



Broadcast Camera EFP Fiber Transmission System: 12G-SDI, XLR Audio, TALLY, Intercom, Gigabit Ethernet

TECHNICAL DATASHEET



Field camera fiber transport system with 12G-SDI, XLR audio, tally, intercom, remote control, and Gigabit Ethernet. QR code links to the live product page.



Front view of the 1RU rackmount receiver / base station.



Rear-panel interface view showing fiber, SDI, XLR audio, microphone, REMOTE, tally, Gigabit Ethernet, and AC power connections.

Model Number

SpiderSDI Pro

Manufacturer: Thor Fiber

Primary Purpose: SpiderSDI Pro is a professional electronic field production (EFP) fiber transmission system for live broadcasting, stadiums, racetracks, concerts, houses of worship, and remote production. It transports 12G-SDI video together with bidirectional audio, tally, intercom, remote control, and Gigabit Ethernet over a single optical fiber using CWDM technology.

Key Specifications

Specification Category	Extracted Value
Model Number	SpiderSDI Pro
System Type	Transmission kit including camera-mount optical transceiver and 19-inch rack-mount audio transceiver
Primary Video Transport	12G-SDI / 6G-SDI / 3G-SDI / HD-SDI / SD-SDI; also compatible with DVB-ASI and AES10 (MADI)
Optical Technology	CWDM over a single fiber
Fiber Type	9/125 um single-mode fiber
Transmission Distance	Up to 10 km over single-mode fiber, relay-free
Optical Wavelengths	1270 / 1330 / 1310 / 1550 nm
Fiber Connector	LC
SDI Standards	SMPTE 259M, 292M, 424M, ST-2081, ST-2082; protocol standard SMPTE ST-2082
Video Data Rate	11.88 Gbit/s SMPTE rate; optical data rates 12 Gbps (1270/1330 nm) and 1.25 Gbps (1310/1550 nm)
Audio Interfaces	Balanced XLR audio plus 3.5 mm intercom audio
Tally / Control	2-channel tally reverse control, REMOTE 2.5 mm control, intercom support
Gigabit Ethernet	10/100/1000M RJ45, IEEE802.3 / 802.3u / 802.3z, jumbo frames up to 9216 bytes
Warranty	2 years

Core Features

- **Single-Fiber EFP Solution:** Combines 12G-SDI, tally, intercom, XLR audio, remote control, and Gigabit Ethernet on one optical link.
- **Automatic SDI Detection:** Supports auto-detection of 12G, 6G, 3G, HD, and SD-SDI signals.
- **Clock Recovery and Equalization:** Both transmitter and receiver include clock recovery, cable EQ on input, and driver / DA functionality on output.
- **Broadcast Audio Support:** Balanced audio uses digital encoding/decoding and clock recovery with high dynamic range and low distortion.
- **Intercom and Camera Control:** Includes 3.5 mm intercom audio and 2.5 mm REMOTE control for field camera operations.
- **Integrated Tally:** Remote reverse control of 2-channel tally signals for live production workflows.
- **Gigabit Ethernet Extension:** Supports VLAN and jumbo frames up to 9216 bytes for data networking over the same link.
- **Field-Ready Design:** Compact camera-side unit with V-mount support and a 1RU rack receiver for control room or truck installation.

Portable Camera-Side Unit Images



Camera-mount transceiver shown with V-mount battery interface and integrated production interfaces.



Alternate view highlighting the V-mount battery plate and compact field form factor.

Target Applications

- Sports stadium camera links
- Broadcast trucks and OB vans
- Racetrack camera transmission
- Remote production flypacks
- Concert and live event production
- Field camera to control-room extension
- House of worship production
- High-quality long-distance camera control links

Additional Product Information

Item	Extracted Value
Video Connector	BNC, 75 Ohm, IEC169-8 standard
XLR Audio Performance	101 dB dynamic bandwidth, -90 dB THD, 192 kHz sampling, 24-bit A/D, 100 dB SNR
3.5 mm Audio Performance	96 dB dynamic bandwidth, -68 dB THD, 48 kHz sampling, 24-bit A/D, 10-20 kHz response
Tally Levels	TTL (5V) / LVTTTL (3.3V); input level 3.3V to 12V; output 0V or 3.3V
Transmitter Power	DC 9-24V via LEMO 6-pin; V-port mobile power supply supported; power consumption <5W
Receiver Power	AC 100-240V; power consumption <5W
Mechanical	Transmitter 112 x 159 x 70 mm, 0.95 kg; Receiver 440 x 195 x 44 mm, 2.45 kg
Environment	Operating -20C to +70C; Storage -40C to +85C; 5-95% non-condensing humidity; MTBF >100000 hours

Model / Configuration Summary

Model	Description	Notes
SpiderSDI Pro	Transmission kit with camera-mount optical transceiver and 19-inch rack-mountable audio transceiver	Single-fiber 12G-SDI EFP platform with audio, tally, intercom, REMOTE, and Gigabit Ethernet

Technical Notes

- The included QR code links directly to the online product page for current details and availability.
- Specifications are summarized from the manufacturer product page and are subject to change without notice.
- The system is intended for field-to-truck, stadium, racetrack, venue, and other professional broadcast camera workflows.
- Plug-and-play installation is supported; no on-site debugging is normally required.