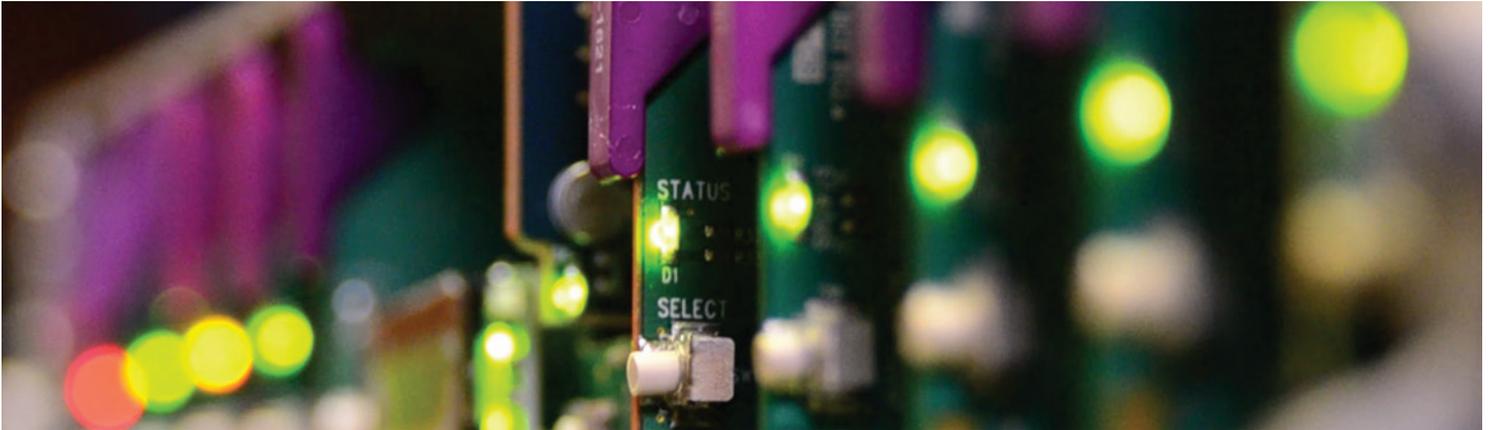


FIO-1901 Series

3G/HD/SD SDI Optical to Electrical / Electrical to Optical Converters



Space-saving, modular platform for advanced signal processing.

The FIO-1901 Series from Grass Valley, a Belden Brand, are flexible serial digital video to/from fiber optic converters for the Densité frames. The FIO-1901 converters are designed for 3 G, HD and SD serial video but also support DVB-ASI. The converters support any data rate within the range of 19.4 Mb/s to 3 Gb/s and provide a reclocked serial digital video from 270 Mb/s to 3 Gb/s.

In the single wavelength series, a single wavelength (1310 nm) is used to carry one 3G/HD/SDI signal per fiber link. Ideal for long-distances/point-to-point signal deliveries of a single channel. The series offers five different configurations: single or dual Tx, single or dual Rx and a bidirectional Rx/Tx.

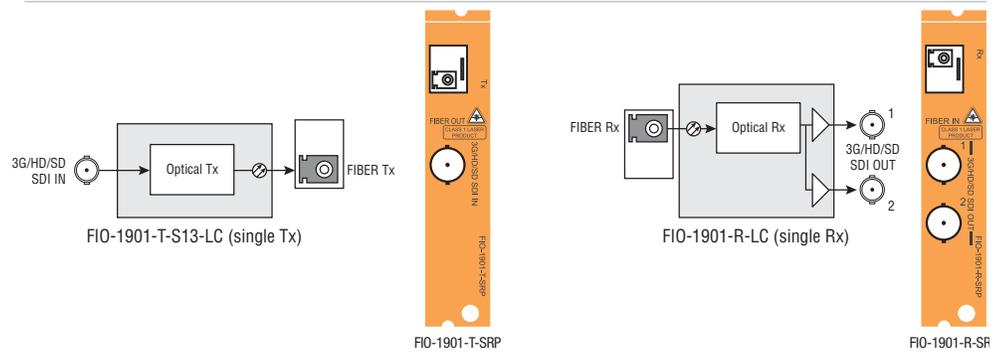
The FIO-1901 Series uses hot-swappable SFP Optical Plug-in Cartridges which offer easy product maintenance and configuration flexibility. The FIO-1901 can be installed in the same frame as other Densité cards, providing a wide variety of video, audio, data conversion and multiplexing functions.

