



# 10.3Gb/s SFP+ Active Cable

APCA01-SSCxxx-yy



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ATOP's Small Form Factor Pluggable SFP+ to SFP+ Active Direct Attached Copper Cables. The Active DAC cables are high performance, cost effective. It can support 10G Ethernet, 8g fibre channel and InfiniBand short distance interconnection scenarios Application

## Product Features

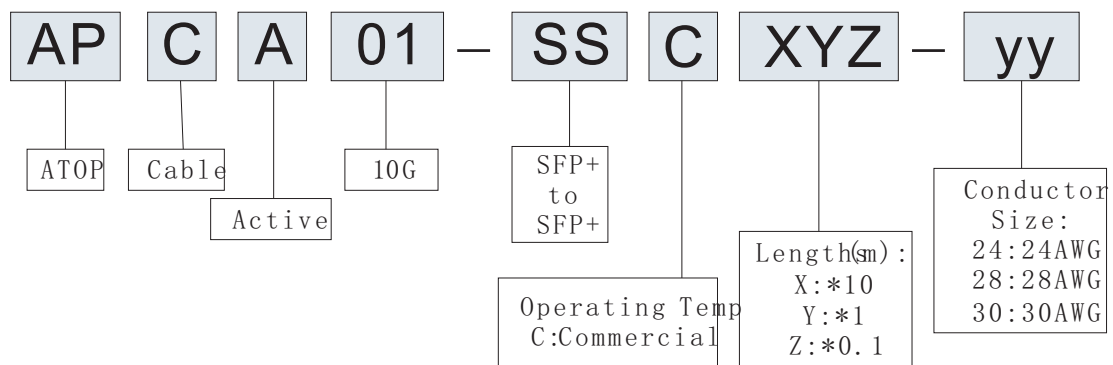
- ✓ Support 1G~10.5Gbps data rate
- ✓ Support hot-pluggable
- ✓ Available in lengths from 0.5m to 15m
- ✓ 360-degree cable braid crimp and enhanced EMI skirt
- ✓ Single 3.3V power supply
- ✓ RoHS Compliant and Lead-Free
- ✓ Compliant with SFF-8472
- ✓ Compliant with SFP+ MSA: SFF-8431
- ✓ Wire/Cable Type Twin ax

## Applications

- ✓ 1/10GbE
- ✓ 1/2/4/8G Fiber Channel
- ✓ Infiniband 1X SDR DDR QDR
- ✓ Switch/ Router /Hub
- ✓ Data center, cloud service



## Product Selection



Part Number	Lengths	Conductor Size	Note
APCA01-SSC070-yy	7m	24/26/28/30 AWG	1,2
APCA01-SSC100-yy	10m	24/26/28/30 AWG	1,2
APCA01-SSC150-yy	15m	24/26/28/30 AWG	1,2

