

QSFP28 BIDI 100 Gb/s SR 100m Transceiver QSFP Series



Ascent's QSFP28 100G SR BIDI is a parallel Quad Small Form-factor Pluggable (QSFP28) Bi-Direction optical module which can support 100Gb/s bit rates in an optical communication application compliant to SFF-8636, IEEE802.3bm standards.

The module integrates four host electrical data into two optical lanes (by Dual Wavelength VCSEL Bi-Directional Optical Interface, 850nm and 900nm) to allow optical communication over a 2-fiber duplex LC optical multi-mode fiber. Reversely, on the receiver side, the module de-multiplexes 2 sets of optical input signal and converts them to 4 channels of electrical data.

An optical fiber ribbon cable with an LC connector can be plugged into the QSFP28 module receptacle. Proper alignment is ensured by the guide pins inside the receptacle. The cable usually cannot be twisted for proper channel to channel alignment. Electrical connection is achieved through an MSA-compliant 38-pin edge type connector.

The product is designed with form factor, optical/electrical connection, and digital diagnostic interface according to the QSFP+ Multi-Source Agreement (MSA). It has been designed to meet the harshest external operating conditions including temperature, humidity, and EMI interference.

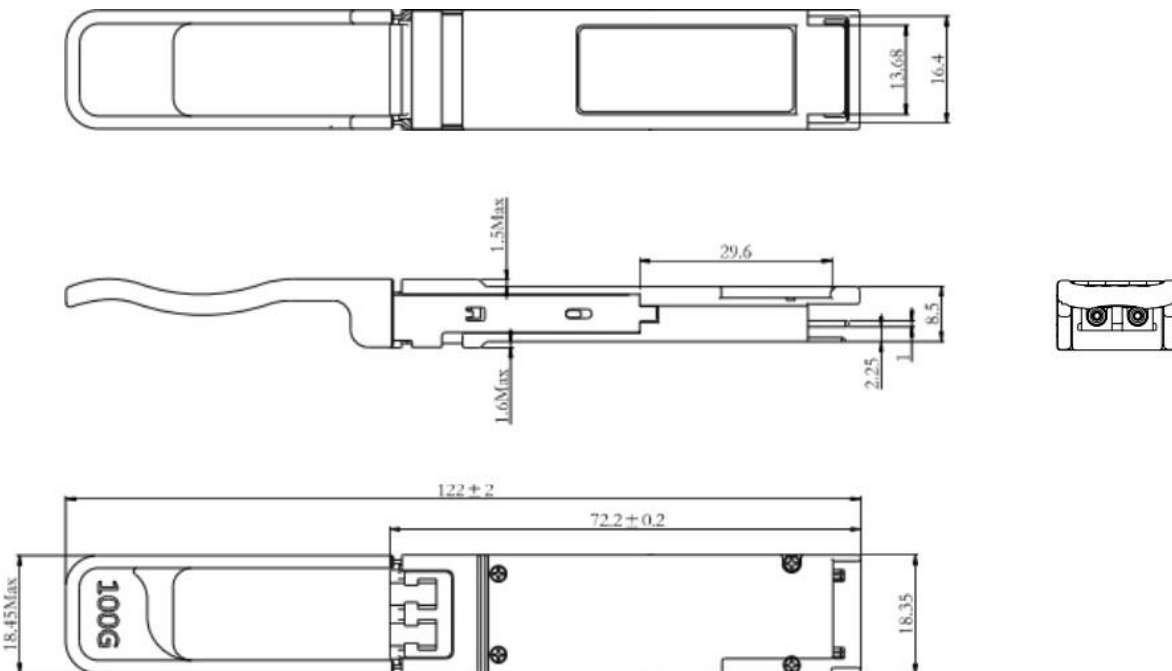
Key Features

- Support 100Gb/s aggregate bit rate
- QSFP28 MSA compliant, duplex LC interface
- 100G link distances up to 70m over OM3, 100m over OM4
- Interface with Digital monitoring and maskable Interrupts for Ex-panded functionality
- Up to 70km reach with OM3 multimode fiber
- Wide operating temperature: 0°C~70°C
- RoHS II Compliance

Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	T_{case}	0	+25	+70	°C	
Power Supply Voltage	V_{CC}	3.135	3.3	3.465	V	
Average Launch Power ,each Lane	P_{OUT}	-6.2	-	4	dBm	
Center Wavelength 1	λ	844	850	863	nm	
Center Wavelength 2	λ	900	908	918	nm	
Average Power at Receive Input, each Lane	P_{IN}	-7.9	-	4	dBm	
Receive Power, each Lane (OMAouter)	$P_{IN(OMA)}$	TP3	-5.9	-	3	
Receiver Wavelength	λ_{in}	840	-	860	nm	
Unstressed Receiver Sensitivity (OMAouter), each Lane	S_{en}	-	-	max(-6.6, SECQ - 8)	dBm	
Center Wavelength1	λ	844	850	863	nm	
Center Wavelength2	λ	900	908	918	nm	
Tx_Data Differential Input Voltage	V_{IN}	200	-	900	mV	
Rx_Data Differential Output Voltage	V_{OUT}	-	-	1200	mV	

Outline Diagram



Ordering Information

Product Name	Product Description
Q28-100G-BD-SR01	QSFP28 Plug-in, 100GBASE-SR BiDi MMF 850nm 100m OM4 DOM Duplex LC



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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