

200G QSFP-DD SR8 Optical Transceiver

PN: VD-2CSR8CP-AA

Product Overview

The Vitex VD-2CSR8CP-AA transceiver is a high-performance, hot-pluggable optical module designed for short-reach data center interconnects. It delivers a total data rate of 200Gbps by utilizing eight lanes of 25.78Gbps each, leveraging cost-effective NRZ modulation. This module is ideal for high-bandwidth applications such as high-performance computing, cloud computing, and enterprise networking.

Features

- Up to 25.78 Gbps data rate per channel by NRZ modulation
- Support 200GAUI-8 electrical interface
- Integrated 850nm VCSEL array and PD array
- Hot-pluggable QSFP-DD form factor
- MPO-16 APC connector
- Compliant to QSFP-DD HW
- Compliant with CMIS 4.0
- Maximum power consumption 3.5W
- Single 3.3V power supply
- Case operating temperature: 0°C to 70°C
- Class 1 laser
- RoHS complaint

Ordering Information

Part Number	Description
VD-2CSR8CP-AA	200G QSFP28-DD SR8, 100m MMF, 850nm, MPO16, C-temp

General Specifications

Parameter	Symbol	Min	Typical	Max	Unit	Remarks
Storage Temperature	TS	-40		85	°C	
Power Supply Voltage (Maximum)	VCC	-0.3		3.6	V	
Control Input Voltage	VI	-0.3		3.465	V	
Relative Humidity (non-condensing)	RH	15		85	%	
Operating Case Temperature	TOPR	0		70	°C	
Power Supply Voltage (Recommended)	VCC	3.135	3.3	3.465	V	
Maximum Power Consumption	Pmax			3.5	W	
Rx Differential Data Output Load			100		Ohm	
Operating Distance (OM3)				70	m	
Operating Distance (OM4)				100	m	

