

## 3G Bidirectional SDI/Fiber Transceiver

- Supports SDI video up to 3G (1080p60)
- 3G Level A and Level B support (all formats)
- Auto relocking 270Mbit/s, 1.5Gbit/s, and 3Gbit/s
- Bidirectional - send and receive on single fiber
- Error free optical connections
- Up to 10km\* (6.2 miles) @ 3Gbit/s
- Simplex LC/PC singlemode fiber connection
- Supports hot swapping and hot plugging

The OBD 1810-2 is a bidirectional Fiber Optic to SDI transmitter and receiver which uses a single fiber link supplied in a compact self contained package. It is a convenient and cost-effective solution to combat the restrictions involved with the distribution of uncompressed broadcast quality video signals over long distances.

The OBD 1810-2 modules are supplied in pairs, one Type A and one Type B which work together in a WDM closed loop application. Each module has an electrical SDI in and SDI out connection and uses a single fiber link between the two.

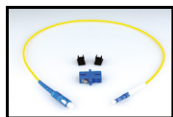
Each channel is fully independent and can have different standards and formats of SDI video. The modules auto-detect and re-clock any 270Mbit/s, 1.5Gbit/s and 3Gbit/s SDI source prior to conversion. The modules are fully compatible with 3G Level A and Level B formats.

**Note:** This system used WDM optical multiplexing and should only be used in point to point applications. This solution cannot be integrated into a CWDM multiplexed system.

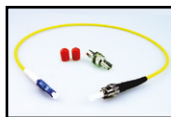
\*Distance is an approximation. Actual distances achieved can be longer or shorter depending on the type of cable. Determine link losses and perform optical budget calculations to ensure correct operation.

## Fiber Adapter Options

These adapter kits allow the use of ST, SC or FC fiber connections on the module.



Model# **LC/SC SIM**  
LC/PC to SC/PC Adapter



Model# **LC/ST SIM**  
LC/PC to ST/SC Adapter



Model# **LC/FC SIM**  
LC/PC to FC/SC Adapter



## Technical Specifications

<b>SDI Video</b>	1 x SDI input on 75 Ohm BNC connector 1 x SDI output on 75 Ohm BNC connector		
	SMPTE 424M, SMPTE 292M, SMPTE 259M, DVB-ASI		
	Multi-standard operation from 270Mbit/s to 3Gbit/s		
	Multi-rate relocking: 270Mbit/s - 1.5Gbit/s - 3Gbit/s		
	Electrical Return Loss:	to 1.5GHz: >15dB	to 3GHz: >10dB
Automatic cable EQ:	270Mbit/s 250m	1.5Gbit/s 220m	3Gbit/s 150m
	Belden 1694A		
<b>Fiber Optics</b>	1 x Bidirectional fiber connection (LC/PC Connection)		
	SMPTE 297M		
Wavelength:	Type A	TX: 1310nm / RX: 1550nm (WDM)	
	Type B	TX: 1550nm / RX: 1310nm (WDM)	
Optical power:	Type A / B	-8dBm to -3dBm	
RX Sensitivity	Type A / B	-16dBm @3Gbit/s	
	TX active LED on side of module		
Max. distance*	max. 10km (6.2 miles) @ 3Gbit/s		
<b>Power</b>	+12V DC @ 1.9W nominal - ( supports 7 - 24V DC input range )		
	Power LED on side of module		
<b>Physical (per module)</b>	Size (incl.connectors)	140mm x 42mm x 22mm (5.51" x 1.65" x 0.86")	
	Weight	125g (4.4oz)	
<b>Ambient</b>	5 - 40°C (41 - 104°F) 90% Humidity (non condensing)		
<b>Model #</b>	OBD 1810-2	EAN# 4250479318175	
<b>Includes</b>	2x Modules, 2x SFP Modules, 2x AC power supply		

## Typical Application

Bidirectional transmission and reception of SDI signals over a single fiber link

