

SFPDD-50GB-PDAC1M-OPC

MSA and TAA 50GBase-CU SFP-DD to SFP-DD Direct Attach Cable (Passive Twinax, 1m, 30AWG)

Features

- SFP-DD module compliant to SFP-DD MSA Rev. 2.1Is
- Compliant to IEEE802.3cd & IEEE802.3bj high-frequency test standards
- SFP-DD-MIS Rev. 2.0
- 50Gbps transmission
- 30AWG
- Passive twinax
- Built-in EEPROM functions
- Operating Temperature 0 to 70 Celsius
- RoHS compliant and lead-free



Applications:

• 50GBase Ethernet

Product Description

This is an MSA compliant 50GBase-CU SFP-DD to SFP-DD direct attach cable that operates over passive copper with a maximum reach of 1.0m (3.3ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This direct attach cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

OptioConnect's transceivers are RoHS compliant and lead-free.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Тур.	Max.	Unit
Supply Voltage	Vcc	3.13	3.3	3.47	V
Storage Temperature	Tstg	-40		85	°C
Operating Case Temperature	Тс	0		70	°C
Humidity	RH	5		85	%
Data Rate (FDR10)			50		Gbps

Physical Characteristics

Parameter	Symbol	Min.	Тур.	Max.	Unit
Length	L			1	m
AWG				30	AWG
Jacket Material	Black PVC				
Flame Rating	VW-1				

Electrical Specifications

Parameter	Symbol	Min.	Тур.	Max.	Unit
Resistance	Rcon			3	Ω
Insulation Resistance	Rins			10	ΜΩ
Raw Cable Impedance	Zca	95		110	Ω
Mated Connector Impedance	Zmated	85		110	Ω
Maximum Insertion Loss at 13.28GHz	SDD21	8		17.16	dB
Differential to Common-Mode Return Loss	SCD11/22	Return_loss(f) \ge $ \begin{cases} 22 - (\frac{20}{25.78})f, \\ 15 - (\frac{6}{25.78})f, \end{cases} $	≥ 0.01 ≤ 12.8	$5 f < 12.89$ $9 \le f \le 19$	dB
Differential to Common-Mode Conversion Loss	SCD21-SDD21	Conversion_loss $ \begin{cases} 10, \\ 27 - \left(\frac{29}{22}\right) f, \\ 6.3, \end{cases} $	$f(f) - IL(f) \ge 0.01 \le f < 12.89 \le f$ $f(f) = 15.7 \le f(f)$	< 15.7	dB
Minimum COM	СОМ	3			dB
Rise Time (20-80%)				25	ps

