

12G-SDI Fiber Optic Extender, 1x ST



High Performance — The DVI-7346 is an ultra-compact, high performance fiber optic extender that supports SDI, HD-SDI, 3G-SDI and 12G-SDI signal extension over a single strand of Single-Mode optical fiber at distances up to 6.2 miles (~10 km). The extender set consists of an optical transmitter module that converts the SDI signals into light pulses for transmission over an optical fiber cable. An optical receiver module converts the light pulses back to an SDI signal for downstream processing or display on a monitor.

Superior Design — The transmitter includes an SDI signal EQ, a Laser driver and a laser diode module that uses a single optical wavelength of 1310nm. The receiver includes an SDI copper cable driver, a photo diode, a transimpedance amplifier (TIA), as well as a limiting amplifier. Both Tx and Rx use low-profile, metal cases equipped with rugged locking 75-ohm BNC SDI connectors. The locking ST fiber connectors are supplied with twist-locking metal covers to prevent dust buildup inside the fiber optic connectors. These features make the DVI-7346 the perfect solution for extension of SDI, HD-SDI, 3G-SDI, and 12G-SDI signals over extreme distances in even the most demanding broadcast, studio, and live environments.

FEATURES

- Supports:
 - SMPTE 259M (SD-SDI)
 - SMPTE 344M (ED-SDI)
 - SMPTE 292M (HD-SDI)
 - SMPTE 424M (3G-SDI)
 - SMPTE ST 2081 (6G-SDI)
 - SMPTE ST 2082 (12G-SDI)
- Supports data rates up to 11.88 Gbps
- Supports Single-Mode optical fiber distances up to 6.2 miles (~ 10 km)
- Extended length 25 miles (~ 40 km) option available
- Utilizes a single optical cable and a single optical wavelength
- Ultra-compact, rugged metal enclosure
- Locking BNC SDI connectors and locking ST optical connectors with metal dust covers
- Wide operational temperature range:
 -40° to +185°F (-40° to +85°C)
- Low RFI / EMI profile for sensitive applications
- Optical fiber transmission is immune to environmental signal noise

DVI-7346-TX / RX







Rear View

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12G-SDI Fiber Optic Extender, 1x ST

SPECIFICATIONS

| Performance | |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compliance | SMPTE 259M (SD-SDI); SMPTE 344M (ED-SDI); SMPTE 292M (HD-SDI); SMPTE 424M (3G-SDI); SMPTE ST 2081 (6G-SDI); SMPTE ST 2082 (12G-SDI) |
| Maximum Video Bit Rate | 11.88 Gbps (12G-SDI) |
| Supported Color Depth | 12-bit |
| Input Impedance | 75 ohms |
| Signal Level | 800mVpp +/- 50mV |
| Supported Video Formats | 480i, 480p, 576i, 576p, 720/30p, 720/60p, 1080i, 1080/30p, 1080/60p, 1080/120p, 2160/30p, 2160/60p |
| Digital Audio Support | HD-SDI = 16 Channels of embedded 48 kHz, 24-bit audio channels 3G-SDI = 32 Channels of embedded 48 kHz, 24-bit audio channels 12G-SDI = 64 Channels of embedded 48 kHz, 24-bit audio channels |
| Connections / Indicators | |
| SDI Input / SDI Output | 1x BNC Coaxial Male Connector |
| Optical Input / SDI Output | 1x ST optical connector with detachable dust cover |
| Power Inputs | 1x 6-inch pigtail with Female USB Micro-B connector |
| Optical | |
| Optical Technology | 1x Discrete Optical Channel |
| Optical Data Rates | up to 11.88 Gbps |
| Optical Transmitter | Tx Module: 1310nm DFB Laser, Class 1 Laser Product |
| Optical Receiver | Rx Module: 1x GaAs PIN Photo Diode |
| Optical Transmitter Output Power | -4 dBm (minimum) / 0 dBm (maximum) |
| Optical Transmitter Extinction Ratio | >5.0 dB |
| Optical Receiver Input Sensitivity | -14.5 dBm (minimum) / 0 dBm (maximum) |
| Optical Link Power Budget | 10 dB (minimum) |
| Cable | To do (minimum) |
| Fiber Cable Type / Max. Length | 9/125μ Single-Mode Fiber with 1x ST connector / 6.2 miles (10 km) (1) |
| DVIGear Fiber Cable | OFNP, Plenum-rated, Indoor/Outdoor-rated, Black PVC Jacket |
| Cable Outside Diameter | 0.12" – .2" (3.0 – 5.0 mm) |
| Mechanical | 0.12 .2 (0.0 0.0 mm) |
| Construction | High-impact metal enclosure with black finish |
| Case Dimensions (L x W x H) | 3.2" x 0.7" x 0.8" (82.1 mm x 16.9 mm x 19.1 mm) |
| Net Weight | DVI-7346-TX: 1.5 oz. (42 g) / DVI-7346-RX: 1.5 oz. (42 g) |
| Environmental | Diff to to the the delivery of Diff to the the delivery |
| Operating / Storage Temperature | -40° to +185°F (-40° to +85°C) |
| Operating / Storage Humidity | Operating: 5% to 80% (non-condensing); Storage: 5% to 95% (non-condensing) |
| Power Requirements | operating. 576 to 6676 (non-condensing), otorage. 576 to 5576 (non-condensing) |
| Optical Transmitter / Receiver | The Tx and Rx units can be powered from a functioning USB port using a USB adapter cable, or by the supplied external power adapters |
| External AC Power Adapter | Input: 100-240VAC / 50-60Hz 0.2A Output: 5VDC, 2.0A |
| Maximum Power Consumption | DVI-7346-TX: 200mA (1.0 watt) DVI-7346-RX: 200mA (1.0 watt) |
| Regulatory Approvals | |
| Fiber Optic Extender Unit | FCC, CE, RoHS |
| AC Power Adapter | FCC, CE, UL, C-UL, CEC, GS, PSE, RoHS |
| Warranty | |
| Limited Warranty | 3 Years Parts and Labor |
| Model Numbers | |
| DVI-7346 | 12G-SDI Fiber Optic Extender, 1x ST |
| DVI-7346-TX | 12G-SDI Fiber Optic Transmitter, 1x ST |
| DVI-7346-RX | 12G-SDI Fiber Optic Receiver, 1x ST |
| DVI-CUST-OPT | 9/125µ Single-Mode Optical Fiber Cable, Plenum-rated, 1x ST (specify length) |
| Accessories | |
| Included: 2x External AC Power Adapters | (p.n. DVI-7331-PS) with USA plug; 1x Quick Start Guide n. DVI-7331-PS) with Euro, UK, or Australia plugs; USB Type A Male to USB Micro-B Male Adapter Cable (p.n. DVI-7332-PSX); t (p.n. DVI-7525-PDU); Custom Optical Cables (contact DVIGear for details) |

Note 1: Extended range (40 km) version available on request. All specifications are subject to change without notice.