# 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

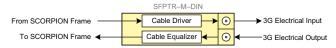
Dual 3Gig Optical non-reclocked receiver with standard sensitivity receiver.



### **▶ Electrical SFP's**

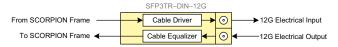
#### SFPTR-M-DIN

3Gig Electrical non-reclocked transceiver with DIN 1.0/2.3 connectors.



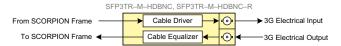
# SFP3TR-DIN-12G

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



# SFP3TR-M-HDBNC, SFP3TR-M-HDBNC-R

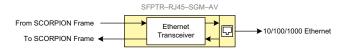
3Gig Electrical reclocked or non–reclocked transceiver with HD–BNC connectors.



# Ethernet SFP's

## SFPTR-RJ45-SGM-AV

Single 10/100/1Gbps RJ-45 SFP Module.



# **▶** Specifications

**Optical Outputs:** Number of signals: Up to 2x per SFP

LC/UPC Connector: Fiber: Single mode

Optical Power:

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

Wavelength:

Standard (3G & 12G sfp) CWDM (3G SFP): 1270-1610nm

ITU-T G.694.2 compliant

Optical Input:

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

Connector:

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

DIN 1.0/2.3 HD-BNC

Impedance:  $75\Omega$  (nominal) Automatic to 80m @3Gb/s. Equalization:

100m @1.5Gb/s, 250m @270Mb/s

(with Belden 1694A or equivalent cable)

> 4dB up to 12GHz

> 15dB up to 1.5GHz, Return Loss: > 10dB up to 3GHz, > 7dB up to 6GHz,

**Electrical Outputs:** 

DIN 1.0/2.3 HD-BNC

Impedance: 75Ω (nominal) Signal Level: 800mV (nominal) 0V ±0.5V

Rise and Fall Time (Reclocked SFPs only):

12G: < 45ps HD/3G: < 135ps < 900ps SD:

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: Connector:

Cable requirements:

UTP category 3, 4, or 5 cable up to 328ft/100m 10 BaseT:

100 Base Tx: UTP category 5 cable up

to 328ft/100m UTP category 5 cable up 1000Base Tx:

to 164/50m

Physical:

SEP Form-factor

# Ordering Information

SFPTR-13 SFP Optical Non-reclocked Transceiver, 3Gb/s, 1310nm, SMF SFPTR-13-R SFP12G-TR13 SFP Optical Reclocked Transceiver, 3Gb/s, 1310nm, SMF SFP Optical Reclocked Transceiver, 12Gb/s, 1310nm, SMF 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 SEPTR-M-HDBNC SFP Electrical Non-reclocked Transceiver, 12Gb/s, HD-BNC

SFPTR-M-HDBNC-R

SFP3T13-2

SFP3T13-2-S

SFP Electrical Reclocked Transceiver, 12Gb/s, HD-BNC SFP Dual Optical Non-reclocked Transmitter, 3Gb/s,1310nm, SMF 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

SFP Dual Optical Non-reclocked Receiver, 3Gb/s, standard sensitivity, SMF

SEPTR-R.I45-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)