ATGBICS® by
APPROVED TECHNOLOGY

Technical Datasheet

DAC-A-SFP-10G-1M-AT

Universally Coded MSA Compliant 10Gb/s SFP+

Direct Attach Cable Copper, Active, 1m

FEATURES

- Available lengths 1m to 15m
- Supports multi-gigabit data rates up to 10.5Gb/s
- Supports 1x, 2x, 4x and 8x Fibre Channel data rates
- Hot-pluggable SFP 20PIN footprint
- I/O Connector designed for high-speed differential signal applications
- EMI/EMC performance
- Low Power Consumption < 0.5W
- Power Supply: +3.3V
- Compliant to SFP+ MSA
- Temperature Range: 0 ~ 70 °C
- ROHS complaint

APPLICATIONS

- Storage Area Networks (SAN), Network Attached Storage and Storage Servers
- 1G/2G/4G/8G Fibre Channel
- High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers
- Switched fabric I/O such as ultra-high bandwidth switches and routers
- Data centre cabling infrastructure
- High density connections between networking equipment

DESCRIPTION

ATGBICS® Universally Coded MSA Compliant DAC-A-SFP-10G-1M-AT SFP+ Active Copper Cable is a high-performance, cost effective I/O solution for 10Gb Ethernet and 10G Fibre Channel applications. SFP+ Active copper modules allow hardware manufacturers to achieve high port density, configurability and utilization at a very low cost and to reduce power budget. The high-speed cable assemblies meet and exceed the performance and reliability requirements stipulated by Gigabit Ethernet and Fibre Channel industry standard.

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Recommended Operating Environment:

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	°C
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage	VCC	3.14	3.3	3.47	V
Power Dissipation	PD			0.5	W

Systems

Performance	Media
10.5 Gpbs line speed, full duplex Bit error rate: better than 10E-12	Hot-pluggable, industry-standard Small Form-Factor

Specifications (Tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Min	Type	Max	Units	Notes
Electrical characteristics						
Supply Current	Icc	-	-	100	mA	1
Transmitter Differential Input Voltage (PECL)	VIN	250	-	1200	mVpp	
Receiver Differential Output Voltage (PECL)	VO	185	-	1000	mVpp	
Impedance	Zcable	90	100	110	Ohms	
MOD-DEF1, 2	VIH	2.0	-	Vcc	V	

Note:

1. The supply current includes SFP Module's supply current and test board working current.

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Physical Data

Parameter	Description	30AWG	24AWG	Units
Cable Diameter	OD	4.5	6.5	mm
Bend Radius	Minimum Sustained Bend	25	35	mm

AWG Information

Reach @ 10Gb/s (m)	AWG
7	28
10	28
12	24
15	24

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Pin Descriptions

Pin	Logic	Symbol	Name/Description	Notes
1		VeeT	Transmitter Ground	
2	LV-TTL-O	TX_Fault	N/A	1
3	LV-TTL-I	TX_DIS	Transmitter Disable	2
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	
7	LV-TTL-I	RS0	N/A	1
8	LV-TTL-O	LOS	LOS of Signal	2
9	LV-TTL-I	RS1	N/A	1
10		VeeR	Receiver Ground	
11		VeeR	Receiver Ground	
12	CML-O	RD-	Receiver Data Inverted	
13	CML-O	RD+	Receiver Data Non-Inverted	
14		VeeR	Receiver Ground	
15		VccR	Receiver 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	

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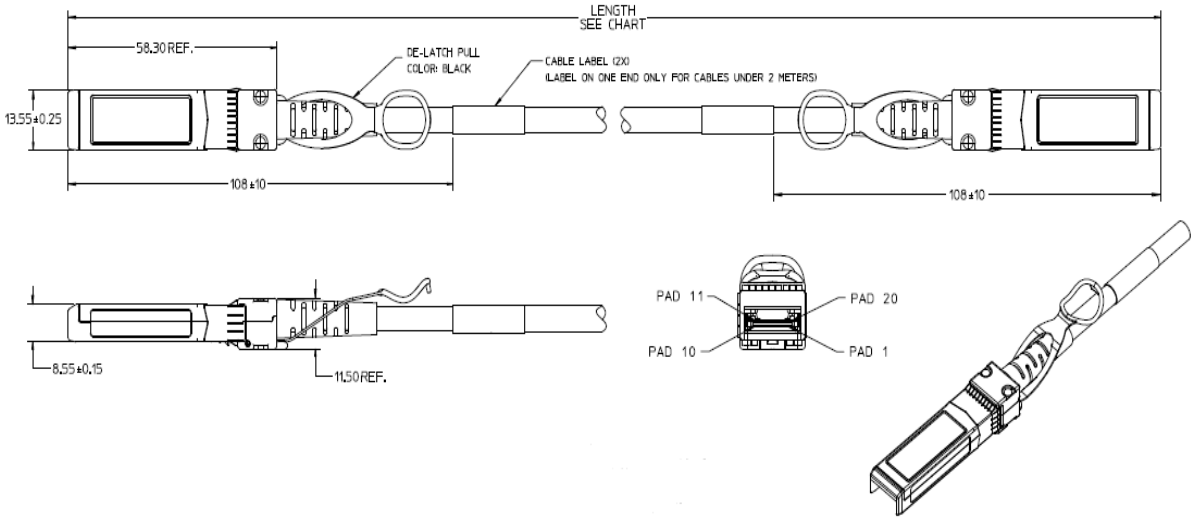
Mechanical Information



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