



X2S00000100D195

Cisco® Compatible 10GBase-Converter X2 Transceiver (X2 to SFP+ Converter, ER)

Product Description

This Cisco® X2 to SFP+ converter provides conversion from X2 to SFP+ form factors. It is guaranteed to be 100% compatible with the equivalent Cisco® converter. This easy to install, hot swappable converter has been programmed, uniquely serialized and data-traffic and application tested to ensure that it will initialize and perform identically. Digital optical monitoring (DOM) support is also present to allow access to real-time operating parameters. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

Skylane's transceivers are RoHS compliant and lead-free.

Features:

- X2 to SFP+ Converter Module
- For 10 Gigabit Ethernet SFP+ port



Applications:

- X2 to SFP+
- Access and Enterprise

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



ESD

This transceiver 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.



LASER SAFETY

This is a Class1 Laser Product according to IEC 60825-1:2007. This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated (June 24, 2007).

The optical ports of the module need to be terminated with an optical connector or with a dust plug in order to avoid contamination.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Storage Temperature	Tstg	-40		85	°C	
Operating Case Temperature	Tc	0		70	°C	
Maximum Supply Voltage	Vcc	-0.5		4.0	V	
Data Rate			10.3125		Gbps	
Relative Humidity	RH			95	%	

SFP+ transceiver Modules that can be plugged into the converter module

Product Description
850nm MM 10G SFP+
1310nm SM 10G SFP+ 10km
1550nm SM 10G SFP+ 40km
1310nm SM 10G SFP+ 70km
CWDM SFP+ 10G
DWDM SFP+ 10G

Pin Descriptions

Pin	Symbol	Name/Descriptions	Logic	Notes
1	GND	Electrical Ground.	1	1
2	GND	Electrical Ground.	3	1
3	GND	Electrical Ground.	3	1
4	5.0V	Power.	3	2
5	3.3V	Power.	3	2
6	3.3V	Power.	3	2
7	APS	Adaptive Power Supply.	3	2
8	APS	Adaptive Power Supply.	3	2
9	LASI	Link Alarm Status Interrupt, low active, Open Drain Output A pull-up resistor with 10-22K Ω to 1,2V is expected. Logic High: Normal Operation.	1.2V CMOS Open Drain	
10	Reset	Low active Reset Input 10K Ω pull-up on Transceiver Logic high = Normal Operation.	1.2V CMOS Open Drain	
11	VENDSPECIFIC	Vendor Specific Pin, Leave unconnected.		5
12	Tx ON/OFF	High active Transmitter Enable Input 10K Ω pull-up on Transceiver Logic high = Transmitter active (normal Operation)	1.2V CMOS Open Drain	
13	RESERVED	RESERVED		
14	MOD DETECT	1k Ω to Ground On Transceiver		
15	VENDSPECIFIC	Vendor Specific Pin, Leave unconnected when not in use		5
16	VENDSPECIFIC	Vendor Specific Pin, Leave unconnected when not in use		5
17	MDIO	Management Data I/O.	1.2V CMOS Open Drain	3
18	MDC	Management Clock Input	1.2V CMOS Open Drain	3
19	PRTAD4	Port Address Bit 4(LOW=0)		
20	PRTAD3	Port Address Bit 3(LOW=0)		
21	PRTAD2	Port Address Bit 2(LOW=0)		
22	PRTAD1	Port Address Bit 1(LOW=0)		
23	PRTAD0	Port Address Bit 0(LOW=0)		
24	VENDSPECIFIC	Vendor Specific Pin,, Leave unconnected when not in use		5
25	APS SET	Feedback Input for APS, Input of APS Setting Resistor		
26	RESERVED	Reserved. Avalanche Photodiode Use.		5
27	APS SENSE	APS Sense Output for APS Control Circuit.		
28	APS	Adaptive Power Supply.		2
29	APS	Adaptive Power Supply.		2
30	3.3V	Power.		2
31	3.3V	Power.		2

