

# openGear Cards and Rackframe

Fall 2018



# openGear®



## openGear Cards and Frames from AJA

Industry Wide Compatibility for Compact Converter Density

AJA openGear frames, converters, distribution amplifiers and fiber cards offer industry wide compatibility for 2RU rackframe density, critical for broadcast, OB truck and live event environments. Built to the same high standards as AJAs renowned line up of reliable Mini-Converters and backed by incredible support and five year warranties, AJA openGear solutions offers reliability, efficiency, power savings, and the flexibility you are looking for.

# DashBoard®



## DashBoard Support

Remote Control and Configuration

Designed for use in high density openGear's 2RU frames and AJA's OG-X-FR frame, DashBoard Software support on Windows®, macOS® and Linux® offers remote control and monitoring of the openGear architecture for newer AJA openGear cards, and provides convenient and industry standard configuration, monitoring and control options over a PC or local network.

For AJA openGear cards with Dashboard support, you can download Dashboard software for macOS, Windows and Linux from <https://www.aja.com/category/rackframes>.



## openGear®



### OG-X-FR

#### openGear Compatible Rackframe

openGear is an open architecture, modular frame system designed by Ross Video and supported by a diverse range of terminal equipment manufacturers, including AJA Video Systems.

The AJA OG-X-FR is a 2RU high openGear frame which is compatible with any openGear card and offers Dashboard support for the latest AJA Dashboard compatible openGear cards. The frame has a 20-slot capacity

with excellent cooling capabilities and power handling for high-density applications, with support for 12G-SDI, emerging IP solutions and AJA's wide range of openGear cards. OG-X-FR ships with a power supply included. When seeking redundancy for extra security in critical environments, order an additional OG-X-PS from your reseller.

**\$1449** US MSRP\*

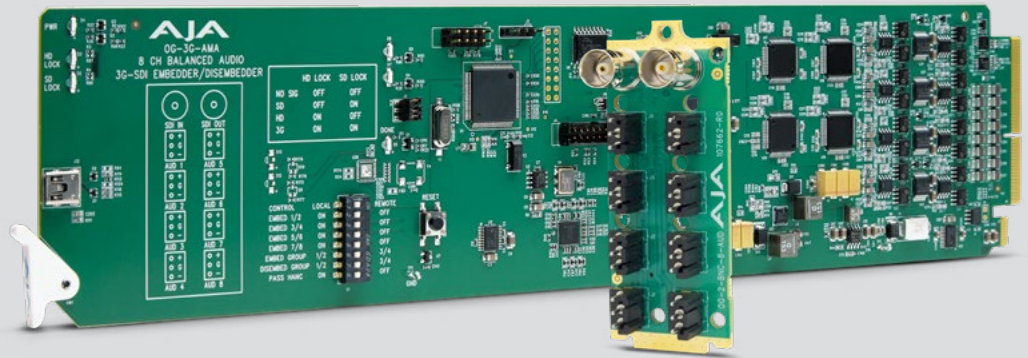
OG-X-PS optional redundant power supply  
**\$659** US MSRP\*

### OG-3G-AMA

#### openGear 3G-SDI Analog Audio Embed/Disembed

The OG-3G-AMA is an 8-channel analog audio embedder/disembedder with support for 3G-SDI input and output up to 1080p 60. Audio embedding and disembedding is user selectable, on a channel pair basis, to either pass 3G-SDI input audio or to embed input analog audio or disembed to analog audio output from/to the 3-Pin Terminal Block connectors. The OG-3G-AMA can be controlled by Dashboard network control software.

**\$795** US MSRP



#### Features:

- 3G-SDI embedder/disembedder
- 8-Channel Balanced Analog Audio I/O
- 8x 3-Pin Terminal Block connectors (included)
- External control DIP switch
- openGear DashBoard network control software via Windows®, macOS® or Linux®.
- Power: 5.0 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frame
- Five year warranty