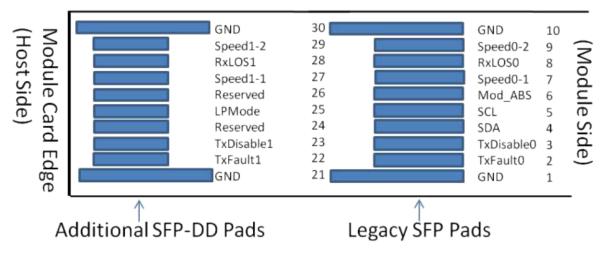
Pin Descriptions

Name/Description		scriptions				
SND	Pin	Logic	Symbol	Name/Description		Notes
1	1		GND	Module Ground.		1
4 LVCMOS-I/O SDA Management I/F Data. 3A 5 LVCMOS-I/O SCL Management I/F Clock. 3A 6 LVTTL-I Speedd-1 Rx Rate Select for Channel 0. 3A 7 LVTTL-I Speedd-1 Rx Rate Select for Channel 0. 3A 8 LVTTL-I Speedd-2 Tx Rate Select for Channel 0. 3A 10 GND Module Ground. 1A 1 11 GND Module Ground. 1A 1 12 CML-O RDO- Inverse Received Data Out for Channel 0. 3A 13 CML-O RDO- Received Data Out for Channel 0. 3A 14 GND Module Ground. 1A 1 15 VccR0 Receiver Dower. 2A 2 16 VccT0 Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-I TDO- Transmitter Data In for Channel 0. 3A <	2	LVTTL-O	Tx_Fault0	Transmitter Fault Indication for Channel 0.	3A	
5 LVCMOS-I/O SCL Management //F Clock. 3A 6 LVTIL-O MOD_ABS Module Absent. 3A 7 LVTIL-I Speed0-1 Rx Rase Select for Channel 0. 3A 8 LVTTL-I Speed0-2 Rx Rase Select for Channel 0. 3A 9 LVTIL-I Speed0-2 Tx Rate Select for Channel 0. 3A 10 GND Module Ground. 1A 1 11 GND Module Ground. 1A 1 12 CML-O RDO- Inverse Received Data Out for Channel 0. 3A 13 CML-O RDO- Received Data Out for Channel 0. 3A 14 GND Module Ground. 1A 1 15 VccR0 Receiver Power. 2A 2 16 VccT0 Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-I TDO- Inverse Transmit Data In for Channel 0. 3A <	3	LVTTL-I	Tx_Disable0	Transmitter Disable for Channel 0.	3A	
6 LVTTL-0 MOD_ABS Module Absent. 3A 7 LVTTL-1 Speed0-1 Rx Rate Select for Channel 0. 3A 8 LVTTL-0 RxLOSO Rx Loss of Signal for Channel 0. 3A 9 LVTTL-1 Speed0-2 Tx Rate Select for Channel 0. 3A 10 GND Module Ground. 1A 1 11 GND Module Ground. 1A 1 12 CML-O RDO- Inverse Received Data Out for Channel 0. 3A 13 CML-O RDO- Received Data Out for Channel 0. 3A 14 GND Module Ground. 1A 1 15 VccR0 Receiver Power. 2A 2 16 VccT0 Transmitter Power. 2A 2 16 VccT0 Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-1 TDO- Inverse Transmit Data In for Channel 0. 3A 20 <th>4</th> <th>LVCMOS-I/O</th> <th>SDA</th> <th>Management I/F Data.</th> <th>3A</th> <th></th>	4	LVCMOS-I/O	SDA	Management I/F Data.	3A	
Text Text	5	LVCMOS-I/O	SCL	Management I/F Clock.	3A	
Section	6	LVTTL-O	MOD_ABS	Module Absent.	3A	
9 LVTTL-I Speed0-2 Tx Rate Select for Channel 0. 3A 10 GND Module Ground. 1A 1 11 GND Module Ground. 1A 1 12 CML-O RDD- Inverse Received Data Out for Channel 0. 3A 13 CML-O RD0+ Received Data Out for Channel 0. 3A 14 GND Module Ground. 1A 1 15 VccR0 Receiver Power. 2A 2 16 VcCT0 Transmitter Power. 2A 2 16 VcCT0 Transmitter Power. 2A 2 16 VcCT0 Transmitter Data In for Channel 0. 3A 1 18 CML-I TD0+ Transmit Data In for Channel 0. 3A 3A 19 CML-I TD0- Inverse Transmit Data In for Channel 0. 3A 1 20 GND Module Ground. 1A 1 1 21 UVTTL-I Tx_Fault1 Transmitter Fault Indi	7	LVTTL-I	Speed0-1	Rx Rate Select for Channel 0.	3A	
10	8	LVTTL-O	RxLOS0	Rx Loss of Signal for Channel 0.	3A	
11 GND Module Ground. 1A 1 12 CMI-O RDO- Inverse Received Data Out for Channel 0. 3A 13 CML-O RDO+ Received Data Out for Channel 0. 3A 14 GND Module Ground. 1A 1 15 VccRO Receiver Power. 2A 2 16 VcCTO Transmitter Power. 2A 2 16 VcCTO Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-I TDO+ Transmit Data In for Channel 0. 3A 19 CML-I TDO- Inverse Transmit Data In for Channel 0. 3A 20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 23 LVTTL-I Tx_Fault1 Transmitter Disable for Channel 1. 3B <t< th=""><th>9</th><th>LVTTL-I</th><th>Speed0-2</th><th>Tx Rate Select for Channel 0.</th><th>3A</th><th></th></t<>	9	LVTTL-I	Speed0-2	Tx Rate Select for Channel 0.	3A	
12 CML-O RDO- Inverse Received Data Out for Channel 0. 3A 13 CML-O RDO+ Received Data Out for Channel 0. 3A 14 GND Module Ground. 1A 1 15 VccR0 Receiver Power. 2A 2 16 VccT0 Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-I TDO+ Transmit Data In for Channel 0. 3A 19 CML-I TDO- Inverse Transmit Data In for Channel 0. 3A 20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 23 LVTTL-I Tx_Fault1 Transmitter Disable for Channel 1. 3B 24 Reserved Reserved for Future Use. 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B <th>10</th> <th></th> <th>GND</th> <th>Module Ground.</th> <th>1A</th> <th>1</th>	10		GND	Module Ground.	1A	1
13	11		GND	Module Ground.	1A	1
14	12	CML-O	RD0-	Inverse Received Data Out for Channel 0.	3A	
15 VCCRO Receiver Power. 2A 2 16 VCCTO Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-I TD0+ Transmit Data In for Channel 0. 3A 19 CML-I TD0- Inverse Transmit Data In for Channel 0. 3A 20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Disable for Channel 1. 3B 1 23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 3B 24 Reserved Reserved for Future Use. 3B 3B 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 3B 3B 26 Reserved Reserved for Future Use. 3B 3B 3B 3B 27 </th <th>13</th> <th>CML-O</th> <th>RD0+</th> <th>Received Data Out for Channel 0.</th> <th>3A</th> <th></th>	13	CML-O	RD0+	Received Data Out for Channel 0.	3A	
