

PRE-QSFP56DD-ZRPHT

QSFP-DD, OpenZR+, +1dBm TX, Tunable, DWDM, 400G, Coherent

Product Features:

- Digital Coherent
- C-Band Tunable
- 1dBm High Output Power
- Supports Legacy Line Systems
- >600km at 400G
- Duplex LC-UPC Connector
- C-Temp
- <22.5W Power Consumption



Product Applications:

- Data Center Interconnect
- ROADM and Long Haul Networks
- DWDM 100G-400GBase Ethernet

Standards:

- Enhanced OpenZR+
- OIF 400ZR 1.0
- QSFP-DD MSA 6.01
- CMIS 5.1 and C-CMIS 1.2
- RoHS Compliance

General Specifications:

Parameter	Min	Typical	Max	Unit
Case Operating Temperature	0	-	70	°C
Power Consumption	-	-	22.5	W
Power Supply Voltage	3.135	3.3	3.465	V
Operating Humidity	5	-	85	%
Storage Temperature	-40	-	85	°C
Transmission Distance	-	-	600*	km
Channel Range	191.300	-	196.100	THz
Flex Grid Channel Spacing	6.25	100	-	GHz
Frequency Fine Tuning	-6.25	-	6.25	GHz
Symbol Rate	30.07	-	60.14	Gbd
Data Rate (Total)	100	-	400	Gbps

Line Interface Modes:

Mode	Modulation	FEC	Standard
400G	16QAM	C-FEC	OIF ZR
400G	16QAM	O-FEC	OpenZR+
300G	8QAM	O-FEC	OpenZR+
200G	QPSK	O-FEC	OpenZR+
100G	QPSK	O-FEC	OpenZR+

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Optical Characteristics: Transmitter

Parameter	Min	Typical	Max	Unit
Tx Output Power Range	-6.0	0	1.0	dBm
Tx Output Power Resolution	-	-	0.1	dB
Tx Output Power Tolerance	-1.0	-	1.0	dB
Tx Output Power Monitor Range	-8.0	-	2.0	dBm
Tx Disable Power	-	-	-40.0	dBm
Tx Reflectance	-	-	-27.0	dBm
TX OSNR In-Band (>150GHz)	43.0	-	-	dB/0.1nm

Optical Characteristics: Receiver

Parameter	Min	Typical	Max	Unit
Rx Input Power	-30	-	13	dB
Rx Input Power (Amplified)	Full OSNR Tolerance	-	0.0	dBm
	ZR+ OFEC	-	3.0	
	400ZR	-	3.0	
Rx Input Power (Unamplified) (OSNR > 35dB/0.1nm)	400G 16QAM OFEC	-	0.0	dBm
	300G 8QAM OFEC	-	0.0	
	200G QPSK OFEC	-	0.0	
	100G QPSK OFEC	-	0.0	
	400G ZR	-	0.0	
	400G 16QAM OFEC	23.5	-	
Rx OSNR Tolerance	300G 8QAM OFEC	-	20.0	dB/0.1nm
	200G QPSK OFEC	-	15.0	
	100G QPSK OFEC	-	12.0	
	400G ZR	-	26.0	
	400G 16QAM OFEC	-	12.0	
CD Tolerance	300G 8QAM OFEC	-	18.0	ns/nm
	200G QPSK OFEC	-	24.0	
	100G QPSK OFEC	-	48.0	
	400G ZR	-2.4	2.4	
	400G 16QAM OFEC	-	20.0	
PMD Tolerance (OSNR penalty < 0.5dB)	300G 8QAM OFEC	-	25.0	ps
	200G QPSK OFEC	-	25.0	
	100G QPSK OFEC	-	30.0	
	400G ZR	-	10.0	
	1dB PDL	-	0.3	
Polarization Dependent Loss OSNR Penalty	QPSK	-	0.5	dB
	2dB PDL	-	1.5	
	4dB PDL	-	0.5	
	QAM	-	1.0	
	2dB PDL	-	2.0	
Rx Reflectance	-	-	-27.0	dB

Product Ordering Information:

Part Number	Description
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