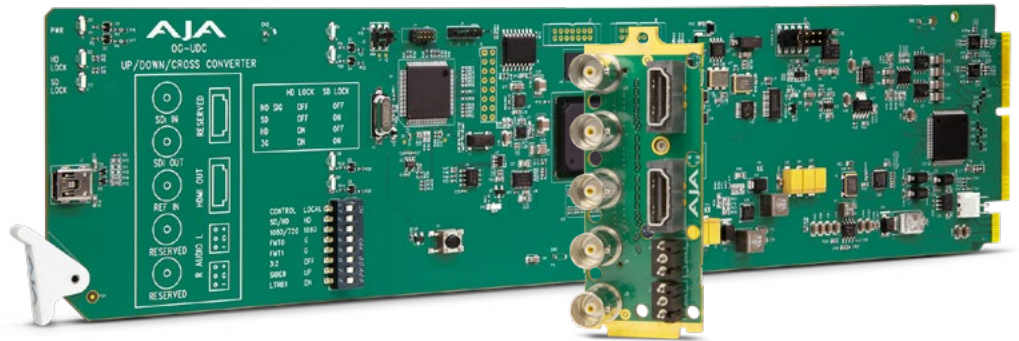
## openGear®

### OG-UDC

#### openGear Up, Down, Cross-Converter

The OG-UDC is a broadcast quality up, down, cross-converter which can convert between HD and SD video resolutions. The OG-UDC provides 3G-SDI input and output, HDMI output and 3-Pin Terminal Block connectors for analog audio outputs. The OG-UDC can be controlled by DashBoard network control software.

**\$695** US MSRP



#### Features:

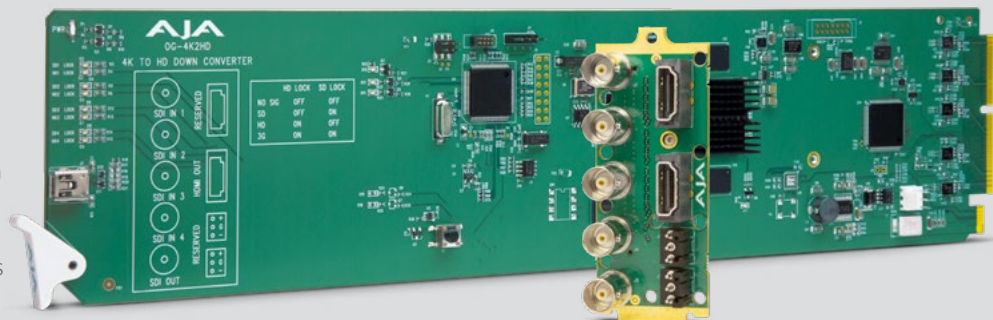
- Converts between SD, HD, and 3G-SDI formats
- Supports 1080p 50/60
- Very high quality conversions
- 16-Channel embedded SDI audio input
- 16-Channel embedded SDI audio output
- 8-Channel HDMI audio output
- 2x 3-Pin Terminal Block connectors (included)
- Frame or Input Reference
- External DIP switch
- openGear DashBoard network control software via Windows, macOS or Linux
- Power: 7 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frame
- Five year warranty

### OG-4K2HD

#### openGear 4K/UltraHD to 3G-SDI and HDMI Down-Converter

The OG-4K2HD down-converts professional 3G-SDI 4K/UltraHD signals to HD resolution over 3G-SDI and HDMI using AJA's high quality scaling for cost effective monitoring and conversion. OG-4K2HD's HD-SDI and HDMI outputs are both live all the time for on-set monitoring or direct-to-air broadcast with support for up to 50/60p. 4K2HD's configuration options can extract an HD resolution image from the 4K input to provide a 1:1 pixel image for 4K focus checks on HD displays. Configuration can be set remotely via DashBoard network control software.

