

## 400G SR4 QSFP112 Optical Transceiver

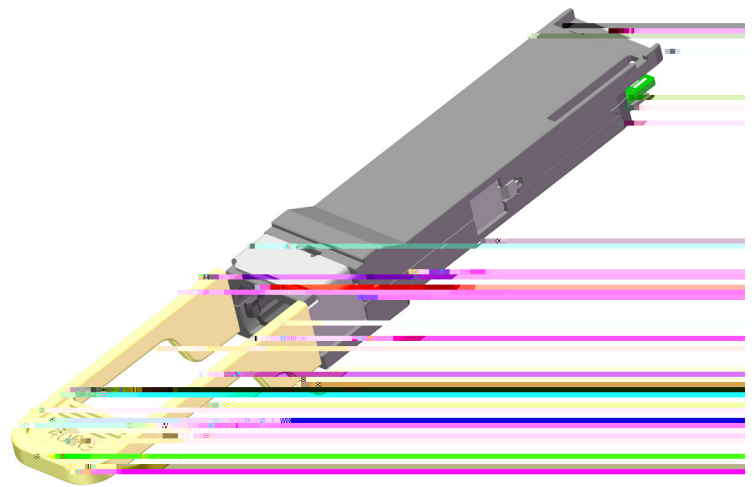
The QD4CS1MOC00HPAM is an QSFP112 optical transceiver for 4x53.125GBaud optical links. Transmission is based on VCSEL

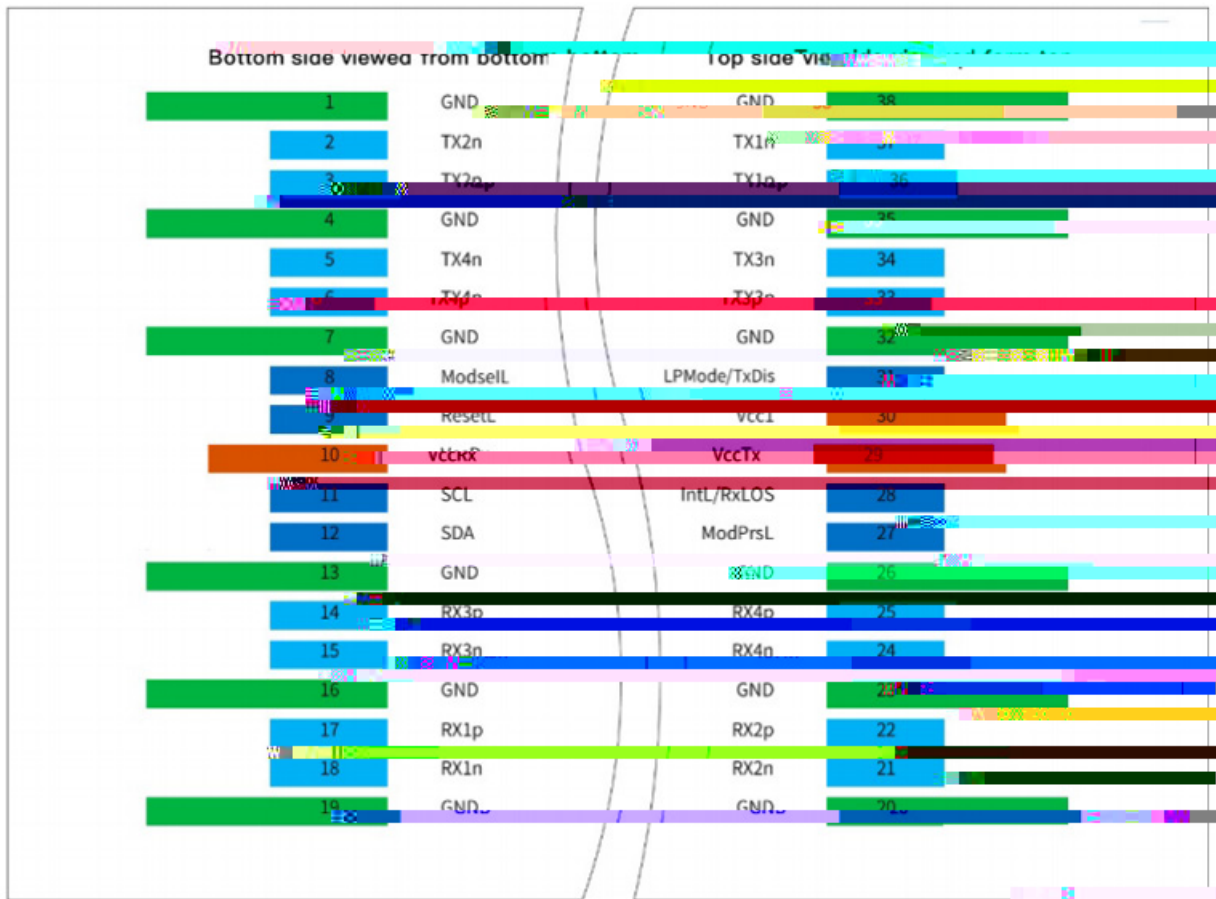
### FEATURES

- QSFP112 MSA compliant
- 4X53.125GBaud electrical interface
- Up to 50m on OM4 with MMF
- MPO-12 APC optical receptacle type
- Commercial case temperature: 0~70°
- Single 3.3V power supply
- Maximum power consumption 9 Watts
- CMIS 5.0 standard interface
- Aligned to IEEE802.3db

