

QSFP28 100GE/OTU4 DUAL RATE LR4 10Km CLOTU4QSFP4R4

Product Features:

- Hot-pluggable QSFP28 form factor
- Supports 103.1Gb/s and OTU4 112Gb/s aggregate bit rate
- Power dissipation < 3.5W
- RoHS-6 compliant
- Commercial case temperature range of 0°C to 70°C
- Single 3.3V power supply
- Maximum link length of 10km on Single Mode Fiber (SMF)
- 4x28Gb/s DFB-based LAN-WDM transmitter
- 4x28G retimed electrical interface
- Duplex LC receptacles
- I2C management interface



Functional Characteristics (Optical)

The following tables list the performance specifications for the various functional blocks of the integrated optical transceiver module.

Table 1 – Transmitter Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Signaling Speed per Chanel		27.9525±20 ppm			Gb/s	1
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	
Total Launch Power, 100GE	Pout	-	-	10.5	dBm	
Average Launch Power per Lane,	PTX_LANE	0.1	-	4.5	dBm	5
OMA per Lane, 100GE	OMA	0.1	-	4.5	dBm	
Difference in launch power between lanes	PTX_DELTA_LANE	-	-	5	dB	
Average Output Power (Laser Turn off)	Pout-OFF	-	-	-30	dBm	
Side Mode Suppression Ratio	SMSR	30	-	-	dB	

Notes1:Transmitter consists of 4 lasers operating at 27.95Gb/s each.

Notes2:Hit ratio 5x10-5.

Notes3:Receiver consists of 4 photodetectors operating at 27.95Gb/s each.

Notes4:Specified at a BER of 10-6 (pre-FEC), per ITU-T G.sup39.

Notes5:Power value and power accuracy are with all channels on.

Table 2 – Receiver Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Signaling Speed per Lane		27.9525 ± 20 ppm	Gb/s	3	nm	



Lane center wavelengths (range)		1294.53–1296.59 1299.02–1301.09 1303.54–1305.63 1308.09–1310.19	nm		nm	
Average Receive Power per Lane	RXPx	-7		4.5	dBm	4,5
Receiver Sensitivity (OMA) per Lane	Rxsens			-8.6	dBm	
Return Loss	RL	-26			dB	
Stressed Receiver Sensitivity (OMA) per Lane	SRS			-6.8	dBm	6
Receiver Overload	PIN-OL	3	-	-	dBm	
Receive electrical 3 dB upper cutoff frequency, per lane				31	GHz	
LOS De-Assert	LOSD			-11.6	dBm	
LOS Assert	LOSA	-24		-13.6	dBm	
LOS Hysteresis			1.5		dBm	

Ordering Information

Table 3 - Ordering Information

Part No.	Product Description
CLOTU4QSFPLR4	100Gbps/OTU4 Dual Rate QSFP28 LR4,10Km, 5°C~+75°C

CONTACT:

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