Datasheet : F-12G-4SDI-CWDM-TX/RX-20km

All new Thor Fiber 12G-SDI Transmitter and Receiver sets with auto-detect SDI inputs for SD / HD /3G / 6G / 12G to easily transport up to 4 SDI sources over a single fiber. These plug and play devices can be up and running within a few minutes to assist popular applications like Live Sports, Stadiums, Live Theater, Government, Education/ University, Racing, and any other project that requires 1ms to transport Live Video with embedded audio on the SDI feed. The transmitter has a loop-out for each SDI input and the Receiver has dual output for every input. Elegant solution for transporting your SDI video via ST/PC over one single mode fiber.

The most powerful Thor Fiber SDI Transmitter provides one SDI input and one SDI loopout, and the Receiver provides two SDI outputs. Utilizing single mode fiber, this multirate Ultra High Definition Tx & Rx set has zero delay to perform under the most critical applications in real world conditions.

This unit provides transparent and lossless transmission technology, which ensures that the quality of video is up to broadcast level PRO-DVB, and also guarantees the normal transmission of embedded audio signals. It can be widely used in 4K/8K ultra high-definition TV program production, live broadcast of large-scale concert or Sports, Racing, or Theatre events.

12G-SDI solutions can simplify production and post workflows, providing bandwidth to handle high resolution, high frame rate and deep color content over a single cable, by directly connect camera to fiber.

12G SDI EFP fiber transmission system is plug-and-play and has an ST/PC optical connector which requires 1 Single Mode Fiber for 20km (default) distance; can be upgraded to long haul.

Features :

- Supports SDI (12G), (6G), (3G), (HD), (SD); and compatible with DVB-ASI and AES10 (MADI);
- Both transmitter and receiver have clock recovery function; (clock restorer can reduce high frequency jitter and completely regenerate data with pure low jitter clock)
- The clock restorer is locked to 11.88Gbps, 5.94Gbps, 2.97Gbps, 1.485Gbps or 1.001 frequency division sub rate and SMPTE rate of 270Mbps;
- Signal input has automatic cable equalization (EQ) functionality
  1/4 hot shoe screw
- Plug and play SFP optical module, which can replace optical module corresponding to different distances or interfaces according to the application
- Single-mode single-fiber transmission distance 20km (default)
- Status light display;
- Plug and play, auto-detect SDI interfaces & resolutions

Model Selection :

F-12G-2SDI-CWDM-TX/RX -12G with 2SDI inputs fiber optic transmitter & receiver kit
F-12G-4SDI-CWDM-TX/RX -12G with 4SDI inputs fiber optic transmitter & receiver kit
F-12G-8SDI-CWDM-TX/RX -12G with 8SDI inputs fiber optic transmitter & receiver kit

Specifications:

Wavelength	1310nm / CWDM
Rate	12Gbps
Transmitter power	0~ -3dB
Receiver sensitivity	-12dB
Fiber connector	ST/PC
Standard Optical Distance	~20km
Number of input	4 SDI inputs (model dependent)
Local loop out	1 Channel SDI per input source
Protocol standard	SMPTE ST-2082
SMPTE rate	270Mbps / 1.48Gbps / 2.97GBps / 5.54Gbps / 11.88Gbps
Video Input options	SD-SDI 480i, 576i ED-SDI 480p, 576p HD-SDI 720p, 1080i 3G-SDI 1080P 60Hz 6G-SDI 2160p 30Hz 12G-SDI 2160p 60Hz
EQ Mode Cable Transmission Distance	75m at 11.88Gbps 120m at 5.94Gbps 200m at 2.97Gbps 300m at 1.485Mbps 600m at 270Mbps
Signal Amplitude	800mV +-10%
Impedance	75ohm
Connector	BNC
Input Power	AC 90~240V
Net Weight	3kg
Size	1RU 440 x 230 x 44.5mm
Working Temp	-20C to +75C
Storage Temp	-40C to +85C
Relative Humidity	5 to 95% non-condensing
MTBF	>10,000 hours