



OxBox Micro-1320RM HDTV Multi Mode Fibre Optic Receiver

Key Features

- Multi Mode Fibre Optic Receiver
- Optical to HD/SDI electrical conversion
- 850nm VCSEL receiver
- ST connector
- Auto detects HDTV or SDI signals
- Simple to install on BNC Connector
- Receives up to 500M at HD
- Receives up to 2.5M at SDI
- Rack mount versions also available in compact boxes or 3RU rack.



This OxBox Micro Series 1320RM is a high quality, versatile, low cost multi mode HDTV/SDI Fibre Optic Receiver which is designed for receiving signals from fibre networks. It uses the latest VCSEL (Vertical Cavity Surface Emitting Laser) technology with infrared 850nm wavelength, giving a circular laser beam with low divergence angle and low threshold current. It is fitted as standard, with a ST type fibre connector on the input and provides HD SDI or standard SDI on a BNC connector at the output.. Please enquire if other optical connector required. The respective output standard is determined automatically by sensing the input signal and driving the output to that same standard, HDSDI or standard SDI. A red LED on the end of the unit will light to indicate that power is present to the unit but the input signal is invalid or out of range.

This unit can be used in conjunction with a OxBox Micro 1320TM transmitter over distances of up to 500 Metres at HD data rates or 2.5Km at SDI (270Mb/s) These figures assume use of 50/125 specification optical cable but for 60/125 cable distances are restricted to 150M and 2.0Km respectively. It is recommended that great care is taken when implementing optical equipment and if in doubt please consult with Oxygen DCT to ensure suitability and compatibility of fibre optic equipment.

Very compact and simple to install, the OxBox Micro Series 1320RM is just slightly bigger than a pen and simply fits 'inline' onto a standard BNC connector of the host digital video broadcast equipment. It is suitable for both fixed and temporary installations and can be installed in less than 60 seconds. It requires a 6V DC power supply that it used to provide power to the unit.

If multiple optical connections are required Oxygen DCT has a range of small Eurocard format dual channel optical converter cards for use in a compact box format or 3RU rack with dual power supplies which are most suited to high density installations. Oxygen DCT's fibre equipment is used in broadcast studios, stadiums, mobile flyaways, outside broadcast vehicles, fibre networks and professional communications applications. Please enquire for more details or visit the fibre section at www.oxygendct.com

For first class sales and support contact Oxygen DCT at the following address or via the online website shop.

2 Bacchus House
Calleva Park
Aldermaston
RG7 8EN
United Kingdom

W: www.oxygendct.com
E: info@oxygendct.com
T: +44 (0) 8707 4 62062
F: +44 (0) 8707 4 62063

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VCSEL Technology Explained (Vertical Cavity Surface Emitting Laser)

The VCSEL or Vertical Cavity Surface Emitting Laser, is semiconductor micro laser diode that emits light in a cylindrical beam vertically from the surface of a fabricated wafer, offering significant advantages when compared to the edge-emitting lasers often used in many fibre optic communications devices. The larger output aperture of VCSELs, compared to most edge-emitting lasers, produces a lower divergence angle of the output beam, enabling high coupling efficiency with optical fibres. The high reflectivity mirrors, compared to most edge-emitting lasers, reduce the threshold current of VCSELs, resulting in low power consumption. However, as yet, VCSELs have lower emission power compared to edge-emitting lasers. The low threshold current also permits high intrinsic modulation bandwidths in VCSELs, making them particularly suitable for high definition television signals.

Specifications

General

Length	55mm
Width	16mm
Height	16mm
Weight	80g
Operating Temperature	-30 C to + 70 C
MTTF @ 600 C	69x10E5 hours
Power Supply	5.80V @ 160ma
Signal Detect	LED for loss of signal

Optical

Optical Wavelength	8500nm
Optical Connectors	ST
Receive sensitivity	-3dBm to -20dBm typical

Video

SDI, HDTV or ASI output, automatically detecting input standard from input.	BNC connector, SMPTE 259M, SMPTE 292M, SMPTE 259M or DVB/ASI Bit Rates from 10M/b/s to 1.5Gb/s
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Ordering Information

OxBox Micro-1320RM - HDTV/SDI Multi Mode Fibre Optic Receiver. Includes 5V DC external power supply

Option

OxBox Micro-1320TM - HDTV/SDI Multi Mode Fibre Optic Transmitter

OxBox Micro-1320PSU -External 6V DC power supply. 100V to 250V AC auto sensing input.

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