

TWINMEZZ® CONNECTOR SYSTEM

OVERVIEW

The TwinMezz® connector system provides superior electrical performance at the highest data rates, the highest signal density, and the lowest insertion force when compared to other available mezzanine connectors. Industry-leading signal integrity performance makes it the only choice capable of meeting the design requirements for 20+Gb/s mezzanine applications.

With 6 differential signal pairs per column, the system provides maximum signal density – delivering 25 pairs/cm², or 161 pairs/in². The innovative hermaphroditic design “mates to itself” reducing the number of part variations needed to accomplish stack heights ranging between 12mm and 40mm with 200–800 total contacts.

The TwinMezz® connector system provides exceptional flexibility with integrated molded or optional metal guides and the capability to mix signal and power wafers in a single connector. The versatile open pin field design offers additional flexibility by allowing for mixed differential, single-ended or power pin assignments in a single connector.

TwinMezz® connectors also feature FCI’s patented BGA connector termination for easy surface-mount attachment and efficient trace routing.



FEATURES & BENEFITS

- 1.0 x 1.3 mm contact grid provides high signal density: 25 pairs/cm² (161 pairs/in²)
- 6 differential signal pairs per column
- Shield-less design provides the lowest possible loss
- Open pin field design with no designated grounds allows for differential, single-ended or power pin assignments in a connector
- Capability to address a range of applications
 - 200 to 800 contacts/connector
 - Stack heights from 12mm to 40mm
- 2.0mm (nominal) wipe length and redundant split-beam contacts enhance reliability
- Integrated guidance compensates for ± 2.0mm misalignment in all directions
- Optional power contacts
- Proven FCI Ball Grid Array (BGA) technology enables reliable, SMT-compatible attachment
- RoHS compliant (lead-free) options

TARGET MARKETS/APPLICATIONS

- Communications
 - Transmission
 - Access
 - Switching
 - Optics
 - Networking
- Data
 - Servers
 - Storage
- Industrial & Instrumentation
 - Industrial controls & equipment
 - Analytical & diagnostic



TECHNICAL INFORMATION

MATERIALS

- Housing: High-temperature thermoplastic
- Contact: High-strength copper alloy
- Plating: Performance-based plating at separable interface (Telcordia GR-1217-CORE Central Office)
- Solder sphere:
 - Lead-free: 0.64mm diameter

ELECTRICAL PERFORMANCE

- Current rating:
 - Signal contacts: 0.5A/contact at $\leq 30^{\circ}\text{C}$ temperature rise above ambient, no air flow, fully loaded
 - Power contacts: 10A/contact (20A/IMLA) at $\leq 30^{\circ}\text{C}$ temperature rise above ambient, no air flow, fully loaded with adjacent power contacts
- Dielectric withstanding voltage: 500V AC
- Differential impedance: 100 Ω
- Crosstalk performance comparison: See below

ENVIRONMENTAL

- Durability: 100 cycles
- Contact wipe: 2.00mm nominal
- Environmental: Telcordia GR-1217-CORE Central Office
- Solder joint reliability: IPC-9701 (EIA-364-21)

SPECIFICATIONS

- Product specification: GS-12-558 (Preliminary)
- Application specification: GS-20-108 (Preliminary)

PACKAGING

- Trays

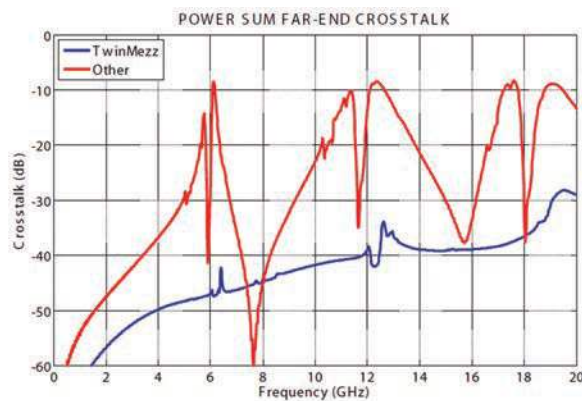
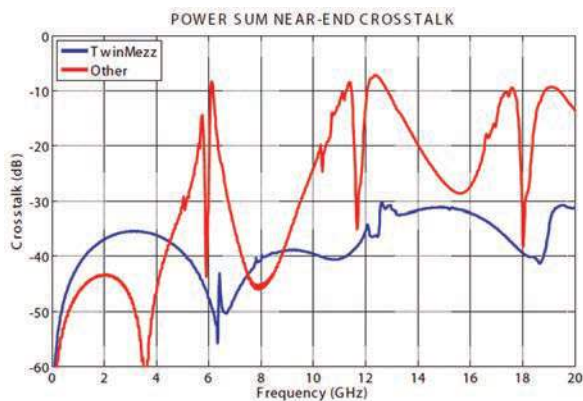
PART NUMBERS

- Stacking Height: 38mm

Pair Count	Column	Position	Height (mm)	IMLA Type*	RoHS	Part Number
6	30	600	24.6	20S + 10P	Yes	10100076-91930PLF

IMLA Type* S=Signal IMLA P=Power IMLA

PERFORMANCE CHART



BWB/TWINMEZZ0713EA4