



# 8 Ch SD/HD 3G-SDI Over Single Fiber CWDM Uncompressed Rack-Mountable

TECHNICAL DATASHEET

8-channel SD/HD/3G-SDI CWDM transmitter / receiver kit in a 1RU 19 in. rackmount chassis.



Product image - original uploaded front panel image

## Model Number

F-8SDI-3G-TxRx-RM

Manufacturer: Thor Fiber

**Primary Purpose:** The Thor Fiber F-8SDI-3G-TxRx-RM transports eight uncompressed serial digital video signals up to 3G-SDI over one single-mode fiber. This transmitter and receiver kit is built for professional broadcast, production, campus, government, and long-distance SDI transport applications where multiple coax runs are impractical.

## Key Specifications

Spec Category	Extracted Value
Model Number	F-8SDI-3G-TxRx-RM
Signal Support	Any serial digital signal up to 3.0 Gbps including SD-SDI, HD-SDI, 3G-SDI, DVB-ASI, and other multi-rate digital signals
Channels	8 SDI channels over one single-mode fiber
Optical Platform	CWDM optical transmission with DFB laser modules
CWDM Wavelengths	1310 nm CWDM band or 1550 nm CWDM band; other wavelengths available by request
Fiber Connector	ST/PC standard
Fiber Cable	Single-mode fiber
Optical Data Rate	Up to 4.25 Gbps, model specific
Optical Budget	25 dB standard; 35 dB long range
Electrical I/O	BNC, 75 ohm; 1.00 V peak-to-peak input level
Mechanical	1RU 19 in. rackmount chassis; 19 x 10.75 x 2 in
Power / Environment	100-240 VAC auto-switching PSU; operating -10C to +55C; storage -30C to +70C; 0-95% non-condensing humidity

## Core Features

- Uncompressed Transport: Carries eight SD/HD/3G-SDI signals over fiber with no compression or scaling.
- Protocol Independent: Automatically adjusts to input signal type regardless of bit rate or protocol up to 3.0 Gbps.
- Signal Integrity: Buffered outputs with reclocking help maintain stable SDI performance and reduce jitter issues.
- Single-Fiber Operation: Available with internal optics for transmission over one optical fiber.
- Embedded Audio Support: Passes SDI embedded audio and ancillary data transparently.
- LED Monitoring: Easy-to-read indicators for input signal detect and optical link status.
- CWDM Compatibility: Uses standardized CWDM channels compatible with Python-style CWDM systems.
- Flexible Platform: Custom directional splits, higher density DWDM systems, and alternate optics available by request.