**\$795** US MSRP



#### Features:

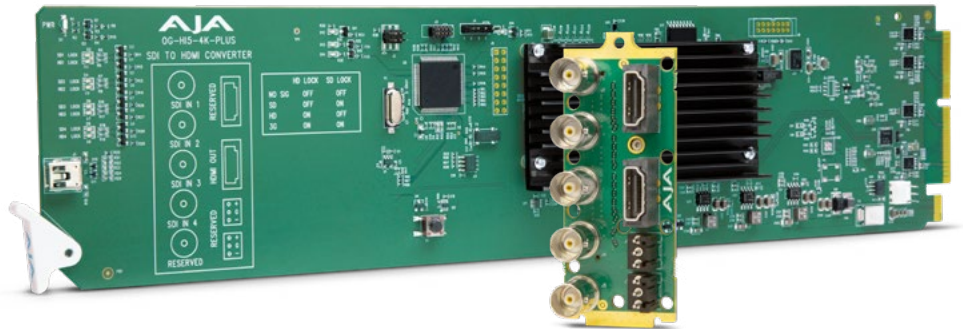
- 4K (4096 x 2160) and UltraHD (3840 x 2160) support
- Down-conversion for supporting 4K on 3G-SDI and HDMI devices
- Simultaneous HD-SDI and HDMI output
- Aspect ratio conversion from full 4K to HD
- Supports 4K/UltraHD 50/60fps high frame rate input formats
- openGear DashBoard network control software via Windows, macOS or Linux.
- Power: 11 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frame
- Five year warranty

# openGear®

## OG-Hi5-4K-Plus

### openGear 3G-SDI to HDMI 2.0 Conversion

The OG-Hi5-4K-Plus preserves your vision with pristine image fidelity and HFR support up to 50/60p for 4K/UltraHD 3G-SDI to HDMI 2.0 conversion needs. The OG-Hi5-4K-Plus can also generate HDR metadata in accordance with HDMI v2.0a/CTA-861.3. OG-Hi5-4K-Plus provides a simple monitoring connection from professional 4K devices using Quad 3G-SDI, Quad 1.5G-SDI, or Dual 3G-SDI outputs to displays with HDMI 2.0 inputs including Two Sample Interleave (2SI) or Square Division (Quadrant) source mapping. Configuration can be set remotely via DashBoard network control software.



**\$595** US MSRP

#### Features:

- 4x 3G-SDI inputs
- 4:2:2/4:4:4 HDMI 2.0 output
- HD conversion supported
- HDR support for HDR10 and HLG
- Embedded audio support
- openGear DashBoard network control software via Windows, macOS or Linux
- Power: 12 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frame
- Five year warranty

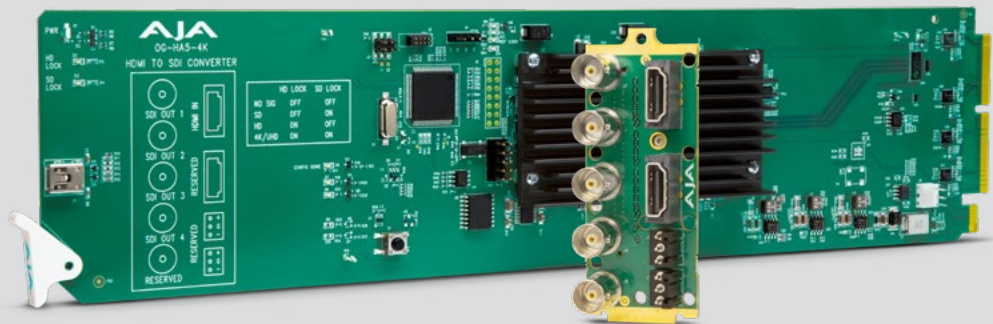
## OG-HA5-4K

### openGear 4K HDMI to 4K SDI

OG-HA5-4K provides high quality conversion of HDMI to 4K 3G-SDI with 4x 3G-SDI outputs. OG-HA5-4K allows conversion of HDMI video from DSLR's, mirrorless cameras, action cameras, or prosumer 4K video cameras to 4K 3G-SDI for use in professional workflows.

The OG-HA5-4K provides HDMI 2.0 input and 3G-SDI output. Configuration can be set remotely via DashBoard network control software.

**\$595** US MSRP



#### Features:

- Supports HDMI 2.0 up to 60 fps at 4:4:4, 4:2:2, and 4:2:0
- Supports quadrant (square division) and 2SI (two sample interleave) 4K/UltraHD SDI mapping
- 4x 3G-SDI outputs
- HD resolutions supported
- HDR Inframe analysis with AJA Mini-Config
- Embedded audio support
- openGear DashBoard network control software via Windows, macOS or Linux
- Power: 10 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frame
- Five year warranty

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## OG-3G-AM

### openGear 3G-SDI 8-channel 24-bit AES Embedder/Disembedder

The OG-3G-AM is a state of the art, openGear compatible, 8-channel AES audio embedder/disembedder with support for 3G-SDI input and output up to 1080p 60. Simple user controls allow channel enabling and mapping. A 10x BNC rear openGear connector module is included.

