



4 x 4K/UHD @30 fps or 2 x 4K/UHD @60 fps over One Fiber

TECHNICAL DATASHEET



8-channel 3G/HD/SD-SDI fiber transport system with 4K/UHD 30/60 fps support and QR link to the product page.



Original uploaded product image

Model Number

F-8SDI-3G-CWDM-TX/RX

Manufacturer: Thor Fiber

Primary Purpose: The Thor Fiber F-8SDI-3G-CWDM-TX/RX transports eight 3G/HD/SD-SDI channels over one fiber and also supports high-bandwidth 4K/UHD workflows. The platform can carry 2 channels of 4K/UHD at 60 fps, 4 channels of 4K/UHD at 30 fps, or 8 channels of HD/SD 3G-SDI with or without embedded audio and data.

Key Specifications

Spec Category	Extracted Value
Model Number	F-8SDI-3G-CWDM-TX/RX
Primary Signal Support	8 channels of 3G/HD/SD-SDI over one fiber; also supports DVB-ASI transport
4K / UHD Support	2 channels of 4K/UHD at 60 fps or 4 channels of 4K/UHD at 30 fps
Transport Modes	2 x 4K/UHD at 60 fps, 4 x 4K/UHD at 30 fps, or 8 x HD/SD/3G-SDI channels
Supported Standards	SMPTE ST 425-3, ST 425-5, 259M, 292, 297, 424M, 305M, 310M, 344M, DVB-ASI
Optical Platform	CWDM optical multiplexing; each SDI signal uses a dedicated laser / wavelength
Fiber Type	Single-mode fiber standard; multimode support shown for short links in supplied application drawings
Optical Data Rate	Up to 4.25 Gbps, model specific
Optical Budget	25 dB standard; 35 dB long range; high-power versions available
Fiber Connector	SC/APC standard; ST or ST/APC by request
Electrical I/O	BNC, 75 ohm; 1.00 V peak-to-peak input level
Mechanical	1RU 19 in. rackmount; 480 x 225 x 88 mm; 8-15 lb depending on configuration
Power / Environment	100-240 VAC auto-switching PSU; operating -10C to +55C; storage -30C to +70C; 0-95% non-condensing humidity

Core Features

- High Density 4K / UHD Transport: Supports 2 x 4K/UHD at 60 fps or 4 x 4K/UHD at 30 fps over one fiber.
- Eight SDI Channels: Carries up to 8 independent 3G/HD/SD-SDI channels over a single optical path.
- CWDM Multiplexing: Each SDI channel is converted to its own optical wavelength and multiplexed onto one fiber.
- Signal Integrity: Equalized and re-clocked before transmission for robust long-distance transport.
- Embedded Audio / Data: Supports SDI signals with or without embedded audio and data.
- Pathological Pattern Support: Designed to support pathological patterns across the link budget and operating range.
- Distance Flexibility: Standard and long-range / high-power optical versions are available.
- Rackmount Integration: 1RU rackmount format is ideal for broadcast racks, OB vans, and production systems.

Target Applications

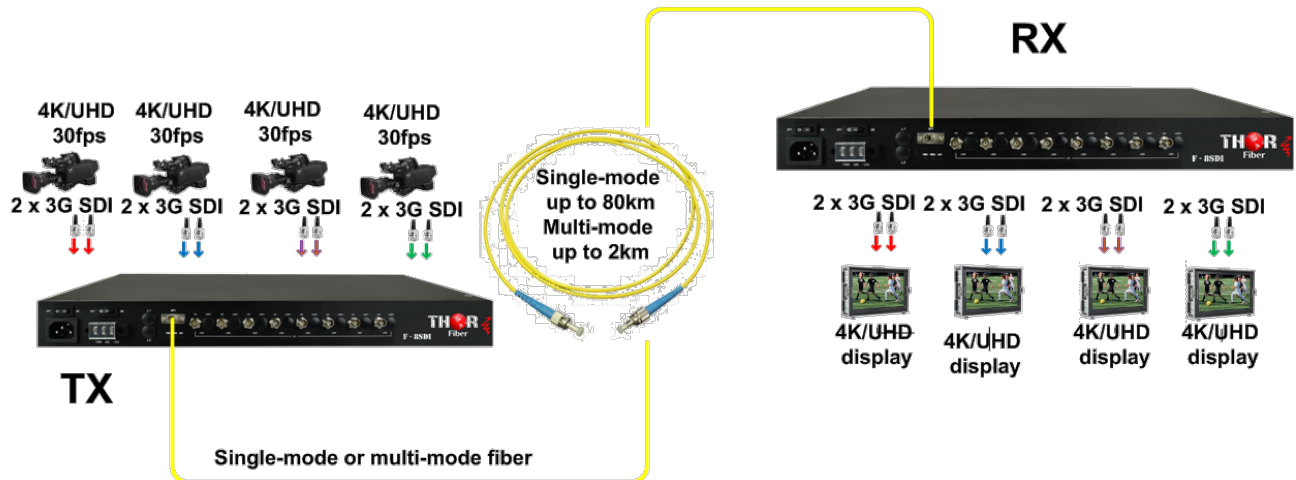
- 4K/UHD production links
- Production truck to venue links
- Remote camera transport
- Control room to remote rack extension
- Broadcast studio fiber transport
- Campus and facility video distribution
- Live event and sports production
- Long-distance SDI transport where coax is limited

