800G OSFP to 2x400G OSFP Passive Direct Attach Copper Breakout Cable, Finned Top

OSFP-800G-2OFLPCxxx



Application

- 800G to 2x400G InfiniBand NDR

Standards

- OSFP MSA
- CMIS Rev 4.0
- IEEE 802.3 ck

Features

- Maximum Link Length: up to 3m
- OSFP Module Fully Compliant to the Latest IEEE 802. 3ck & OSFP MSA
- Enables 800Gb/s Transmission
- Low Power Consumption ≤0.1W
- Operating Temperature Range: 0 to 70℃

Description

The 800G OSFP Direct Attach Cable operates over passive copper, which requires no additional power to ensure quality coonnectivity. This breakout cable is compliant with OSFP MSA (Multi-Source Agreement) and IEEE 802.3ck standards. It provides a connection of a 800G OSFP port on one end and to two 400G OSFP ports on the other end and is suitable for cost-effective close-range interconnections within the equipment room of telecom operators or data centers, etc.

I. Electrical Performance Requirements

Item	Test Condition	Specification
Current		0.5A per contact
Voltage		30 vDC per contact
LLCR	EIA 364-23,20mVdc,100mA	less than2 ohms.
Continuity	Verify the continuous electrical path	No open,short,or high resistance.

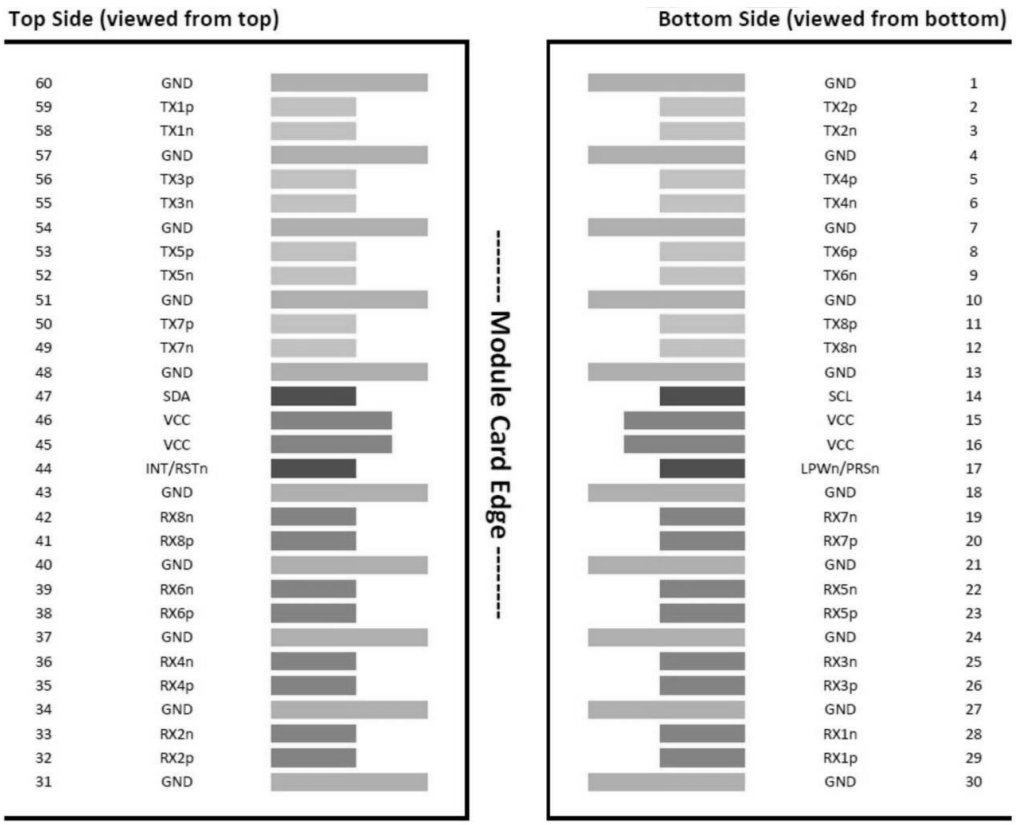
II. SI Requirements(only reference)

Item	Test Condition	Notes
SDD21& SDD12	≤19.75dB Min. @26.56GHz; ≥11.0dB Max. @26.56GHz;	From 0.01GHz to 26.56GHz
ERL	Minimum cable assembly ERL(*): ≥8.25dB	/
SCD12-SDD12 **SCD21-SDD21**	≥10 0.05GHz≤ f< 12.89GHz ≥14-0.3108f 12.89GHz≤ f≤ 40GHz	(up to 40GHz)

