

### FEATURES

- ▷ Turns Any Digital Optical Signals Into CWDM
- ▷ Optical Only Versions & Coaxial Optical Versions Available
- ▷ Up To 18 Optical Signals or Up To 18 SDI Video On 1 fiber
- ▷ 3G & 12G Versions With Optional Support For 1 & 10 GbE
- ▷ Send (3) bi-directional 25 GbE links over 1 fiber
- ▷ Built-in CDR (auto-sensing)
- ▷ Up to 25.78 Gbps Bi-directional Data Links
- ▷ Supports 25GBASE, CPRI Option 10 @ 24.33Gbps
- ▷ Per-Channel Front Panel Status Display
- ▷ Built-in optical power meter (Inputs only) for easy system setup and status monitoring
- ▷ Regenerates/Amplifies Optical Signals
- ▷ Optional Redundant Power Supplies
- ▷ Auto-Fail Over To Coax Input
- ▷ Easy Access to Installed Fiber Infrastructures
- ▷ Choose between ST, SC, or LC fiber connections
- ▷ Extends Useful Life of Legacy Fiber Equipment
- ▷ Faster Set and Strike With Fewer Cables

### MARKETS & APPLICATIONS

- ▷ Rentals
- ▷ OB Production
- ▷ Sports Broadcasting
- ▷ Remote Studios
- ▷ Corporate A/V
- ▷ Reclaiming Existing Fiber & Gear
- ▷ Use With SMPTE-HUTs to Extend Up To 9 SMPTE Camera Chains Over 1 Fiber
- ▷ Take Advantage of Stadium and Campus Fiber
- ▷ Replaces Need For Wavelength Specific Spares In CWDM Apps



The FiberSaver Series has been designed to help engineers and designers overcome situations where there are many signals to move over fiber, but not enough available fibers due to a lack of access or inability to run more fiber.

3G and 12G systems are available in uni and bi-directional configurations ranging from 6x0 and 18x0 to 3x3 and 9x9. Asymmetrical bi-directional configurations are also available.

Unique to the FiberSaver Series is the option to provide a Coaxial copy of an optical input or output path. This capability can be used on one or both sides of a system for the ultimate in conversion between optical and SDI sources and receive devices.

The coax input can be used to input an auto-failover / keep-alive signal as the system will automatically select the coax input when light is not detected on the input.

When the coax stage is populated on the Rx side of the system the FiberSaver will output simultaneous copies of the incoming optical signal.

Since the FiberSaver is receiving and then re-transmitting the optical signal, you get a fresh optical budget that allows transmission over even longer distances. The Rx side of the system can be an optical only passive de-mux unit or an active receiver with reamplified optical out with or without coax copies.

3G FiberSavers will also work with 1G Ethernet and MADI signals and special order 12G Systems can work 10G Ethernet and SMPTE Camera Chains that operate at 10Gbps.

In addition to 3G-SDI the 3G FiberSavers will also supports 1G Ethernet and MADI signals. Special order versions of the 12G FiberSavers can also support 10G Ethernet and SMPTE Camera Chains that operate at 10Gbps.

The FiberSaver 25G provides a cost-effective solution for network expansion and capacity enhancement. It eliminates the need for deploying and maintaining multiple fiber links, which can be expensive and time-consuming.

With CWDM technology, existing fiber infrastructure can be leveraged to its maximum potential. By utilizing different wavelengths, FiberSaver 25G effectively increases the capacity of the network infrastructure without the need for additional physical fiber runs. The system allows for the consolidation of multiple 25G network links onto a single fiber. Currently the 25G Fiber Saver is only available in a 3x3 bi-directional configuration.

Custom configurations are available providing the most comprehensive mixed signal, single system solution on the market. Contact MultiDyne to learn what is possible.



**FSCu-12G-T-B-ST 6 Channel Fiber & Copper 12G Tx**



**FS-12G-T-B-ST 6 Channel Fiber Only 12G Tx**

FSCu versions have both Fiber and Coaxial connections and FS versions have just Fiber. Both types can be used together to build the ideal system.