**\$795** US MSRP\*



#### Features:

- 3G-SDI embedder/disembedder in one board
- Input: 1x 3G-SDI, BNC connector
  - 4x AES, BNC connector (2 channels per input)
- Outputs: 1x 3G-SDI, BNC connector
  - 4x AES, BNC connector (2 channels per output)
- Local and remote modes
- Pass or drop non-audio HANC packets
- Configure via USB and Mini-Config software or DIP switch
- Power: 5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frame
- Five year warranty

## OG-2x4-SDI-DA

### openGear 2x4 3G-SDI Reclocking DA

The OG-2x4-SDI-DA is an openGear compatible, state of the art 3G-SDI distribution amplifier. The incoming 3G-SDI signals on the two input channels are reclocked and distributed to 4x 3G-SDI outputs each, or alternatively can function as a 1x 8-channel DA, allowing the same signal to be sent to eight destinations simultaneously. This dual input capability allows double the number of DAs in limited frame space. A 10x BNC rear openGear connector module is included.

**\$550** US MSRP



#### Features:

- Input: 2x 3G-SDI, BNC connector (2x 4 mode)
  - 1x 3G-SDI, BNC connector (1x 8 mode)
- Outputs: 4x 3G-SDI each DA, BNC connector (2x 4 mode)
  - 8x 3G-SDI, BNC connector (1x 8 mode)
- Automatic cable equalizer and automatic reclocker bypass
- Automatic detection and reclocking of 270Mb, 1.5Gb, and 3Gb SDI data rates
- Advanced jitter input tolerance and low jitter reclocked outputs
- Power: 2 watts max per card
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

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## OG-1x9-SDI-DA

### openGear 1x9 3G-SDI Reclocking DA

The OG-1x9-SDI-DA is a state of the art, openGear compatible, 3G-SDI distribution amplifier. The incoming SD, HD or 3G signal is reclocked and distributed to each of the nine 3G-SDI outputs, allowing the same signal to be sent to multiple destinations simultaneously.

**\$495** US MSRP



#### Features:

- Input: 1x SDI, BNC connector
- Outputs: 9x SDI, BNC connectors
- Automatic detection and reclocking of 270 Mb, 1.5 Gb, and 3Gb SDI data rates
- Bypass mode: 100 Mbps - 3 Gbps – auto bypassing for non-SMPTE rates
- "Input Present" and "Input SMPTE Lock" LEDs
- Power: 2 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

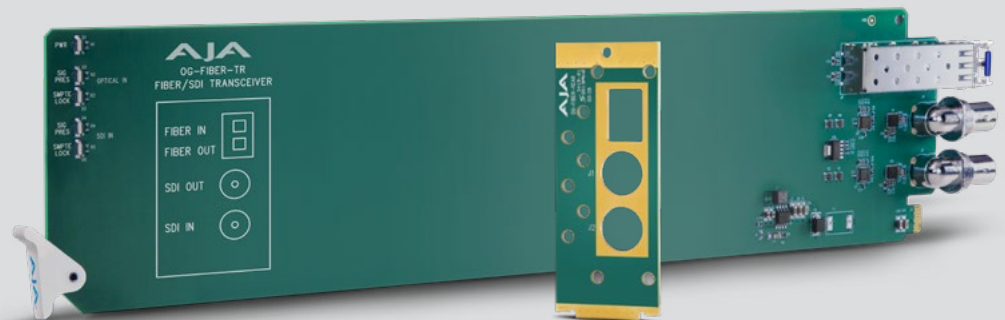
## OG-FIBER-TR

### openGear 1-Channel 3G-SDI/ LC Single Mode LC Fiber Transceiver

The OG-FIBER-TR is a state of the art, openGear compatible 3G-SDI/Fiber transceiver. Both 3G-SDI to Fiber and Fiber to 3G-SDI conversions are supported.

openGear Mini-Converters offer unmatched flexibility and cost efficiency for 3G-SDI-Fiber conversion, allowing for long cable runs up to 10 km (32,808 ft) for single mode.