III. Mechanical Performance Requirements

Item	Test Condition	Specification
Mating Forces	A rate of 10mm per minute	OSFP<40N
Un-mating Forces	A rate of 10mm per minute	OSFP<30N
Latch Strength	Pull to separate module from cage， Test with connector, cage& module(latch engaged)	Minimum of an125N force
Bulk Cable Retention in Module	Pull to separate bulk cable from module, Test with cable assembly only	Minimum of an 90N force
Wire Flex	Flex cable 180° for 10 cycles at X/Y axis, 20times/minutes,with an1kg suspended weight.Type CEIA364-41,test conditionI.	No microsecond discontinuitiesare allowed.
Durability	Perform 50 unplug/plugcycles	No evidence of physical damage
Cable Minimum Bend Radius	Min.bending radius allowed: repeated 10X ø. single 5Xø	No physical damage， Verify continuity and SI

IV. Pin Definition



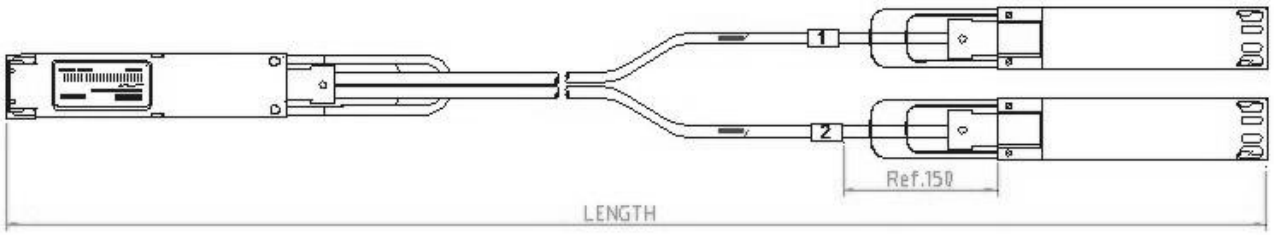
OSFP pin definition

V. Wire Connction

Parameter	P1 (QSFP-DD)		P2 (QSFP56)	
	Pin	Signal	Pin	Signal
1	28	RX1n	58	TX1n(OSFP1#)
	29	RX1p	59	TX1p(OSFP1#)
2	59	TX1p	29	RX1p(OSFP1#)
	58	TX1n	28	RX1n(OSFP1#)
3	33	RX2n	3	TX2n(OSFP1#)
	32	RX2p	2	TX2p(OSFP1#)
4	2	TX2p	32	RX2p(OSFP1#)
	3	TX2n	33	RX2n(OSFP1#)
5	25	RX3n	55	TX3n(OSFP1#)
	26	RX3p	56	TX3p(OSFP1#)
6	56	TX3p	26	RX3p(OSFP1#)
	55	TX3n	25	RX3n(OSFP1#)
7	36	RX4n	6	TX4n(OSFP1#)
	35	RX4p	5	TX4p(OSFP1#)
8	5	TX4p	35	RX4p(OSFP1#)
	6	TX4n	36	RX4n(OSFP1#)

Parameter	P1 (QSFP-DD)		P2 (QSFP56)	
	Pin	Signal	Pin	Signal
9	22	RX5n	58	TX1n(OSFP2#)
	23	RX5p	59	TX1p(OSFP2#)
10	53	TX5p	29	RX1p(OSFP2#)
	52	TX5n	28	RX1n(OSFP2#)
11	39	RX6n	3	TX2n(OSFP2#)
	38	RX6p	2	TX2p(OSFP2#)
12	8	TX6p	32	RX2p(OSFP2#)
	9	TX6n	33	RX2n(OSFP2#)
13	19	RX7n	55	TX3n(OSFP2#)
	20	RX7p	56	TX3p(OSFP2#)
14	50	TX7p	26	RX3p(OSFP2#)
	49	TX7n	25	RX3n(OSFP2#)
15	42	RX8n	6	TX4n(OSFP2#)
	41	RX8p	5	TX4p(OSFP2#)
16	11	TX8p	35	RX4p(OSFP2#)
	12	TX8n	36	RX4n(OSFP2#)

VI. Mechanical Dimensions



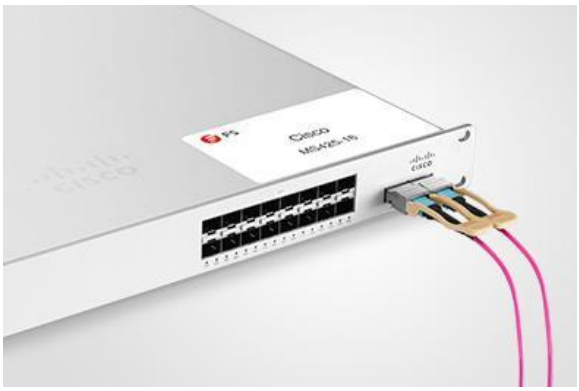
Test Center

I. Compatibility Testing

Each fiber optical transceiver has been tested in host device on site in FS Assured Program to ensure full compatibility with over 200 vendors.



