


Specification of 10Gbps Immersion Extension Copper Cable with the Adapter (SFP+ connector to SFP+ cage)

TCP-S1F1D-NNE##

↑
Length: 10~75cm

Ordering Information

Model Name	TCP-S1F1D-NNE##				Note
	TCP-S1F1D-NNE10	TCP-S1F1D-NNE22	TCP-S1F1D-NNE36	TCP-S1F1D-NNE75	
Feature	Adapter (convert connector type to cage type) with extended cable				
Connector type	SFP+				
Cage type	SFP+				
Temperature	0°C ~+70°C				
Length	10cm	22cm	36cm	75cm	The length excludes connector and cage
Latch Color	Sky Blue 				

■ General Description

Immersion Cooling completes the immersion of electronic components in a dielectric liquid. All the heat generated by the IT is captured in the liquid. Suitable dielectric liquids can absorb approximately 1500 times more heat energy than air with the same volumes and temperatures. FormericaOE SFP 10G extender with SFP 10G plug vs. SFP 10G cage is designed to be applied for immersion solution. It extends the 10G interfaces to surface, aiming to realize the interconnection of 10G transceivers and AOC.

■ Features

- Low EMI radiation
- Insertion Loss < 7.0dB @5.0GHZ/channel
- Oil-resistance, dust-proof and anti-corrosion
- 100 ohm differential impedance system
- RoHS compliant

■ Applications

- Extend the 10Gb/s high speed interconnection for liquid immersion solution
- SFP 10G connector adapter applied at test equipment to link 10G DUT
- Extend the link of 10G transceiver
- Extend the link of 10G AOC

■ Applicable Documents

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

■ Absolute Maximum Rating

Parameter	Symbol	Min	Typ.	Max	Unit
Storage Temperature	Ts	-20		80	°C

■ Recommended Operating Conditions

Parameter	Symbol	Min	Typ.	Max	Unit
Operating Case Temperature	Top	0	25	70	°C
Data Rate per lane			10		Gbps

■ PIN Assignment

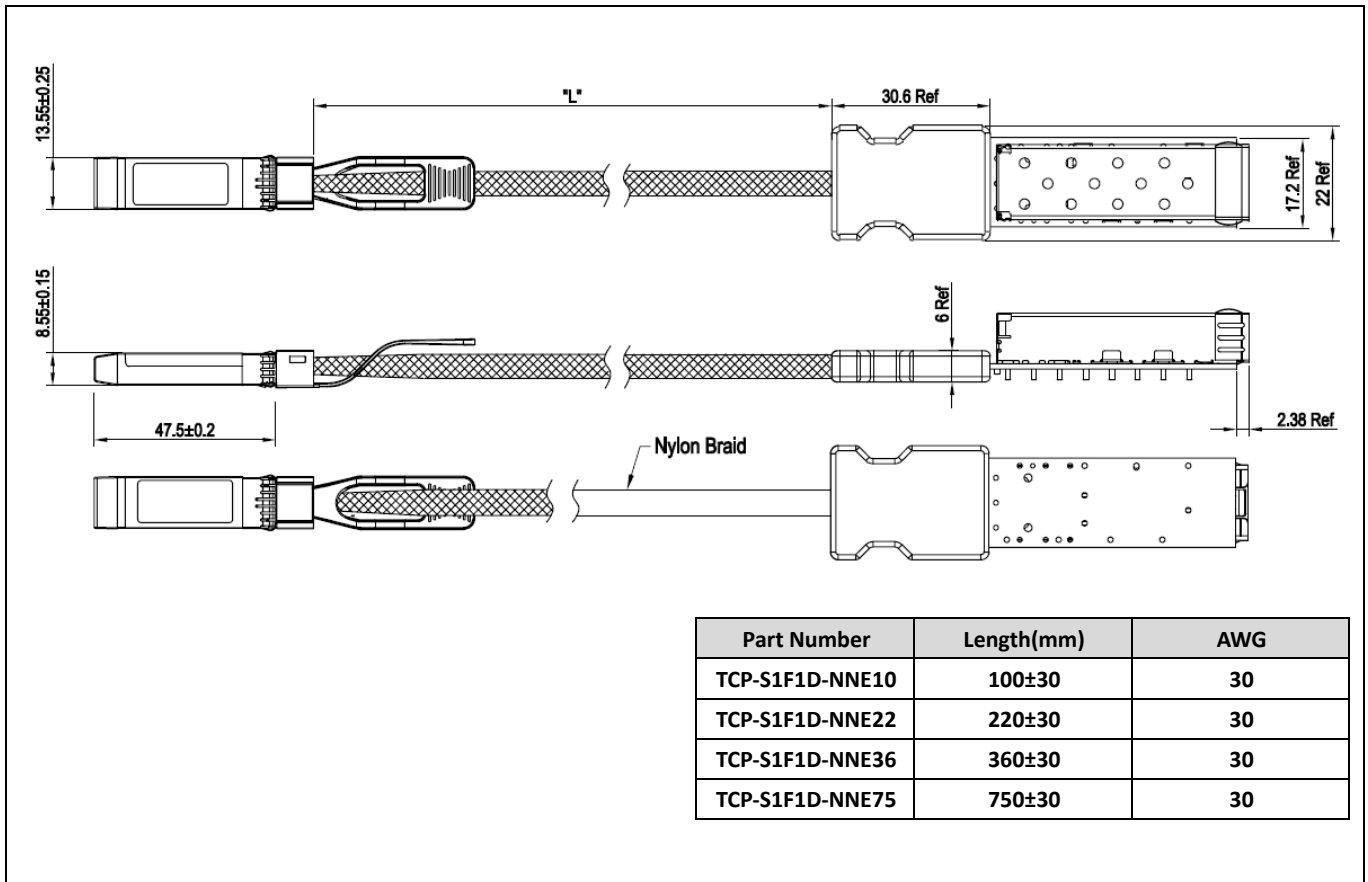
WIRING DIAGRAM

HIGH SPEED SIGNAL				
P1 SFP28/+			P2 SFP28/+	
PAD	SIGNAL		PAD	SIGNAL
19	TX-		12	RX-
18	TX+		13	RX+
12	RX-		19	TX-
13	RX+		18	TX+
GND GROUP	GND		GND GROUP	GND
GND Group: 01,10,11 14,17,20			GND Group: 01,10,11 14,17,20	
CONNECTOR SHELL			CONNECTOR SHELL	

*DC BLOCKING CAPS ON P1,P2 RX END.

LOW SPEED SIGNAL & POWER			LOW SPEED SIGNAL & POWER	
P1(SFP28/+)			P2(SFP28/+)	
PAD	SIGNAL	PAD	SIGNAL	
02	TX_Fault	02	TX_Fault	
03	TX_Disable	03	TX_Disable	
04	SDA	04	SDA	
05	SCL	05	SCL	
06	MOD_ABS	06	MOD_ABS	
07	RS0	07	RS0	
08	RX_LOS	08	RX_LOS	
09	RS1	09	RS1	
15	VCCR	15	VCCR	
16	VCCT	16	VCCT	

■ Module Outline



Note:

1. Standard length as "L" in drawing with tolerance. Option of "L": 10cm, 22cm, 36cm and 75cm. A custom length between 10cm and 75cm per inquiry is possible.
2. Unit: mm
3. Compliant with IEEE802.3

■ **Contact Information**

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■ **Revision History**

Date	Version	Description
12/05/2022	1.0	Initial release