## Product Images



Chassis / connection image - original uploaded product image

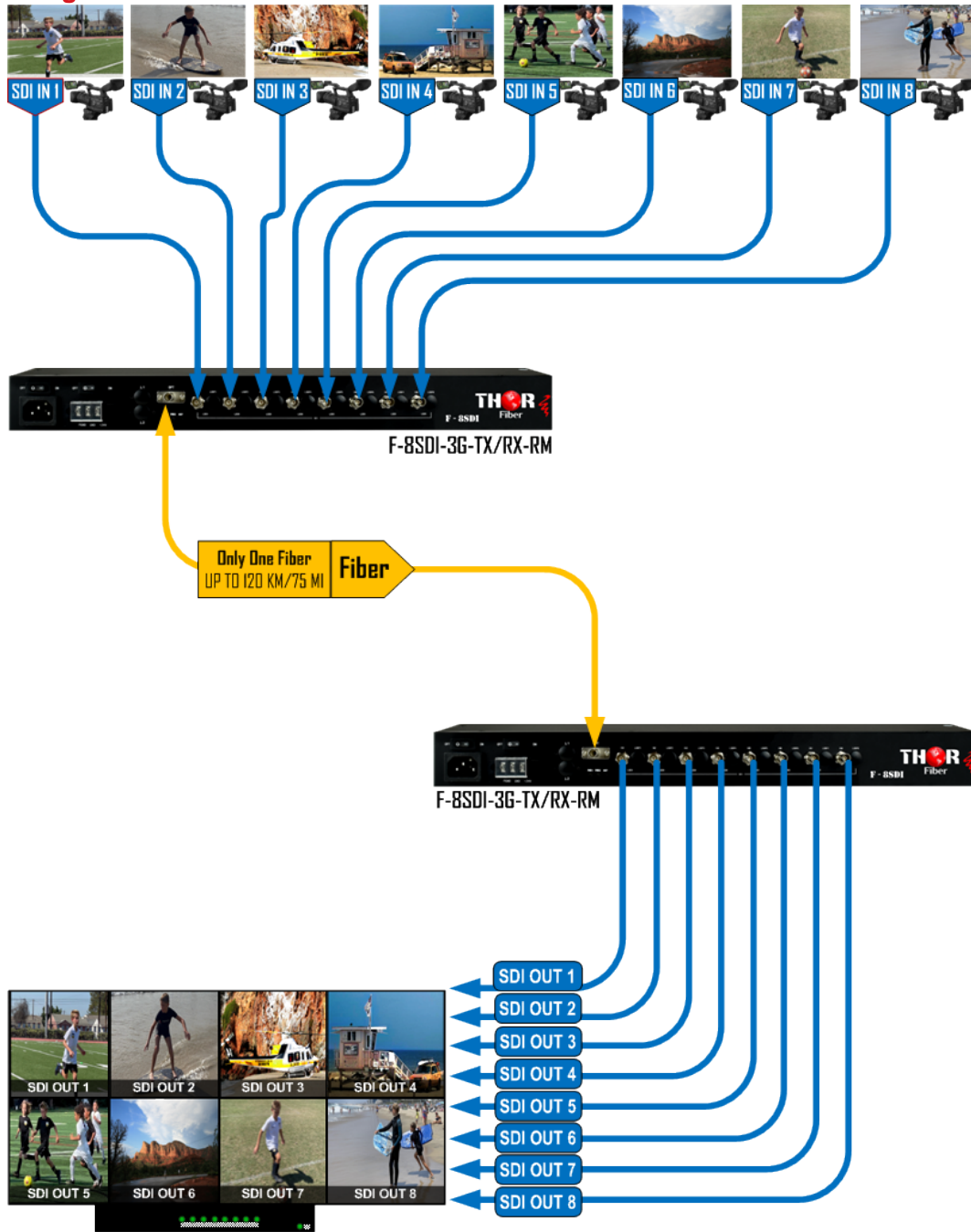
## Target Applications

- Live broadcast production
- Electronic news gathering
- Stadium and arena video transport
- Campus and government video links
- Scientific and research video systems
- Production monitoring and SDI distribution
- OB truck and control room interconnects
- Long-distance SDI transport over fiber

## Additional Product Information

Item	Extracted Value
Warranty	2 year warranty
Shipping Weight	16.7 lb
Unit Size	19 x 10.75 x 2 in (483 x 274 x 51 mm)
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



## Model Selection

Model	Description	Distance / Connector
F-8SDI-3G-TxRx-RM	8 x SD/HD/3G-SDI over single fiber transmitter and receiver kit	20 km, ST/PC standard
F-8SDI-3G-TxRx-RM-40	8 x SD/HD/3G-SDI over single fiber transmitter and receiver kit	40 km, ST/PC standard
F-8SDI-3G-TxRx-RM-80	8 x SD/HD/3G-SDI over single fiber transmitter and receiver kit	80 km, ST/PC standard
F-8SDI-3G-TxRx-RM-120	8 x SD/HD/3G-SDI over single fiber transmitter and receiver kit	120 km, ST/PC standard

## Technical Notes

- All specifications are subject to change without notice.
- Transmission distance depends on optical budget, fiber condition, and selected optics.
- Other connectors, wavelengths, CWDM, DWDM, and custom directional configurations are available by request.