OptiCin

Multi-Mode 40GBASE-SR4 QSFP+ Transceiver

Особенности:

- соответствие стандарту IEEE 802.3ba (40GBASE-SR4)
- соответствие QSFP+ MSA SFF-8436 спецификации
- установленный оптический кабель длиной до 100м (в зависимости от модели)
- VCSEL array лазерный передатчик и PIN array фотоприемник
- одно напряжение питания 3,3В
- мощность рассеивания менее 1,5Вт
- частота до 10.3125Gbps на канал
- рабочая температура 0℃~+70℃

Области применения:

- 40GBE and 10GBE interconnects
- Datacom/Telecom switch & router connections
- Data aggregation and backplane applications
- InfiniBand QDR (4 x 10G), DDR (4 x 5G) and SDR (4 x2.5G) interconnects

Part No.	Data Rate	Active Optical Cables *(note1)	Temp.	DDMI
QSFP-Plus-SR-XXXm	40Gbps	1~ 100m	0℃~+70℃	Yes

Note1: Length measured OM3 fiber. XX denotes the AOC length with unit meter

Absolute Maximum Ratings

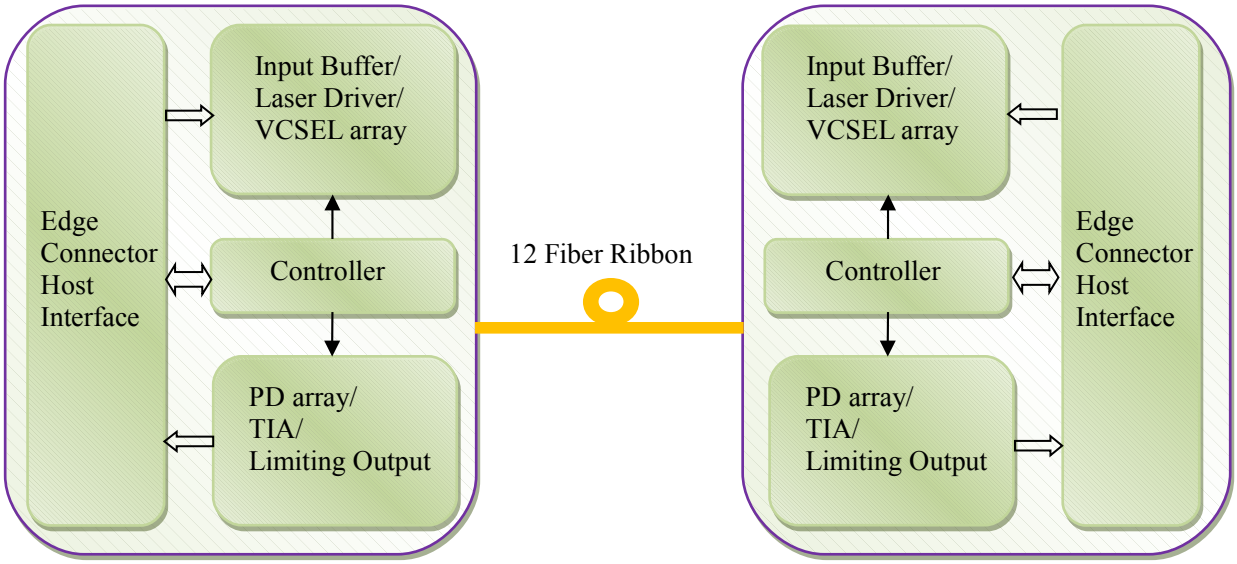
Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	Ts	-40	+85	°C
Supply Voltage	Vcc	-0.5	3.6	V
Operating Relative Humidity	RH	5	85	%

*Exceeding any one of these values may destroy the device immediately.

