

25G SFP28 Direct Attach Cable

(RoHS Compliant)

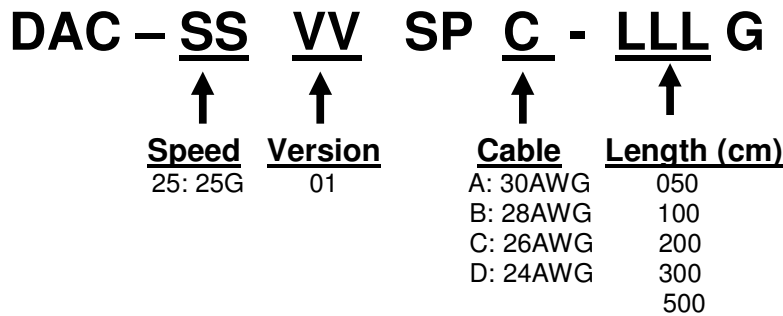
FEATURES

- Compliant with SFF-8402 and SFF-8432.
- Up to 25.78125 Gbps data rate per channel
- Up to 5m transmission
- Single 3.3V power supply
- Lowest total system EMI solution
- Optimized design for signal integrity
- Operating temperature: -5~70°C
- RoHS compliant

OVERVIEW

OPTOWAY is devoted to providing reliable and outstanding direct attach cables (DAC) company. OPTOWAY 25~28 Gbps SFP28 DAC is a high-speed solution with cost-effective design which can extend to 1~5m. DAC cable is compatible with 25G Ethernet (25GbE), also can support Fiber Channel ,InfiniBand applications. DAC cable is compatible with 25~28Gbps application

ORDER INFORMATION



1.General Product Characteristics

SFP28 Copper Specifications	
Number of Lanes	Tx & Rx
Channel Data Rate	25.78125 Gbps/channel
Operating Case Temperature	-5 to +70 °C
Storage Temperature	-40 to +85 °C
Supply Voltage	3.3V nominal
Electrical Interface	20 pin edge connector
Management Interface	Serial, I ² C

2.High Speed Characteristics

Parameter	Symbol	Min.	Max.	Units	Note
Differential Impedance	$R_{IN,P-P}$	90	110	Ω	
Insertion loss	$SDD21$		22.48	dB	At 12.8906 GHz
Differential Return Loss	$SDD11$		See 1	dB	At 0.05 to 4.1 GHz
	$SDD22$		See 2	dB	At 4.1 to 19 GHz
Common-mode to common-mode output return loss	$SCC11$	2		dB	At 0.2 to 19 GHz
	$SCC22$				
Differential to common-mode return loss	$SCD11$		See 3	dB	At 0.01 to 12.89 GHz
	$SCD22$		See 4		At 12.89 to 19 GHz
Differential to common Mode Conversion Loss	$SCD21$		10	dB	At 0.01 to 12.89 GHz
			See 5		At 12.89 to 15.7 GHz
			6.3		At 15.7 to 19 GHz
Channel Operating Margin	COM	3		dB	