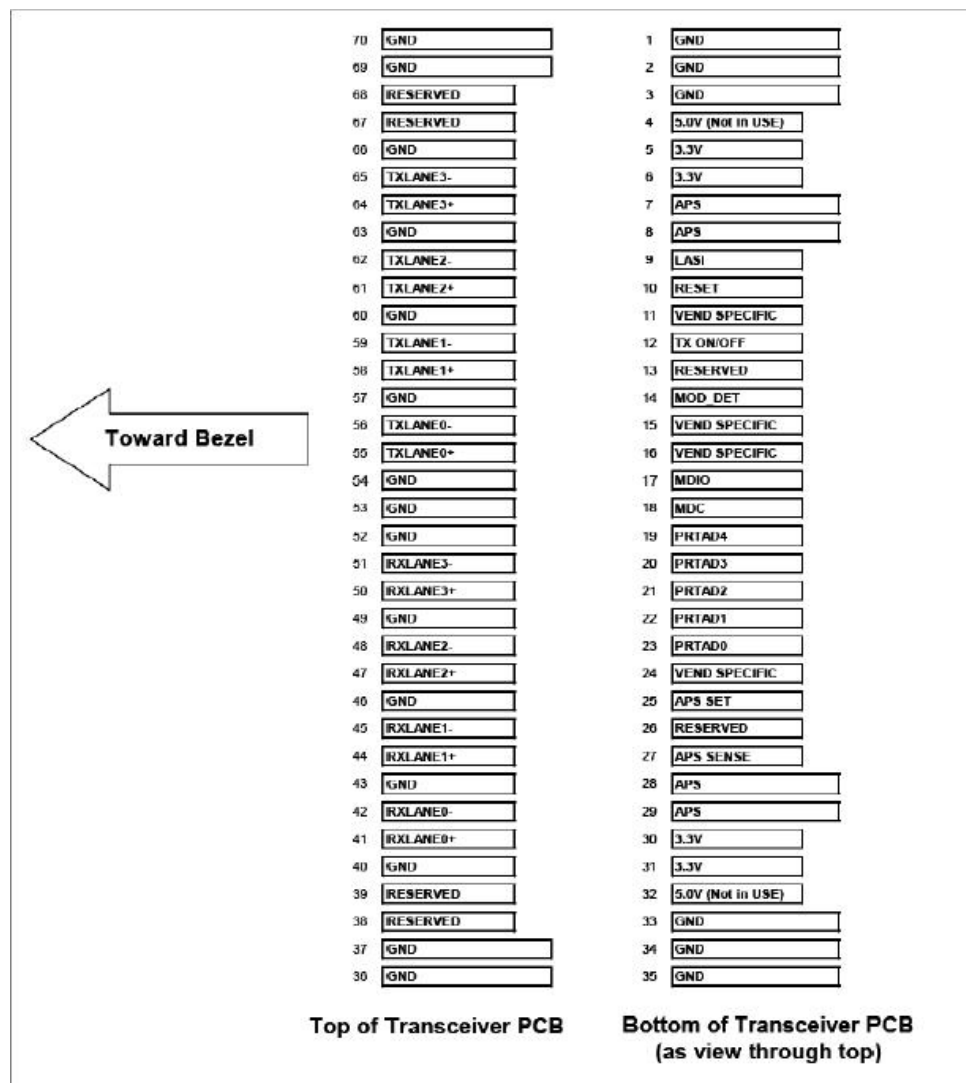
32	5.0V	Power.		2
33	GND	Electrical Ground.		1
34	GND	Electrical Ground.		1
35	GND	Electrical Ground.		1
36	GND	Electrical Ground.		1
37	GND	Electrical Ground.		1
38	RESERVED	Reserved.		
39	RESERVED	Reserved.		
40	GND	Electrical Ground.		1
41	RX LANE 0+	Module XAUI Output Lane 0+.		4
42	RX LANE 0-	Module XAUI Output Lane 0-.		4
43	GND	Electrical Ground.		1
44	RX LANE 1+	Module XAUI Output Lane 1+.		4
45	RX LANE 1-	Module XAUI Output Lane 1-.		4
46	GND	Electrical Ground.		1
47	RX LANE 2+	Module XAUI Output Lane 2+.		4
48	RX LANE 2-	Module XAUI Output Lane 2-.		4
49	GND	Electrical Ground.		1
50	RX LANE 3+	Module XAUI Output Lane 2+.		4
51	RX LANE 3-	Module XAUI Output Lane 2-.		4
52	GND	Electrical Ground.		1
53	GND	Electrical Ground.		1
54	GND	Electrical Ground.		1
55	RX LANE 0+	Module XAUI Output Lane 0+.		4
56	RX LANE 0-	Module XAUI Output Lane 0-.		4
57	GND	Electrical Ground.		1
58	TX LANE 1+	Module XAUI Output Lane 1+.		4
59	TX LANE 1-	Module XAUI Output Lane 1-.		4
60	GND	Electrical Ground.		1
61	TX LANE 2+	Module XAUI Output Lane 2+.		4
62	TX LANE 2-	Module XAUI Output Lane 2-.		4
63	GND	Electrical Ground.		1
64	TX LANE 3+	Module XAUI Output Lane 2+.		4
65	TX LANE 3-	Module XAUI Output Lane 2-.		4
66	GND	Electrical Ground		1
67	RESERVED	Reserved.		
68	RESERVED	Reserved.		

