

#### R0M46A-1-C

Aruba Networks® R0M46A-1 Compatible TAA 50GBase-CU SFP56 to SFP56 Direct Attach Cable (Passive Twinax, 1m)

#### **Features:**

- Compliant with SFP56 MSA Specification
- Electrical interface specifications per SFF-8431
- Management interface specifications per SFF-8472
- Supports 56Gbps
- PAM4 modulation
- Cable Color: Black
- I2C for EEPROM communication
- RoHS Compliant and Lead-Free



# **Applications:**

- Servers, Switches, Routers, Data Centers
- High Performance Computing

## **Product Description**

This is a HP® R0M46A-1 Compatible 50GBase-CU SFP56 to SFP56 direct attach cable that operates over passive copper with a maximum reach of 1m. 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."



# Characteristics

Parameter	Specifications
Data Rate	56Gbps
Assembly Color	Black
Number of Pluggable I/O Cable Assembly Positions	2-Pair
Number of Signal Positions	4
Cable Assembly Category	High-Speed

# **Cable Specifications**

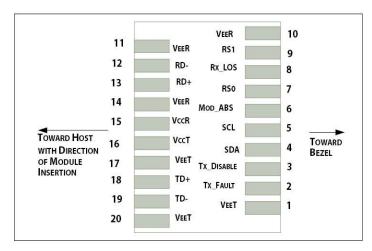
Length	Tolerance	Wire Gauge
1m (3.3ft)	<u>+</u> 30mm	30AWG

## **SFP56 Pin Definitions**

Pin	Symbol	Name/Description	Notes
1	VeeT	Transmitter Ground.	1
2	Tx_Fault	Transmitter Fault. LVTTL-O. "High" indicates a fault condition.	2
3	Tx_Disable	Transmitter Disable. LVTTL-I. "High" or "open" disables the transmitter.	3
4	SDA	2-Wire Serial Interface Data. LVCMOS-I/O. MOD-DEF2.	4
5	SCL	2-Wire Serial Interface Clock. LVCMOS-I/O. MOD-DEF1.	4
6	MOD_ABS	Module Absent (Output). Connected to the VeeT or VeeR in the module.	5
7	RS0	N/A.	6
8	Rx_LOS	Receiver Loss of Signal. LVTTL-O.	2
9	RS1	N/A.	6
10	VeeR	Receiver Ground.	1
11	VeeR	Receiver Ground.	1
12	RD-	Inverse Received Data Out. CML-O.	
13	RD+	Received Data Out. CML-O.	
14	VeeR	Receiver Ground.	
15	VccR	+3.3V Receiver Power.	
16	VccT	+3.3V Transmitter Power.	
17	VeeT	Transmitter Ground.	1
18	TD+	Transmitter Data In. CML-I.	
19	TD-	Inverse Transmitter Data In. CML-I.	
20	VeeT	Transmitter Ground.	1

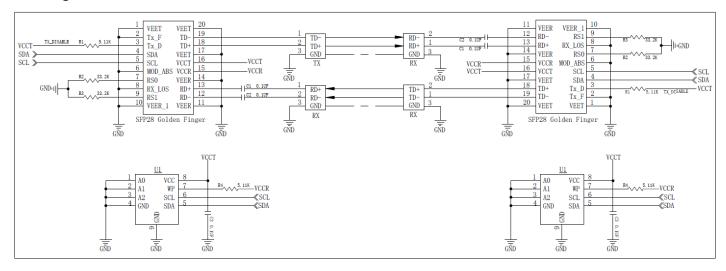
# Notes:

- 1. The module signal grounds are isolated from the module case.
- 2. This is an open collector/drain output that, on the host board, requires a  $4.7k\Omega$  to  $10k\Omega$  pull-up resistor to the Host\_Vcc.
- 3. This input is internally biased "high" with a  $4.7k\Omega$  to  $10k\Omega$  pull-up resistor to the VccT.
- 4. 2-Wire Serial Interface Clock and Data lines require an external pull-up resistor.
- 5. This is a ground return that, on the host board, requires a  $4.7k\Omega$  to  $10k\Omega$  pull-up resistor to the Host\_Vcc.
- 6. Rate Select is not available.

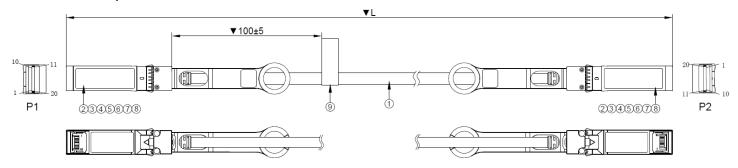


Host PCB SFP56 Pad Assignment Top View

# **Wiring Schematic**



# **Mechanical Specifications**



No.	Description	Quantity	Unit
1	SFP56 Cable, 30AWG, Black, RoHS	A/R	M
2	SFP56 Connector Shell	2	PCS
3	SFP28 25G PCBA, MCU	2	PCS
4	Pull Tab: Black	2	PCS
5	SR: Black, PVC	A/R	KG
6	Resin, Black	A/R	KG
7	Heat-Resistant Tape	A/R	M
8	W=5mm Copper Foil	A/R	M
9	Label	1	PCS

#### **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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