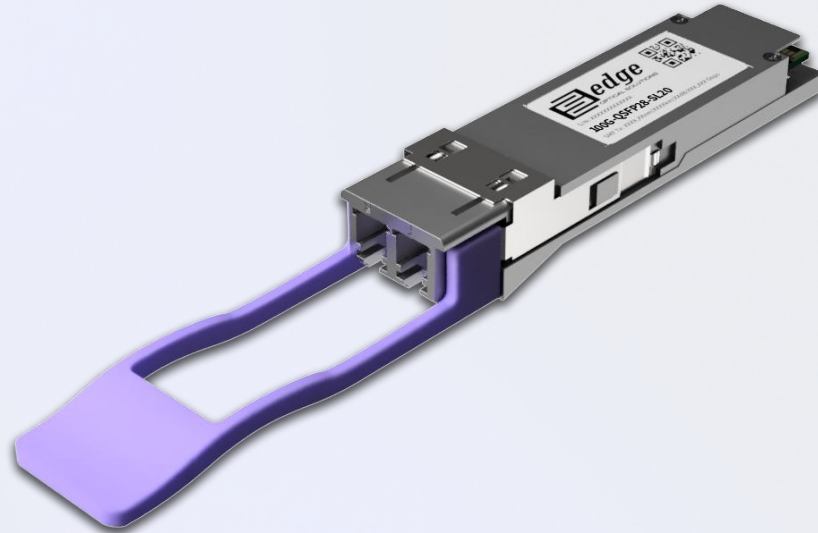
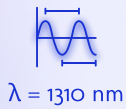


