edge OPTICAL SOLUTIONS

Product Data Sheet

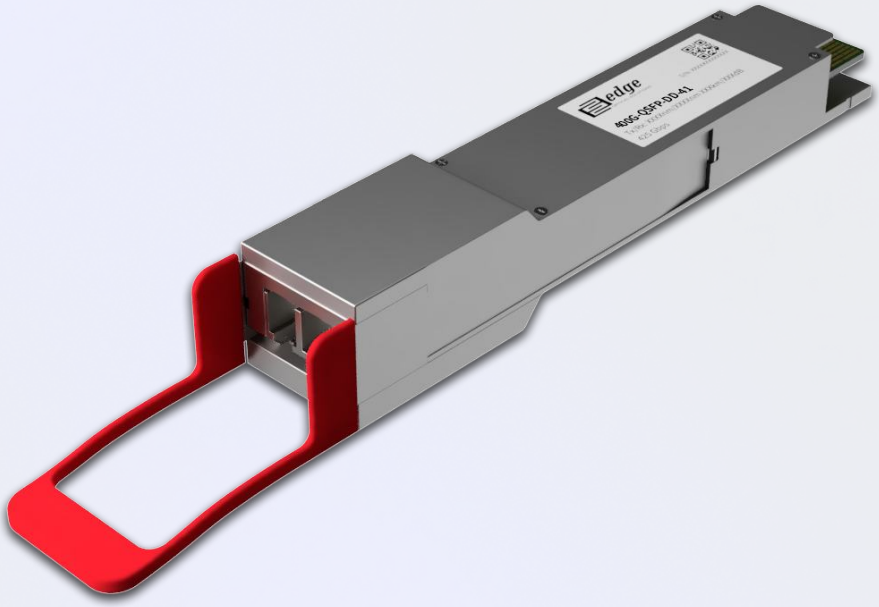
400G-QSFP-DD-41

Optical Transceivers

λ = 4-Lane WDM

OS2 Fiber

Double LC



OB 12.5dB

Max 30 km

FEC

PC≤ 12W

Product description

400G-QSFP-DD-41 is a 400GBASE-ER4 Lite Multi-Vendor MSA Compatible QSFP-DD (Quad Small Form-Factor Pluggable – Double Density) Transceiver designed for operation over Double Fiber Single-Mode Fiber (SMF) optical cable. On the transmission side module converts 8x 50G 400GAUI-8 PAM4 (Pulse-Amplitude Modulation) electrical input channels (each 53.125Gbps) into 4 Single Lambda 100G PAM4 LAN-WDM optical signals. Reversely the opposite is done on the receiving side, module converts 4 Single Lambda 100G PAM4 CWDM optical signals into 8x 50G 400GAUI-8 electrical inputs. Module has minimum guaranteed optical budget of 12.5 dB, which in most cases is enough to reach 30km with 400G KP4 FEC and 40 km distance with host FEC over OS2 single-mode fiber. 400G-QSFP-DD-41 uses top quality Quad channel EML driver and 4 LAN WDM EML lasers together with an optical multiplexer (4 LAN WDM lines: 1295.56, 1300.05, 1304.58 and 1309.14 nm) transmitter and 400Gb/s APD array receiver. 400G-QSFP-DD-41 400GBASE- ER4 Lite supports DDM/DOM optical diagnostics that provide real-time diagnostic information about the present operating conditions. 400G-QSFP-DD-41 operates in Standard 0°-70°C temperature range and has Double LC interface. 400G-QSFP-DD-41 400GBASE-ER4 Lite QSFP-DD transceiver is CE/RoHS certified and is compliant with product safety standards. 400G-QSFP-DD-41 is fully compliant to QSFP-DD Multi Source Agreement (MSA), IEEE 802.3bs 400 Gbps specification. We will be glad to know your requirements!

Product Specification:

