

## 10.3Gb/s SFP+ Active Cable

### APCA01-SSCxxx-yy

#### ■ Product Features

- ✓ Truly broadband - operates from 1 to 10.5 Gb/s
- ✓ Support hot-pluggable
- ✓ Available in lengths from 1m to 15m
- ✓ 360 degree cable braid crimp and enhanced EMI skirt
- ✓ Excellent ESD protection
- ✓ Single 3.3V power supply
- ✓ RoHS Compliant and Lead-Free
- ✓ Compliant with SFF-8472 Rev 11.1
- ✓ Compliant with SFP+ MSA: SFF-8431 Rev4.1
- ✓ Wire/Cable Type Twinax



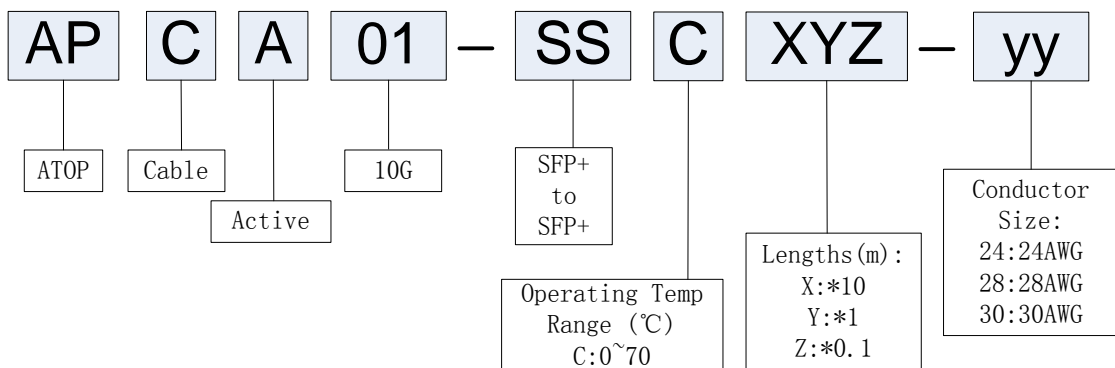
#### ■ Applications

- ✓ 1/10GbE
- ✓ 1/2/4/8x FC
- ✓ Infiniband 1X SDR DDR QDR
- ✓ Proprietary Interconnects

#### ■ General

Passive cables may require host pre-emphasis and equalization to reach at the longer lengths.

#### ■ Product Selection



Part Number	Lengths	Conductor Size	Note
APCA01-SSC050-24	5m	24 AWG	1,2



APCA01-SSC070-24	7m	24 AWG	1,2
APCA01-SSC100-24	10m	24 AWG	1,2

**Note:**

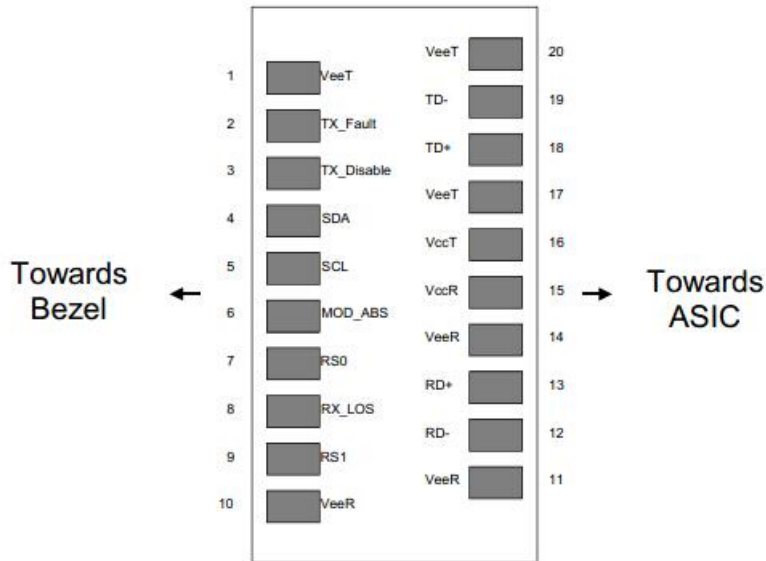
- yy=30,28,26,24, present wire size AWG
- 24 AWG for Standard Passive,26/28/30AWG for Other Passive

\*For availability of additional cable lengths, please contact ATOP.

## ■ Pin Descriptions

Pin	Symbol	Name/Description	Ref.
1	VeeT	Transmitter Ground (Common with Receiver Ground)	
2	TX Fault	Transmitter Fault. LVTTTL-O	
3	TX Disable	Transmitter Disable. Laser output disabled on high or open. LVTTTL-I	
4	SDA	2-Wire Serial Interface Data Line(Same as MOD-DEF2 in INF-8074i). LVTTTL-I/O	
5	SCL	2-Wire Serial Interface Data Line(Same as MOD-DEF2 in INF-8074i). LVTTTL-I	
6	Mod_ABS	Module Absent, Connect to VeeT or VeeR in Module.	
7	RS0	Rate Select 0, optionally controls SFP+ module receiver LVTTTL-I	
8	LOS	Loss of Signal indication. Logic 0 indicates normal operation. LVTTTL-O	
9	RS1	Rate Select 1, optionally controls SFP+ module transmitter. LVTTTL-I	
10	VeeR	Receiver Ground (Common with Transmitter Ground)	
11	VeeR	Receiver Ground (Common with Transmitter Ground)	
12	RD-	Receiver Inverted DATA out. AC Coupled. CML-O	
13	RD+	Receiver Non-inverted DATA out. AC Coupled. CML-O	
14	VeeR	Receiver Ground (Common with Transmitter Ground)	
15	VccR	Receiver Power Supply	
16	VccT	Transmitter Power Supply	