16 VccT0 Transmitter Power. 2A 2 17 GND Module Ground. 1A 1 18 CML-I TD0+ Transmit Data In for Channel 0. 3A 19 CML-I TD0- Inverse Transmit Data In for Channel 0. 3A 20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 1 23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 3B 24 Reserved Reserved for Future Use. 3B 3B 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 3B 3B 26 Reserved Reserved for Future Use. 3B 3B 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 3B 28 LVTTL-I Speed1-2 Tx Rate Select for Cha	14		GND	Module Ground.	1A	1
17 GND Module Ground. 1A 1 18 CML-I TD0+ Transmit Data In for Channel 0. 3A 19 CML-I TD0- Inverse Transmit Data In for Channel 0. 3A 20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 24 Reserved Reserved for Future Use. 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 <th>15</th> <th></th> <th>VccR0</th> <th>Receiver Power.</th> <th>2A</th> <th>2</th>	15		VccR0	Receiver Power.	2A	2
18 CML-I TD0+ Transmit Data In for Channel 0. 3A 19 CML-I TD0- Inverse Transmit Data In for Channel 0. 3A 20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 24 Reserved Reserved for Future Use. 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 <th>16</th> <th></th> <th>VccT0</th> <th>Transmitter Power.</th> <th>2A</th> <th>2</th>	16		VccT0	Transmitter Power.	2A	2
19 CML-I TDO-	17		GND	Module Ground.	1A	1
20 GND Module Ground. 1A 1 21 GND Module Ground. 1B 1 22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 24 Reserved Reserved for Future Use. 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1+ Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 2B	18	CML-I	TD0+	Transmit Data In for Channel 0.	3A	
21	19	CML-I	TD0-	Inverse Transmit Data In for Channel 0.	3A	
22 LVTTL-O Tx_Fault1 Transmitter Fault Indication/Interrupt for Channel 1. 3B 23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 24 Reserved Reserved for Future Use. 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B <th>20</th> <th></th> <th>GND</th> <th>Module Ground.</th> <th>1A</th> <th>1</th>	20		GND	Module Ground.	1A	1
23 LVTTL-I Tx_Disable1 Transmitter Disable for Channel 1. 3B 24 Reserved Reserved for Future Use. 3B 25 LVTTL-I LPMode Low-Power Mode Control. 3B 26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2	21		GND	Module Ground.	1B	1
Reserved Reserved for Future Use. 3B 25	22	LVTTL-O	Tx_Fault1	Transmitter Fault Indication/Interrupt for Channel 1.	3B	
25 LVTTL-I LPMode Low-Power Mode Control. 3B 26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B <tr< th=""><th>23</th><th>LVTTL-I</th><th>Tx_Disable1</th><th>Transmitter Disable for Channel 1.</th><th>3B</th><th></th></tr<>	23	LVTTL-I	Tx_Disable1	Transmitter Disable for Channel 1.	3B	
26 Reserved Reserved for Future Use. 3B 27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B <	24		Reserved	Reserved for Future Use.	3B	
27 LVTTL-I Speed1-1 Rx Rate Select for Channel 1. 3B 28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 3B 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	25	LVTTL-I	LPMode	Low-Power Mode Control.	3B	
28 LVTTL-O RxLOS1 Loss of Signal for Channel 1. 38 29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 38 30 GND Module Ground. 18 1 31 GND Module Ground. 18 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 38 33 CML-O RD1+ Received Data Out for Channel 1. 38 34 GND Module Ground. 18 1 35 VccR1 Receiver Power for Channel 1. 28 2 36 VccT1 Transmitter Power for Channel 1. 28 2 37 GND Module Ground. 18 1 38 CML-I TD1+ Transmit Data In for Channel 1. 38 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 38	26		Reserved	Reserved for Future Use.	3B	
29 LVTTL-I Speed1-2 Tx Rate Select for Channel 1. 3B 30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	27	LVTTL-I	Speed1-1	Rx Rate Select for Channel 1.	3B	
30 GND Module Ground. 1B 1 31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	28	LVTTL-O	RxLOS1	Loss of Signal for Channel 1.	3B	
31 GND Module Ground. 1B 1 32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	29	LVTTL-I	Speed1-2	Tx Rate Select for Channel 1.	3B	
32 CML-O RD1- Inverse Received Data Out for Channel 1. 3B 33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	30		GND	Module Ground.	1B	1
33 CML-O RD1+ Received Data Out for Channel 1. 3B 34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	31		GND	Module Ground.	1B	1
34 GND Module Ground. 1B 1 35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	32	CML-O	RD1-	Inverse Received Data Out for Channel 1.	3B	
35 VccR1 Receiver Power for Channel 1. 2B 2 36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	33	CML-O	RD1+	Received Data Out for Channel 1.	3B	
36 VccT1 Transmitter Power for Channel 1. 2B 2 37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	34		GND	Module Ground.	1B	1
37 GND Module Ground. 1B 1 38 CML-I TD1+ Transmit Data In for Channel 1. 3B 39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	35		VccR1	Receiver Power for Channel 1.	2B	2
38CML-ITD1+Transmit Data In for Channel 1.3B39CML-ITD1-Inverse Transmit Data In for Channel 1.3B	36		VccT1	Transmitter Power for Channel 1.	2B	2
39 CML-I TD1- Inverse Transmit Data In for Channel 1. 3B	37		GND	Module Ground.	1B	1
	38	CML-I	TD1+	Transmit Data In for Channel 1.	3B	
40 GND Module Ground. 1B 1	39	CML-I	TD1-	Inverse Transmit Data In for Channel 1.	3B	
	40		GND	Module Ground.	1B	1

