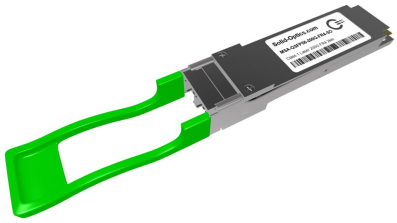
SOLID OPTICS

2024.08.20

MSA-QSFP56-200G-FR4-SO

MSA compatible, QSFP56 200G, 200GBASE-FR4, CWDM4, 1270/1290/1310/1330nm, 2km/4dB over SMF, LC duplex



1. PRODUCT SPECIFICATIONS & FEATURES

- ✓ Brand Compatibility: **MSA**
- ✓ Form Factor: **QSFP**
- ✓ Operating Data Rate: **200G**
- ✓ Protocol: **Ethernet**
- ✓ Fiber Type: **SMF**
- ✓ Technique: **Regular**
- ✓ Lane count: **4**
- ✓ Channel(s)/ Wavelength(s): **1270 / 1290 / 1310 / 1330 nm**
- ✓ Distance: **2 km**
- ✓ Power Budget: **4 dB**
- ✓ Connector: **LC Duplex**
- ✓ Default temp: **0°C to 70°C**
- ✓ Compliant with **QSFP** MSA specification
- ✓ Digital diagnostic monitor interface (also called DOM or DDM)
- ✓ Laser Type: **DFB**
- ✓ Receiver Type: **PIN**

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2. ABSOLUTE CHARACTERISTICS

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
SIGNAL INPUT VOLTAGE	Vin	-0.3	-	Vcc+0.3	V
POWER SUPPLY VOLTAGE	Vcc	0	-	3.6	V
OPERATING TEMPERATURE	Tcase	0	-	70	°C
STORAGE TEMPERATURE	Ts	-40	-	85	°C

3. ELECTRICAL CONDITIONS

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
SUPPLY CURRENT	Icc	-	-	2.073	A
SUPPLY VOLTAGE	Vcc	3.13	3.3	3.47	V

4. OPTICAL CHARACTERISTICS

RECEIVER

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
OPTICAL WAVELENGTH	λC	1264.5 / 1284.50 / 1304.5 / 1324.5	1271 / 1291 / 1311 / 1331	1277.5 / 1297.5 / 1317.5 / 1337.5	nm
LOS HYSTERESIS	LOSH	0.5	-	-	dB
LOS ASSERT	LOSA	-20	-	-	dBm
LOS DE-ASSERT	LOSD	-	-	-12	dBm
RECEIVER MAX. SENSITIVITY	Pmin	-8.2	-	4.7	dBm
DAMAGE THRESHOLD	Pmax	5.7	-	-	dBm
OPTICAL RETURN LOSS	ORL	-	-	20	dB

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TRANSCEIVER

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
OPTICAL WAVELENGTH	λC	1264.5 / 1284.50 / 1304.5 / 1324.5	1271 / 1291 / 1311 / 1331	1277.5 / 1297.5 / 1317.5 / 1337.5	nm
OPTICAL EXTINCTION RATIO	ER	3.5	-	-	dB
SIDE MODE SUPPRESSION RATIO	SMSR	30	-	-	dB
SPECTRAL WIDTH	Δλ	-	-	<1	nm
OPTICAL TRANSMIT POWER	Pout	-4.2	-	4.7	dBm

5. DOM PARAMETERS

PARAMETERS	MIN.	TYP.	MAX.	UNIT
RECEIVE POWER MONITOR ACCURACY	-2	-	2	dB
TRANSMIT POWER MONITOR	-2	-	2	dB
LASER BIAS CURRENT MONITOR ACCURACY	-10	-	10	%
TRANSCEIVER TEMPERATURE MONITOR ACCURACY	-5	-	5	°C
INTERNALLY MEASURED TRANSCEIVER SUPPLY VOLTAGE	-	-	3	%

6. WARNINGS & SYMBOLS

This is a CLASS 1 LASER product; be cautious. There is visible laser radiation present. Avoid long term viewing of the laser.

CE

Solid Optics EN N.V. has tested the equipment based on European legislation and it is safe, doesn't intervene with other electronic devices and that it is not affected by interference from other Electronic devices.

RoHS

Hazardous Goods; Our optical transceivers comply with Directive 2011/65/EU (RoHS II) and 2002/95 EC (RoHS I)

Laser Class 1

Our products comply with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

Only (dis)connect the Optical Transceivers in a EPA (ESD Protected Area) while using only certified equipment and taking all necessary precautions as detailed in this chapter.

7. DISCLAIMER & COPYRIGHT

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