17	VeeT	Transmitter Ground (Common with Receiver Ground)	
18	TD+	Transmitter Non-Inverted DATA in. AC Coupled. CML- I	
19	TD-	Transmitter Inverted DATA in. AC Coupled. CML- I	
20	VeeT	Transmitter Ground (Common with Receiver Ground)	



**Pin-out of Connector Block on Host Board**

**Absolute Maximum Ratings**

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	%	

**Recommended Operating Conditions**

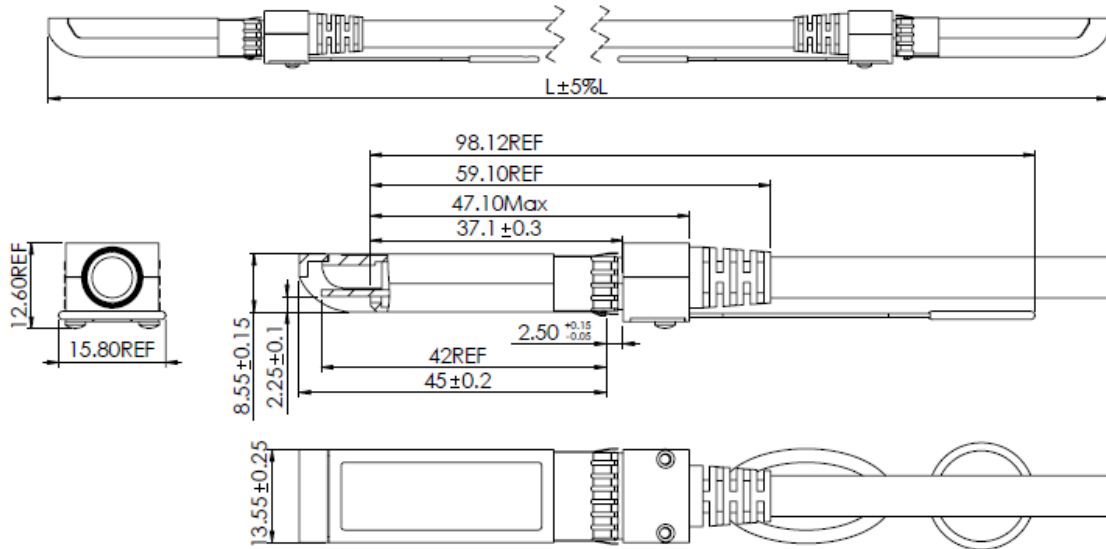
Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Power Supply Voltage	Vcc	3.13	3.30	3.47	V	
Power Supply Current	Icc			120	mA	One side
Case Operating Temperature	Tc	0		+70	°C	

**Electrical Characteristics (TOP=25°C, Vcc=3.3Volts)**

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
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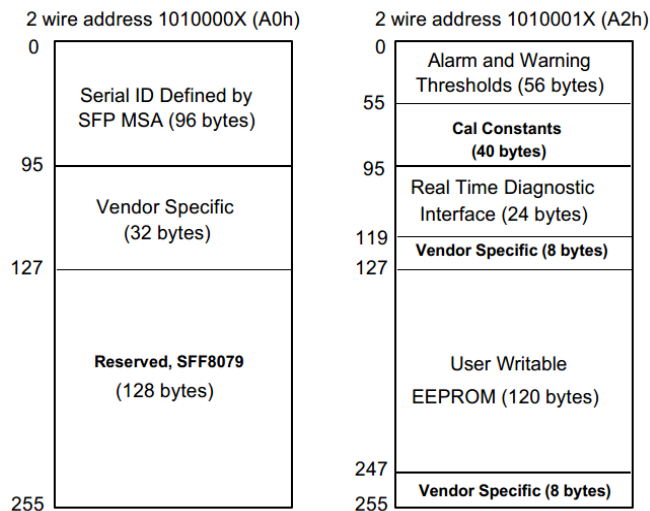
Data Rate	BR	1	10.3	10.5	Gbps	
<b>Transmitter</b>						
Input differential impedance	Rin	90	100	110	Ω	
Differential data input swing	Vin, pp	100		1000	mV	
<b>Receiver</b>						
Rx Output Diff Voltage	Vout, pp	-	600	800	mV	
Rx Output Diff Impedance	Zo	90	100	110	Ω	

■ **Mechanical Specifications**



■ **EEPROM Information**

EEPROM memory map specific data field description is as below:





■ **Regulatory Compliance**

- ESD to the Electrical PINs: compatible with MIL-STD-883E Method 3015.7
- Immunity compatible with IEC 61000-4-3
- EMI compatible with FCC Part 15 Class B EN55022 Class B
- ROHS compliant with ROHS 2 (2011/65/EU)

**Revision History**

Revision	Initiated	Reviewed	Approved	DCN	Release Date
V1.a	xiaoaiyou	wanggang		New Released.	July 28, 2016

■ **For More Information**

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