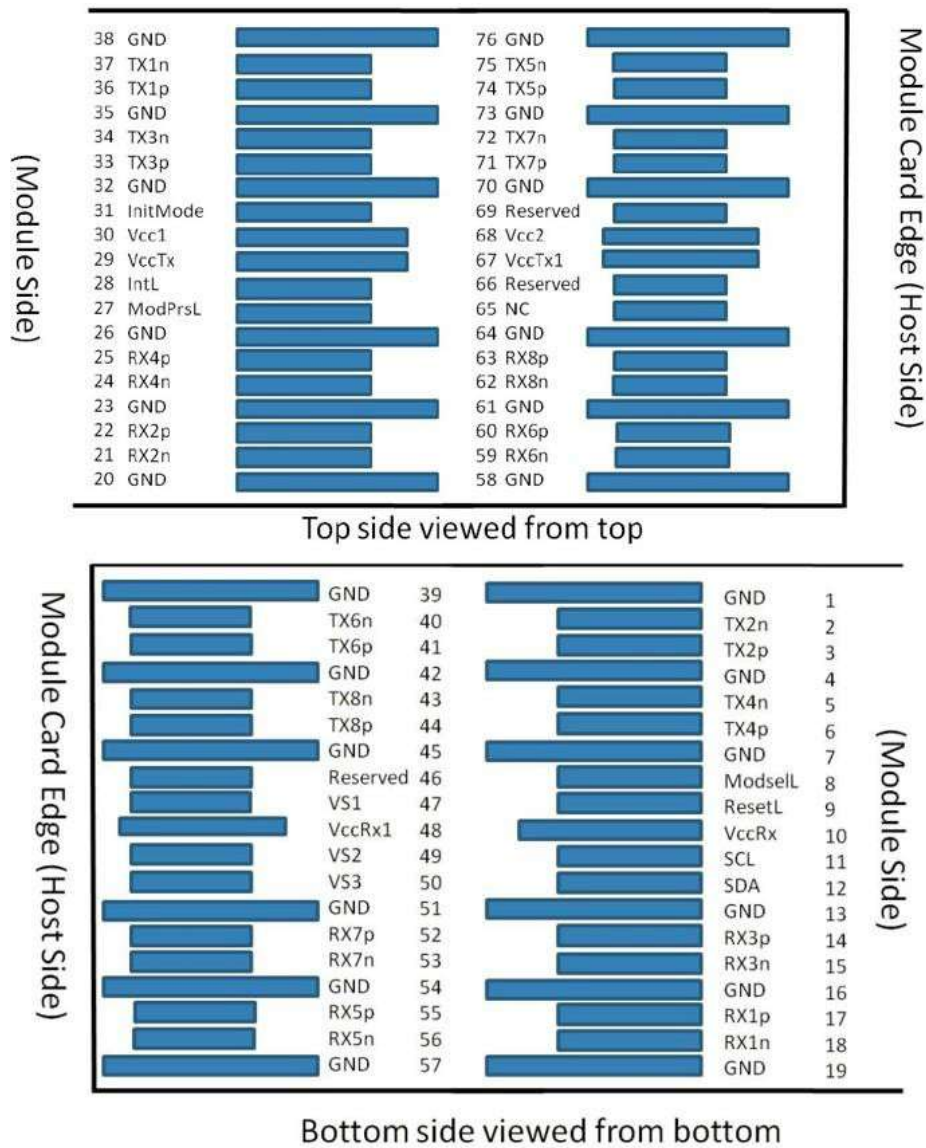
Optical – Transmitter

Parameter	Symbol	Min	Typical	Max	Unit	Remarks
Center Wavelength	λ_C	840	850	860	nm	
RMS spectral width	$\Delta\lambda_{rms}$			0.6	nm	
Average launch power, each lane	AOPL	-6.4		3	dBm	
Optical Modulation Amplitude (OMA _{outer}), each lane	TOMA	-6.4		3.5	dBm	
Average Launch Power of OFF Transmitter, each lane	ToFF			-30	dBm	
Extinction ratio, each lane	ER	2			dB	
Optical return loss tolerance				-12	dB	
Transmitter Eye mask definition Eye mask definition {X1, X2, X2, Y1, Y2, Y3}		{0.3,0.38,0.45,0.35,0.41,0.5}				

Optical – Receiver

Parameter	Symbol	Min	Typical	Max	Unit	Remarks
Center Wavelength	λ_C	840		860	nm	
Damage threshold		3.4			dBm	
Average Receive Power, each lane		-10.3		2.4	dBm	
Stressed Receiver sensitivity (OMA)	SOMA			-5.2	dBm	
Receiver reflectance				-12	dB	
LOS Assert	LOSA	-30			dBm	
LOS De-Assert	LOSD			-10.5	dBm	
LOS Hysteresis	LOSH	0.5			dB	

Electrical Connector Layout



Electrical Pin Definition

PIN #	Logic	Symbol	Description
1		GND	Ground
2	CML-I	Tx2n	Transmitter Inverted Data Input
3	CML-I	Tx2p	Transmitter Non-inverted Data Input
4		GND	Ground
5	CML-I	Tx4n	Transmitter Inverted Data Input
6	CML-I	Tx4p	Transmitter Non-inverted Data Input
7		GND	Ground
8	LVTTL-I	ModSell	Module Select

