## Mellanox MMA1L10-CR Datasheet



Mellanox MMA1L10-CR 100GBASE-LR4 QSFP28 1310nm 10km DOM Duplex LC SMF Optical Transceiver Module MMA1L10-CR

NVIDIA MMA1L10-CR Optical Transceiver 100GbE QSFP28 LC-LC 1310nm LR4 up to 10km

100GbE QSFP28 LR4 Optical Transceiver

NVIDIA Networking MMA1L10-CR is a 4-channel, pluggable, QSFP28, optical transceiver designed for use in 100 GbE links with up to 10 km reach on single mode fiber.

The transceiver is compliant with the QSFP28 MSA, IEEE 802.3ba 100GBASE-LR4, and IEEE 802.3bm CAUI-4 standards.

The MMA1L10-CR module converts 4 input channels of 25 Gb/s electrical data to 4 channels of LAN WDM optical signals at 4 different wavelengths and then multiplexes these into a single optical transmit signal. Reversely, on the receiver side the module de-multiplexes a 100 Gb/s optical LAN WDM input into 4 optical signals and then converts these to 4

electrical differential output signals.
MMA1L10-CR has selectable retiming as specified in the QSFP28 MSA. This enables the transceiver to be used in both 40 GbE and 100 GbE applications.
Digital diagnostic monitoring functions for temperature, supply voltage, and optical power are available via the twowire (I2C) management interface, as specified by the QSFP28 MSA.
The optical connector is a duplex LC/UPC (un-angled) connector intended for a pair of single mode fibers.
Rigorous production testing ensures the best out-of-the-box installation experience, performance, and durability.
Highlights
<ul> <li>Hot pluggable QSFP28 MSA form factor</li> <li>IEEE 802.3ba 100GBASE-LR4 and IEEE 802.3bm CAUI-4 compliant</li> <li>Up to 10 km reach for Single Mode Fiber (SMF)</li> <li>Single +3.3 V supply, hot pluggable</li> <li>Operating case temperature: 0C to 70C</li> </ul>

• 4 x 25.78 Gb/s DFB-based LAN-WDM transmitter

• 4 x 25.78 Gb/s retimed electrical interface

- QSFP28 Power Class 4 (3.5 W max)
- Duplex LC receptacles
- Hot pluggable
- RoHS compliant
- SFF-8636 compliant DDM functions
- Applications:
  - 100GBASE-LR4 100G Ethernet
  - 40GBASE-LR4 40G Ethernet
  - Qualified for use in NVIDIA Ethernet end-to-end systems

For more information of this NVIDIA Mellanox MMA1L10-CR, please visit NVIDIA website:

https://store.nvidia.com/en-

us/networking/store/product/MMA1L10-CR/NVIDIAMMA1L10CROptical Transceiver 100 GbEQSFP28LCLCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28LCLR4/100 GbEQSFP28L

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