400G / 200G / 100G CFP2-DCO
Coherent Optical Module
CL400GCFP2DCO

Product Features:

- 100G CFP2-DCO coherent optical module operating up to 112.30 Gbps
- 200G CFP2-DCO coherent optical module operating up to 211.45 Gbps
- 400G CFP2-DCO coherent optical module operating up to 425 Gbps
- PM-QPSK (100G) , PM-QPSK (200G) and PM-16QAM (400G) modulation formats
- 100GE, OTU4,400GE, OTUC1 and OTUC2 services
- Electrical interfaces OTL4.4, OTLC1.4, CAU-I4, OTLC2.8 and CEI-28G-MR
- CFP2 MSA Hardware Specification 1.0 with modifications compliant
- CFP MSA Management Interface Specification 2.2 with modifications compliant
- Near-end / remote-end data loopback
- Hot-pluggable CFP2 form factor
- Maximum power consumption: 29 W

Applications:

- The 100G/ 200G / 400G CFP2-DCO coherent optical module is used on the host system for MAN DWDM applications.

Functional Characteristics

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

Table 1 - Optical Characteristics

4. Performance Specifications

Parameter	Value
Network lane, modulation format	PM-QPSK
Optical channels	96
Grid spacing	50 GHz
Frequency range	191.3 to 196.05 THz
Wavelength stability	±1.5 GHz
Tx output power, default	0 dBm
Max. Tx output power	+5 dBm
Min. Tx output power	-10 dBm

Tx output power accuracy	±1.5 dBm
Output power during tuning	< -35 dBm
CD tolerance	±40000 ps/nm
DGD tolerance	33 ps
Input power range	0 to -18 dBm
OSNR tolerance（typical）	12 dB (Rx optical power: -8 to -10 dBm)
Power consumption	Typical: 16 W Maximum: 18 W

Parameter	Value
Network lane, modulation format	PM-QPSK /OFEC
Optical channels	64
Grid spacing	75 GHz
Frequency range	191.3 to 196.05 THz
Wavelength stability	±1.5 GHz
Tx output power, default	0 dBm
Maximum output optical power	+5 dBm
Min. Tx output power	-10 dBm
Tx output power accuracy	±1.5 dBm
Output power during tuning	< -35 dBm
CD tolerance	±40000 ps/nm
DGD tolerance	22 ps
Input power range	0 to -18 dBm
OSNR tolerance（typical）	15 dB (Rx optical power: -8 to -10 dBm)
Power consumption	Typical: 26 W Maximum: 29 W

4.3. 400G Optical Port

Parameter	Value
Network lane, modulation format	PM-16QAM /OFEC
Optical channels	64
Grid spacing	75 GHz
Frequency range	191.3 to 196.05 THz
Wavelength stability	±1.5 GHz
Tx output power, default	0 dBm
Maximum output optical power	+5 dBm
Min. Tx output power	-10 dBm
Tx output power accuracy	±1.5 dBm
Output power during tuning	< -35 dBm
CD tolerance	±9 000 ps/nm

DGD tolerance	22 ps
Input power range	0 to -14 dBm
OSNR tolerance（typical）	24 dB (Rx optical power: -8 to -10 dBm)
Power consumption	Typical: 26 W Maximum: 29 W

Table 2 - Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
3.3 V DC power supply voltage	VCC	3.2	3.3	3.4	V	±5%
3.3 V DC power supply current	ICC	-	-	8.5	A	Note 1 & 2
Power supply noise	Vrip	-	-	2	%p-p	DC - 1 MHz
				3		1 - 10 MHz
Power consumption	Pw_class 4	-	26	29	W	200G mode
Operating temperature	T	0	-	70	ºC	-

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	VCC	3.2	3.3	3.4	V
Input high voltage	VIH	2	-	VCC+0.3	V
Input low voltage	VIL	-0.3	-	0.8	V
Input leakage current	IIN	-10	-	10	μA
Output high voltage (IOH = -100 μA)	VOH	VCC-0.2	-	-	V
Output low voltage (IOL = 100 μA)	VOL	-	-	0.2	V

Parameter	Symbol	Min.	Typ.	Max.	Unit
Input high voltage	VIH	0.84	-	1.5	V
Input low voltage	VIL	-0.3	-	0.36	V
Input leakage current	IIN	-100	-	100	μA
Output high voltage (IOH = -100 μA)	VOH	1	-	1.5	V
Output low voltage (IOL = 100 μA)	VOL	-0.3	-	0.2	V
Output high current	IOH	-	-	-4	mA
Output low current	IOL	+4	-	-	mA
Input capacitance	Ci	-	-	10	pF

6. Operating Environment

Parameter	Min.	Max.	Unit
Storage temperature	-40	85	ºC
Operating case temperature	0	70	ºC
Relative humidity, operating (non-condensing)	5	85	%
Relative humidity, operating (short term < 96 hrs, non-condensing)	5	95	%
ESD sensitivity (HBM)		High-speed pins: 1000 Other pins: 2000	V

Table 3 - Ordering Information

Part Number	Description
CL400GCFP2DCO	400G/200G/100G, Coherent CFP2

CONTACT:

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