VD-2CSR8CP-AA Product Specification



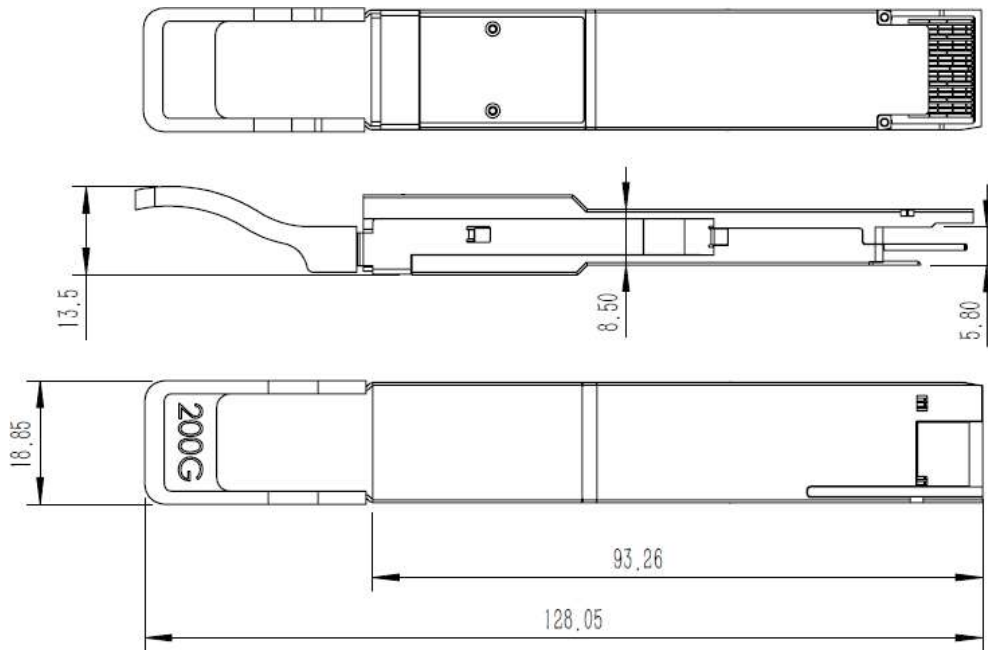
9	LVTTL-I	ResetL	Module Reset
10		VccRx	+3.3V Power Supply Receiver
11	LVC MOS -I/O	SCL	2-wire serial interface clock
12	LVC MOS -I/O	SDA	2-wire serial interface data
13		GND	Ground
14	CML-O	Rx3p	Receiver Non-inverted Data Output
15	CML-O	Rx3n	Receiver Inverted Data Output
16		GND	Ground
17	CML-O	Rx1p	Receiver Non-inverted Data Output
18	CML-O	Rx1n	Receiver Inverted Data Output
19		GND	Ground
20		GND	Ground
21	CML-O	Rx2n	Receiver Inverted Data Output
22	CML-O	Rx2p	Receiver Non-inverted Data Output
23		GND	Ground
24	CML-O	Rx4n	Receiver Inverted Data Output
25	CML-O	Rx4p	Receiver Non-inverted Data Output
26		GND	Ground
27	LVTTL-O	ModPrsL	Module Present
28	LVTTL-O	IntL	Interrupt
29		VccTx	+3.3V Power Supply Transmitter
30		VccI	+3.3V Power Supply
31	LVTTL-I	InitMode	Initialization mode
32		GND	Ground
33	CML-I	Tx3p	Transmitter Non-inverted Data Input
34	CML-I	Tx3n	Transmitter Inverted Data Input
35		GND	Ground
36	CML-I	Tx1p	Transmitter Non-inverted Data Input
37	CML-I	Tx1n	Transmitter Inverted Data Input
38		GND	Ground
39		GND	Ground
40	CML-I	Tx6n	Transmitter Inverted Data Input
41	CML-I	Tx6p	Transmitter Non-inverted Data Input
42		GND	Ground
43	CML-I	Tx8n	Transmitter Inverted Data Input
44	CML-I	Tx8p	Transmitter Non-inverted Data Input
45		GND	Ground
46		Reserved	

VD-2CSR8CP-AA Product Specification



47		VS1	Module Vendor Specific 1
48		VccRx1	3.3V Power Supply
49		VS2	Module Vendor Specific 2
50		VS3	Module Vendor Specific 3
51		GND	Ground
52	CML-O	Rx7p	Receiver Non-inverted Data Output
53	CML-O	Rx7n	Receiver Inverted Data Output
54		GND	Ground
55	CML-O	Rx5p	Receiver Non-inverted Data Output
56	CML-O	Rx5n	Receiver Inverted Data Output
57		GND	Ground
58		GND	Ground
59	CML-O	Rx6n	Receiver Inverted Data Output
60	CML-O	Rx6p	Receiver Non-inverted Data Output
61		GND	Ground
62	CML-O	Rx8n	Receiver Inverted Data Output
63	CML-O	Rx8p	Receiver Non-inverted Data Output
64		GND	Ground
65		NC	Not connected
66		Reserved	
67		VccTx1	3.3V Power Supply
68		Vcc2	3.3V Power Supply
69		Reserved	
70		GND	Ground
71	CML-I	Tx7p	Transmitter Non-inverted Data Input
72	CML-I	Tx7n	Transmitter Inverted Data Input
73		GND	Ground
74	CML-I	Tx5p	Transmitter Non-inverted Data Input
75	CML-I	Tx5n	Transmitter Inverted Data Input
76		GND	Ground

Mechanical Dimension



Revision History

Date	Rev	Description
07/26/2020	1.0	Release version
02/18/2025	2.0	New branding guidelines

For more information

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