SCORPION Compatible SFPs
1G/3G/12G Electrical and Optical SFPs

The Evertz SCORPION compatible SFPs are used in the SCORPION–X18, –4 and –2 Transport platform. Depending on the model, these SFP's have electrical or optical interfaces supporting up to 12G video.
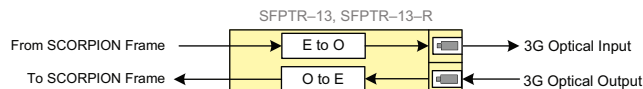
The optical SFP's provide dark fiber transport of Video (12G/4K/3G/HD/SD–SDI/DVB–ASI, HDMI), Audio (Analog Audio, AES Audio, MADI, Intercom), Ethernet (10/100/1000/10G Ethernet) and Data (USB, Serial Data RS–232/422/485). The electrical SFP's provide connections of signals to and from the SCORPION platform.
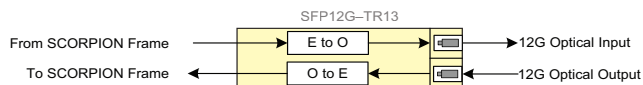
▶ Optical SFP's

SFPTR–13, SFPTR–13–R
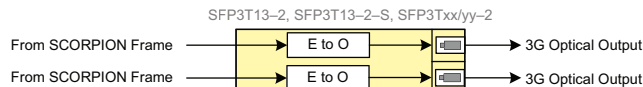3Gig Optical reclocked or non–reclocked transceiver with standard 1310nm laser.

SFP12G–TR13
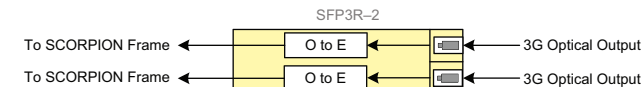12Gig Optical reclocked transceiver with standard 1310nm laser.

SFP3T13–2, SFP3T13–2–S, SFP3Txx/yy–2
Dual 3Gig Optical non–reclocked transmitter with standard 1310nm, low power 1310nm or CWDM laser.
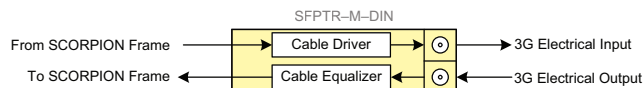

SFP3R–2
Dual 3Gig Optical non–reclocked receiver with standard sensitivity receiver.

▶ Electrical SFP's

SFPTR–M–DIN
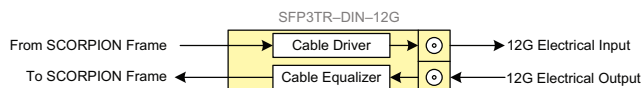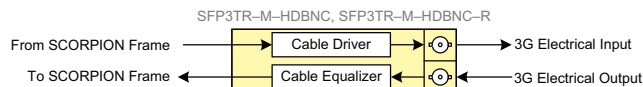3Gig Electrical non–reclocked transceiver with DIN 1.0/2.3 connectors.

SFP3TR–DIN–12G
12Gig Electrical reclocked transceiver with DIN 1.0/2.3 connectors.
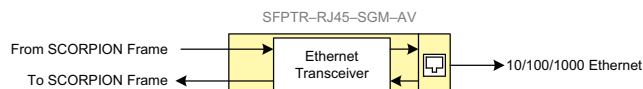

SFP3TR–M–HDBNC, SFP3TR–M–HDBNC–R
3Gig Electrical reclocked or non–reclocked transceiver with HD–BNC connectors.

▶ Ethernet SFP's

SFPTR–RJ45–SGM–AV
Single 10/100/1Gbps RJ–45 SFP Module.