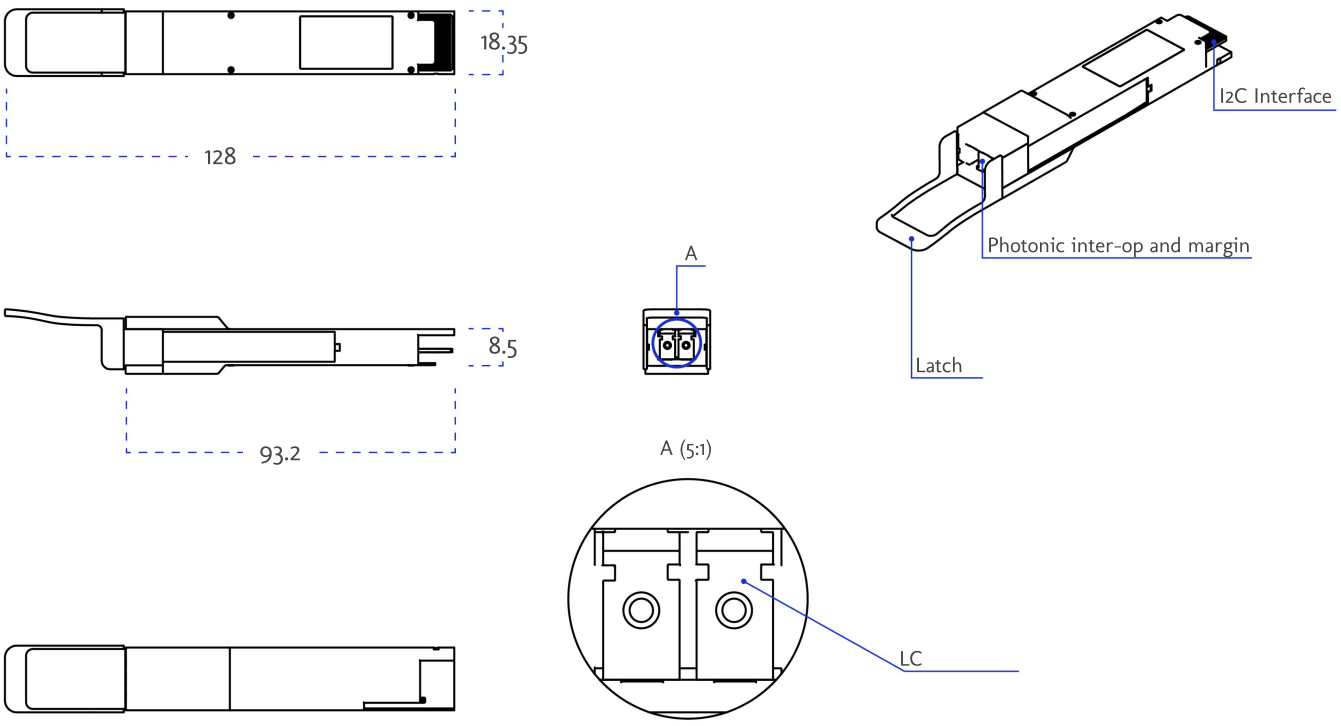
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
TX Wavelength:	LAN WDM 1295.56, 1300.05, 1304.58, 1309.14 nm
RX Wavelength:	LAN WDM 1295.56, 1300.05, 1304.58, 1309.14 nm
Minimum Optical Budget:	12.5 dB
Maximum Distance:	30 km
Supported Data Rate:	425 Gbps

Product Specification:

Supported Applications:	400G Ethernet
DDM/DOM:	Supported
Forward Error Correction (FEC):	Built-in FEC
Transmitter Type:	EML Laser
Tx Wavelength Bandwidth:	4 LAN WDM Seperated 1310 nm Lanes (15.66 nm 1294.53 – 1310.19nm) (L0 Tx center 1295.56nm, L1 Tx center 1300.05nm, L2 Tx center 1304.58nm, L3 Tx center 1309.14nm)
Average Launch Power (Min) Each Lane:	0.4 dBm
Average Launch Power (Max) Each Lane:	6.5 dBm
Extinction Ratio (Min):	6 dB
Receiver Type:	APD
Rx Wavelength Bandwidth:	4 LAN WDM Seperated 1310 nm Lanes (15.66 nm 1294.53 – 1310.19nm) (L0 Tx center 1295.56nm, L1 Tx center 1300.05nm, L2 Tx center 1304.58nm, L3 Tx center 1309.14nm)
Avg Receiver Sensitivity(Min)Each Lane:	-12.1 dBm
Avg Receiver Sensitivity(Max)Each Lane:	
Receiver Overload:	-2.4 dBm
Temperature Range:	Standard 0°-70°C
Storage Temperature:	-40° to 85°C
Relative Humidity:	0 to 85%
Power Consumption:	≤ 12W
Power:	3.3V
Compliance:	100G Lambda MSA, 400GBASE-ER4, IEC60825-1 Laser Safety Compliant, IEEE 802.3bs, QSFP-DD MSA, RoHS-6, CE

Mechanical Dimensions

*The dimensions are given in millimetres [mm]



Warranty

EDGE Optic's provides a limited warranty for **sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.

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