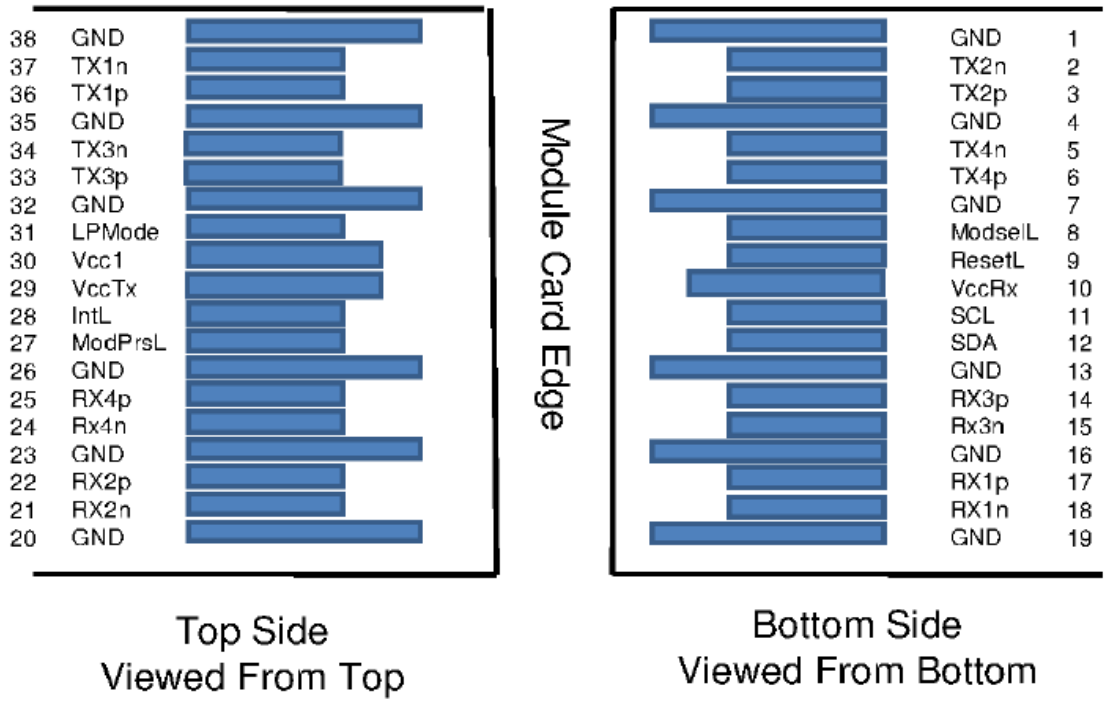
Recommended Operating Conditions

Parameter	Symbol		Min.	Typical	Max.	Unit
Operating Case Temperature	T_A	QSFP-Plus-SR-XXXm	0		+70	°C
Power Supply Voltage	Vcc		3.15	3.3	3.45	V
Power Supply Current	Icc				475	mA
Aggregate Bit Rate	BR_{AVE}			41.25		Gbps
Lane Bit Rate	BR_{LANE}			10.3125		Gbps

Functional Description of Transceiver



QSFP+ Transceiver Electrical Pad Layout



Pin Arrangement and Definition

Pin	Logic	Symbol	Description	Plug Sequence	Notes
1		GND	Ground	1	1
2	CML-I	Tx2n	Transmitter Inverted Data Input	3	
3	CML-I	Tx2p	Transmitter Non-Inverted Data Input	3	
4		GND	Ground	1	1
5	CML-I	Tx4n	Transmitter Inverted Data Input	3	
6	CML-I	Tx4p	Transmitter Non-Inverted Data Input	3	
7		GND	Ground	1	1
8	LVTTL-I	ModSelL	Module Select	3	
9	LVTTL-I	ResetL	Module Reset	3	
10		VccRx	+3.3V Power Supply Receiver	2	2
11	LVCMOS- I/O	SCL	2-wire serial interface clock	3	
12	LVCMOS- I/O	SDA	2-wire serial interface data	3	
13		GND	Ground	1	1
14	CML-O	Rx3p	Receiver Non-Inverted Data Output	3	
15	CML-O	Rx3n	Receiver Inverted Data Output	3	
16		GND	Ground	1	1
17	CML-O	Rx1p	Receiver Non-Inverted Data Output	3	
18	CML-O	Rx1n	Receiver Inverted Data Output	3	
19		GND	Ground	1	1
20		GND	Ground	1	1

21	CML-O	Rx2n	Receiver Inverted Data Output	3	
22	CML-O	Rx2p	Receiver Non-Inverted Data Output	3	
23		GND	Ground	1	1
24	CML-O	Rx4n	Receiver Inverted Data Output	3	
25	CML-O	Rx4p	Receiver Non-Inverted Data Output	3	
26		GND	Ground	1	1
27	LVTTL-O	ModPrsL	Module Present	3	
28	LVTTL-O	IntL	Interrupt	3	
29		VccTx	+3.3V Power supply transmitter	2	2
30		Vcc1	+3.3V Power supply	2	2
31	LVTTL-I	LPMode	Low Power Mode	3	
32		GND	Ground	1	1
33	CML-I	Tx3p	Transmitter Non-Inverted Data Input	3	
34	CML-I	Tx3n	Transmitter Inverted Data Input	3	
35		GND	Ground	1	1
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input	3	
37	CML-I	Tx1n	Transmitter Inverted Data Input	3	
38		GND	Ground	1	1

1: GND is the symbol for signal and supply (power) common for the QSFP+ module. All are common within the QSFP+ module and all module voltages are referenced to this potential unless otherwise noted. Connect these directly to the host board signal-common ground plane.

2: Vcc Rx, Vcc1 and Vcc Tx are the receiver and transmitter power supplies and shall be applied concurrently. Requirements defined for the host side of the Host Edge Card Connector are listed in Table 6. Recommended host board power supply filtering is shown in Figures 3 and 4. Vcc Rx Vcc1 and Vcc Tx may be internally connected within the QSFP+ Module in any combination. The connector pins are each rated for a maximum current of 500mA.

Mechanical Specifications