

# 2 Channel Bidirectional 3G/HD/SD-SDI or DVB-ASI Over One Fiber

### **Ideal Applications:**

Broadcast or corporate studios, OB Vans, film & production, rental & staging, stadiums and theaters, surgical or medical imaging and more!



Ordering Information		
Part Number	Description	Fiber Cores
3516-x3z	Multimode Transceiver A (Standard Power)	1
3516-x7z	Single Mode Transceiver A (Standard Power)	1
3516-x9z	Single Mode Transceiver A (High Power, Longer	Distance)1
3517-x3z	Multimode Transceiver B (Standard Power)	1
3517-x7z	Single Mode Transceiver B (Standard Power)	1
3517-x9z	Single Mode Transceiver B (High Power, Longer	Distance) 1
PDPS-1-pp	Power Supply	

#### Power Supply Suffix Codes (pp) for AC Line Cord:

NA - North America AU - Australia EU - Europe JP - Japan UK - United Kingdom

#### **Part Number Suffix Codes:**

x:	В	Box Version	z:	L	LC Connector
	C	Card Version		S	ST Connector

Signal	Channels	Direction
3G/HD/SD-SDI or DVB-ASI	2	<b>←→</b>

#### **Features**

Supports 2 Channels: one upstream, one downstream

Signals are equalized and re-clocked prior to fiber optic transmission

Re-clocked SDI output

Immunity to pathological patterns over entire link budget and operating temperature range

Compliant with SMPTE 259M-2006, 292-2006, 424M-2006

Supports transmission of SMPTE 305M-2005, 310M-2004, 344M-2000, DVB-ASI

Available in both Single Mode and Multimode (62.5u & 50u) versions

Supports 3G/HD/SD-SDI inputs with or without embedded audio and data

19 dB Optical Link Budget @ 2.97 Gbps for High Power, Longer Distance version

Standard & High Powered, long distance transmitter versions available

Wide operating temperature range:  $-10^{\circ}$  C to  $+50^{\circ}$  C

Compatible with all CSI SDI transmitters and receivers using CSI CWDM products

Available in Box and Card versions

Card version compatible with the Fiberlink® 6000A Rack Card Cage

Designed and Manufactured in the USA by CSI





# 2 Channel Bidirectional 3G/HD/SD-SDI or DVB-ASI Over One Fiber

# Fiberlink® 3516/3517 Transmitter Specifications

Serial Video BNC Input		
Number of Inputs	1	
Data Rate Range	19.4 Mbps to 2.97 Gbps	
Supported Standards	SMPTE 259M, 292, 424M-2006, 305M, 310M, 344M, DVB-ASI	
Re-clocked Data Rates	270 Mbps (SMPTE 259M, DVB-ASI-270), 1.485 Gbps (SMPTE 292), 2.97 Gbps (SMPTE 424M-2006)	
Equalization	Automatic up to 100m of Belden 1694A at 3.0 Gbps, 140m at 1.485 Gbps and 180m at 270 Mbps	
Return Loss	>10dB up to 2.97 Gbps	

Connector	LC or ST	
Wavelengths	1310, 1550 (nominal)	
Emitter Type	FP/DFB Laser	
Output Power (nominal)	+2 dBm for High Power, Longer Distance Version (3516-x9z)	
	-4 dBm for Standard Power Versions	
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps	

# Other Members of the Fiberlink® 3500 Series Family

### 4 Channels of 3G/HD/SD-SDI Over Two Fibers!



Fiberlink® 3524-3525 Series delivers four channels of 3G/HD/SD-SDI over 2 fibers with support for 4K/UHD resolutions up to 30 fps!

#### 2 Channels of 3G/HD/SD-SDI Over One Fiber!



Fiberlink® 3512-3513 Series delivers two channels of 3G/HD/SD-SDI with support for 4K/UHD resolutions up to 30 fps!

