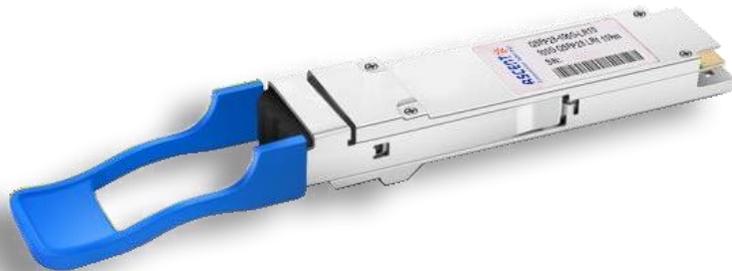


100G QSFP28 LR1 10km Single Channel

QSFP Series



Ascent's QSFP28 100G LR1 Ethernet module is a transceiver module designed for 10 km optical communication applications, and it is compliant with IEEE 802.3cd and QSFP28 MSA standard.

QSFP28-100G-LR10 can be used in Data Centers, High-speed interconnects within and between switches, routers and transport equipment, Server- Server Clusters, Super-computing interconnections and other network applications.

This module incorporates one channel optical signal, on 1310nm center wavelength, operating at 50G baud data rate. The transmitter path incorporates an EML Driver integrated in the DSP and a cooled EML together. On the receiver path, the input optical signal is coupled to a Pin photodiode detector. It is designed with form factor, optical/electrical connection and digital diagnostic interface according to the QSFP28 Multi-Source Agreement (MSA). It has been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference.

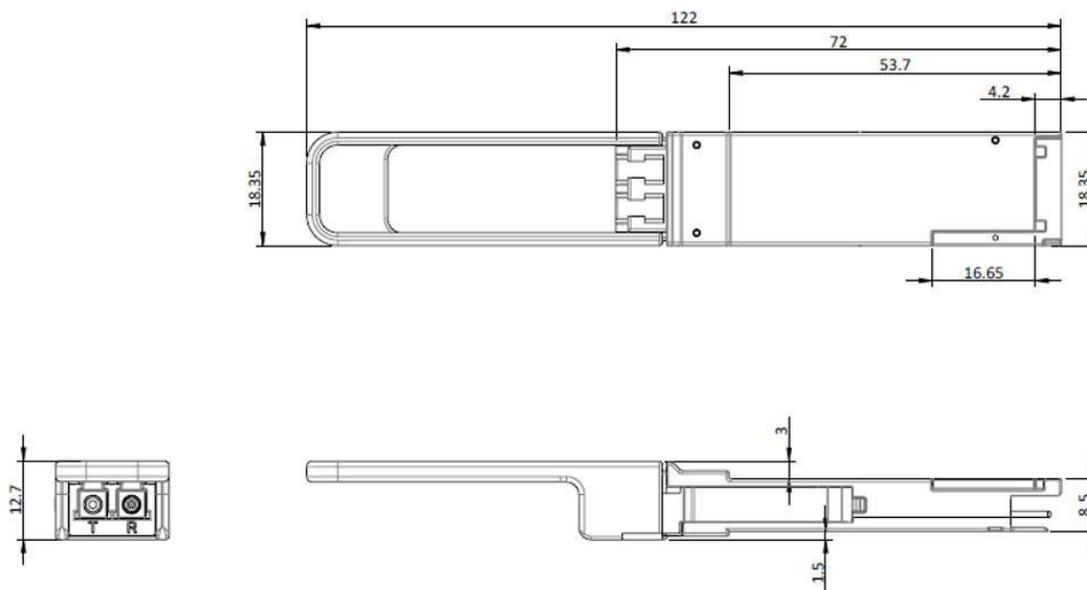
Key Features

- QSFP28 MSA compliant
- IEEE 802.3cu compliant
- Optical light source: single channel 1310nm EA-DFB LD
- Optical receiver: single channel PIN photo detector
- Max. power consumption 4.5 W
- Up to 10 km transmission on single-mode fiber
- LC connector
- Single 3.3V power supply
- RoHS 2.0 compliant

Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	T _{op}	0		+70	°C	
Power Supply Voltage	V _{cc}	3.135	3.3	3.465	V	
Power Supply Current				1154.4	mA	Steady state
Link Distance with G.652				1.51	A	
				10	km	
Modulation Format	PAM4					
Data Rate	53.125 ppm ± 100 ppm				GBd	
Transmitter Wavelengths		1304.5	1311	1317.5	nm	
Average Launch Power		-1.4		4.5	dBm	
Average Launch Power of OFF Transmitter				-15	dBm	
Damage Threshold		5.0			dBm	
Average Receiver Power		-7.1		4.0	dBm	
Receiver Power (OMA)				4.2	dBm	
Receive Sensitivity (OMA Outer)				-4.5	dBm	
Differential Input Voltage pk-pk	V _{pp}	900			mV	
Overload Differential Voltage pk-pk	V _{pp}		900		mV	

Outline Diagram



Ordering Information

Product Name	Product Description
QSFP28-100G-LR10	QSFP28 Plug-in, 100GBASE-LR1, Single Channel 1310 nm, 10 km Optical Transceiver, LC, DOM



Ascent Communication Technology Ltd

AUSTRALIA

140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

Hong Kong SAR

Room 1210, 12th Floor, Wing Tuck Commercial Centre
181 Wing Lok Street, Sheung Wan , Hong Kong SAR
Phone: +852-2851 4722

CHINA

Unit 1933, 600 Luban Road
200023, Shanghai, CHINA
Phone: +86-21-60232616

USA

2710 Thomes Ave
Cheyenne, WY 82001, USA
Phone: +1 203 350 9822

EUROPE

Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

VIETNAM

11th Floor, Hoa Binh Office Tower
106 Hoang Quoc Viet Street, Nghia Do Ward
Cau Giay District, Hanoi 10649, VIETNAM
Phone: +84-24-37955917

WEB: www.ascentcomtec.com

EMAIL: sales@ascentcomtec.com

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Ver. ACT_QSFP28-100G-LR10_Datasheet_V1d_Dec_2021