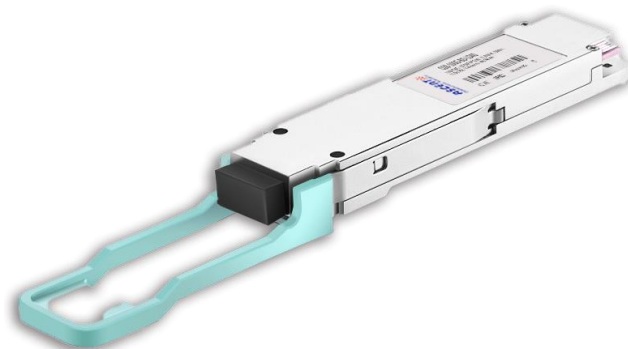


QSFP28 BIDI 100 Gb/s ER Transceiver 40km

QSFP Series



The Q28-100G-BD-LU40/LD40 BiDi QSFP28 Transceiver Module is a high-performance optical transceiver designed for bidirectional data transmission over single-mode fiber. It transmits at two key wavelengths, 1304.58nm and 1309.14nm, achieving 100Gbps speeds over distances up to 40 kilometers. Equipped with an LC simplex connector and compliant with QSFP28 MSA standards, this module is used in data centers and telecommunications for efficient, long-distance data transfer. Its QSFP28 form factor ensures compatibility with various network equipment, and it's hot-pluggable for easy installation and maintenance.

Unlike traditional transceivers, which require two fibers, the BiDi QSFP28 consolidates data transfer into one strand, making it ideal for large data centers with extensive cabling needs.

The module is also durable and reliable, with digital diagnostics monitoring (DDM) for real-time tracking of temperature, power, and performance metrics. Rigorously tested to meet industry standards, the Q28-100G-BD-LU40/LD40 BiDi QSFP28 offers a cost-effective, high-speed solution for expanding data infrastructure, providing scalability and efficient connectivity.

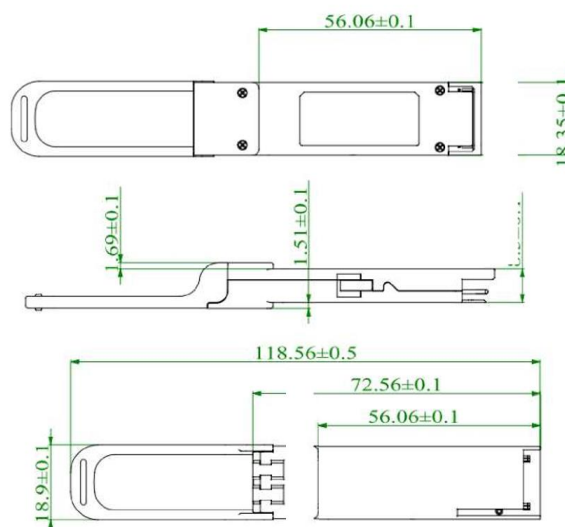
Key Features

- Support 100GBASE-ER BIDI
- Support 106.25Gb/s with PAM4
- Up to 40km transmission on SMF
- I2C interface with integrated Digital Diagnostic monitoring
- QSFP28 MSA compliant, Simplex LC interface
- Low power consumption <4.5W
- Wide operating temperature: 0°C~70°C
- Compliant to 802.3cu, SFF-8636&SFF-8679 standard
- Complies with EU Directive 2015/863/EU

Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	T _c	0		+70	°C	
Power Supply Voltage	V _{CC}	3.13	3.3	3.47	V	
Power Supply Current	I _{CC}	-	-	1.3	A	
Maximum Power Consumption	P _D	-	-	4.5	W	
Data Rate(Optical)	DR _o	-	106.25	-	Gb/s	
Transmission Distance	TD	-	-	40	km	
Center Wavelength	CW	1304.06	1304.58	1305.1	nm	
		1308.61	1309.14	1309.66	nm	
Average Launch Power	P _{TX}	1.7	-	7.1	dBm	
Average Output Power (Laser Turn off)	P _{OUT-OFF}	-	-	-15	dBm	
Center Wavelength	CW	1308.61	1309.14	1309.66	nm	
		1304.06	1304.58	1305.1	nm	
Damage Threshold	P _{damage}	-2.4	-	-	dBm	2
Average Rx Power	P _{RX}	-16.0	-	-3.4	dBm	3
Receive Power_OMAouter	P _{OMA}	-	-	-2.6	dBm	
Receiver Sensitivity_OMAouter	SEN _{OMA}	-	-	-13.8	dBm	4
Stressed Receiver	SRS	-	-	-11.3	dBm	5
Sensitivity_OMAouter						
Differential Data Input Amplitude	V _{IN,P-P}	80	-	900	mVpp	
Differential Data Output Amplitude	V _{OUT,P-P}	-	-	900	mVpp	

Outline Diagram



Ordering Information

Product Name	Product Description
Q28-100G-BD-LU40	QSFP28 Plug-in, 100GBASE-ER, 40km, BiDi, TX1304; RX1309, SMF, Simplex LC, Blue Latch, DOM
Q28-100G-BD-LD40	QSFP28 Plug-in, 100GBASE-ER, 40km, BiDi, TX1309; RX1304, SMF, Simplex LC, Green Latch, 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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