### APPLICATIONS

- 400GBASE-SR4 400G Ethernet
- Data Center Interconnect







PAD	SYMBOL	DESCRIPTION	LOGIC	PLUG SEQUENCE <sup>2</sup>	NOTES
28	IntL/RxLOS	Interrupt/optional RxLOS	LVTTL-O	3	
29	Vcc Tx	+3.3 V Power supply transmitter		2	2
30	Vcc1	+3.3 V Power Supply		2	2
31	LPMoDe/Tx Dis	Low Power Mode/optional TX Disable	LVTTL-I	3	
32	GND	Ground		1	1
33	Tx3p	Transmitter Non-Inverted Data Input	CML-I	3	
34	Tx3n	Transmitter Inverted Data Input	CML-I	3	
35	GND	Ground		1	1
36	Tx1p	Transmitter Non-Inverted Data Input	CML-I	3	
37	Tx1n	Transmitter Inverted Data Input	CML-I	3	
38	GND	Ground		1	

(1) GND is the symbol for signal and supply (power) common for the QSFP112 module. All are common within the QSFP112 module and all 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.

## 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
Operating Case Temperature	$T_{case}$	0	25	70	°C	
Supply Voltage	VCC	3.135	3.3			

For additional information, visit [jabil.com](http://jabil.com)

**ELECTRICAL CHARACTERISTICS**

(EOL, Tcase= 0~65°, VCC=3.135~3.465 V)

PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT	NOTES
Power Dissipation	$P_d$			9	W	
<b>TRANSMITTER</b>						
Data Rate, each lane	DRE		106.25		Gbps	
Differential Voltage pk-pk	VIN	40		900	mV	
Input differential impedance	ZIN		100		Ohm	
Differential Termination Resistance Mismatch				10	%	
<b>RECEIVER</b>						
Data Rate, each lane	DRE		106.25		Gbps	
Output differential impedance	$Z_{OUT}$		100		Ohm	
Differential Termination Resistance Mismatch				10	%	
Differential output voltage	$V_{OUT}$			1000	mV	

**OPTICAL CHARACTERISTICS**

(EOL, Tcase= 0~65°, VCC=3.135~3.465 V)

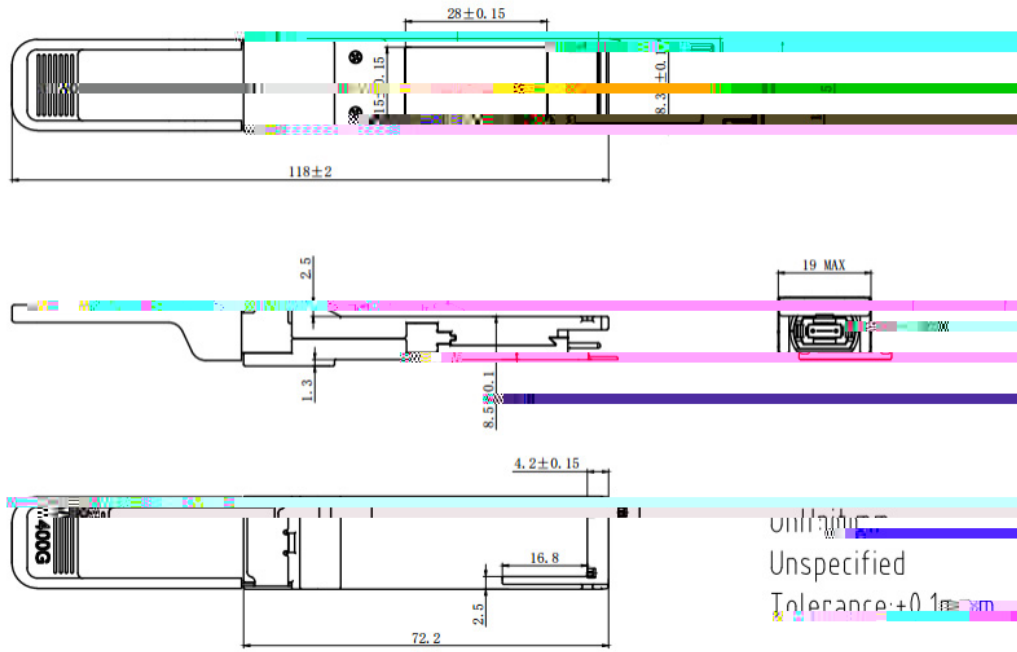
PARAMETER	SYMBOL	MIN	TYPICAL	MAX	UNIT	NOTES
Signaling Speed per Lane	DRO		106.25		Gbps	
Center Wavelength	$\lambda$		850		nm	
RMS Spectral Width	$\Delta\lambda$			0.6	nm	
Average launch power		-1		4	dBm	
TX TDECQ				4.4	dB	
TX ER		2.5			dB	
Receiver sensitivity (max)			-4.4 -6.2+TDECQ		dBm	

**ORDERING INFORMATION**

50m	PACKAGE	RATE	REACH	OTHER INFO
QD4CS1MOC00HPAM	QSFP112	400G	50m	C-temp

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## OSFP112 FORM MECHANICAL SPECIFICATIONS



## REGULATORY COMPLIANCE
