SFP-25GB-PDAC2-5MLZ-C-C

Cisco® Compatible TAA 25GBase-CU SFP28 to SFP28 Direct Attach Cable (Passive Twinax, 2.5m, 30AWG, LSZH)

Features:

- SFF-8431/8432, INF-8074i
- 25.78125Gbps
- SFP28 to SFP28
- 30AWG
- Passive copper
- Operating Temperature 0 to 70 Celsius
- RoHS 2.0 compliant and lead-free

Applications:

- 25GBase-CU

Product Description

This is a Cisco® Compatible 25GBase-CU SFP28 to SFP28 LSZH direct attach cable that operates over passive copper with a maximum reach of 2.5m. It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. We stand behind the quality of our products and proudly offer a limited lifetime warranty. This cable is TAA (Trade Agreements Act) compliant and is built to comply with MSA (Multi-Source Agreement) standards.

ProLabs' transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."

Rev. 020723

Regulatory Compliance

- ESD to the Electrical PINs: compatible with MIL-STD-883 Method 3015.
- ESD to the Duplex LC Receptacle: compatible with IEC 61000-4-2.
- Immunity: compatible with IEC 61000-4-3.
- EMI: compatible with FCC Part 15 Class B EN55022 Class B (CISPR 22B) VCCI Class B.
- Laser Eye Safety: compatible with FDA 21CFR 1040.10 and 1040.11 EN60950, EN (IEC) 60825-1, 2.
- RoHS: compliant with 2002/95/EC 4.1&4.2 2005/747/EC.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	Vcc	3.13	3.3	3.47	V
Storage Temperature	Tstg	-40		85	°C
Operating Case Temperature	Tc	0		70	°C
Humidity	RH	5		85	%
Data Rate			25.78125		Gbps

Physical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Length	L			2.5	M
AWG				30	AWG
Jacket Material	LSZH, Black				
Top Shell	Zinc Alloy, Nickel-Plated Over Copper				
Bottom Shell	Zinc Alloy, Nickel-Plated Over Copper				
Pull Tab	Pull Ring, PA66 S1300, Deep Blue				
EMI Shell	Stainless Steel SUS301				

Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Resistance	Rcon			3	Ω
Insulation Resistance	Rins			10	MΩ
Raw Cable Impedance	Zca	95	100	110	Ω
Mated Connector Impedance	Zmated	85	100	110	Ω
Insertion Loss at 12.89GHz	SDD21	8		22.48	dB
Return Loss at 12.89GHz	SDD11/22	$\text{Return\_Loss(f)} \geq \begin{cases} 16.5 - 2\sqrt{\text{f}} & 0.05 \leq f < 4.1 \\ 10.66 - 14log10\left(\frac{f}{5.5}\right) & 4.1 \leq f \leq 19 \end{cases}$			dB
Differential to Common-Mode Return Loss	SCD11/22	$\text{Return\_Loss(f)} \geq \begin{cases} 22 - \left(\frac{20}{25.78}\right)\text{f}, & 0.01 \leq \text{f} < 12.89 \\ 15 - \left(\frac{6}{25.78}\right)\text{f} & 12.89 \leq \text{f} \leq 19 \end{cases}$			dB
Differential to Common-Mode Conversion Loss	SCD21-SDD21	$\text{Conversion\_Loss(f)} - \text{IL(f)} \geq \begin{cases} 10, & 0.01 \leq \text{f} < 12.89 \\ 27 - \left(\frac{29}{22}\right)\text{f}, & 12.89 \leq \text{f} < 15.7 \\ 6.3, & 15.7 \leq f \leq 19 \end{cases}$			dB
Minimum COM	COM	3			dB
Rise Time (20-80%)				25	ps

