

DAASSxxx1000 – SFP+ Active Direct Attached Cable

Up to 10m / 10x Gigabit Ethernet

For your product safety, please read the following information carefully before any manipulation of the cable:



ESD

This cable is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 / JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.

1. Overview

DAASSxxx1000 is a high performance SFP+ active direct attached cable for full duplex 10x Gigabit Ethernet data links. The device supports communication over up to 10m copper cable.

This Active Direct Attached Cable is compliant with the Small Form-factor Pluggable (SFP) Multisource Agreement (MSA) and hot pluggable. Always contact Skylane Optics commercial agents for compatibility with different equipment platforms.

2. Features

- SFP+ Multi-Source Agreement compliant (SFF-8431 and SFF-8432)
- Serial ID functionality supported according to SFF-8472
- Lengths up to 10m
- Robust Die Cast Housing
- 30 AWG Cable ($\leq 5\text{m}$) / 28 AWG Cable ($> 5\text{m}$)
- Operating case temperature 0°C to 70°C
- Low power consumption ($< 1\text{W}$)



Figure 1. Cable
(non-binding illustration)

3. Applications

- 10x Gigabit Ethernet
- 10x Fiber Channel

4. Technical Parameters

4.1. Recommended Operating Conditions					
Parameter	Min	Typ	Max	Unit	Notes
Storage temperature	-40		85	°C	
Operating Case Temperature	0		70	°C	
Relative Humidity	8		80	%	Non-condensing
Power Supply Voltage	3.14	3.3	3.46	V	
Power Supply Current			100	mA	

4.2. General Specifications					
Parameter	Min	Typ	Max	Unit	Notes
Data Rate		10		Gbps	

4.3. High-speed Electrical Interface, Host to SFP+					
Parameter	Min	Typ	Max	Unit	Notes
TD+, TD- Differential Input Voltage Swing	250		1200	mV _{pp}	PECL
RD+, RD- Differential Output Voltage Swing	185		1000	mV _{pp}	PECL
Tx Input Impedance	90	100	110	Ω	Differential
Rx Output Impedance	90	100	100	Ω	Differential

5. Transceiver Electrical Pad Layout

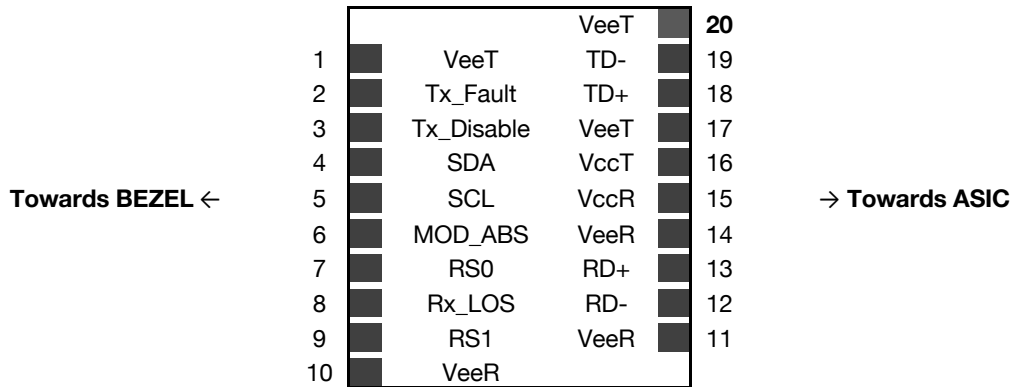


Figure 2. Transceiver Electrical Pad Layout

6. Module Electrical Pin Definition

Pin Number	Name	Function
1	VeeT	Transmitter Ground
2	TX_Fault	Transmitter Fault Indication
3	TX_Disable	Transmitter Disable
4	SDA	2-Wire Serial Interface Data (SDA)
5	SCL	2-Wire Serial Interface Clock (SCL)
6	MOD_ABS	Function Not available
7	RS0	Rate Select 0 grounded
8	Rx_LOS	Loss of signal
9	RS1	Rate select 1 grounded
10	VeeR	Receiver Ground
11	VeeR	Receiver Ground
12	RD-	Inverted received data output
13	RD+	Received data output
14	VeeR	Receiver Ground
15	VccR	Receiver Power
16	VccT	Transmitter Power
17	VeeT	Transmitter Ground
18	TD+	Transmit data input
19	TD-	Inverted transmit data input
20	VeeT	Transmitter Ground

7. EEPROM

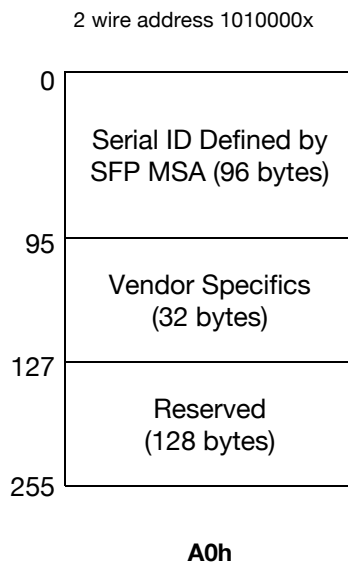


Figure 3. EEPROM of a SFP +

8. Ordering Information

Part Number	Description
DAASSC501000	SFP+ to SFP+ Active Direct Attached Cable, Length: 50cm, 0 to 70°C
DAASSC5010G0	SFP+ to SFP+ Active Direct Attached Cable, Length: 50cm, 0 to 70°C , Specific firmware
DAASSM011000	SFP+ to SFP+ Active Direct Attached Cable, Length: 1m, 0 to 70°C
DAASSM0110G0	SFP+ to SFP+ Active Direct Attached Cable, Length: 1m, 0 to 70°C , Specific firmware
DAASSM021000	SFP+ to SFP+ Active Direct Attached Cable – Length: 2m, 0 to 70°C
DAASSM0210G0	SFP+ to SFP+ Active Direct Attached Cable – Length: 2m, 0 to 70°C , Specific firmware
DAASSM031000	SFP+ to SFP+ Active Direct Attached Cable – Length: 3m, 0 to 70°C
DAASSM0310G0	SFP+ to SFP+ Active Direct Attached Cable – Length: 3m, 0 to 70°C , Specific firmware
DAASSM051000	SFP+ to SFP+ Active Direct Attached Cable – Length: 5m, 0 to 70°C
DAASSM0510G0	SFP+ to SFP+ Active Direct Attached Cable – Length: 5m, 0 to 70°C , Specific firmware
DAASSM071000	SFP+ to SFP+ Active Direct Attached Cable – Length: 7m, 0 to 70°C
DAASSM0710G0	SFP+ to SFP+ Active Direct Attached Cable – Length: 7m, 0 to 70°C , Specific firmware
DAASSM101000	SFP+ to SFP+ Active Direct Attached Cable – Length: 10m, 0 to 70°C
DAASSM1010G0	SFP+ to SFP+ Active Direct Attached Cable – Length: 10m, 0 to 70°C , Specific firmware

9. Document Revision Information

Revision	Description
A	Initial release
B	Ordering information tab updated with the 50cm version. Ordering information table updated with the “G” versions

Skylane Optics supplies a broad range of optical transceivers. Our engineers work closely with our customers to find the best solutions for every application. We are committed to provide high quality products and services to our customers.

For questions on this product please contact:
support@skylaneoptics.com

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