400G OSFP Flat Top SR4 50m InfiniBand

CL400GOSFPSR4-IB-FLT

Product Features:

- Hot-pluggable OSFP form factor
- VCSEL transmitter and PIN PD receiver
- Support 425Gb/s aggregate bit rate
- Support both 4x100G Ethernet and InfiniBand NDR
- Compliant with IEEE 802.3-2022:
  - 4x100GBASE-VR1 optical interface
- Compliant with IEEE 802.3ck-2022:
  - 4x100GAUI-1 C2M electrical interface
- Compliant with InfiniBand Trade Association (IBTA)Specification 1.6
  - InfiniBand NDR electrical and optical interface
- Compliant with OSFP MSA Specification Rev 5.0 RHS housing(with the longer body:107.8mm) with MPO-12/APC receptacle
- Compliant with CMIS Rev 5.0
- Case operating temperature 0°C to 70°C
- Power dissipation < 9W
- Two wire serial Interface with digital diagnostic monitoring
- Complies with EU Directive 2011/65/EU (RoHS compliant)
- Class 1 Laser

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 rate, each lane (range)	-	53.125 ± 100 ppm			GBd	
Wavelength	λC	844	-	860	nm	
RMS spectral width	RMS	-	-	0.65	dB	1
Average Launch Power, each lane	AOPL	-4.6	-	4	dBm	
Outer Optical Modulation Amplitude (OMAouter), each lane for max (TECQ, TDECQ) <= 1.8 dB for 1.8 < max (TECQ, TDECQ) <= 4.4 dB	OMAouter	-2.6 -4.4+max(TECQ, TDECQ)	-	3.5	dBm	
Transmitter and Dispersion Eye Closure for PAM4 (TDECQ), each lane	TDECQ	-	-	4.4	dB	
Transmitter eye closure for PAM4 (TECQ), each lane	TECQ	-	-	4.4	dB	

Over/under-shoot	-	-		29	%	
Transmitter power excursion, each lane	-	-		2.3	dBm	
Average Launch Power of OFF Transmitter, each lane	TOFF	-	-	-30	dBm	
Extinction Ratio, each lane	ER	2.5	-	-	dB	
Transmitter transition time, each lane	Tr	-	-	17	ps	
RIN14OMA	RIN			-132	dB/Hz	
Optical return loss tolerance	ORL			14	dB	
Encircled flux	-	>=86at 19 μm <=30% at 4.5 μm				

Note 1: Average launch power, each lane (min) is informative and not the principal indicator of signal strength
Note 2: Transmitter reflectance is defined looking into the transmittrer

Table 2 – Receiver Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Signaling rate, each lane (range)	-		53.125 ± 100 ppm		GBd	
Wavelength	λC0	840	-	860	nm	
Damage Threshold, each Lane	AOPD	5	-	-	dBm	
Average Receive Power, each Lane	AOPR	-6.3	-	4	dBm	
Receive Power (OMAouter), each Lane	OMAR	-	-	3.5	dBm	
Receiver Reflectance	RR	-	-	-15	dB	
Receiver sensitivity (OMAouter) for TECQ < 1.4 dB for 1.4 dB <=TECQ<=3.4 dB	SOMA	-	-	-4.4 -6.2 + TECQ	dBm	
Stressed Receiver Sensitivity (OMAouter), each Lane	SRS	-	-	-1.8	dBm	1
Conditions of stressed receiver sensitivity test		-	3.4	-	dB	
Stressed eye closure for PAM4 (SECQ), lane under test	SECQ	-	4.4	-	dB	
OMAouter of each aggressor lane			3.5		dBm	

Note 1: Measured with conformance test signal at TP3 for the BER = 2.4x10-4

Ordering Information

Table 3 - Ordering Information

Part No.	Application	Data Rate	Laser Source	Fiber Type
CL400GOSFPSR4-IB-FLT	Ethernet InfiniBand	425Gb/s	VCSEL	Multi Mode Fiber

CONTACT:

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