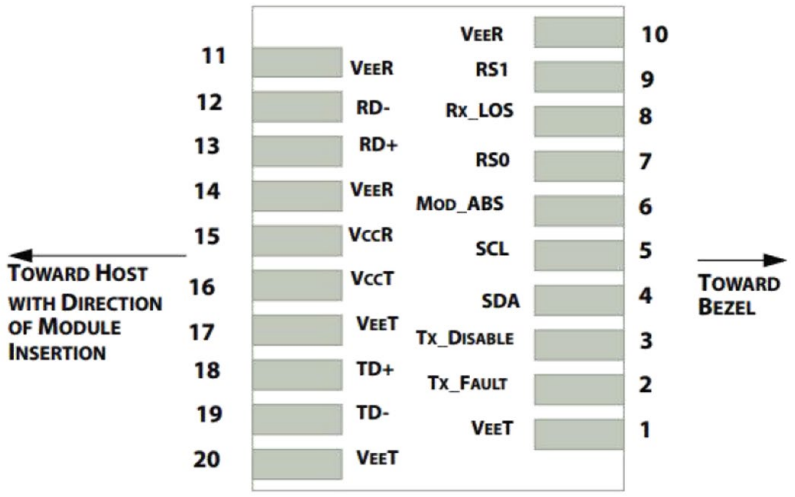
Pin Descriptions

Pin	Logic	Symbol	Name/Description	Plug Sequence	Note
Case		Case	Module Case.	See 2	
1		VeeT	Module Transmitter Ground.	1	3
2	LVTTL-O	Tx_Fault	Module Transmitter Fault.	3	4
3	LVTTL-I	Tx_Disable	Transmitter Disable. Turns off the transmitter laser output.	3	5
4	LVTTL-I/O	SDA	2-Wire Serial Interface Data (Same as MOD_DEF2 in INF-8074i).	3	
5	LVTTL-I/O	SCL	2-Wire Serial Interface Clock (Same as MOD_DEF1 in INF-8074i).	3	
6		MOD_ABS	Module Absent. Connected to the VeeT or VeeR in the module.	3	
7	LVTTL-I	RS0	Rate Select 0. Optionally controls the SFP+ module receiver.	3	6
8	LVTTL-O	Rx_LOS	Receiver Loss of Signal Indication. In FC, designated as Rx_LOS. In Ethernet, designated as Signal Detect.	3	4
9	LVTTL-I	RS1	Rate Select 1. Optionally controls the SFP+ module transmitter.	3	6
10		VeeR	Module Receiver Ground.	1	3
11		VeeR	Module Receiver Ground.	1	3
12	CML-O	RD-	Receiver Inverted Data Output.	3	
13	CML-O	RD+	Receiver Non-Inverted Data Output.	3	
14		VeeR	Module Receiver Ground.	1	3
15		VccR	+3.3V Receiver Power Supply.	2	
16		VccT	+3.3V Transmitter Power Supply.	2	
17		VeeT	Module Transmitter Ground.	1	3
18	CML-I	TD+	Transmitter Non-Inverted Data Input.	3	
19	CML-I	TD-	Transmitter Inverted Data Input.	3	
20		VeeT	Module Transmitter Ground.	1	3

Notes:

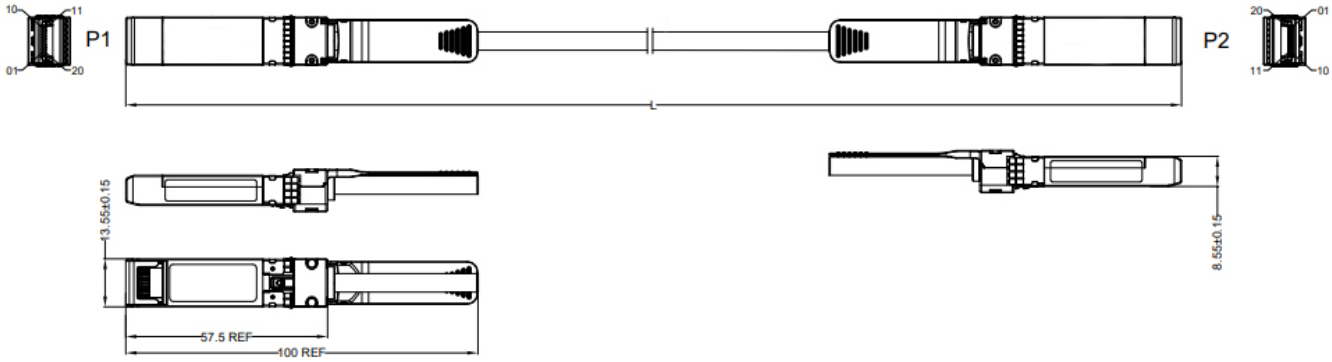
1. Labelling as inputs (I) and outputs (O) are from the perspective of the module.
2. The case makes electrical contact to the cage before any of the board edge contacts are made.
3. The module signal ground contacts, VeeR and VeeT, should be isolated from the module case.
4. This contact is an open collector/drain output contact and shall be pulled up on the host. Pull-ups can be connected to one of several power supplies; however, the host board design shall ensure that no module contact has a voltage exceeding the module VccT/R+0.5V.
5. Tx_Disable is an input contact with a 4.7kΩ to 10Ω pull-up to the VccT inside the module.
6. If implementing SFF-8079, contacts 7 and 9 in SFF-8431 are used for AS0 and AS1, respectively.

Electrical Pin-Out Details



Electrical Pin-out Details for SFP

Mechanical Specifications



Notes:

1. 2 pairs.
2. 100% conductor test conditions: 5V, insulation resistance of 10MΩ, and conduction resistance maximum of 3Ω. IEEE802.3bj standard.

About ProLabs

Our experience comes as standard; for over 15 years ProLabs has delivered optical connectivity solutions that give our customers freedom and choice through our ability to provide seamless interoperability. At the heart of our company is the ability to provide state-of-the-art optical transport and connectivity solutions that are compatible with over 90 optical switching and transport platforms.

Complete Portfolio of Network Solutions

ProLabs is focused on innovations in optical transport and connectivity. The combination of our knowledge of optics and networking equipment enables ProLabs to be your single source for optical transport and connectivity solutions from 100Mb to 400G while providing innovative solutions that increase network efficiency. We provide the optical connectivity expertise that is compatible with and enhances your switching and transport equipment.

Trusted Partner

Customer service is our number one value. ProLabs has invested in people, labs and manufacturing capacity to ensure that you get immediate answers to your questions and compatible product when needed. With Engineering and Manufacturing offices in the U.K. and U.S. augmented by field offices throughout the U.S., U.K. and Asia, ProLabs is able to be our customers best advocate 24 hours a day.

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