

SFPTURKIYESTW0140GD	40G QSFP+ Copper Twinax Cable 1 Meter, passive
SFPTURKIYESTW0240GD	40G QSFP+ Copper Twinax Cable 2 Meter, passive
SFPTURKIYESTW0340GD	40G QSFP+ Copper Twinax Cable 3 Meter, passive
SFPTURKIYESTW0440GD	40G QSFP+ Copper Twinax Cable 4 Meter, passive
SFPTURKIYESTW0540GD	40G QSFP+ Copper Twinax Cable 5 Meter, passive
SFPTURKIYESTW0640GD	40G QSFP+ Copper Twinax Cable 6 Meter, passive
SFPTURKIYESTW0740GD	40G QSFP+ Copper Twinax Cable 7 Meter, passive



## Features :

- Up to 10.3125Gbps data rate per channel
- Up to 7m transmission
- Operating temperature: 0°C~70°C
- Single +3.3V power supply
- RoHS Compliant

## Applications:

- 40G Ethernet
- Compliant with SFF-8436, SFF-8431, SFF-8432 and SFF-8472



## Description:

The QSFP+ passive cable assemblies are high performance, cost effective I/O solutions for 40G Ethernet and 40G Fiber Channel applications. QSFP+ copper modules allow hardware manufactures to achieve high port density, configurability and utilization at a very low cost and reduced power budget. The high speed cable assemblies meet and exceed Gigabit Ethernet and Fiber Channel industry standard requirements for performance and reliability.

## General Product Characteristics

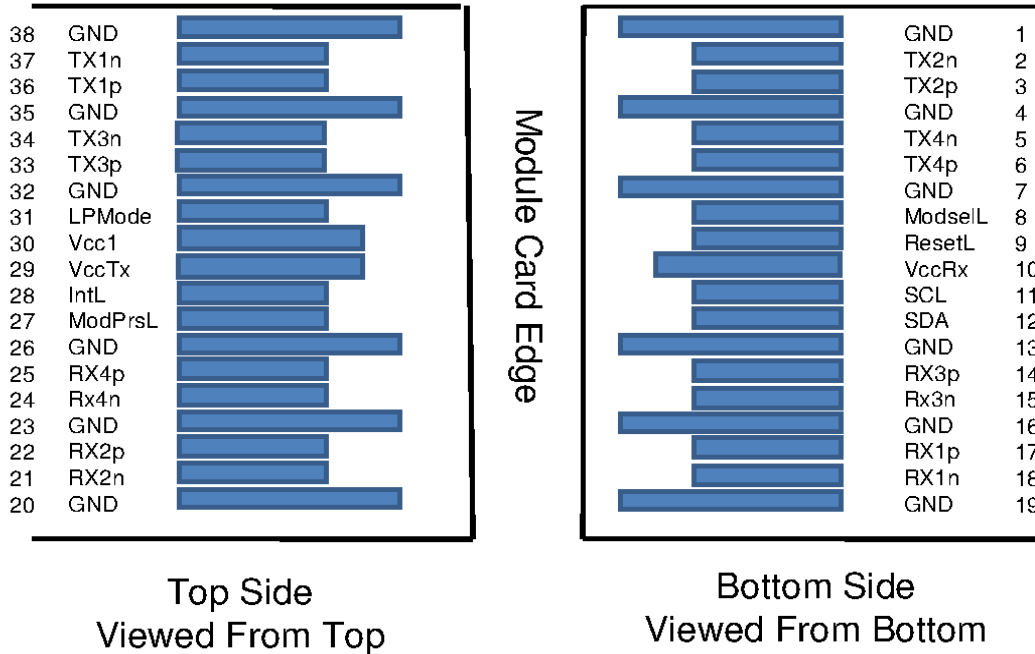
SFP+ DAC Specifications	
Number of Lanes	Tx & Rx
Channel Data Rate	10.3125 Gbps



Operating Temperature	0 to + 70°C
Storage Temperature	-40 to + 85°C
Supply Voltage	3.3 V nominal
Electrical Interface	38 pins edge connector(QSFP+)
Management Interface	Serial, I <sup>2</sup> C

## Pin Assignment

### QSFP+ Pin Function Definition



Pin	Logic	Symbol	Description
1		GND	Ground
2	CML-I	Tx2n	Transmitter Inverted Data Input
3	CML-I	Tx2p	Transmitter Non-Inverted Data Input
4		GND	Ground
5	CML-I	Tx4n	Transmitter Inverted Data Input
6	CML-I	Tx4p	Transmitter Non-Inverted Data Input
7		GND	Ground
8	LVTTL-I	ModSelL	Module Select
9	LVTTL-I	ResetL	Module Reset
10		Vcc Rx	+3.3V Power Supply Receiver
11	LVCMO S-I/O	SCL	2-wire serial interface clock
12	LVCMO S-I/O	SDA	2-wire serial interface data
13		GND	Ground



