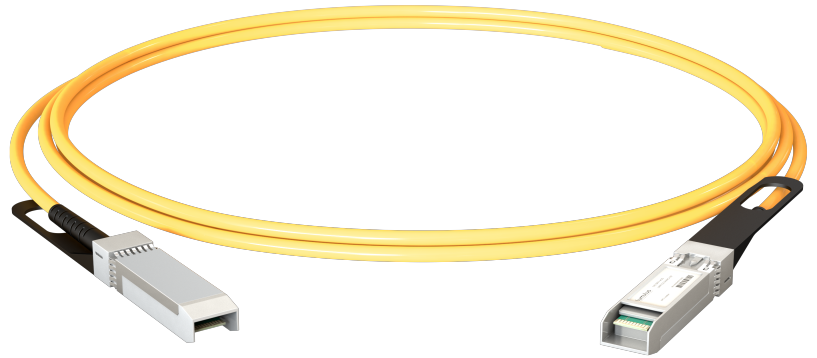


## Active Optical Cable

# 10G SFP+



### Key Features

- Data rate up to 10.3125 Gb/s
- VCSEL transmitter and PIN receiver
- 3.3V power supply
- Maximum power dissipation: 1W
- Operation case temperature: 0 to 70°C
- Maximum link length of 300m on OM3 MMF
- RoHS compliant

### Applications

- 10G Ethernet
- Enterprise, Data Center
- Switches, Routers



### Supported Standards

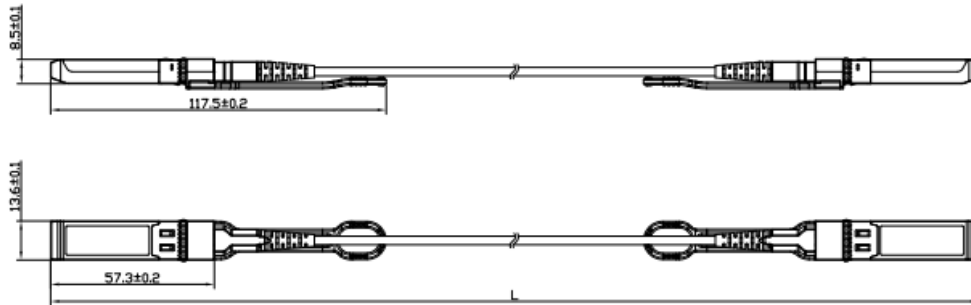
- SFP+ MSA
- IEEE 802.3ae

### Ordering Information

LAPP-CC1xxxC		10G SFP+ to 10G SFP+ AOC (1m~300m)		
Ordering P/Ns	Description	Length	WL (nm)	Fiber Type
LAPP-CC1010C	10G SFP+ to 10G SFP+ AOC	1m	850nm	LSZH MMF
LAPP-CC1100C	10G SFP+ to 10G SFP+ AOC	10m	850nm	LSZH MMF
LAPP-CC1X30C	10G SFP+ to 10G SFP+ AOC	300m	850nm	LSZH MMF

xxx define AOC cable length

## Mechanical Outline



## Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Typ.	Max.	Notes
Supply Voltage	Vcc	V	-0.4	-	+3.6	
Storage Temperature	TS	°C	-40	-	85	
Operating Humidity	RH	%	5	-	85	

## Recommended Operating Conditions

Parameter	Unit	Min.	Typ.	Max.	Notes
Operating Case Temperature	°C	0		70	
Supply Voltage	V	3.135	3.3	3.465	
Power Dissipation(SFP+ End)	W			1	
Bit Rate per channel	Gbps		10.3125		
Error Bit Rate			1E-12		PRBS31

## SFP+ Electrical Characteristics

Parameter	Unit	Min.	Typical	Max.	Notes
Transmitter					
Data Input Swing Differential	mVp-p	200	-	1000	
Data Differential Impedance	$\Omega$	90	100	110	
Receiver					
Data Output Swing Differential	mVp-p	200	-	1000	
Data Differential Impedance	$\Omega$	90	100	110	

## SFP+ PIN Function Definitions

Pin	Logic	Symbol	Description
1		VeeT	Module Transmitter Ground
2	LVTTL-O	Tx_Fault	Module Transmitter Fault
3	LVTTL-I	Tx_DIS	Transmitter Disable; Active High Disable Transmitter Output
4	LVTTL-I/O	SDA	2-Wire Serial Interface Data
5	LVTTL-I/O	SCL	2-Wire Serial Interface Clock
6		Mod_ABS	Module Absent, connected to VeeT or VeeR in the module
7	LVTTL-I	RS0	Rate Select0, optionally controls SFP+ module receiver
8	LVTTL-O	RX_LOS	Receiver Loss of Signal Indication
9	LVTTL-I	RS1	Rate Select1, optionally controls SFP+ 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 3.3V Supply

16		VccT	Module Transmitter 3.3V 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

### SFP+ Electrical pad layout

For detail mechanical information, please refer to the related document of SFP+ MSA.

