

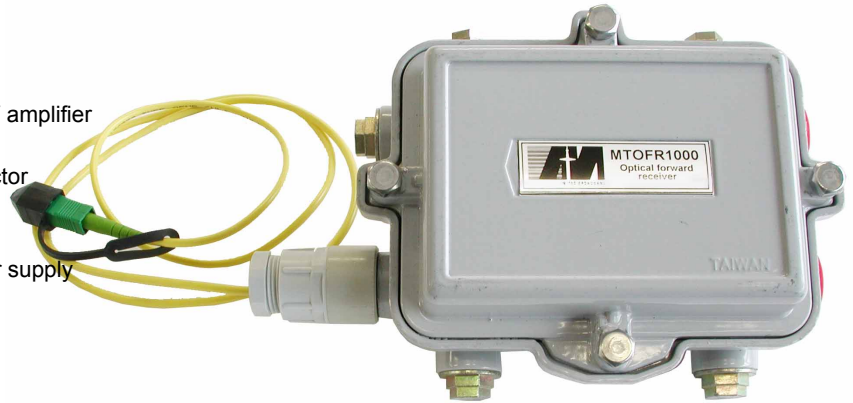


BRIDG-IT OFR 1000

Optical Forward Receiver 40 – 862 MHz

Features

- ▶ Direct compatibility with any CATV amplifier
- ▶ Simple installation
- ▶ High performance PIN diode detector
- ▶ Adjustable RF output level
- ▶ Operating to 862 MHz
- ▶ Highly efficient switch mode power supply
- ▶ SC-APC input connector
- ▶ Optical power test point
- ▶ Optical power monitoring by LED
- ▶ Operator's choice of RF amplifier
- ▶ No alignments required
- ▶ Various powering modes
- ▶ All ports 5/8"



Description

The M-TEC optical receiver OFR 1000 is a low cost, high performance receiver which can be implemented economically in all new and existing cable TV system architectures. Its compact, weatherproof design allows any CATV amplifier to be upgraded for fiber optic use, simply by connecting the OFR 1000 to the amplifier's input port by means of a housing to housing adapter. The receiver has been designed for simplicity of installation and operation.

No expensive optical test equipment is needed. Only a voltmeter and a standard field strength meter are required.

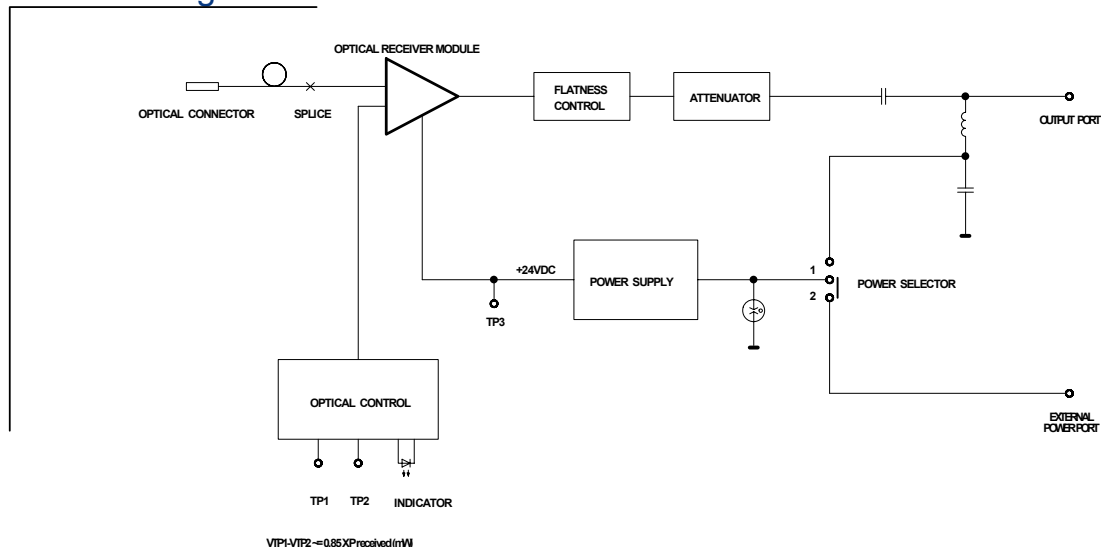
The input pigtail of the receiver is connectorized. The RF signals are amplified by a low noise hybrid amplifier.

The RF output signal is optimized by plug-in attenuators to interface directly with the distribution system.

The printed circuit board of the receiver has a DC-volt test point to monitor the optical input level.

The optical power in mW equals the voltage reading times. A LED is also provided to monitor the presence of optical power. The unit has a built-in, highly efficient switch mode power supply which can accept 30 to 60 Volt AC or 24 V DC via the amplifier's input port. This power supply can easily be swapped without affecting the base.

Block Diagram



Order Information

MT	OFR	10	-	XX	YY	ZZ
				00	Connector FU = FC/UPC SU = SC/UPC F8 = FC/APC8° F9 = FC/APC9° S8 = SC/APC8° S9 = SC/APC9° LC = LC/UPC MU = MU E2 = E2000	00

Specifications

Optical Input	
Wavelength	1290 - 1600 nm
Detector	PIN diode
Max. optical input power	+3 dBm (2 mW)
Optical input range	-6 to +3 dBm
Fibre type	monomode 9/125 µm
Return loss	≥ 40 dB without connector
LED indicators	
When received optical power:	Pr > -7 dBm ± 1 dBm (1)
Test points	
Optical power	TP1 - TP2 (7) VTP1 - VTP2 = 0,85 x Pr (mW) Pr = 0 dBm ; VTP1-VTP2= 850mV. Pr = -3 dBm ; VTP1-VTP2= 425mV. Pr = -6 dBm ; VTP1-VTP2= 212mV.
DC Output voltage 24 V	TP3
RF output	
Bandwidth	40 - 862 MHz
Flatness	±1 dB
Output level (1)	25 dBmV for Pr = - 3 dBm (1) and OMI = 5,5% (2)
Impedance	75 ohm
Return loss	≥ 16 dB (3)
Gain control	JXP-* pads (4)
In	7 pA / √ Hz
Second order (2)	≤ -70 dB (5)
Third order (3)	≤ -80 dB (6)
Mechanical	
Size W x H x D	150 x 120 x 75 mm
Weight	650 gr
All ports	5/8 "
Power requirements	
Voltage	30 - 60 Volts. Sine- or square wave. 50 Hz
Power consumption	6 Watts.
DC voltage	24 Volts
DC current	270 mA
Powering via:	RF output port or separate powering port
Environmental	
Operating temperature	-20 to +60 °C

Notes:

- (1) Pr = received optical power.
- (2) OMI = Optical mod. index.
- (3) With 3dB pad or higher.
- (4) Standard values: 0/3/6/9 dB
- (5) Two laser test, each laser with a 40% modulation index: $f_p=20,25$ MHz; $P_p=0,5$ mW and $f_q=34$ MHz; $P_q=0,5$ mW. Measured at $f_p+ f_q=54,25$ MHz.
- (6) Three laser test, each laser with a 40% modulation index: $f_p=125,25$ MHz; $P_p=0,33$ mW, $f_q=110,25$ MHz; $P_q=0,33$ mW and $f_r=135,25$ MHz; $P_r=0,33$ mW. Measured at $f_p+ f_q- f_r=100,25$ MHz
- (7) All values -0%; + 15