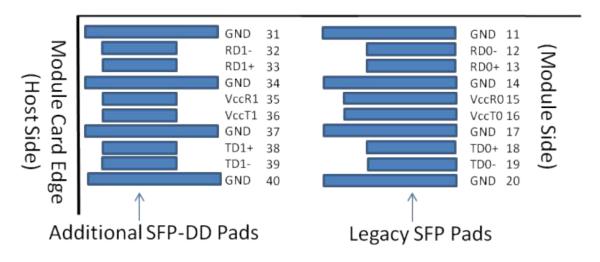
Notes:

- 1. GND is the symbol for signal and supply (power) common for the module. All are common within the 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. VccT0, VccT1, VccR0, and VccR1 are applied concurrently and may be internally connected within the module in any combination.

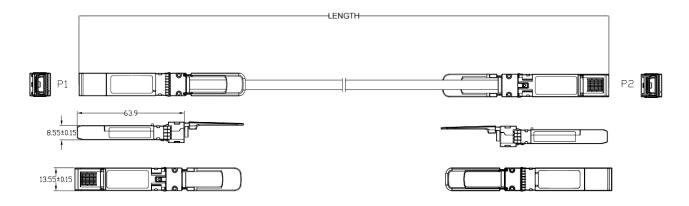
Electrical Pin-Out Details



Bottom side as viewed from top thru board



Mechanical Specifications



Notes:

- 1. 4 pairs, black PVC jacket, and RoHS 2.0 compliant.
- 2. 100% conductor test conditions: voltage of 5V, insulation resistance of $10M\Omega$, and a conduction resistance of maximum 3Ω .
- 3. High-frequency test according to IEEE802.3bj & IEEE802.3cd standards.

OptioConnect

Innovation for the Future of High-Speed Networking

Who We Are

OptioConnect is reshaping the landscape of communication and high-speed networking through intelligent technology. With a core focus on cutting edge technology, we deliver smarter fiber optic solutions for enterprise networks, data centers, and next-gen telecom infrastructures.

What We Do

At OptioConnect, we fuse advanced engineering with intelligent automation to drive the future of networking. Our Al-integrated solutions are designed to optimize performance and streamline operations with:

- Superior Performance
- Network and traffic optimization
- Intelligent energy management
- Seamless OEM compatibility
- Scalable cost-efficiency

Smarter Networks by Design

Innovation isn't just a goal—it's our process. We embed AI and machine learning across our R&D and product lines, enabling adaptive performance, automated tuning, and faster deployment cycles. The result? Networks that don't just work—they learn, evolve, and outperform.

Our Team

Our engineers, data scientists, and network architects bring decades of experience and a future-focused mindset. We provide hands-on support with intelligent insights that turn complex challenges into simple solutions.

Our Mission

To deliver AI-enhanced connectivity that reduces cost, increases speed, and maximizes efficiency—empowering our partners to operate at the forefront of a rapidly evolving digital world.

Let's Connect

Discover how OptioConnect's intelligent infrastructure solutions can power your network's next leap forward. www.optioconnect.com | info@optioconnect.com







