# **Connector**



# OmniEdge™ ASM Connector



# **OVERVIEW**

Luxshare-TECH design OmniEdge™ ASM as a new internal cable to board or board to board interconnection product family for next Gen SAS, PCIe, Ethernet etc applicaion. OmniEdge™ ASM is of very excellent SI perfomance so as to support SAS4.0, PCIeGen4/Gen5, even PCIeGen6 in future. The high speed per lane of ASM could support 32Gbps NRZ, 56G PAM4 data rate with potential up to 64G PAM4 & 112G PAM4.

Luxshare-TECH's OmniEdge™ ASM is 0.6mm pin pitch, ultra small form factor to save the space on the PCB and minimize the mating height above board. The robust mechanical structure design and the stable pull-to-release latching achieve the best mating reliability.

Luxshare-TECH OmniEdge™ ASM provide diverse product types: vertical and right angel connector and straight, 45degree and right angle cable plug. And based on all-pin high speed signal capability, OmniEdge™ ASM could provide 38pin for 12 differential pair, 50pin for 16pair, 74pin for 24pair, 100pin for 32pair, 124pin for 40pair, 148pin for 48pair and the other customized size.

# **FEATURES & BENEFITS**

- ♦ 0.6mm pin pitch, ultra small form factor
- 🔷 85ohm and 92ohm differential impedance for SAS4.0 PCIe4.0/5.0/6.0 and Ethernet both application for excellent SI performance
- 🔷 38, 50, 74, 124, 148 pins for PCIe multi-lanes design and 100 pin or other pins available upon request
- ♦ 32G NRZ & 56G PAM4 data rate with potential up to 64G PAM4 & 112G PAM4
- ◆ Proven anti skew-mate
- ◆ Simple structural keying/polarizing of very strong mechanical feature
- Robust and stable pull-to-release latching
- ♦ Board end connector accepts 1.57mm Add-In-Card as well for increased application flexibility
- Provide connector mated with customer paddle card and board connector mated with cable options
- Provide Vertical/Right angle board connector and VT/RA cable plug options for all application

#### **PRODUCT APPLICATIONS**

Data center & Networking Equipment
Servers/Storage Devices
High Performance Computing (HPC)
Switches/Routers
Baseband Commercial Systems
Networking Radio Units
Edge computing device
Al computing architecture

# **INDUSTRY STANDARDS**

PCIe 4.0 & 5.0 SAS3.0/4.0 OpenCAPI 25Gbps IEEE802.3 cd&ck

# OmniEdge™ ASM Connector

# **TECHNICAL INFORMATION**

# **MATERIAL**

Contact Base Metal: Copper Alloy Contact Area Finish: Gold over Nickel Solder Area Finish: Tin over Nickel

Housing: High temperature thermoplastic(UL 94V-0)

# **ELECTRICAL PERFORMANCE**

Voltage: 50V AC MAX per contact Current: 1.1A MAX per contact

# **ENVIRONMENTAL**

Operating temperature :  $-40^{\circ}$ C TO  $+85^{\circ}$ C Storage temperature :  $-15^{\circ}$ C TO  $+85^{\circ}$ C

Relative humidity: 20% to 80%

Atmospheric pressure: 650mm to 800mm of Hg (86 ~106Kpa)

# **Partial PN Table**

MECHANICAL	PERFORMANCE

Rated Durability Cycles: 200

Mating Force: 0.5N \* n (Number of connector terminals) +5N MAX Unmating Force: 0.04N\* n (Number of connector terminals) MIN

(without lock latch)

# **PACKAGING**

Tape & Reel

# **SPECIFICATION**

ES-11-00-0018

Product Description
ASM VT shielded conn.Au:30u"
ASM R/A shielded conn.Au:30u"