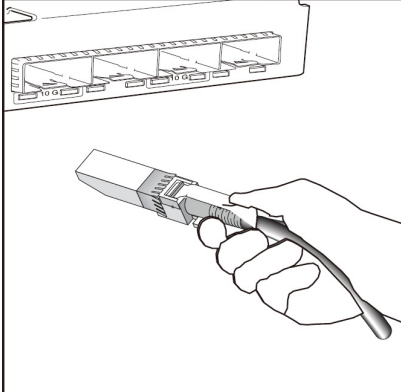
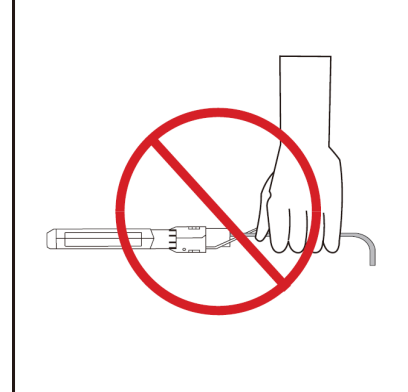
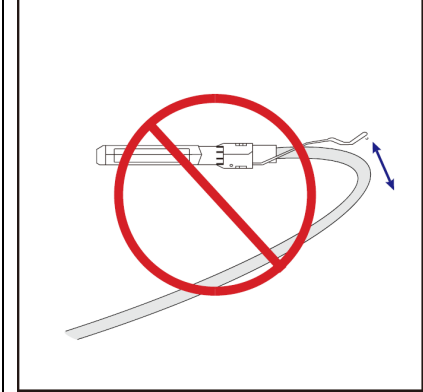
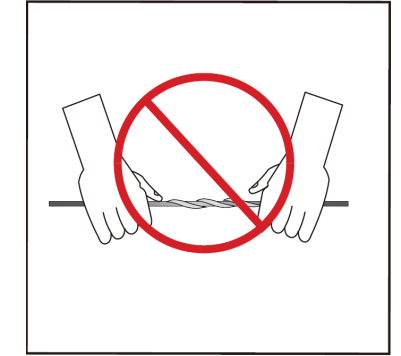
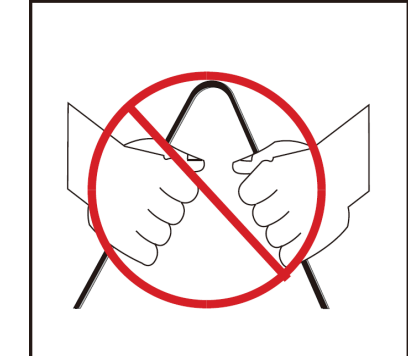
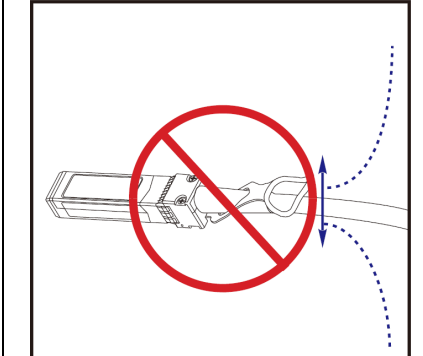
Notes:

1. Reflection Coefficient given by equation $SDD11(\text{dB}) < 16.5 - 2 \times \text{SQRT}(f)$, with f in GHz
2. Reflection Coefficient given by equation $SDD11(\text{dB}) < 10.66 - 14 \times \log_{10}(f/5.5)$, with f in GHz
3. Reflection Coefficient given by equation $SCD11(\text{dB}) < 22 - (20/25.78)*f$, with f in GHz
4. Reflection Coefficient given by equation $SCD11(\text{dB}) < 15 - (6/25.78)*f$, with f in GHz
5. Reflection Coefficient given by equation $SCD21(\text{dB}) < 27 - (29/22)*f$, with f in GHz

3.Pin Descriptions

Pin	Logic	Symbol	Description
1		VeeT	Module Transmitter Ground
2	LVTTL-O	Tx_Fault	Module Transmitter Fault
3	LVTTL-I	Tx_Disable	Transmitter disable; Turns off transmitter laser output
4	LVTTL-I/O	SDA	2-wire Serial Interface Data Line (Same as MOD-DEF2 in INF-8074i)
5	LVTTL-I/O	SCL	2-wire Serial Interface Clock (Same as MOD-DEF1 in INF-8074i)
6		Mod_ABS	Module Absent, connected to VeeT or VeeR in the module
7	LVTTL-I	RS0	Rate Select 0, optionally controls SFP28 module receiver
8	LVTTL-O	Rx_LOS	Receiver Loss of Signal Indication (In FC designated as Rx_LOS and in Ethernet designated as Signal Detect)
9	LVTTL-I	RS1	Rate Select 1, optionally controls SFP28 module transmitter
10		VeeR	Module Receiver Ground
11		VeeR	Module Receiver Ground
12	CML-O	RD-	Receiver Inverted Data Output
13	CML-O	RD+	Receiver Non-Inverted Data Output
14		VeeR	Module Receiver Ground
15		VccR	Module Receiver 3.3 V Supply
16		VccT	Module Transmitter 3.3 V Supply
17		VeeT	Module Transmitter Ground
18	CML-I	TD+	Transmitter Non-Inverted Data Input
19	CML-I	TD-	Transmitter Inverted Data Input
20		VeeT	Module Transmitter Ground

4.Important Notice

		
<p>Holding the SFP+ connector by its sides, insert the connector into the port on the switch</p>	<p>Do not handle by cable</p>	<p>DO NOT Over-bend the cable behind the connector</p>
		
<p>DO NOT twist the cable</p>	<p>DO NOT kink the cable</p>	<p>DO NOT bend up and down the cable</p>