
- Wide Operating Temperature Range: -55 °C to +125 °C (including T-Rise)
- Large floating range, SH≤15 mm: X, Y±0.60 mm, Z±0.50 mm, SH>15 mm: X, Y±0.80 mm, Z±0.60 mm
- Anti-fool mating design
- Direction guide functions for easy mating
- USCAR-2 T3V2 qualified



TARGET MARKETS



FEATURES

- High Floating allowance up to ±0.80 mm
- High speed performance up to PCIe® 4.0 with 16 Gb/s
- High Current transmission up to 5 A/Pin
- Dedicated power pin design
- Big guide
- UL 94 V-0 flammability rated LCP material
- Lead-free, halogen-free, RoHS compliant

BENEFITS

- Capable of absorb accumulated system tolerances, suitable for automatically assembly
- Suitable for the applications need high data transmission
- Suitable for products that need to supply high current separately, space saving for by using fewer terminals
- Hot-swappable
- Blind-mating possible and support for multiple connectors using
- High flammability rating
- Meets environmental, health and safety requirements

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TECHNICAL INFORMATION

MATERIAL

- Housing: LCP, Black
- Signal Terminal: Copper Alloy with Ni under plate and Gold plating
- Power Terminal: Copper Alloy with Ni under plate and Gold plating
- Ground Bar: SUS 304 (for B329 only)

MECHANICAL PERFORMANCE

- Durability: 100 cycles
- Terminal Retention Force: 2.5 N/terminal min. (EIA 364-05B)
- Insertion Force: 1 N/pin max. (EIA 364-09)
- Extraction Force: 0.03 N/pin min. (EIA 364-09)

ELECTRICAL PERFORMANCE

- Insulation Resistance: 500 MΩ min.
- Voltage Rating: Signal pin 50 V AC/V DC; Power pin 200 V AC/V DC
- Contact Resistance: 60 mΩ max. (initial)
- Current Rating: Signal pin 0.5 A/pin; power pin, 5 A/pin*4

PACKAGING

- Tape & Reel

APPROVALS AND CERTIFICATIONS

- UL 94 V-0
- RoHS compliant
- REACH

ENVIRONMENTAL

- Operating Temperature Range: -55 °C to +125 °C (including T-Rise)

TARGET MARKETS/APPLICATIONS



Infotainment
Powertrain



LED Display
Mobile POS Terminals



Communication Base Station
Service Robot



MRI/CT

PART NUMBERS

Find part number details using the search box on www.amphenol-cs.com

Stack Height	Receptacle PN	Plug PN	Remark	Status
8.0 mm	B329-1B7L1-112**-E100	B324-1B7L1-112**-E100	With high-speed, SMT	Active
8.0 mm	B59R-000***-AAB10	B59P-080***-AAB10	With high-speed, SMT	Active
10. mm	B329-1B7L1-112**-E100	B322-1B7L1-112**-E100	With high-speed, SMT	Active
13.0 mm	B329-1B7L1-112**-E100	B344-1B7L1-112**-E100	With high-speed, SMT	Active
15.0 mm	B329-1B7L1-112**-E100	B326-1B7L1-112**-E100	With high-speed, SMT	Active
20.0 mm	B04R-3J1B1-AA1**-1110	B06P-3G1B1-AA1**-1110	With high-speed, SMT+PIP	Active
20.0 mm	B48R-3R1B1-AA***-1110	B36P-3J1B1-AA***-1110	With high-speed, SMT	Active
21.0 mm	B04R-3J1B1-AA1**-1110	B13P-3N1B1-AA1**-1110	With high-speed, SMT+PIP	Active
25.0 mm	B04R-3J1B1-AA1**-1110	B07P-3K1B1-AA1**-1110	With high-speed, SMT+PIP	Active
25.0 mm	B48R-3R1B1-AA***-1110	B37P-3J1B1-AA***-1110	With high-speed, SMT	Active
26.0 mm	B48R-3R1B1-AA***-1110	B48P-3J1B1-AA***-1110	With high-speed, SMT	Active
30.0 mm	B04R-3J1B1-AA1**-1110	B04P-3J1B1-AA1**-1110	With high-speed, SMT+PIP	Active
30.0 mm	B48R-3R1B1-AA***-1110	B38P-3J1B1-AA***-1110	With high-speed, SMT	Active

Note: This table may update not on time, please contact our local sales to confirm the latest information.

WHERE INNOVATION CONNECTS

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Disclaimer

Please note that the above information is subject to change without notice.

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