**\$645** US MSRP\*



#### Features:

- Automatic detection and reclocking of 270 Mb, 1.5 Gb, and 3 Gb SDI data rates
- Inputs: 3G-SDI, BNC connector; Fiber, LC connector
- Outputs: 3G-SDI, BNC connector; Fiber, LC connector
- Bypass mode: 50 Mb to 3 Gb – auto bypassing for non SMPTE rates
- Wavelength: 1310 nm
- Optical Power: -2dBm typical
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

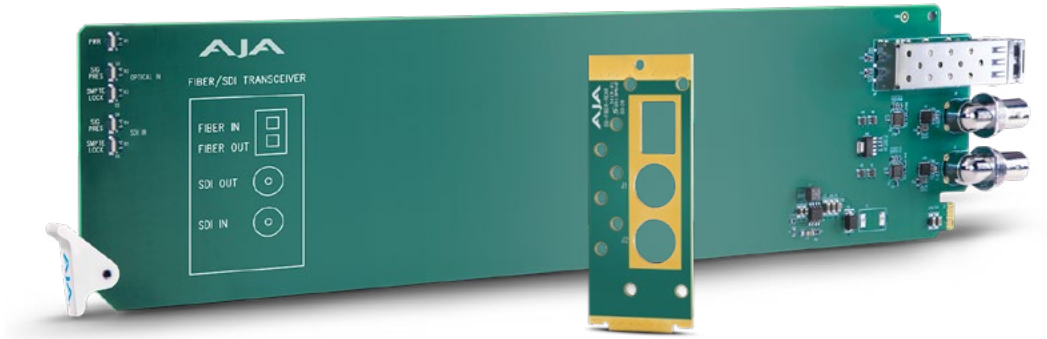
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## OG-FIBER-TR-MM

### openGear 1-Channel 3G-SDI/LC Multi-Mode LC Fiber Transceiver

OG-FIBER-TR-MM offers unmatched flexibility and cost efficiency for 3G-SDI Fiber conversion, allowing for cable runs up to 700 m (2296 ft) for OM4 and 300 m (984 ft) for OM3 for multi-mode fiber optic cables, useful for eliminating ground loop problems.

**\$890** US MSRP\*



#### Features:

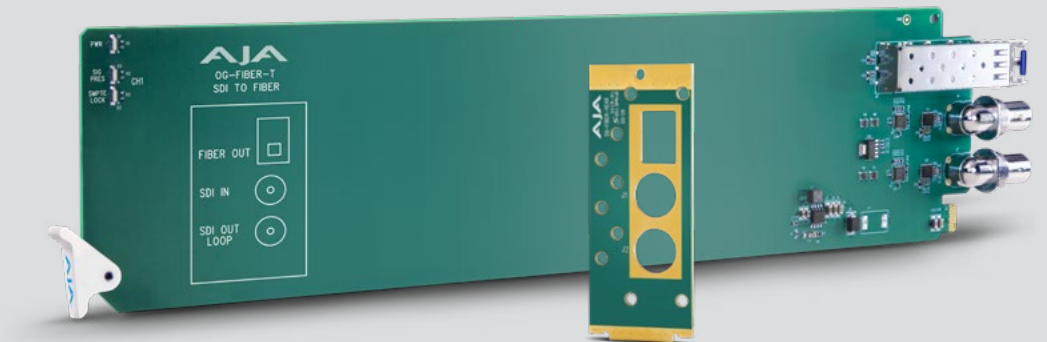
- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 1x 3G-SDI, BNC connector; 1x LC Fiber connector
- Outputs: 1x 3G-SDI, BNC connector; 1x LC Fiber connector
- Five year warranty
- Automatic detection and relocking
  - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select
  - All other rates are passed through and not relocked
- Wavelength: 850 nm
- Optical Sensitivity: -15dBm (min)
- Optical Power: -7dBm (min), -2dBm (max)
- Power: 2.5 watts
- Hot swap capable
- Compatible with DFR-8321 and OG-X-FR openGear frames

## OG-FIBER-T

### openGear 1-Channel 3G-SDI to Single Mode LC Fiber Transmitter

The OG-FIBER-T is a state of the art, openGear compatible 3G-SDI to Fiber converter, enabling 3G-SDI signals to be extended up to 10 km (32,808 ft) over standard single mode fiber optic cable. The 3G-SDI input is relocked with best in class input jitter tolerance. A relocked looping 3G-SDI output is also provided.

