

800G Active Optical Cable

(Breakout Cable 2x400G)

Jabil Photonic 800G Active Optical Cable (breakout 2x400G) provides optimized solutions for interconnections inside datacenter up to 50M on OM4 fiber. Products is in OSFP form factor on the 800G side and is in QSFP112 form on the 400G side to satisfy the different host system requirements. Transmission is based on VCSEL 850nm with electrical driver, while Receiver side is based on PIN photodetector and TIA. Module is equipped with DSP to provide channel equalization, PAM4 retimer and supports electrical lanes loss on host system with up to 30dB.

FEATURES

- OSFP and QSFP112 MSA compliant
- 106.25Gb/s transmission for each direction
- Host side up to 30dB of electrical loss
- DSP for equalization and performance
- Cable length: 3m, 10m, 50m
- Operating temperature 0° to 70°C
- CMIS 5.0 standard interface

APPLICATIONS

- Intra-datacenter short connections

PRODUCT ARCHITECTURE

800G END

400G END

OSFP PIN DIAGRAM

OSFP PIN DESCRIPTIONS

PIN#	SYMBOL	DESCRIPTION	LOGIC	DIRECTION	PLUG SEQUENCE ²	NOTES
11	TX8p	TX Non-Inverted	CML-I	Input from Host	3	
12	TX8n	TX Inverted	CML-I	Input from Host	3	
13	GND	Ground			1	
14	SCL	2-wire Serial interface clock	LVC MOS-I/O	Bi-directional	3	1
15	VCC	+3.3V Power		Power from Host	2	
16	VCC	+3.3V Power		Power from Host	2	
17	LPWn/ PRSn	Low-Power Mode/ Module Present	Multi-Level	Bi-directional	3	
18	GND	Ground			1	
19	RX7n	RX Inverted	CML-O	Output to Host	3	
20	RX7p	RX Non-Inverted	CML-O	Output to Host	3	
21	GND	Ground			1	
22	RX5n	RX Inverted	CML-O	Output to Host	3	
23	RX5p	RX Non-Inverted	CML-O	Output to Host	3	
24	GND	Ground			1	
25	RX3n	RX Inverted	CML-O	Output to Host	3	
26	RX3p	RX Non-Inverted	CML-O	Output to Host	3	
27	GND	Ground			1	
28	RX1n	RX Inverted	CML-O	Output to Host	3	
29	RX1p	RX Non-Inverted	CML-O	Output to Host	3	
30	GND	Ground			1	
31	GND	Ground			1	
32	RX2p	RX Non-Inverted	CML-O	Output to Host	3	
33	RX2n	RX Inverted	CML-O	Output to Host	3	
34	GND	Ground			1	
35	RX4p	RX Non-Inverted	CML-O	Output to Host	3	
36	RX4n	RX Inverted	CML-O	Output to Host	3	
37	GND	Ground			1	

(1) Open-Drain with pull up resistor on Host.

(2) Plug Sequence specifies the mating sequence of the host connector and module. The sequence is 1, 2, 3

QSFP112 PIN DIAGRAM

QSFP112 PIN DESCRIPTIONS

ABSOLUTE MAXIMUM RATINGS

It has to be noted that the operation in excess of any individual absolute maximum ratings might cause permanent damage to this module.

PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT	NOTES
Storage Temperature	T_s	-40		85	°C	
Storage Ambient Humidity	H_A	0		85	%	
Maximum Supply Voltage	V_{CC}	-0.5		3.6	V	

RECOMMENDED OPERATING CONDITIONS

PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT	NOTES

OPTICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT	NOTES
Signaling Speed per Lane	DRO		106.25		Gbps	
Center Wavelength			850		nm	
RMS Spectral Width				0.6	nm	
Average launch power		-1		4	dBm	
TX TDECQ				4.4	dB	
TX ER		2.5			dB	

ORDERING INFORMATION

JABIL PART NUMBER	PACKAGE	REACH	OTHER INFO
OS8CXXACC00Y2ZZ	800G OSFP to 2*400G BREAKOUT	XX=f ber length	C-temp AOC

Note: additional cable lengths can be provided on request.

ROEYEDHSCB710#PABIBZC8BdX2)G%QAG9M6eA127YFBlp1033%415103y'ar05AD5V#2(fB550)a(0

