#### 1200484G7-OPC

ADTRAN® Compatible TAA Compliant 1000Base-CU SFP Direct Attach Cable (Passive Twinax, 7m)

#### **Features**

- Up to 10 Gbps bi-directional data links
- Compliant with 10GFC
- Compliant with SFF-8431
- AC coupled inputs and outputs
- 100 Ohm differential impedance
- Enhanced EMI design
- Single 3.3V power supply
- Operating Temperature Range: 0 to 70 Celsius
- RoHS Compliant and Lead-Free



### **Applications:**

- 10G Ethernet
- 10G Fibre Channel
- Serial Data Transmission

### **Product Description**

This is an ADTRAN® compatible 1000Base-CU SFP to SFP direct attach cable that operates over passive copper with a maximum reach of 7.0m (23.0ft). 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.

# **General Specifications**

Parameter	Symbol	Min.	Тур.	Max.	Unit	Notes
Data Rate	DR		10.3125		Gbps	1
Bit Error Rate	BER			10-12		
Operating Temperature	Тс	0		70	°C	2
Storage Temperature	Tstg	-40		85	°C	3
Power Supply Voltage	Vcc	3.14	3.30	3.46	V	4

### Notes:

- 1. IEEE 802.3ae.
- 2. Case Temperature.
- 3. Ambient Temperature.
- 4. For the electrical power interface.

### **Cable Specifications**

Parameter	Symbol	Min.	Тур.	Max.	Unit
Wire Gauge			24AWG		AWG
Cable Impedance	Z	90	100	110	Ω
Cable Diameter	OD		6.0		mm
Minimum Bending Radius	R		28		mm
Tolerance Range <u>+</u>			6		cm

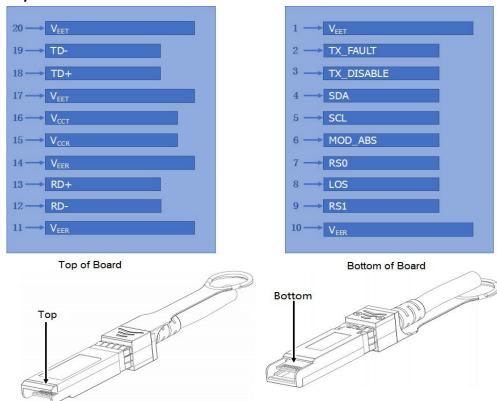
## **Pin Descriptions**

Pin	Symbol	Name/Description	Notes
1	VeeT	Transmitter Ground (Common with Receiver Ground).	1
2	Tx_Fault	Transmitter Failure Alarm. Not Used.	
3	Tx_Disable	Not Used. The signal turns off the module transmitter when it is "high" or "open."	
4	SDA	Data Line for Serial ID.	2
5	SCL	Clock Line for Serial ID.	2
6	MOD_ABS	Module Absent. Grounded within the module.	2
7	RS0	No Connection Required.	
8	LOS	Loss of Signal Indication. "Logic 0" indicates normal operation.	
9	RS1	No Connection Required.	
10	VeeR	Receiver Ground (Common with Transmitter Ground).	1
11	VeeR	Receiver Ground (Common with Transmitter Ground).	1
12	RD-	Receiver Inverted Data Out. AC Coupled.	
13	RD+	Receiver Non-Inverted Data Out. AC Coupled.	
14	VeeR	Receiver Ground (Common with Transmitter Ground).	1
15	VccR	Receiver Power Supply.	
16	VccT	Transmitter Power Supply.	
17	VeeT	Transmitter Ground (Common with Receiver Ground).	1
18	TD+	Transmitter Non-Inverted Data In. AC Coupled.	
19	TD-	Transmitter Inverted Data In. AC Coupled.	
20	VeeT	Transmitter Ground (Common with Receiver Ground).	1

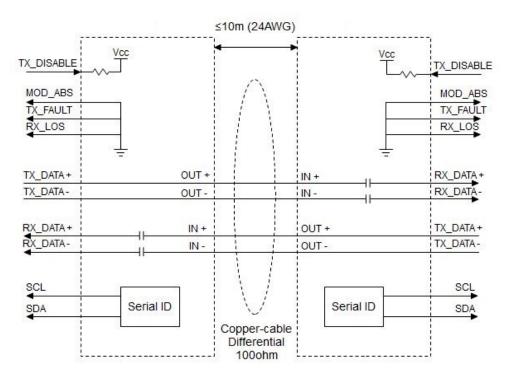
### Notes:

- 1. The circuit ground is isolated from the chassis ground.
- 2. Should be pulled up with  $4.7k\Omega$  to  $10k\Omega$  on the host board to a voltage between 2V and 3.6V.

### **Electrical Pad Layout**



### **Block Diagram of Transceiver**



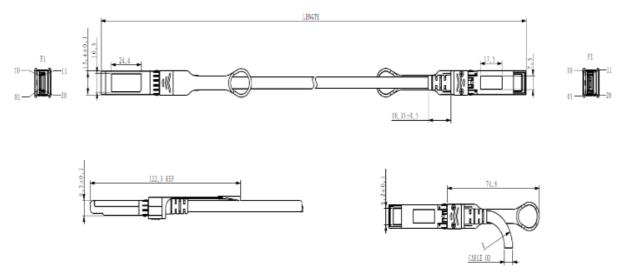
# Weight

Parameter	Symbol	Тур.	Unit	Notes
24AWG Product Weight	GD24	96	g/PCS	1
24AWG Cable Weight	GC24	50	g/M	
Dust Cap Weight	GS	0.80	g/PCS	

### Notes:

1. For example, the weight of a 6m cable with 24AWG is 96+50\*(6-1) + 0.80\*2=347.6g.

## **Mechanical Specifications**



All Dimensions are ±0.2mm Unless Otherwise Specified Unit: mm