**\$445** US MSRP\*



#### Features:

- Automatic detection and relocking of 270Mb, 1.5Gb, and 3Gb SDI data rates
- Inputs: 3G-SDI, BNC connector
- Outputs: Single mode optical fiber, LC connector; 3G-SDI, BNC (loop of input)
- Bypass mode: 50mb to 3gb – auto bypassing for non SMPTE rates
- Wavelength: 1310 nm
- Optical Power: -2dBm typical
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty



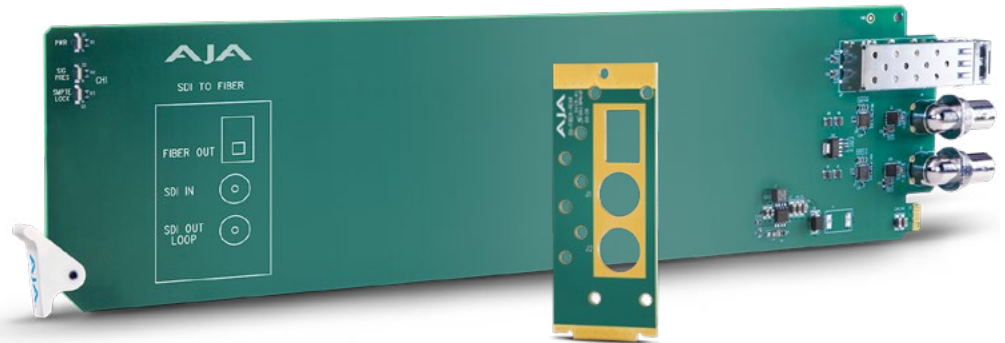
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## OG-FIBER-T-MM

### openGear 1-Channel 3G-SDI to Multi-Mode LC Fiber Transmitter

OG-FIBER-T-MM offers unmatched flexibility and cost efficiency for 3G-SDI Fiber conversion, allowing for cable runs up to 700 m (2296 ft) for OM4 and 300 m (984 ft) for OM3 for multi-mode fiber optic cables, useful for eliminating ground loop problems.

**\$690** US MSRP\*



#### Features:

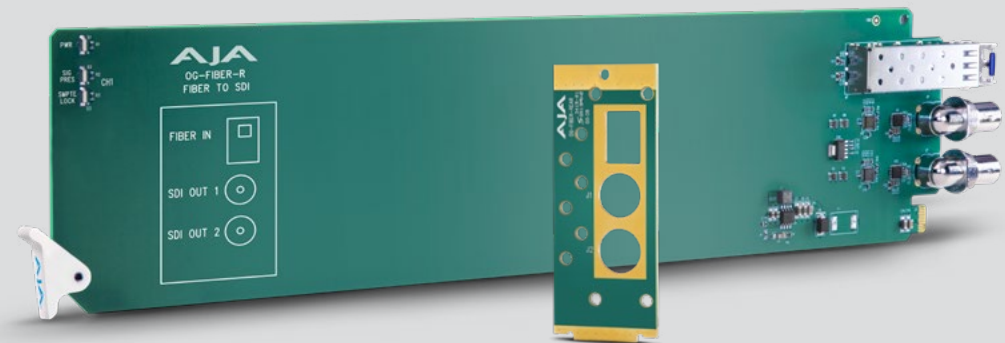
- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 1x 3G-SDI, BNC connector
- Outputs: 1x multi-mode optical fiber, LC connector; 1x 3G-SDI, BNC (loop of input)
- Automatic detection and relocking
  - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select
  - All other rates are passed through and not relocked
- Wavelength: 850 nm
- Optical Power: -7dBm (min), -2dBm (max)
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

## OG-FIBER-R

### openGear 1-Channel Single Mode LC Fiber to 3G-SDI Receiver

The OG-FIBER-R is a state of the art, openGear compatible Fiber to 3G-SDI converter, enabling 3G-SDI signals to be extended up to 10 km (32,808 ft) over standard single mode fiber optic cable. The fiber input is relocked with best in class input jitter tolerance.