69	GND	Electrical Ground.		1
70	GND	Electrical Ground.		1

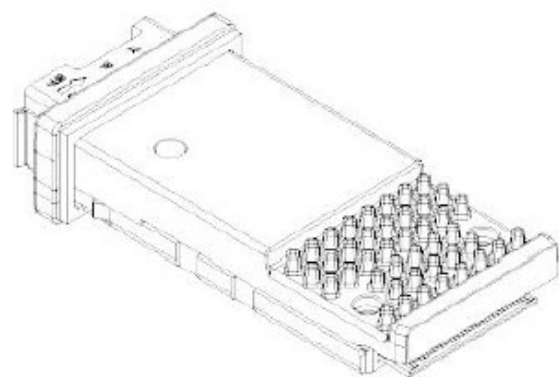
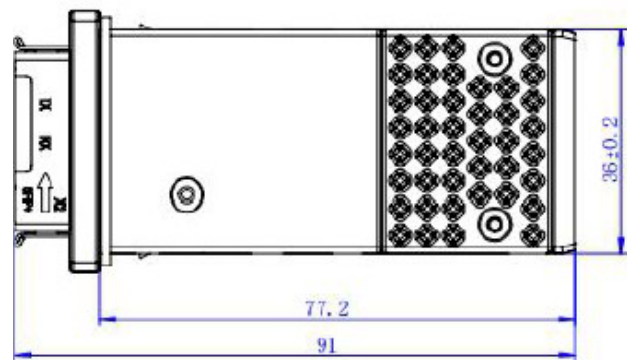
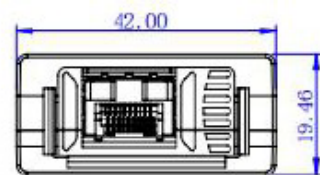
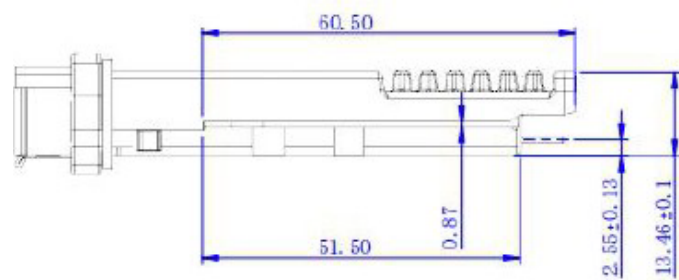
Notes:

1. Ground connections are common for Tx and Rx.
2. Each connector contact is rated at 0.5A.
3. MDIO and MDC timing must comply with IEEE 802.3ae clause 45.3.
4. XAUI output characteristics comply with IEEE 802.3ae clause 47.
5. Transceivers will be MSA compliant when no signals are present on the vendor specific pins.

Electrical Pin-Out Details



Mechanical Specifications



About Skylane Optics

Skylane is a leading provider of transceivers for optical communication.

We offer an extensive portfolio for the enterprise, access, datacenter and metropolitan fiber optical market as well as for smart home applications and home networks.

We cover the European, South American and North American market with a strong partner network and have offices in Belgium, Brazil, Sweden and USA.

Our offerings are characterized by high quality and performance. In combination with our strong technical support, we enable our customers to build cost optimized network solutions.

We offer an extensive range of high-quality products including transceivers (Optical and copper), Active Optical Cable (AOC), Direct Attach Cable (DAC), Mux/Demux, Coding Box.

