Product Data Sheet

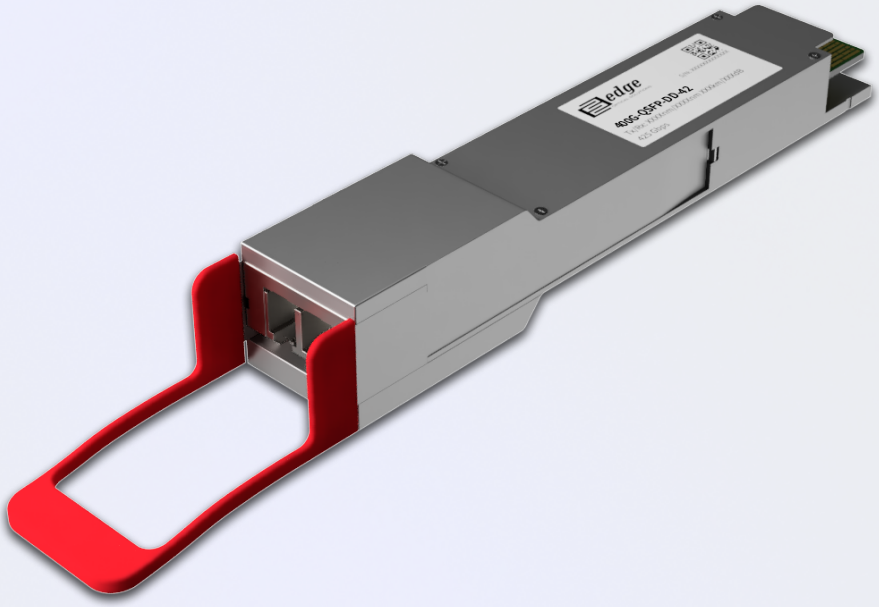
400G-QSFP-DD-42

Optical Transceivers

λ = 4-Lane WDM

OS2 Fiber

Double LC



OB 17.7dB

Max 40 km

FEC

PC≤ 13W

Product description

400G-QSFP-DD-42 is a 400GBASE-ER4 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 17.7 dB, which in most cases is enough to reach 40 km distance with host FEC over OS2 single-mode fiber. 400G-QSFP-DD-42 uses top quality Quad channel EML driver and 4 LAN WDM EML lasers together with an optical multiplexer (4 LAN WDM lines: 1304.58, 1306.85, 1309.14 and 1311.43 nm) transmitter and 400Gb/s PIN receiver. 400G-QSFP-DD-42 400GBASE-ER4 supports DDM/DOM optical diagnostics that provide real-time diagnostic information about the present operating conditions. 400G-QSFP-DD-42 operates in Standard 0°-70°C temperature range and has Double LC interface. 400G-QSFP-DD-42 400GBASE-ER4 QSFP-DD transceiver is CE/RoHS certified and is compliant with product safety standards. 400G-QSFP-DD-42 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:

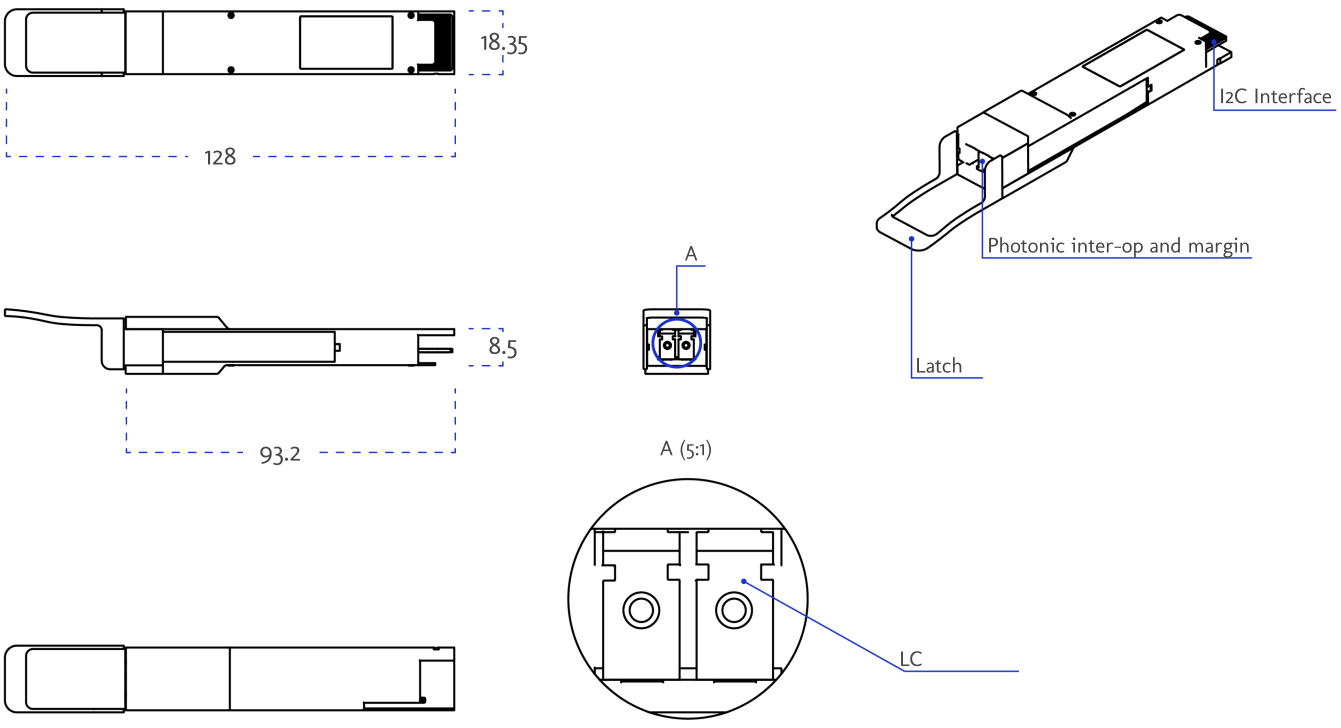
Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
TX Wavelength:	LAN WDM 1304.58, 1306.85, 1309.14, 1311.43 nm
RX Wavelength:	LAN WDM 1304.58, 1306.85, 1309.14, 1311.43 nm
Minimum Optical Budget:	17.7 dB
Maximum Distance:	40 km
Supported Data Rate:	425 Gbps

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 Separated Lanes (6.85 nm 1304.58 – 1311.43nm) (L0 Tx center 1304.58 nm, L1 Tx center 1306.85 nm, L2 Tx center 1309.14 nm, L3 Tx center 1311.43 nm)
Average Launch Power (Min) Each Lane:	1.5 dBm
Average Launch Power (Max) Each Lane:	7.1 dBm
Extinction Ratio (Min):	6 dB
Receiver Type:	PIN
Rx Wavelength Bandwidth:	4 LAN WDM Separated Lanes (6.85 nm 1304.58 – 1311.43nm) (L0 Rx center 1304.58 nm, L1 Rx center 1306.85 nm, L2 Rx center 1309.14 nm, L3 Rx center 1311.43 nm)
Avg Receiver Sensitivity(Min)Each Lane:	-16.2 dBm
Receiver Overload:	-2.4 dBm
Temperature Range:	Standard 0°-70°C
Storage Temperature:	-40° to 85°C
Relative Humidity:	5 to 85%
Power Consumption:	≤13W
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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