

M-Series™ 56

56Gb/s HIGH SPEED MEZZANINE BGA CONNECTOR SYSTEM

Leveraging proven technologies, including an industry leading BGA design, offering superior self-aligning and self-leveling. With a next generation differential pair contact design for up to 56Gb/s NRZ and 112Gb/s PAM4 performance.

- High density, high speed, dual-point contacts
- Self-aligning/leveling for multiple connector use
- 1.6mm column to column pitch
- 56Gb/s NRZ and 112Gb/s PAM4 performance
- Stack Heights: 4mm & 5mm

FEATURES

- Dedicated 85Ω and 92Ω Designs
- 22+ year old solder joint reliability per IPC-SM-785
- Industry-leading self-alignment
- Integrated pin protection on receptacle connector
- Proven contact mating beam geometries with 2-pts of contact



TARGET MARKETS



BENEFITS

- Impedance matched for optimal performance
- Quality and Reliability
- Supports multiple connector applications
- Durable mating interface design eliminates bent pins
- Reliable performance through shock and vibration

TECHNICAL INFORMATION

MATERIAL

- Housing: Liquid crystal polymer
- Contact Base Metal: Copper alloy
- Solder Spheres: 95.5Sn/4Ag/0.5Cu

ELECTRICAL PERFORMANCE

- Insulation Resistance: $1000M\Omega$ min
- Dielectric withstanding voltage: 2000V AC max
 $1.5A < 30^\circ C \Delta T$ (all contacts energized)

PART NUMBERS

DESCRIPTION

M-Series™ 56 Receptacle, 4mm, 4 Pair x 12-40 Column

PRODUCT FAMILY DRAWING

10154179c

M-Series™ 56 Plug, 0mm, 4 Pair x 12-40 Column

10154178c

M-Series™ 56 Plug, 1mm, 4 Pair x 12-40 Column

10154425c

MECHANICAL PERFORMANCE

- Durability: 200 mating cycles
- Contact Wipe: 1.0mm nominal

ENVIRONMENTAL

- Pb Free
- Be Free

PACKAGING

- Tape and Reel

TARGET MARKETS/APPLICATIONS



Router and Servers
Data Center
Network



Telecom
Datacom
Switches and Routers



Car Navigation Systems



Imaging



Gaming Machine
Test Equipment



Entertainment PC