

# SilverBullet™

Mini 3G & 12G HD/SDI **Fiber Optic Link** 

## **FEATURES**

- 3Gbps
- Supports SMPTE 424M, 292M, 259M, 310M, 344M, 305M & **DVB-ASI**
- VSD2001 or Belden 1694A
- VSD2001 or Belden 1694A cable at 1.485 Gb/sec
- > Supports embedded audio and
- Monitor optical power level at RX
- ▶ Non re-clocking
- > Singlemode fiber recommended
- > ST optical connector
- > Small, rugged, portable
- > Stand alone or rack
- Power supplies and convenient case included
- included
- One year warranty

### **APPLICATIONS**

- > Sports production
- Remote camera links
- ▷ Distance learning
- **OB Van Inter-connects**
- Pre-fibered venues
- Courtesy feeds

# For fixed links or last minute SDI feeds... load up on SilverBullets™



The SilverBULLETS are a hightly portable and economical solution for transporting multi-rate SDI signals from 5 Mb/sec all the way up to 12 Gb/sec on pathological pattern testing. singlemode or multimode fiber. At just three inches in length, SilverBullets are perfect for a wide variery of today's pro A/V and broadcast applications. But don't let the small size fool you! The case is a rugged, diecast aluminum that is over molded for even more

Integrated LEDs make troubleshooting easy with DC power and optical laser indications on the transmitter and DC power and optical power reporting on the receiver. Not only can your RX unit receive SDI signals, it can also be used as a confidence optical power meter for ANY digital optical signal.

rigidity. The optical connector is the popular metallic

ST-type and the video connector is the standard BNC

male. Power (5-16 VDC) is supplied via a locking 4-pin

mini-XLR connector that eliminates any possibility of

the power cord accidentally becoming unplugged.

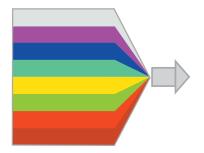
The SilverBULLETS do NOT re-clock so your ASI paths

will work the same as uncompressed paths. The result is error-free operation even with challenging

And just because they are small does not meanc they can't handle long links, either. With an optical launch power of -6dBm for standard units (0 dBm for CWDM units) and receiver sensitivity to -20 dBm, runs of 25km or more are possible...with optical power to spare. SilverBullets transmitters can also be ordered at any of 18 CWDM wavelengths in order to facilitate optical multiplexing with our CWDM-2000 line of CWDM mux and demux units. Each pair of SilverBullets comes packaged in a convenient case with 100-240VAC input wall-mount power supplies. For instances when you want to power your units from your camera battery, optional "Power Clip" Power Tap adapters or full-sized 4-pin XLR adapters are available.

The SilverBullets from Multidyne. The next time you need just one more feed ten minutes prior to air, you'll be glad you have them.

# **APPLICATION & USAGE**



CWDM wavelengths are available for easy optical multiplexing via our CWDM-2000 modules



The Bullets use industry standard, locking mini 4-pin XLR's for power. 0A Power-Tap adapter is also available

Specifications subject to change without notice



The case, power supplies and international AC plug adapters are all included



www.MultiDyne.com



# **SilverBullet™**

Mini 3G & 12G HD/SDI Fiber Optic Link

# **3G TECHNICAL SPECIFICATIONS**

#### **Digital Video**

5Mbps to 3Gbps
1 BNC
75 Ohms
800mV (peak to peak)
SMPTE 425M, 297M, 292M, 259M-C & DVB-ASI
(@-22dBm) 10-11
<120psecs

#### Optical

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Wavelengths:	18 Ch. CWDM	
Optical Connector:	ST	
Optical Source:	FP laser or CWDM DFB	
Optical Detector:	PIN Diode	
TX Output:	-6 Standard (0 DFB)	
RX Sensitivity:	-20 dBm	
Link Budget:	14 to 20 dB (up to 40km)*	
Fiber Type:	Multimode or Singlemode Singlemode recommended	

<sup>\*</sup> Distances based on using SINGLEMODE fiber

#### Mechanical, Environmental

Power:	5-16 VDC
Consumption	600 mWatts
Temperature:	0 to +55C
Humidity	0-95% RH non-condensing
Dimensions	3.2 x 0.65 x 0.75 inches
Weight	2.5 oz.

## **Coax Equalization**

@ 270Mb/sec	350m
@ 1.5Gb/sec	140m
@ 3 Gb/sec	50m

# **12G TECHNICAL SPECIFICATIONS**

## **Digital Video**

Bit Rates:	1.5Gbps to 12Gbps
# of Ins/outs:	1 BNC
Impedence:	75 Ohms
Level:	800mV (peak to peak)
Standard:	SMPTE 424M, 292M, 297M, 2082-1, 2081-1
Bit Error Rate:	(-12dBm) 10-11 @12G
Rise/Fall times:	<34PS @ 12G

#### Optical

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Wavelengths:	18CH CWDM	
Optical Connector:	ST	
Optical Source:	FP laser or CWDM DFB	
Optical Detector:	PIN Diode	
TX Output:	-3 Standard (0 DFB)	
RX Sensitivity:	-12 dBm @ 12G	
Link Budget:	13 to 10 dB (up to 40km)* 3G	
Fiber Type:	Singlemode	

<sup>\*</sup> Distances based on using SINGLEMODE fiber

## Mechanical, Environmental

Pow	ver:	5-16 VDC
Con	sumption	1.5 Watts
Tem	perature:	-10C to +55C
Hun	nidity	0-90% RH non-condensing
Dim	ensions	3.2 x 0.65 x 0.75 inches
Wei	ght	4.0 oz.

### **Coax Equalization**

@ 1.485 GBPS	160m
@ 2.97 GBPS	100m
@ 5.94 GBPS	80m
@11.88 GBPS	75m

# **ORDERING INFORMATION**

Module	Case & Power Supplies Included
SB-3G-FTX-ST	SilverBULLET™ 3.0 Gbps Multi-rate Serial Digital Video Transmitter @ 1310nm, -6dBm for: SD/HD-SDI, DVB ASI, SMPTE 310M, ST connector
SB-3G-FTX-xxxx-ST	SilverBULLET™ 3.0 Gbps Multi-rate Serial Digital Video Transmitter, CWDM wavelengths, 0 to +3 dBm for: SD/HDSDI, 3G HD-SDI, DVB ASI, SMPTE 310M, ST connector
SB-3G-FRX-ST	SilverBULLET™ 3.0 Gbps Multi-rate Serial Digital Video Receiver, Sensitivity -20 dBm for: SD/HD-SDI, DVB ASI, SMPTE 310M, ST connector
SB-12G-FTX-ST	SilverBULLET™ 12.0 Gbps Multi-rate Serial Digital Video Transmitter @ 1310nm, -6dBm for: SD/HD-SDI, DVB ASI, SMPTE 310M, ST connector
SB-12G-FTX-xxxx-ST	SilverBULLET™ 12.0 Gbps Multi-rate Serial Digital Video Transmitter, CWDM wavelengths, 0 to +3 dBm for: SD/HDSDI, 3G HD-SDI, DVB ASI, SMPTE 310M, ST connector
SB-12G-FRX-ST	SilverBULLET™ 12.0 Gbps Multi-rate Serial Digital Video Receiver, Sensitivity -20 dBm for: SD/HD-SDI, DVB ASI, SMPTE 310M, ST connector

Accessories	
SB-PS-XLR	Replacement power supply for SilverBULLET™, mini-XLR to universal AC adapter
SB-PC-PT	Anton Bauer Power tap power supply for SilverBullet™