14	CML-O	Rx3p	Receiver Non-Inverted Data Output
15	CML-O	Rx3n	Receiver Inverted Data Output
16		GND	Ground
17	CML-O	Rx1p	Receiver Non-Inverted Data Output
18	CML-O	Rx1n	Receiver Inverted Data Output
19		GND	Ground
20		GND	Ground
21	CML-O	Rx2n	Receiver Inverted Data Output
22	CML-O	Rx2p	Receiver Non-Inverted Data Output
23		GND	Ground
24	CML-O	Rx4n	Receiver Inverted Data Output
25	CML-O	Rx4p	Receiver Non-Inverted Data Output
26		GND	Ground
27	LVTTL-O	ModPrsL	Module Present
28	LVTTL-O	IntL	Interrupt
29		Vcc Tx	+3.3V Power supply transmitter
30		Vcc1	+3.3V Power supply
31	LVTTL-I	LPMode	Low Power Mode
32		GND	Ground
33	CML-I	Tx3p	Transmitter Non-Inverted Data Input
34	CML-I	Tx3n	Transmitter Inverted Data Input
35		GND	Ground
36	CML-I	Tx1p	Transmitter Non-Inverted Data Input
37	CML-I	Tx1n	Transmitter Inverted Data Input
38		GND	Ground



## High Speed Characteristics

Parameter	Symbol	Min	Typ	Max	Units	Notes
Differential Impedance	Zd	90	100	110	$\Omega$	
Differential Input Return Loss	SDDXX	$< -12 + 2^* \text{SQRT}(f)$ with f in GHz			dB	0.01~4.1GHz
		$< -6.3 + 13^* \text{Log}_{10}(f/5.5)$ with f in GHz			dB	4.1~11.1GHz
Common Mode Output Return Loss	SCCXX	$< -7 + 1.6^* f$ with f in GHz			dB	0.01~2.5GHz
				-3	dB	2.5~11.1GHz
Difference Waveform Distortion Penalty	dWDPc			6.75	dB	
VMA Loss	L			4.4	dB	
VMA Loss to Crosstalk Ratio	VCR	32.5			dB	

## Mechanical Diagram

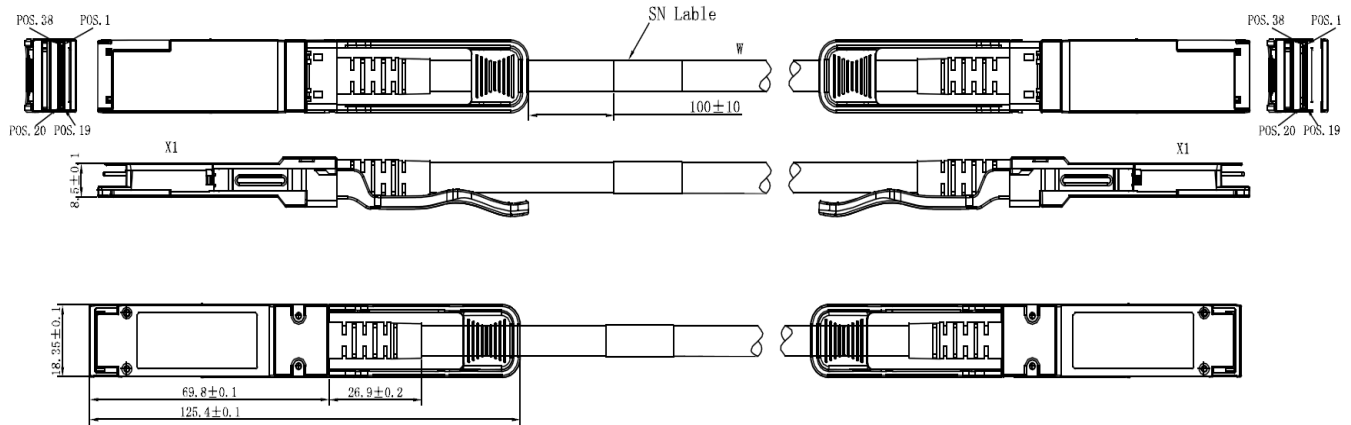


Figure 4, mechanical diagram

## Regulatory Compliance

Feature	Test	Method
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883E Method 3015.7	Class 1(>1000V for SFI pins, >2000Vfor other pins.)
Electrostatic Discharge (ESD) Immunity	IEC61000-4-2	Class 2(>4.0kV)
Electromagnetic Interference (EMI)	CISPR22 ITE Class B FCC Class B CENELEC EN55022 VCCI Class 1	Comply with standard
Immunity	IEC61000-4-3	Comply with standard
Eye Safety	FDA 21CFR 1040.10 and 1040.11 EN (IEC) 60825-1,2	Compatible with Class I laser Product

Length (m)	Cable AWG
1	30/28/24
2	30/26
3	30/26
4	26
5	24/26
6	24
7	24



## Ordering Information

Table 6-ordering information

Part Number	Description	Gauge (AWG)
SFPTURKIYESTW0140GD	40G QSFP+ Copper Twinax Cable 1 Meter, passive	30/28/24
SFPTURKIYESTW0240GD	40G QSFP+ Copper Twinax Cable 2 Meter, passive	30/26
SFPTURKIYESTW0340GD	40G QSFP+ Copper Twinax Cable 3 Meter, passive	30/26
SFPTURKIYESTW0440GD	40G QSFP+ Copper Twinax Cable 4 Meter, passive	26
SFPTURKIYESTW0540GD	40G QSFP+ Copper Twinax Cable 5 Meter, passive	24/26
SFPTURKIYESTW0640GD	40G QSFP+ Copper Twinax Cable 6 Meter, passive	24
SFPTURKIYESTW0740GD	40G QSFP+ Copper Twinax Cable 7 Meter, passive	24

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