

MEZZOSTAK™ 0.5MM MEZZANINE CONNECTORS

Hermaphroditic, “mates-to-itself” design improves business

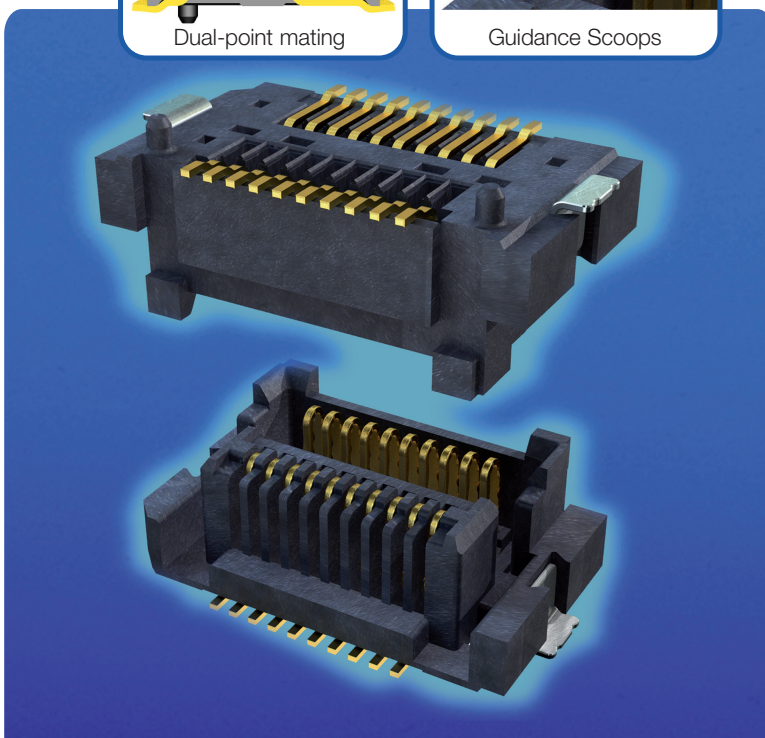
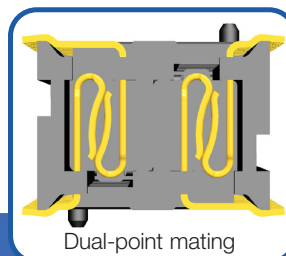
DESCRIPTION

Robust 0.5mm fine pitch mezzanine connector suitable for a wide range of high reliability applications and demanding environments.

Innovative hermaphroditic design provides a precise mating interface with extra housing guidance.

Reduced product mix simplifies customer connector qualification, documentation and maintenance.

Two versions offer a choice between supplemental PCB hold-downs and pegs or short overall length.



FEATURES & BENEFITS

- Hermaphroditic design “mates to itself”
 - Consolidates connector selection and documentation
 - Reduces Component Engineering costs
- Easy, Reliable Mating
 - Guidance “scoops” permit easy mating when mis-aligned
 - Polarization prevents mis-mating
 - Dual-point, long wipe contacts
- High un-mating force insures connection security
- Extreme operating temperature range assures reliable performance between -40 and 125 degrees C.
- Precise 0.08mm maximum SMT lead co-planarity eases attachment of connector leads to PCBs
- Footprint compatible with major competitors.
- High Speeds, including PCIe®G2, supported by signal integrity reports and S-parameter models
- 0.5mm high density contact pitch in two rows
 - 7 Stack heights: 4mm to 7mm (0.5mm increments)
 - 6 Sizes: 20 to 70 positions (10 position increments)

TARGET MARKETS / APPLICATIONS

- Portable and mobile electronic equipment
- Medical and Instrumentation
- Point-of-Sale/Retail equipment
- Hand-held terminals
- Automatic Identification and Data Capture
- Sensors
- Military
- Communications and Networking
- Data and mass-storage
- Motor Vehicle
- Metering and Energy

MEZZ Select™

TECHNICAL INFORMATION

MATERIALS

- Housing: LCP, 94V-0, Color: Black
- Contacts: Copper Alloy
- Plating: Performance-based with gold
- All Materials lead-free RoHS compatible per GS-22-008

ELECTRICAL PERFORMANCE

- Current rating per contact: 0.50 amps (de-rated)
- DWV: 500 volts
- Voltage Rating: 50 volts
- Contact resistance: 30 milliohm maximum
- Signal Integrity
 - (Differential pairs; 7mm stack height; Connectors with SMT pads and anti-pads/voids underneath)
 - 5+ Gbs capable
 - Impedance: 100 Ohms +/- 10% @ 50 ps edge
 - Insertion Loss: < 1 dB to 5+ GHz
 - NEXT and FEXT: < / = 1.0% @ 50 ps edge (10-90%)