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▶ Specifications

Optical Outputs:

Number of signals:	Up to 2x per SFP
Connector:	LC/UPC
Fiber:	Single mode

Optical Power:
1310nm (3G SFP):	–2dBm ±1dBm
1310nm (12G SFP):	–2dBm ±1dBm
–S (Short Haul 1310nm 3G SFP):	
	–7dBm ±1dBm
CWDM (3G SFP):	+4dBm ±1dBm

Wavelength:
Standard (3G & 12G sfp):	
	1310nm
CWDM (3G SFP):	1270–1610nm
	ITU–T G.694.2 compliant

Optical Input:

Number of signals:	Up to 2 per SFP
Connector:	LC/UPC
Fiber:	Single mode
Operating Wavelength:	1270–1610nm

Max Input Power:
Standard (3G & 12G SFP):	–1dBm

Optical Sensitivity:
Standard (3G SFP):	–21dBm at 2.97Gbps
	Pathological Level A
	–23dBm at 2.97Gbps Color Bars
Standard (12G SFP):	–16dBm at 12Gbps

Electrical Inputs:

Reclocked Standards:	SMPTE ST 2081,
	SMPTE ST 2081 (12G–SDI),
	SMPTE ST 424M (3Gb/s),
	SMPTE ST 292M (1.5Gb/s),
	SMPTE ST 259M (270Mb/s),
	DVB–ASI
Connector:	DIN 1.0/2.3
	HD–BNC
Impedance:	75Ω (nominal)
Equalization:	Automatic to 80m @3Gb/s,
	100m @1.5Gb/s, 250m @270Mb/s
	(with Belden 1694A or
	equivalent cable)
Return Loss:	> 15dB up to 1.5GHz,
	> 10dB up to 3GHz,
	> 7dB up to 6GHz,
	> 4dB up to 12GHz

Electrical Outputs:

Connector:	DIN 1.0/2.3
	HD–BNC
Impedance:	75Ω (nominal)
Signal Level:	800mV (nominal)
DC Offset:	0V ±0.5V

Rise and Fall Time (Reclocked SFPs only):
12G:	< 45ps
HD/3G:	< 135ps
SD:	< 900ps

Overshoot (Reclocked SFPs only):
	< 10% of amplitude

Alignment Jitter (Reclocked SFPs only:
	< 0.2UI to 1.485Gb/s
	< 0.3UI to 2.97Gb/s
	< 0.3UI up to 12Gb/s

Ethernet Input/Output
Standard:	IEEE 802.3 (10 BaseT),
	IEEE 802.3u (100 BaseTX),
	IEEE 802.3ab (1000BaseTX)
Number of Ports:	1
Connector:	RJ–45

Cable requirements:
10 BaseT:	UTP category 3, 4, or 5 cable
	up to 328ft/100m
100 Base Tx:	UTP category 5 cable up
	to 328ft/100m
1000Base Tx:	UTP category 5 cable up
	to 164/50m

Physical:
SFP Form–factor

▶ Ordering Information

SFPTR–13	SFP Optical Non–reclocked Transceiver, 3Gb/s, 1310nm, SMF
SFPTR–13–R	SFP Optical Reclocked Transceiver, 3Gb/s, 1310nm, SMF
SFP12G–TR13	SFP Optical Reclocked Transceiver, 12Gb/s, 1310nm, SMF
SFP3TR–M–DIN	SFP Electrical Non–reclocked Transceiver, 12Gb/s, DIN 1.0/2.3
SFP3TR–DIN–12G	SFP Electrical Transceiver, 12Gb/s, DIN 1.0/2.3
SFPTR–M–HDBNC	SFP Electrical Non–reclocked Transceiver, 12Gb/s, HD–BNC
SFPTR–M–HDBNC–R	
	SFP Electrical Reclocked Transceiver, 12Gb/s, HD–BNC
SFP3T13–2	SFP Dual Optical Non–reclocked Transmitter, 3Gb/s,1310nm, SMF
SFP3T13–2–S	SFP Dual Optical Non–reclocked Transmitter, 3Gb/s,
	short haul 1310nm, SMF
SFP3Txx/yy–2	SFP Dual Optical Non–reclocked Transmitter, 3Gb/s, CWDM, SMF
SFP3R–2	SFP Dual Optical Non–reclocked Receiver, 3Gb/s,
	standard sensitivity, SMF
SFPTR–RJ45–SGM–AV	
	Single 10/100/1Gbps RJ–45 SFP Module

Enclosures:

SCORPION–X18	Media Processing Platform Multi–Frame with onboard
	80x80 crosspoint (holds 18 modules)
SCORPION–X18–48VDC	
	Media Processing Platform Multi–Frame with onboard
	80x80 crosspoint (holds 18 modules)
SCORPION–4	Media Processing Platform — Standalone Frame (holds 4 modules)
SCORPION–2	Media Processing Platform — Miniature Frame (holds 2 modules)