# Fiberlink® 3516/3517 Receiver Specifications

Fiber Optic In	put

Connector	LC or ST	
Wavelength	1100 - 1620 nm	
Minimum Input Sensitivity	-17 dBm at 2.97 Gbps; -20 dBm at 1.485 Gbps -21 dBm at 270 Mbps;	
Maximum Input Power	-1 dBm	

# **Serial Video BNC Outputs**

Number of Outputs	1
Signal Level	800mV ± 10%
DC Offset	0V ± 0.5V
Rise/Fall Time	< 135 ps at 2.97 Gbps per SMPTE 424M-2006; < 270 ps at 1.485 Gbps per SMPTE 292; 0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M
Overshoot	< 10% of amplitude
Timing Jitter	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 2.0 UI at 2.97 Gbps with color bar signal
Alignment Jitter	< 0.2 UI at 270 Mbps; < 0.2 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Re-clocking	At 270 Mbps, 1.485 Gbps & 2.97 Gbps

# Fiberlink® 3516 & 3517 General Specifications

Indicators	Power, Data Rate lock (SD, HD/3G) Alarm (Card Version Only)
Box Version Dimensions	6.5 W x 1.15 H x 6 L (inches) 165 W x 29 H x 152 L (mm)
Weight	12.3 ounces, 382 grams
Slots in 6000A Card Cage	1
Power	9-24 volts, AC or DC, 3516: 5.0 watts, 17.66 BTU/Hr 3517: 4.0 watts, 13.64 BTU/Hr
Operating Temperature	-10° C to +50° C
MTBF:	72,000 Hours



**Bidirectional 3G/HD/SD-SDI Series** 

# Other Members of the Fiberlink® 3500 Series Family

# 2 Channels of Bi-Directional 3G/HD/SD-SDI Over One Fiber!



Fiberlink® 3518-3519 Series delivers two channels of 3G/HD/SD-SDI upstream and two channels of 3G/HD/SD-SDI downstream!

#### 4 Channels of 3G/HD/SD-SDI Over One Fiber!



Fiberlink® 3514-3515 Series delivers two channels of 3G/HD/SD-SDI with support for 4K/UHD resolutions up to 60 fps!

Learn more about the industry's largest selection of fiber optic transmission products at commspecial.com

#### Multimode Standard Power Version (3516-x3z)

# **Operating Loss Budget & Maximum Usable Distance**\*

Fiber Type	Loss(dB)	Data Rate	Distance	
Multimode ( 62.5u )	0-14	2.97 Gbps	.8 km	
	0-15	1.485 Gbps	1 km	
	0-15	270 Mbps	2.5 km	
Multimode ( 50u )	0-14	2.97 Gbps	1 km	
	0-15	1.485 Gbps	1.3 km	
	0-15	270 Mbps	3 km	
*Distance specifications are approximate	e, and are not guarantee	d. Operating loss budget must i	not be exceeded.	



**Bidirectional 3G/HD/SD-SDI Series** 











### Single Mode Standard Power Version (3516-x7z)

# **Operating Loss Budget & Maximum Usable Distance**\*

Fiber Type	Loss(dB)	Data Rate	Distance	
Single Mode	0-14	2.97 Gbps	30 km	
	0-15	1.485 Gbps	48 km	
	0-15	270 Mbps	50 km	

<sup>\*</sup>Distance specifications are approximate, and are not guaranteed. Operating loss budget must not be exceeded.

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#### Single Mode High Power, Longer Distance Version (3516-x9z)

#### **Operating Loss Budget & Maximum Usable Distance**\*

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	Fiber Type	Loss(dB)	Data Rate	Distance	
	Single Mode	3-19	2.97 Gbps	60 km	
		3-20	1.485 Gbps	65 km	
		3-20	270 Mbps	70 km	

<sup>\*</sup>Distance specifications are approximate, and are not guaranteed. Operating loss budget must not be exceeded.



Backed by a 30-day satisfaction guarantee and a three-year limited warranty on parts and labor. See website for terms and conditions.



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