ENVIRONMENTAL PERFORMANCE

- Operating Temperature: -40 to +125 deg.C
- Processing Temperature: 260 deg.C peak for 30 seconds

MECHANICAL PERFORMANCE

- Durability: 50 mating cycles in environment
- Mating Force: 42g max per contact pair
- Un-mating force: 25g min per contact pair
- Wipe length: 1.0 mm minimum
- SMT lead co-planarity: 0.08mm maximum

SPECIFICATIONS

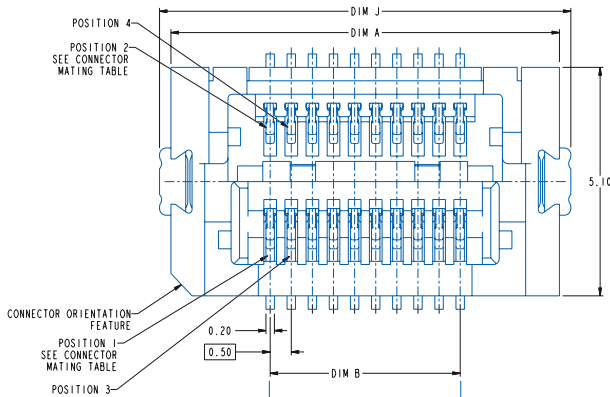
- Product Specification: GS-12-577;
- Packaging Specification: GS-14-1320
- Drawing Numbers: 10106813 (Standard); 10106814 (Short Length)
- UL and CSA

PACKAGING

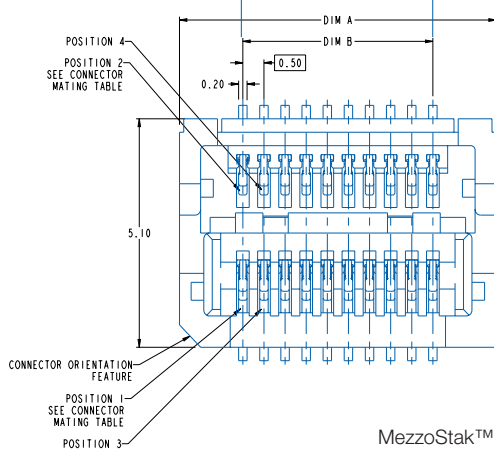
- Tape and reel, pickup cap pre-installed

10106813 Standard length,

with alignment pegs and metal hold-downs



10106814 Short length



BASE PART NUMBER - XX X X X 2 LF

NUMBER OF POSITIONS

- 02 = 20 pos.
- 03 = 30 pos.
- 04 = 40 pos.
- 05 = 50 pos.
- 06 = 60 pos.
- 07 = 70 pos.

PRACTICAL CONNECTOR HEIGHTS

- 1 = 2.0 mm
- 2 = 2.5 mm
- 3 = 3.0 mm
- 4 = 3.5 mm

LEAD FREE INDICATOR

PACKAGING

- 2 = tape and Reel with pick-up cap

HOLD DOWN OPTION

- 1 = hold downs (10106813)
- 0 = none (10106814)

PEG OPTION

- 1 = pegs (10106813)
- 0 = no pegs (10106814)

Add practical connector heights of two mated connectors to determine final PCB stack height

For footprint dimensions and status of product release see customer drawings: www.fciconnect.com/mezzostak

| mm/inch | 10106813 standard length | | | 10106814 short length | |
|---------|--------------------------|--------------|--------------|-----------------------|--------------|
| | number of positions | dim. J | dim. A | dim. B | dim. A |
| 20 | 9.74 / .383 | 9.20 / .362 | 4.50 / .177 | 7.50 / .295 | 4.50 / .177 |
| 30 | 12.24 / .482 | 11.70 / .461 | 7.00 / .276 | 10.00 / .394 | 7.00 / .276 |
| 40 | 14.74 / .580 | 14.20 / .559 | 9.50 / .374 | 12.50 / .492 | 9.50 / .374 |
| 50 | 17.24 / .679 | 16.70 / .657 | 12.00 / .472 | 15.00 / .591 | 12.00 / .472 |
| 60 | 19.74 / .777 | 19.20 / .756 | 14.50 / .571 | 17.50 / .689 | 14.50 / .571 |
| 70 | 22.24 / .876 | 21.70 / .854 | 17.00 / .669 | 20.00 / .787 | 17.00 / .669 |

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For more information please contact: elxcommunications@fci.com

www.fciconnect.com/mezzostak