100G-QSFP28-SL20

Optical Transceivers



OB 7.1dB



Max 20 km



FEC

 $PC \leq 4.5W$

Product description

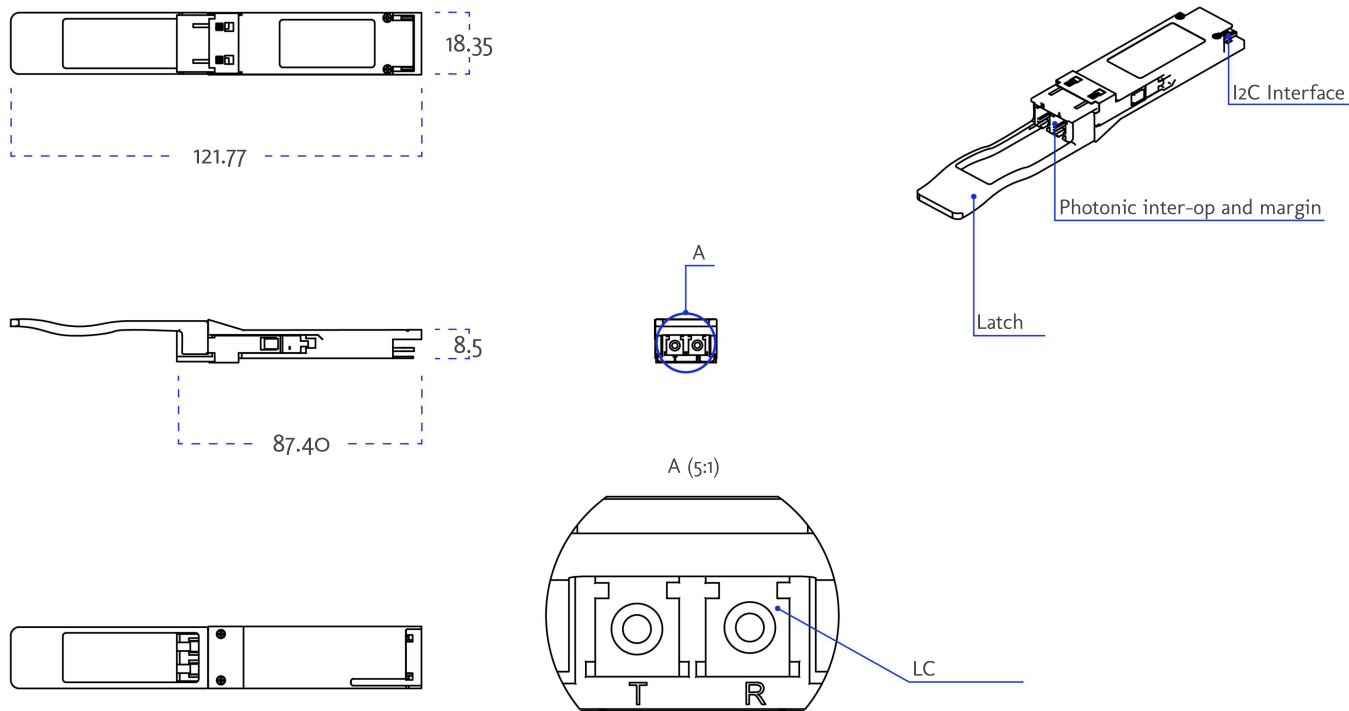
100G LR is Multi-Vendor MSA Compatible QSFP28 LR Single Lambda PAM4 QSFP28 (Quad Small Form-Factor Pluggable 28) QSFP28 LR Transceiver, operating over pair of single-mode optical fiber. On the transmission side module converts 4x 25G NRZ (Non-return-to-zero) electrical input channels (each 25.78125Gbps) into 1 Single Lambda 100G PAM4 optical signal using PAM4 modulation with baud rate of 53.125 Gbps. Reversely the opposite is done on the receiving side, module converts 1 Single Lambda 100G PAM4 optical signal into 4x 25G NRZ (Non-return-to-zero) electrical inputs using PAM4 modulation with baud rate of 53.125 Gbps. 100GBASE-LR Module has minimum guaranteed optical budget of 7.1 dB, which in most cases is enough to reach 20 km distance using single-mode cable. However, distance is just indicative parameter calculated for comfort of identification. Eventually we calculate distance taking in account minimal optical budget and average attenuation of optical cabling in industry. 100G LR uses EML TOSA (which operates over 1304.5- 1317.5 nm range) laser transmitters and PIN ROSA receivers. Module support DDM/DOM optical diagnostics, which provide diagnostic information about the present operating conditions. Additionally module supports FEC (Forward Error Correction) function which will help receiving side detect and correct bit errors and improve the overall quality of the link. 100G-QSFP28-SL20 operates in Standard 0°-70°C temperature range and has double LC connectors. 100G LR Single Lambda PAM4 QSFP28 (sometimes known as SFP-100G-LR) support up to 106.25 Gbps data rate and such applications as 100G Ethernet (103.125 Gbps). 100G-QSFP28-SL20 optical transceiver is multi-purpose module used in number of different places in today's networking environment. Most popular applications are Internet Service Provider (ISP), Mobile Operator and Data Center Core Networks. QSFP28 LR (sometimes known as SFP-100G-LR) Transceiver is CE/RoHS certified and it is Compliant with product safety standards. 100G LR (100GBASE-LR) Transceiver is fully compliant to QSFP28 Multi Source Agreement (MSA) and 100G Lambda MSA. Consequently compliance to above standards guarantees that module is compatible and works with majority of networking equipment, where is not implemented special algorithm for protection against third party modules. However – our technical team has accumulated deep expertise in custom-encoded firmware's for 100G LR Single Lambda PAM4 QSFP28 transceiver in order to make it work in almost any brand equipment. We will be glad to know your requirements.

Product Specification:

Media Type:	Single-Mode Fiber (SMF)
Connectors:	Double LC
TX Wavelength:	1310
RX Wavelength:	1310
Minimum Optical Budget:	7.1 dB
Maximum Distance:	20 km
Supported Data Rate:	106.25 Gbps
Supported Applications:	100G Ethernet
DDM/DOM:	Supported
Forward Error Correction (FEC):	Built-in FEC
Transmitter Type:	EML TOSA
Tx Wavelength Bandwidth:	1304.5- 1317.5 nm
Average Launch Power (Min) Each Lane:	-1.4 dBm
Average Launch Power (Max) Each Lane:	7.1 dBm
Extinction Ratio (Min):	3.5 dB
Receiver Type:	PIN
Rx Wavelength Bandwidth:	1304.5- 1317.5 nm
Avg Receiver Sensitivity(Min)Each Lane:	-8.5 dBm
Avg Receiver Sensitivity(Max)Each Lane:	4.5 dBm
Receiver Overload:	5.5 dBm
Temperature Range:	Standard 0° -70°C
Storage Temperature:	-40° to 85°C
Relative Humidity:	5 to 85%
Power Consumption:	≤4.5W
Power:	3.3V
Compliance:	100G Lambda MSA, Class 1 FDA, IEC60825-1 Laser Safety Compliant, RoHS-6, CE, QSFP28 MSA, SFF-8636, SFF-8665

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.

