## M-Series ${ }^{\text {m }}$

## 56GB/S-112GB/S HIGH-SPEED MEZZANINE BGA CONNECTOR SYSTEM

Leveraging well-established technologies, including an industry-leading Ball Grid Array (BGA) design, this connector offers a superior self-aligning and selfleveling solution. It incorporates a next-generation differential pair contact design, enabling exceptional performance of up to $56 \mathrm{~Gb} / \mathrm{s}$ NRZ and $112 \mathrm{~Gb} / \mathrm{s}$ PAM4.

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



## BENEFITS

- 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: $1000 \mathrm{M} \Omega$ min.
- Dielectric Withstanding Voltage: 2000VAC max.
$1.5 \mathrm{~A}<30^{\circ} \mathrm{C} \Delta \mathrm{T}$ (all contacts energized)
MECHANICAL PERFORMANCE
- Durability: 200 mating cycles
- Contact Wipe: 1.0 mm nominal

ENVIRONMENTAL

- Pb Free
- Be Free

TARGET MARKETS/APPLICATIONS

Car Navigation Systems

Telecom
Datacom
Switches and Routers


Entertainment PC

Router and Servers
Data Center
Network


Gaming Machine
Test Equipment


Imaging

PACKAGING

- Tape and Reel


## PART NUMBERS

| Description | Product Family Drawing |
| :--- | :--- |
| M-Series $^{\text {m" }}$ Receptacle, 4mm, 4 Pair $\times 12-40$ Column | 10154179 c |
| M-Series ${ }^{\text {tm }}$ Plug, Omm, 4 Pair $\times 12-40$ Column | 10154178 c |
| M-Series ${ }^{\text {m" }}$ Plug, 1mm, 4 Pair $\times 12-40$ Column | 10154425 c |