Additional Product Information

Item	Extracted Value
Warranty	2 year warranty
Working Temperature	-10C to +55C
Storage Temperature	-30C to +70C
Relative Humidity	0 to 95%, non-condensing
Power	100-240 VAC auto-switching PSU; 10-30 W depending on configuration

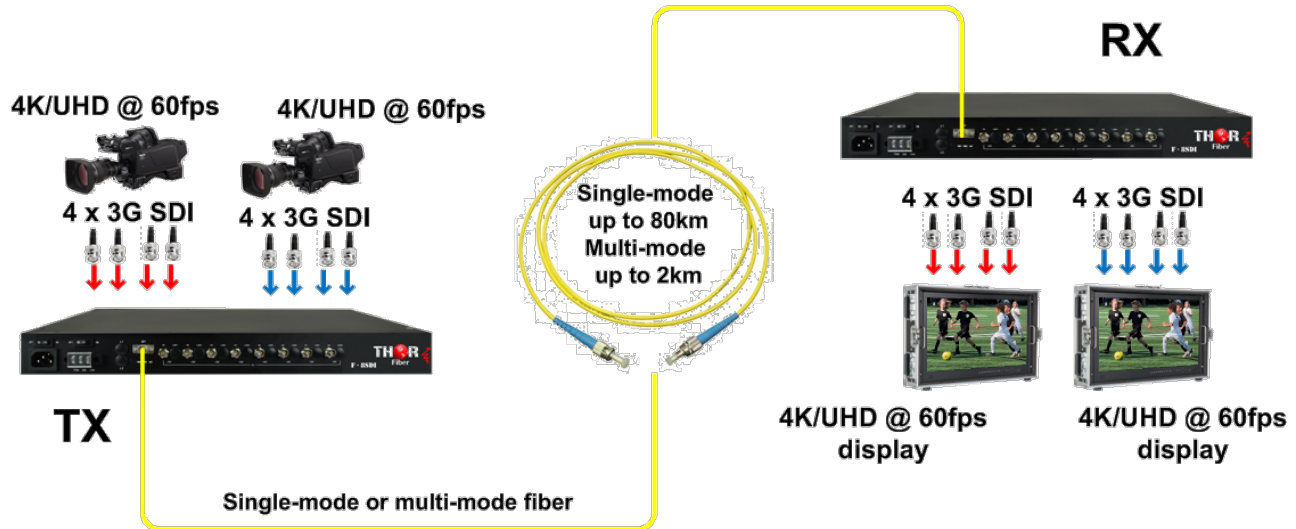
Application Drawing - 4 x 4K/UHD @30 fps over one single-mode or multimode fiber

4 x 4K/UHD @ 30fps over one single mode or multimode fiber



Application Drawing - 2 x 4K/UHD @ 60 fps over one fiber

2 x 4K/UHD @ 60fps over one fiber



Model / Configuration Summary

Model	Description	Notes
F-8SDI-3G-CWDM-TX/RX	8-channel 3G/HD/SD-SDI over one fiber with 4K/UHD workflow support	Supports 2 x 4K/UHD at 60 fps or 4 x 4K/UHD at 30 fps
Standard Distance Version	Standard optical budget configuration	25 dB optical budget
High Power / Long Distance Version	Higher optical budget option for longer-distance applications	35 dB optical budget

Technical Notes

- All specifications are subject to change without notice.
- Transmission distance depends on optical budget, fiber type, fiber condition, and selected optics.
- Other connectors, wavelengths, CWDM, DWDM, compact chassis, and 19-inch rackmount configurations are available by request.
- The included QR code links directly to the product page for the latest product information.