**\$445** US MSRP\*



#### Features:

- Automatic detection and relocking of 270 Mb, 1.5 Gb, and 3 Gb SDI data rates
- Inputs: Single mode optical fiber, LC connector
- Outputs: 2x 3G-SDI, BNC connectors (duplicate outputs)
- Bypass mode: 100 Mbps - 3 Gbps – auto bypassing for non SMPTE rates
- Wavelength: 1260 - 1620 nm
- Optical Sensitivity: -25dBm typical
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

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### OG-FIBER-R-MM

#### openGear 1-Channel Multi-Mode LC Fiber to 3G-SDI Receiver

The OG-FIBER-R-MM offers unmatched flexibility and cost efficiency for 3G-SDI Fiber conversion, allowing for cable runs up to 700 m (2296 ft) for OM4 and 300 m (984 ft) for OM3 for multi-mode fiber optic cables, useful for eliminating ground loop problems.

**\$690** US MSRP\*



#### Features:

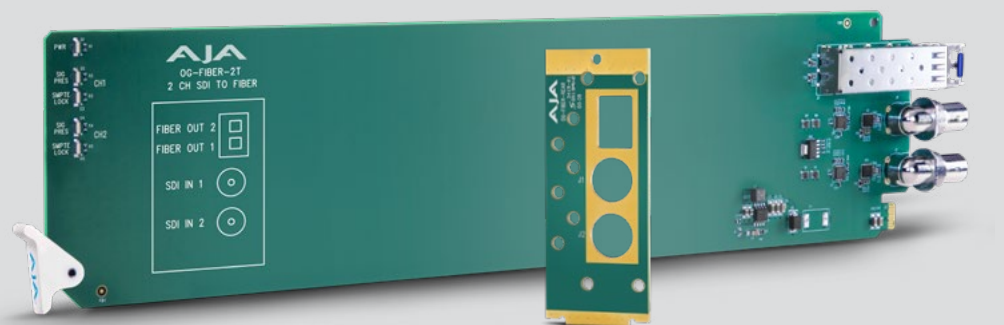
- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 1x multi-mode optical fiber, LC connector
- Outputs: 2x 3G-SDI, BNC connectors (duplicate outputs)
- Automatic detection and relocking
- - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select-
- - All other rates are passed through and not relocked
- Wavelength: 850 nm
- Optical Sensitivity: -15dBm (min)
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

### OG-FIBER-2T

#### openGear 2-Channel 3G-SDI to Single Mode LC Fiber Transmitter

The OG-FIBER-2T is a state of the art, openGear compatible, 2-channel 3G-SDI to Fiber converter, enabling 3G-SDI signals to be extended up to 10 km (32,808 ft) over standard single mode fiber optic cable. The two 3G-SDI inputs are completely independent allowing different 3G-SDI rates to be carried on each channel.

**\$645** US MSRP\*



#### Features:

- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 2x Independent 3G-SDI Inputs, BNC connectors
- Outputs: 2x Independent single mode optical fiber, LC connectors
- Automatic detection and relocking
- - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select-
- - All other rates are passed through and not relocked
- Wavelength: 1310 nm
- Optical Power: -5dBm (min), 0dBm (max)
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

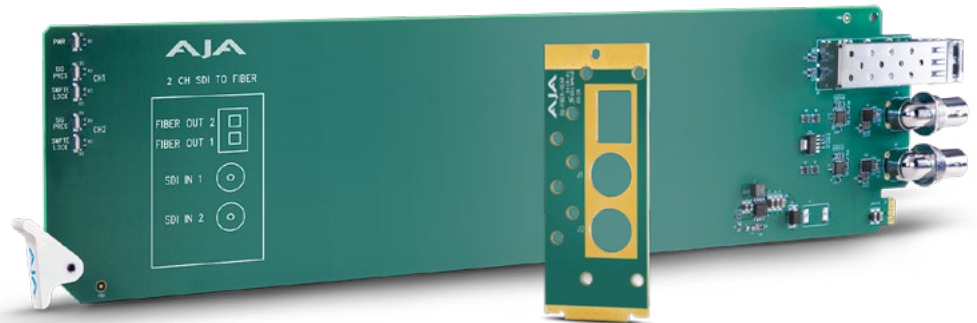
# openGear®

## OG-FIBER-2T-MM

### openGear 2-Channel 3G-SDI to Multi-Mode LC Fiber Transmitter

The OG-FIBER-2T-MM offers unmatched flexibility and cost efficiency for 3G-SDI Fiber conversion, allowing for cable runs up to 700 m (2296 ft) for OM4 and 300 m (984 ft) for OM3 for multi-mode fiber optic cables, useful for eliminating ground loop problems.

