

SFP-DD (Double Density) Module and Cage/Connector System, MSA 2.1

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SFP-DD (Double Density) Module and Cage/Connector System delivers a 2-lane electrical interface, complementing QSFP-DD top-of-the-rack interfaces, and addresses issues caused by underpopulated lanes in file server interconnects

Features and Advantages

Backward compatible with all SFP-style interfaces

Mates with existing SFP+ Cable Assemblies, Modules and AOCs. Same form factor as zSFP+ Connectors, except for depth (SFP+ = 49.00mm deep; SFP-DD = 71.50mm deep). The resulting 22.50mm increase in depth accommodates second row of terminals

Focused 2-lane interconnect at the server

Accommodates higher lane count QSFP-DD top-of-rack (TOR) interface. Takes up less board and panel real estate than do zQSFP Interconnects

Temp-Flex cable technology

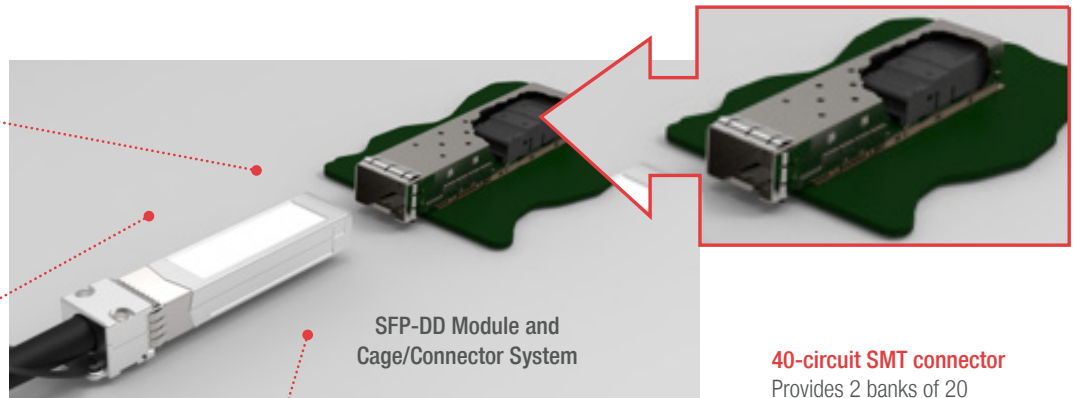
Boosts electrical performance. Provides excellent operational margin, short lead times and minimal end-user cost via manufacturing efficiencies

Doubles lane density and data speed of SFP transceivers

Enables future-proof bandwidth upgrades. Delivers up to 25 Gbps NRZ or 56 Gbps PAM-4 (56 Gbps NRZ or 112 Gbps PAM-4 aggregate). Provides an overall doubling of the port density in network applications when used with QSFP-DD switch ports

Efficiently supports 4 port breakouts (2 lanes per port) in SFP-DD-to-QSFP-DD Cable Assemblies

Complements QSFP-DD System capabilities. Delivers 400 Gbps data rates to four 100-Gbps lanes. Supports 200 Gbps to four 50-Gbps lanes, if required



SFP-DD Module and Cage/Connector System

40-circuit SMT connector

Provides 2 banks of 20 circuits, each backward compatible with SFP

Concept leverages QSFP-DD SMT design

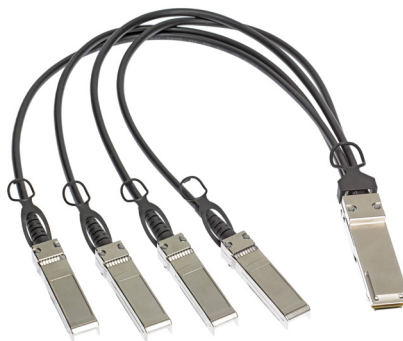
Delivers excellent signal integrity

Reduced board real estate and panel beachfront as compared to QSFP-DD form factor

Delivers compact connectivity

Stacked version designs available upon request

Offers design flexibility



QSFP-DD-to-4-SFP-DD Interconnect Cable Assembly

Future options will include stacked connectors and cages and belly-to-belly versions

Will provide a complete high-density solution to complement QSFP-DD Interconnect System

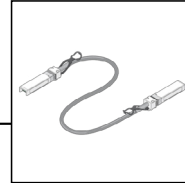
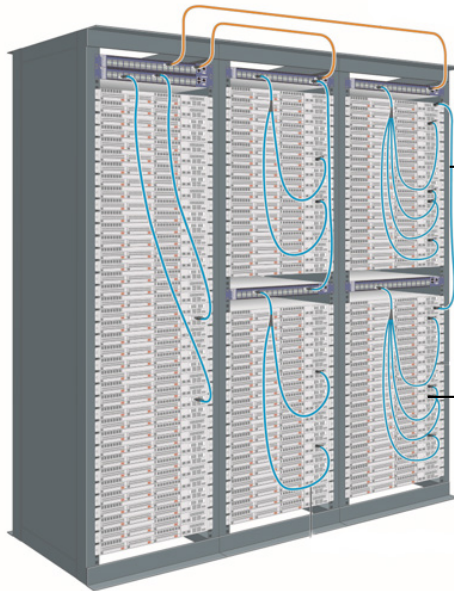
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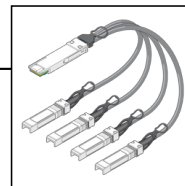
Applications

Telecommunications/Networking

Server
Storage



SFP-DD-to-SFP-DD Cable Assembly



QSFP-DD-to-4-SFP-DD Cable Assembly

SFP-DD and QSFP-DD-to-SFP-DD Cable Assemblies in a Data Center Application (Both Copper and Optical Cable Variants Will Be Available)

Specifications

ELECTRICAL

Voltage (max.): 30V AC (RMS)/DC
Current (max.): 0.5A
Contact Resistance: Avg 8.38
Dielectric Withstanding Voltage: 300V AC applied between adjacent contacts for 1 minute

PHYSICAL

Housing: High-Temperature Thermoplastic Glass Filled, UL 94V-0 Black
Contact: Copper Alloy
Plating: Contact Area — 0.381 or 0.762 μ m (15 or 30 μ) Gold
Solder Tail Area — Tin
Underplating — Nickel
PCB Thickness: 1.57mm
Operating Temperature: -40 to +85°C

MECHANICAL

Insertion Force to PCB: 35N
Durability (min.): 250 cycles

For more information on the SFP-DD Interconnect MSA, visit www.sfp-dd.com

www.molex.com/link/sfpdd.html