



10.3Gb/s SFP+ AOC

APCO01-SSCxxx



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

Product Features

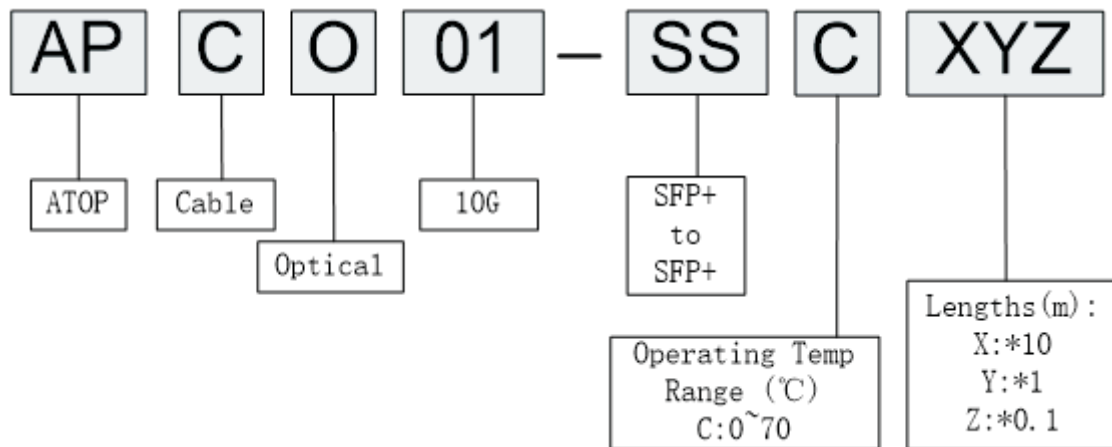
- ✓ Truly broadband operates from 1 to 10.5 Gb/s
- ✓ Support hot-pluggable
- ✓ Available in lengths from 1m to 50m
- ✓ 360 degree cable braid crimp and enhanced EMI skirt
- ✓ Excellent ESD protection
- ✓ Single 3.3V power supply
- ✓ RoHS Compliant and Lead-Free
- ✓ Compliant with SFF-8472 Rev 11.1
- ✓ Compliant with SFP+ MSA: SFF-8431 Rev4.1

Applications

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



Product Selection

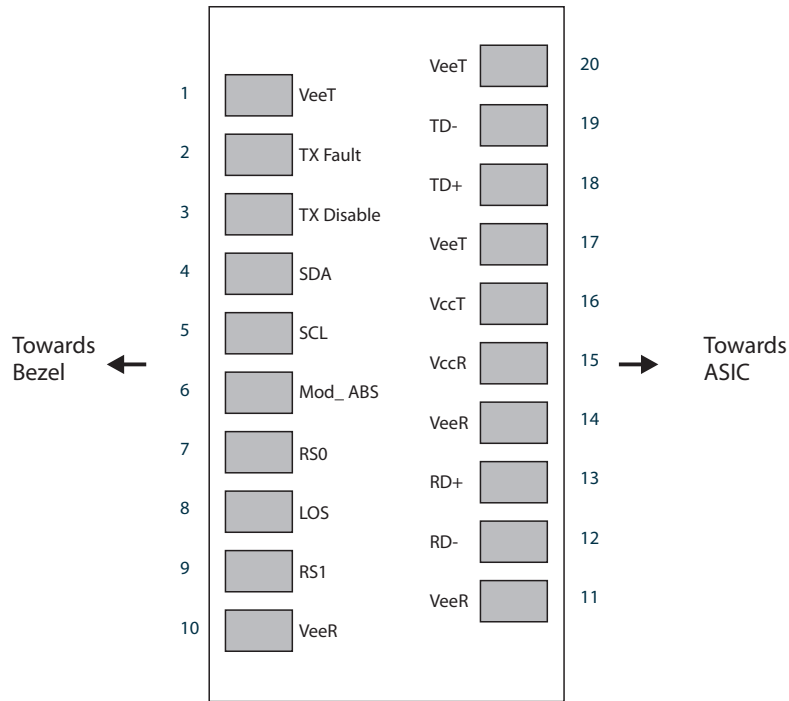


Part Number	Lengths
APCO01-SSC010	1m
APCO01-SSC020	2m
APCO01-SSC030	3m
APCO01-SSC050	5m
APCO01-SSC070	7m
APCO01-SSC100	10m
APCO01-SSC150	15m
APCO01-SSC200	20m
APCO01-SSC250	25m
APCO01-SSC300	30m
APCO01-SSC400	40m
APCO01-SSC500	50m

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

Pin Descriptions

Pin	Symbol	Name	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			140	mA	One side
Case Operating Temperature	Tc	0		+70	°C	