**\$890** US MSRP\*



#### Features:

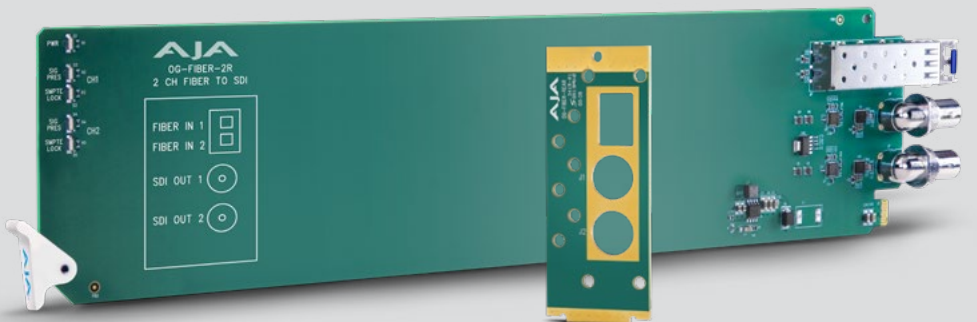
- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 2x Independent 3G-SDI Inputs, BNC connectors
- Outputs: 2x Independent multi-mode optical fiber, LC connectors
- Automatic detection and relocking
  - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select
  - All other rates are passed through and not relocked
- Wavelength: 850 nm
- Optical Power: -7dBm (min), -2dBm (max)
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

## OG-FIBER-2R

### openGear 2-Channel Single Mode LC Fiber to 3G-SDI Receiver

The OG-FIBER-2R is a state of the art, openGear compatible, 2-channel Fiber to 3G-SDI converter, enabling 3G-SDI signals to be extended up to 10 km (32,808 ft) over standard single mode fiber optic cable. The two fiber inputs are completely independent allowing different 3G-SDI rates to be carried on each channel.

**\$645** US MSRP\*



#### Features:

- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 2x Independent 3G-SDI Inputs, BNC connectors
- Outputs: 2x Independent single mode optical fiber, LC connectors
- Automatic detection and relocking
  - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select
  - All other rates are passed through and not relocked
- Wavelength: 1310 nm
- Optical Power: -5dBm (min), 0dBm (max)
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

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## OG-FIBER-2R-MM

### openGear 2-Channel Multi-Mode LC Fiber to 3G-SDI Receiver

The OG-FIBER-2R-MM offers unmatched flexibility and cost efficiency for 3G-SDI Fiber conversion, allowing for cable runs up to 700 m (2296 ft) for OM4 and 300 m (984 ft) for OM3 for multi-mode fiber optic cables, useful for eliminating ground loop problems.

**\$890** US MSRP\*



#### Features:

- Video Formats: 100 Mbps - 3 Gbps, format agnostic
- Inputs: 2x Independent multi-mode optical fiber, LC connectors
- Outputs: 2x Independent 3G-SDI outputs, BNC connectors
- Automatic detection and relocking
  - 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.966 Gbps, 2.970 Gbps - Auto Select
  - All other rates are passed through and not relocked
- Wavelength: 850 nm
- Optical Sensitivity: -15dBm (min)
- Power: 2.5 watts
- Hot swap capable
- Compatible with OG-X-FR openGear frames
- Five year warranty

## Five Year warranty

AJA Video warrants that openGear and R-Series products will be free from defects in materials and workmanship for a period of five years from the date of purchase.

## About AJA Video Systems, Inc.

Since 1993, AJA Video has been a leading manufacturer of video interface and conversion solutions, bringing high quality, cost effective digital video products to the professional, broadcast and postproduction markets.

AJA products are designed and manufactured at our facilities in Grass Valley, California, and sold through an extensive sales channel of resellers and systems integrators around the world. For further information, please see our website at [www.aja.com](http://www.aja.com)