**Note:**

1, yy=30,28,26,24, present wire size AWG

2, 24 AWG is default

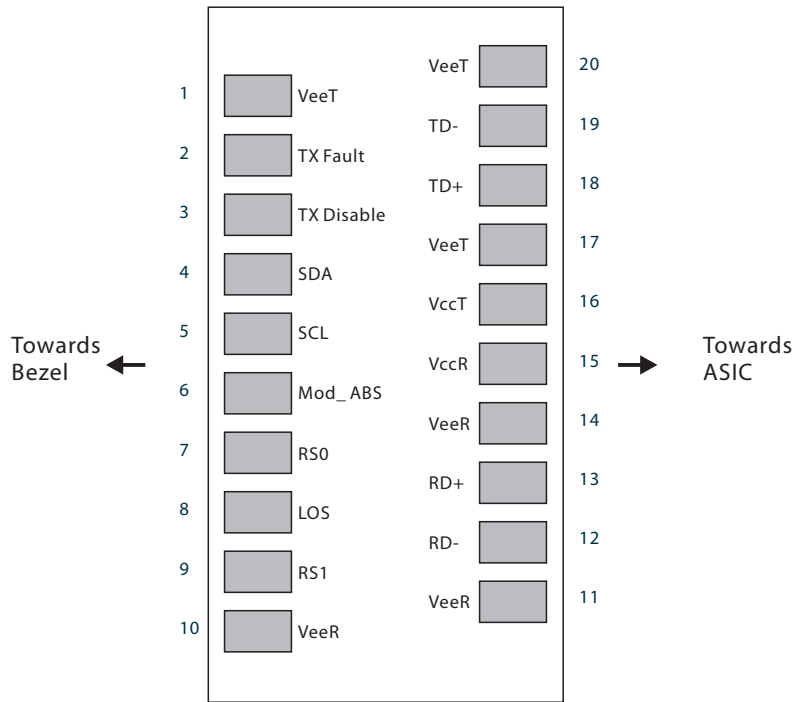
## Pin Descriptions

Pin	Logic	Symbol	Name/Description	Ref.
1		VeeT	Transmitter Ground	1
2	LV-TTL-O	TX_Fault	N/A	2
3	LV-TTL-I	TX_DIS	Transmitter Disable	
4	LV-TTL-I/O	SDA	Tow Wire Serial Data	
5	LV-TTL-I	SCL	Tow Wire Serial Clock	
6		MOD_DEF0	Module present, connect to VeeT	1
7	LV-TTL-I	RS0	N/A	2
8	LV-TTL-O	LOS	LOS of Signal	1
9	LV-TTL-I	RS1	N/A	
10		VeeR	Reciever Ground	
11		VeeR	Reciever Ground	
12	CML-O	RD-	Reciever Data Inverted	
13	CML-O	RD+	Reciever Data Non-Inverted	
14		VeeR	Reciever Ground	
15		VccR	Reciever Supply 3.3V	
16		VccT	Transmitter Supply 3.3V	
17		VeeT	Transmitter Ground	
18	CML-I	TD+	Transmitter Data Non-Inverted	
19	CML_I	TD-	Transmitter Data Inverted	
20		VeeT	Transmitter Ground	

**Note:**

1, Not support , pulled down to VeeT with 30 kΩ resistance

2, The active cable does not support LOS and TX-dis



Pin-out of Connector Block on Host Board

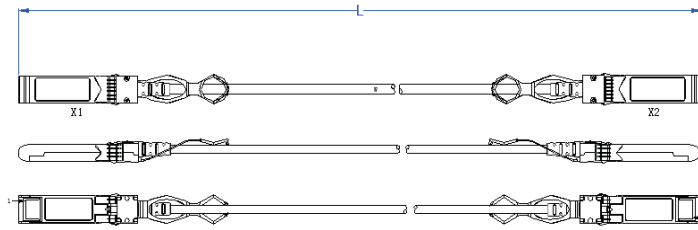
## Performance

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Power Supply Voltage	Vcc	3.13	3.30	3.47	V	
Data rate		1.25		10	Gbps	
Bit Error Rate	BER			10-12		
Length	L	7		15	m	

## Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Maximum Supply Voltage	Vcc	-0.5		+4.0	V	
Storage Temperature	TS	-40		+85	°C	
Operating Humidity	RH	0		85	%	

## Mechanical Specifications



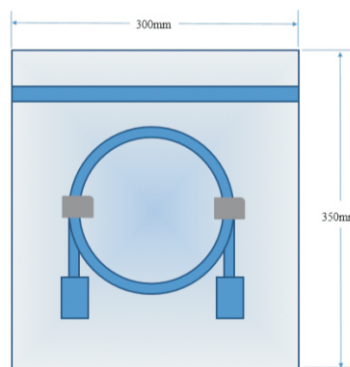
Starting	End	Remark
X1. 12	X2. 19	Pair
X1. 13	X2. 18	
X1. 18	X2. 13	Pair
X1. 19	X2. 12	
X1:1, 2, 6 8, 10, 11, 14, 17, 20	X2:1, 2, 6 8, 10, 11, 14, 17, 20	Drain wire
X1:1, 4, 5 15, 16	X2:1, 4, 5 15, 16	EEPROM point at both ends

## Package diagram

The connectors at both ends are protected by protective sleeves, and each high-speed cable is separately put into an anti-static bag.

<=3m: 200mm\*300mm

>3m: 300mm\*350mm



## Revision History

Revision	Initiated	Reviewed	Approved	DCN	Release Date
Version1.0	Tangzhiqiang	Li Tao	Ding zheng	New Released.	Nov 22, 2019





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