

XQSLN9-10LY

10 km 100GBASE-LR4 QSFP28

Applications

- 100GBASE-LR4 100G Ethernet
- Telecom networking
- Data Center Interconnect
- Enterprise networking

Features

- QSFP28 MSA compliant
- Compliant to IEEE 802.3ba 100GBASE-LR4
- Digital diagnostic monitoring support
- Hot pluggable 38 pin electrical interface
- 4 LAN-WDM lanes MUX/DEMUX design
- 4x25G electrical interface
- Maximum power consumption 4 W
- LC duplex connector
- Supports 103.125 Gb/s aggregate bit rate
- Up to 10 km transmission on single mode fiber
- Operating case temperature: 0°C to 70°C
- Single 3.3 V power supply
- RoHS 2.0 compliant

Description

This document describes the DVT result of 100GBASE-LR4 100GE (4*25G) QSFP28 10 km Optical Transceiver.



Test Specification

Parameters	Unit	Min	Тур	Max	Sample Size	Pass/Fail	
Electrical Power Consumption							
Power dissipation	W			4	11	Pass	
Supply Current	Α			1.1544	11	Pass	
DDM-Supply Voltage	%	-3		3	3	Pass	
Receiver 25G Electrical Interface							
Differential Voltage pk-pk	mV			900	3	Pass	
Common Mode Noise, RMS	mV			17.5	3	Pass	
Output Rise time (20% to 80%)	ps	12			3	Pass	
Output Fall time (20% to 80%)	ps	12			3	Pass	
Eye width	UI	0.57			3	Pass	
Eye height	mV	228			3	Pass	
Transmitter 25G							
Transmit wavelengths	nm	1294.53		1296.59	11	Pass	
		1299.02		1301.09	11	Pass	
		1303.54		1305.63	11	Pass	
		1308.09		1310.19	11	Pass	
Total Average Launch Power	dBm			10.5	11	Pass	
Average launch power, each lane	dBm	-4.3		4.5	11	Pass	
Optical Modulation Amplitude (OMA), each	dBm						
lane		-1.3		4.5	11	Pass	
Extinction Ratio (ER)	dB	4			11	Pass	
Side-Mode Suppression Ratio (SMSR)	dB	30			11	Pass	
Launch power in OMA minus TDP, each lane	dB	-2.3			11	Pass	
Transmitter and Dispersion Penalty (TDP), each lane	dB			2.2	11	Pass	
Power off average launch power, each lane	dBm			-30	11	Pass	
DDM-Tx Power	dB			3	11	Pass	
R	eceiver	25G					
Signaling Speed per Lane	Gb/s	25.7812	5 ± 10	0 ppm	11	Pass	
Receiver power, each lane (OMA)	dBm			4.5	11	Pass	
Receiver sensitivity (OMA), each lane	dBm			-8.6	11	Pass	
Stressed receiver Sensitivity (OMA) , each lane	dBm			-6.8	11	Pass	
LOS Assert	dBm	-26			11	Pass	
LOS Deassert	dBm			-13	11	Pass	
LOS Hysteresis	dB	0.5			11	Pass	
DDM-Rx Power	dB			3	11	Pass	



Test Conditions

The DVT tests were performed at the following conditions, unless otherwise noted.

Data Rate: 25.78125 Gb/s (each lane)

Pattern: PRBS31

Case Temperatures: 0°C, 35°C and 70°C

Tested at normal voltage (3.3 V)

Ordering information

Part number	Product Description
XQSNL9-10LY	100GBASE-LR4 100GE QSFP28 10 km Optical Transceiver. LC, DDMI, 0°C $^\sim$ 70°C

Notes

Please specify any compatibility requirements at time of ordering. Standard MSA compatible pluggable components may not work or some function of these components may not be available in devices that require customized compatible devices. Pluggable components compatible with one type of communications equipment may not work in other type of communications equipment.

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