Cisco Catalyst C9500-24Y4C



Cisco MS425-16



Brocade VDX 6940-144S



Dell EMC Networking Z9100-ON



Force⑩tm S60-44T

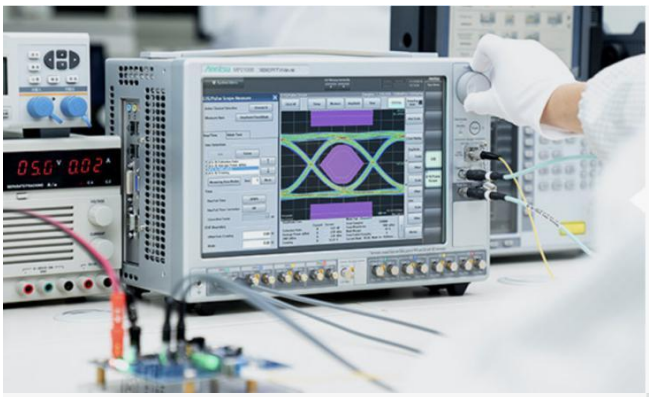


HUAWEI S6720-30L-HI-24S

Above is part of our test bed network equipment. For more information, please click the Test Bed PDF. It will be updated in real time as we expand our portfolio.

II. Performance Testing

Each fiber optical transceiver has been fully tested in FS Assured Program equipped with world's most advanced analytical equipment to ensure that our transceivers work perfectly on your device.



1. TX/RX Signal Quality Testing

Equipped with the all-in-one tester integrated 4ch BERT & sampling oscilloscope, and variable optical attenuator to ensure the input and output signal quality.

- Eye Pattern Measurements: Jitter, Mask Margin, etc
- Average Output Power
- OMA
- Extinction Ratio
- Receiver Sensitivity
- BER Curve

2. Reliability and Stability Testing

Subject the transceivers to dramatic changes in temperature on the thermal shock chamber to ensure reliability and stability of the transceivers.

- Commercial: 0 °C to 70 °C
- Extended: -5 °C to 85 °C
- Industrial: -40 °C to 85 °C





3. Transfer Rate and Protocol Testing

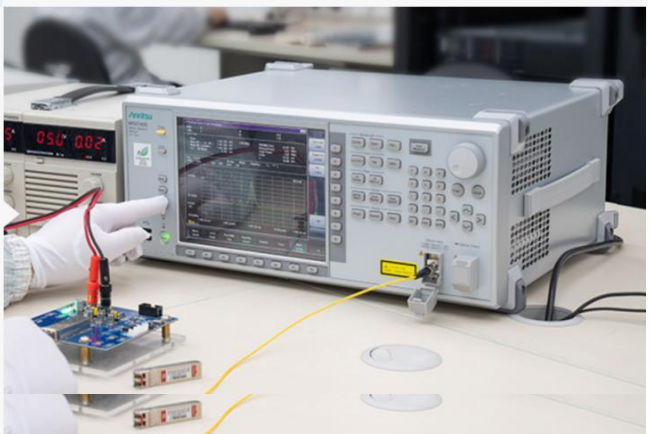
Test the actual transfer data rate and the transmission ability under different protocols with Network Master Pro.

- Ethernet
- Fibre Channel
- SDH/SONET
- CPRI

4. Optical Spectrum Evaluation

Evaluate various important parameters with the Optical Spectrum Analyzer to meet the industry standards.

- Center Wavelength, Level
- OSNR
- SMSR
- Spectrum Width



Order Information

Part Number	Data Rate	Length	Wire Gauge	Connector Type	Temp. Range	Cable Jacket
OSFP-800G-2OFLPC005	800G	0.5m	30AWG	Passive Copper	0 to 70℃	PET
OSFP-800G-2OFLPC01	800G	1m	30AWG	Passive Copper	0 to 70℃	PET
OSFP-800G-2OFLPC015	800G	1.5m	26AWG	Passive Copper	0 to 70℃	PET
OSFP-800G-2OFLPC02	800G	2m	26AWG	Passive Copper	0 to 70℃	PET
OSFP-800G-2OFLPC03	800G	3m	26AWG	Passive Copper	0 to 70℃	PET