FIO-1901 Series 3G/HD/SD SDI Optical to Electrical / Electrical to Optical Converters

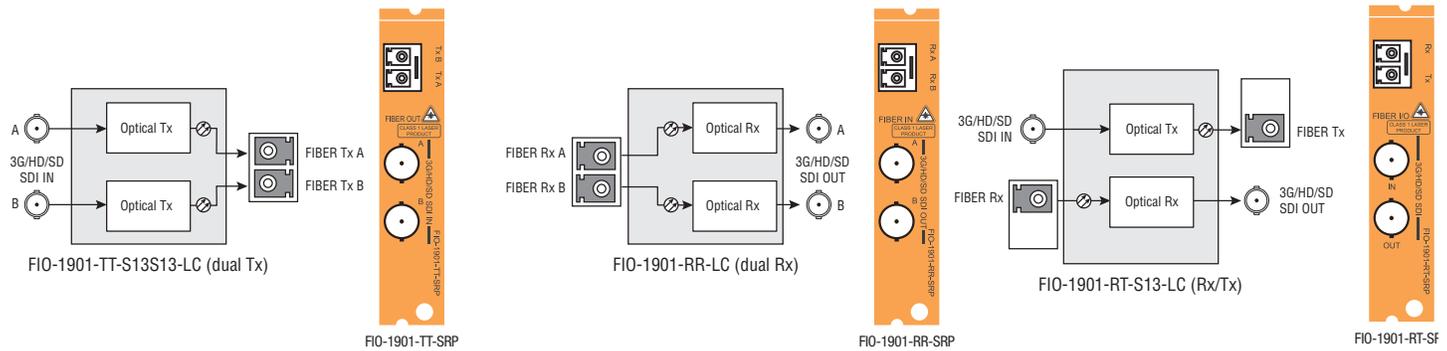
KEY FEATURES

- Long distance coverage over single-mode fiber for 3G/HD/SD signals
- Variety of single/dual, Rx/Tx configurations for all types of requirements
- Reclocked serial digital video from 270 Mb/s to 3 Gb/s
- Optical power level monitoring
- Remote monitoring and control
- Hot swappable SFP cartridges
- Robust performance, SMPTE-297-2006 compliant

Single channel product



Dual channel product



SPECIFICATIONS

Electrical Input

Signal: 3G/HD/SD SDI SMPTE 424M, 292M, and 259M-C compliant

Supports data rates of 270, 1483.5, 1485, 2967, 2970 Mb/s

EN50 83-9 DVB-ASI 270 Mb/s

Cable length (Belden 1694A):

- 3G: 100m (330 ft.) at 3 Gb/s
- HD: 160m (525 ft.) at 1.5 Gb/s
- SD: 380m (1,245 ft.) at 270 Mb/s

Return loss:

- >15 dB up to 1.5 GHz
- >10 dB from 1.5 GHz to 3 GHz

Electrical Output

Signal: 3Gbps/HD/SD SDI SMPTE 424M, 292M, and 259M-C compliant

Supports data rates of 270, 1483.5, 1485, 2967, 2970 Mb/s

EN50 83-9 DVB-ASI 270 Mb/s

Return loss:

- >15 dB up to 1.5 GHz
- >10 dB from 1.5 GHz to 3 GHz

Jitter (wideband):

- 3G: <0.3 UI
- HD/SD: <0.2 UI

Rise / Fall time: 135 ps max., 20% to 80%, for HD 400-800 ps, 20% to 80%, for SD

Optical I/O

Optical: SMPTE-297M-2006 compliant

Connector type: LC/PC

Fiber type: Single-mode (SMF)

Rx Optical Characteristics

Sensitivity: 270 Mb/s, 1.5 Gb/s and 3 Gb/s: -21 dB

Tx Channel (Single-Mode)

Transmit power: 1310 nm: -5 dBm to 0 dBm

Laser type: Fabry-Perot

Processing Performance

Signal path: 10 bits

Latency: <6 ns

Electrical

Power: 5W

ORDERING

Densité 2 frame

- IO-1901-R-LC
- FIO-1901-R-SRP
- FIO-1901-RR-LC
- FIO-1901-RR-SRP
- FIO-1901-T-S13-LC
- FIO-1901-T-SRP
- FIO-1901-TT-S13S13-LC
- FIO-1901-TT-SRP
- FIO-1901-RT-S13-LC
- FIO-1901-RT-SRP

Densité 3 frame

- FIO-1901-R-LC-3RU
- FIO-1901-R-SRP-3RU
- FIO-1901-RR-LC-3RU
- FIO-1901-RR-SRP-3RU
- FIO-1901-T-S13-LC-3RU
- FIO-1901-T-SRP-3RU
- FIO-1901-TT-S13S13-LC-3RU
- FIO-1901-TT-SRP-3RU
- FIO-1901-RT-S13-LC-3RU
- FIO-1901-RT-SRP-3RU

Description

- Single 3G/HD/SD optical receiver LC/PC connector
- Single rear connector panel for FIO-1901-R
- Dual 3G/HD/SD optical receiver LC/PC connectors
- Single rear connector panel for FIO-1901-RR
- Single 3G/HD/SD optical transmitter 1310 nm LC/PC connector
- Single rear connector panel for FIO-1901-T
- Dual 3G/HD/SD optical transmitter 1310 nm LC/PC connectors
- Single rear connector panel for FIO-1901-TT
- 3Gbps/HD/SD optical receiver and transmitter 1310 nm LC/PC connectors
- Single rear connector panel for FIO-1901-RT

Other types of SFP Optical Plug-In Cartridges may be available for this product.

Remote control

iControl, iControl Solo, RCP-200

Note: All receiver channels (R) are wideband, responding to wavelengths ranging from 1260 to 1620 nm, compatible with 1310 nm and CWDM wavelengths.



GVB-1-0369A-EN-DS

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