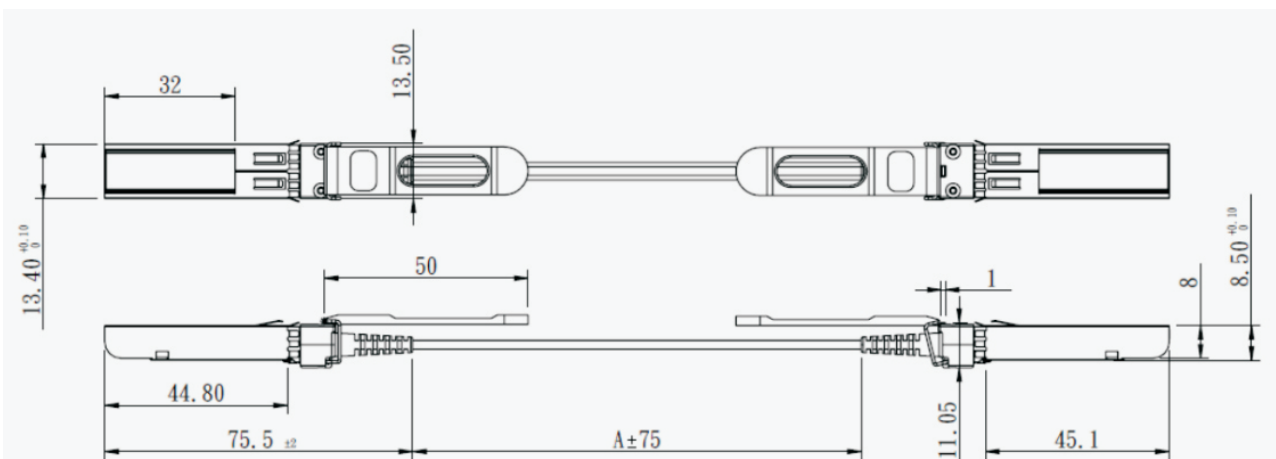
Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Transmitter						
Input differential impedance	Rin	90	100	110	Ω	
Differential data input swing	Vin, pp	100		1000	mV	
TX Disable-High		Vcc-1.3		Vcc+ 0.3	V	
TX Disable-Low		Vee		Vee+ 0.8	V	
TX Fault-High		Vcc-1.3		Vcc+ 0.3	V	
TX Fault-Low		Vee		Vee+ 0.8	V	
Receiver						
Rx Output Diff Voltage	Vout, pp	-	600	800	mV	
Rx Output Diff Impedance	Zo	90	100	110	Ω	
LOS-High		Vcc-1.3		Vcc+ 0.3	V	
LOS-Low		Vee		Vee+ 0.8	V	

Notes:

1. AC coupled.
2. Into 100 ohm differential termination.

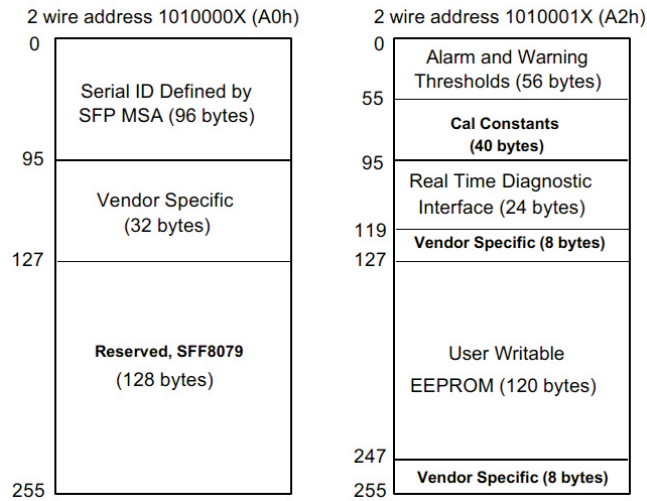
Mechanical Specifications



Cable Mechanical Specifications	Min	Typical	Max	Units
Minimum bend radius	60			mm
Minimum bend radius within 100 mm of a module end	105			mm
Diameter of cable jacket	1.8	2.0	2.2	mm

EEPROM Information

- EEPROM memory map specific data field description is as below:



Regulatory Compliance

- ESD to the Electrical PINs: compatible with MIL-STD-883 Method 3015
- Immunity compatible with EN 61000-4-3
- EMI compatible with FCC Part 15 Class B
- ROHS compliant with RoHS 2.0(2015/863/EU)-amending

Revision History

Revision	Initiated	Reviewed	Approved	DCN	Release Date
Version1.0	Xiaoaiyou	Sun bin	Ding zheng	New Released.	July 28, 2016
Version1.1	Yang Peiyun	Tang zhiqiang	Ding zheng	Update the product	March 8, 2019
Version1.2	Tang zhiqiang	Yang Peiyun	Ding zheng	Update the new template	Dec 19, 2019



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