

## 400G QSFP-DD SR4/VR4 50m CL400GQDDSR4

### Product Features:

- Compliant with IEEE 802.3df-2024:
  - 4x100GBASE-SR1/2x200GBASE-SR2/1x400GBASE-SR4 optical interface
- Compliant with IEEE 802.3:
  - 4x100GAUI-2/2x200GAUI-4/1x400GAUI-8 C2M electrical interface
- Compliant with QSFP-DD MSA HW7.0 type 2 housing with MPO-12 connector
- Compliant with CMIS Rev 5.0
- Case operating temperature 0°C to 70°C
- 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) 100GBASE-SR1, 200GBASE-SR2, 400GBASE-SR4 PMDs	-	$53.125 \pm 100$ ppm			GBd	
Wavelength	$\lambda_C$	842	-	868	nm	
RMS spectral width	RMS	-	-	0.6	dB	1
Average Launch Power, each lane	AOPL	-4.6	-	4	dBm	
Outer Optical Modulation Amplitude (OMA <sub>outer</sub> ), each lane for max (TECQ, TDECQ) <= 1.8 dB for 1.8 < max (TECQ, TDECQ) <= 4.4 dB	OMA <sub>outer</sub>	-2.6 -4.4+max(TECQ, TDECQ)	-	3.5	dBm	
Transmitter and Dispersion Eye Closure for PAM4 (TDECQ), each lane	TDECQ	-	-	4.4	dB	2
Transmitter eye closure for PAM4 (TECQ), each lane	TECQ	-	-	4.4	dB	
Over/under-shoot	-	-	-	29	%	

Note 1: RMS spectral width is the standard deviation of the spectrum.

Note 2: Only support 33.6GHz 3 dB bandwidth of the fiber emulation filter for TDECQ measurement.

**Table 2 – Receiver Optical Specifications**

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Signaling rate, each lane (range) 100GBASE-SR1, 200GBASE-SR2, 400GBASE-SR4 PMDs	-	$53.125 \pm 100$ ppm			GBd	
Wavelength	$\lambda_{C0}$	840	-	868	nm	
Damage Threshold, each Lane	AOPD	5	-	-	dBm	
Average Receive Power, each Lane	AOPR	-6.4	-	4	dBm	



Receive Power (OMOuter), each Lane	OMAR	-	-	3.5	dBm	
Receiver Reflectance	RR	-	-	-15	dB	
Receiver sensitivity (OMOuter) for TECQ ≤ 1.8 dB for 1.8 dB < TECQ ≤ 4.4 dB	SOMA	-	-	-4.6 -6.4 + TECQ	dBm	
Stressed Receiver Sensitivity (OMOuter), each Lane	SRS	-	-	-2	dBm	1
Conditions of stressed receiver sensitivity test						
Stressed eye closure for PAM4 (SECQ), lane under test	SECQ	-	4.4	-	dB	
OMOuter of each aggressor lane			3.5		dBm	
Transmitter power excursion, each lane	-	-		2.3	dBm	
Average Launch Power of OFF Transmitter, each lane	TOFF	-	-	-30	dBm	

Note 1: RMS spectral width is the standard deviation of the spectrum.

Note 2: Only support 33.6GHz 3 dB bandwidth of the fiber emulation filter for TDECQ measurement.

## Ordering Information

Table 3 - Ordering Information

Part No.	Application	Data Rate	Laser Source	Fiber Type
<b>CL400GQDDSR4</b>	4400GBASE-SR4 2x200GBASE-SR2 4x100GBASE-SR1	400GB Ethernet	VCSEL	Multi Mode Fiber

## CONTACT:

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