## TECHNICAL SPECIFICATIONS 3G & 12G

### Coaxial Serial Data Input/Output (3G)

|                         |   |
|-------------------------|---|
| Connector               | 75-ohm BNC  |
| Bit Rate                | 125 Mbps – 4.125 Gbps   |
| Cable Auto Equalization | 100m Belden 1694A @ 2.97 Gbps<br>170m Belden 1694A @ 1.485 Gbps<br>400m Belden 1694A @ 270 Mbps |
| Standards               | SMPTE 424M, 292M, 259M-C<br>DVB-ASI   |
| Return Loss             | < 15dB @ 5 MHz – 1.5 GHz<br>< 10dB @ 1.5 GHz – 3.0 GHz  |
| Level                   | 800 mV ±80 mV   |
| Alignment Jitter        | < 0.3 UI  |

### Coaxial Serial Data Input/Output (12G)

|                          |   |
|--------------------------|---|
| Connector                | 75-ohm BNC  |
| Bit Rate                 | 270 Mbps – 11.88 Gbps   |
| Cable Auto Equalization: | 60m Belden 1694A @ 11.88 Gbps<br>65m Belden 1694A @ 6 Gbps<br>100m Belden 1694A @ 2.97 Gbps<br>170m Belden 1694A @ 1.485 Gbps<br>400m Belden 1694A @ 270 Mbps |
| Standards                | SMPTE 2082-1, 2081-1, 424M, 292M, 259M-C<br>DVB-ASI   |
| Return Loss              | < 15dB @ 5 MHz – 1.5 GHz<br>< 10dB @ 1.5 GHz – 3.0 GHz<br>< 7dB @ 3.0 GHz – 6.0 GHz<br>< 4dB @ 6.0 GHz – 12.0 GHz   |
| Level                    | 800 mV ±80 mV   |
| Alignment Jitter         | < 0.3 UI  |

## TECHNICAL SPECIFICATIONS 25G

### Electro-Optical 25G

|                              |                              |
|------------------------------|------------------------------|
| Fiber type                   | Singlemode                   |
| Fiber Polish                 | UPC (Ultra-physical contact) |
| Fiber Connectors             | ST, SC, or LC                |
| TX Output power              | -1 – +4 dBm                  |
| RX Sensitivity               | -12 dBm                      |
| Optical Power Meter Accuracy | +/- 2dB                      |
| CWDM Wavelengths             | 1271 – 1371 nm               |
| Optical Budget (typ.)        | 12dB                         |
| Power Connector              | 2.5mm                        |

### Optical Input/Output (3G & 12G)

|                            |  |
|----------------------------|--|
| Fiber type                 | Singlemode   |
| Connector                  | LC/UPC<br>ST/UPC<br>SC/UPC                         |
| Standard                   | SMPTE 297M   |
| Input Range                | 1250 – 1650 nm                                     |
| Input Upper Sensitivity    | -2 dBm   |
| Input Lower Sensitivity    | 3G -20dBm<br>12G -14 dBm                           |
| Output Range               | CWDM mux 1271 – 1611 nm<br>RX Side Output: 1310 nm |
| Output power               | 0 – 4 dBm per channel                              |
| Maximum Operation Distance | 3G 40km<br>12G 10km                                |

### Mechanical

|              |                                      |
|--------------|--------------------------------------|
| Width/Height | 1RU, 19" [482.6mm] x 1.75" [44.45mm] |
| Depth        | 7.25" [184.15mm]                     |

### Electrical

|         |   |
|---------|---|
| Voltage | 9 – 24 VDC, (12V Power Supply Included) |
| Power   | ≤ 60W (configuration dependent)         |

### Environmental

|             |                            |
|-------------|----------------------------|
| Temperature | 0 – 55° C                  |
| Humidity    | 0 – 95% RH, non-condensing |

### Power

|                   |   |
|-------------------|---|
| Voltage           | 9 – 24 VDC, (12V Power Supply Included) |
| Power Consumption | 5w                                      |

### Data

|                |                                   |
|----------------|-----------------------------------|
| MAX Data Rate  | 25.78 Gbps                        |
| Supported Data | 25GBASE, CPRI Opt. 10 (24.33Gbps) |

## ORDERING INFORMATION

Use the FiberSaver configuration tool to build your solution and get a part number and rear panel elevation:

<https://configurator.multidyne.com/fiber-saver>

Contact [sales@multidyne.com](mailto:sales@multidyne.com) for information on special configurations

| Accessories      |   |
|------------------|---|
| PS12V-65W-2.5MML | Spare / Redundant 12V 65W Power Supply for FiberSaver Series, 2.5mm Locking Connector   |
| ERPI-2.5MM-3FL-P | External Redundant Power Interface, Dual 2.5mm Female Locking Inputs, Single 2.5mm Female Locking Output, Diode Protected. Includes one 2' Switchcraft Male-to-Male cable |