

## DAPSSM015000KN8

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

### 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.

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

### 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

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*For your product safety, please read the following information carefully before any manipulation of the transceiver:*



#### **ESD**

*This transceiver is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 / JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.*



#### **LASER SAFETY**

*This is a Class1 Laser Product according to IEC 60825-1:2007. This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated (June 24, 2007).*

*The optical ports of the module need to be terminated with an optical connector or with a dust plug in order to avoid contamination.*

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### 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

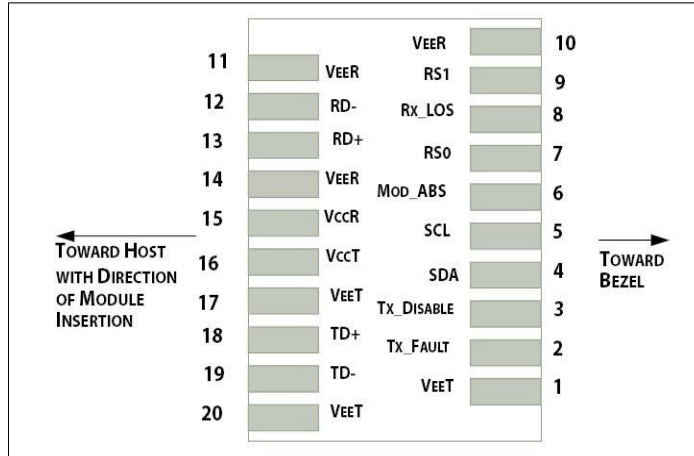
| Length     | Tolerance | Wire Gauge |
|------------|-----------|------------|
| 1m (3.3ft) | +30mm     | 30AWG      |

## SFP56 Pin Definitions

| Pin | Symbol     | Name/Description  | Notes |
|-----|------------|---|-------|
| 1   | VeeT       | Transmitter Ground.   | 1     |
| 2   | Tx_Fault   | Transmitter Fault. LVTTTL-O. "High" indicates a fault condition.          | 2     |
| 3   | Tx_Disable | Transmitter Disable. LVTTTL-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. LVTTTL-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     |

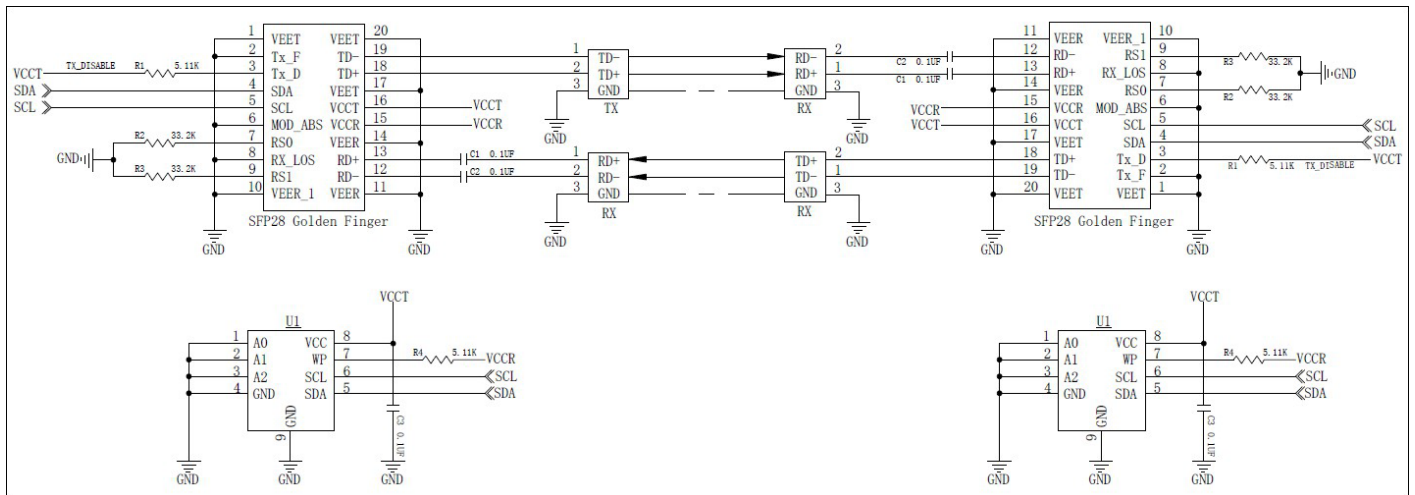
### Notes:

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 4.7kΩ to 10kΩ pull-up resistor to the Host\_Vcc.
3. This input is internally biased "high" with a 4.7kΩ to 10kΩ 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 4.7kΩ to 10kΩ pull-up resistor to the Host\_Vcc.
6. Rate Select is not available.

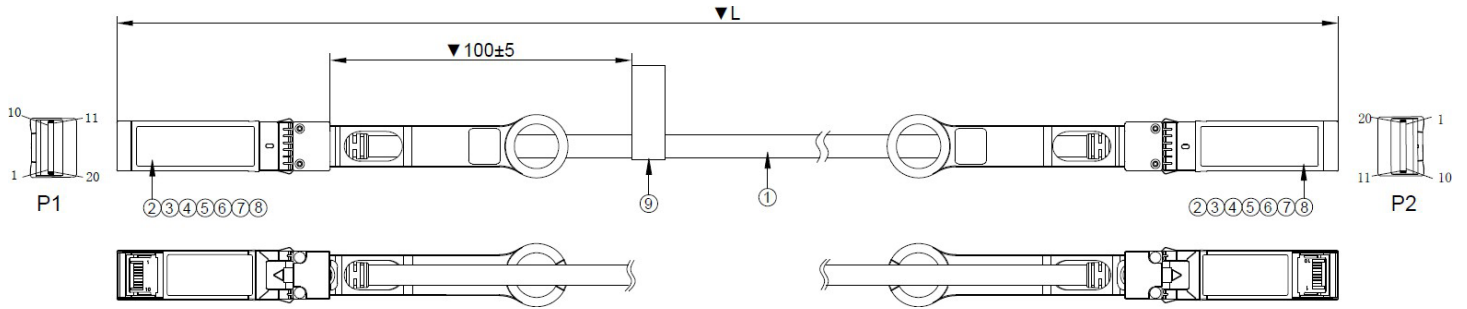


Host PCB SFP56 Pad Assignment Top View

### 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 Skylane Optics

Skylane is a leading provider of transceivers for optical communication.

We offer an extensive portfolio for the enterprise, access, datacenter and metropolitan fiber optical market as well as for smart home applications and home networks.

We cover the European, South American and North American market with a strong partner network and have offices in Belgium, Brazil, Sweden and USA.

Our offerings are characterized by high quality and performance. In combination with our strong technical support, we enable our customers to build cost optimized network solutions.

We offer an extensive range of high-quality products including transceivers (Optical and copper), Active Optical Cable (AOC), Direct Attach Cable (DAC), Mux/Demux, Coding Box.

