

QSFP28 100Gb/s EZR4 Transceiver 100km

QSFP Series



The Q28-100G-LP100 100 Gb/s QSFP28 EZR4 Transceiver is a high-capacity optical module designed for long-distance data transmission up to 100 kilometers over single-mode fiber. Supporting 100 Gbps speeds, it's ideal for telecommunications and data centers needing robust, high-speed connectivity. With its QSFP28 form factor and hot-pluggable design, the EZR4 contains 4-lane optical transmitter, 4-lane optical receiver and module management block including 2 wire serial inter-face.

This transceiver stands out with its Extended Reach (EZR) capability, enabling reliable data transport over 100 km, making it suited for metropolitan and inter-city networks. Its advanced optical technology ensures minimal signal loss over long distances while maintaining low power consumption.

Designed for reliability, the EZR4 includes digital diagnostics monitoring (DDM), offering real-time metrics like temperature and output power for proactive management. Compliant with QSFP28 MSA standards, it ensures compatibility and performance across networks, making it a cost-effective solution for long-range, high-speed data needs.

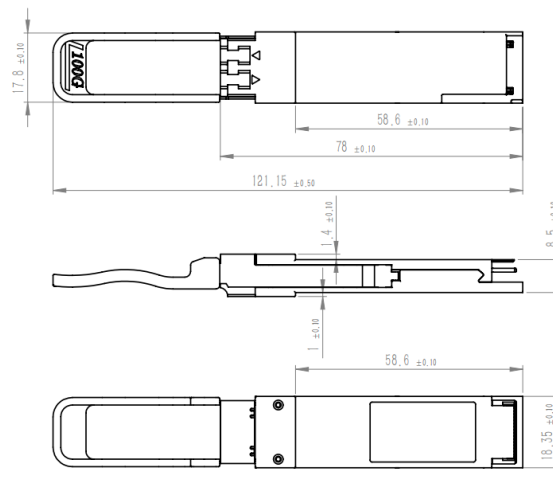
Key Features

- Support line rates 103.125Gb/s
- Lane bit rate 25.78 Gb/s 100GE
- Up to 100km transmission with KR4-FEC
- I2C interface with integrated Digital Diagnostic monitoring
- QSFP28 MSA compliant, duplex LC interface
- Compliant with EU Directive 2015/863/EU
- Low power consumption <6W
- Wide operating temperature: 0°C~70°C

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}			1.82	A	
Maximum Power Consumption	P _D			6	W	
Aggregate Bit Rate	BR _{AVE}		103.125		Gb/s	
Lane Bit Rate	BR _{LANE}		25.78125		Gb/s	
Transmission Distance	TD			100	km	
Lane Wavelength	L0	1294.53	1295.56	1296.59	nm	
	L1	1299.02	1300.05	1301.09	nm	
	L2	1303.54	1304.58	1305.63	nm	
	L3	1308.09	1309.14	1310.19	nm	
Average Launch Power per Lane, OMA, each Lane	P _{avg}	3		6.5	dBm	
	P _{OMA}	4.2		7.7	dBm	
Average Output Power (Laser Turn off)	P _{off}			-30	dBm	
Center Wavelength Lane 0	λ ₀	1294.53	1295.56	1296.59	nm	
Center Wavelength Lane 1	λ ₁	1299.02	1300.05	1301.09	nm	
Center Wavelength Lane 2	λ ₂	1303.54	1304.58	1305.63	nm	
Center Wavelength Lane 3	λ ₃	1308.09	1309.14	1310.19	nm	
Damage threshold , each Lane	P _{damage}	5.5				
Average Receive Power, each Lane		-31		-6		
Average Launch Power OFF Transmitter, each Lane	P _{off}			-30	dBm	
Receiver Sensitivity Average, each Lane	SEN			-30		
Differential Voltage Pk-Pk	V _{pp}			900	mV	
Differential Output Voltage Swing	V _{out, pp}			900	mV	

Outline Diagram



Ordering Information

Product Name
Q28-100G-LP100

Product Description
QSFP28 Plug-in, compatible with QSFP-100G-eZR4 (with FEC), 100 km Optical Transceiver, Duplex 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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