

ORx-200

Reverse path optical receiver



Description:

ORx-200 Reverse path optical receiver is designed to work at both 1310 and 1550nm wavelengths and perform reception of optical signal from the reverse path of a CATV network and converting it into RF signal in the range of 5 to 200MHz. A monitoring circuitry analyses received optical power and shows its status by means of LED's. Furthermore, the current level of optical power is represented as proportional DC voltage, which could be measured at testpoint on the front panel. RF gain preset and output level control are also available. All these features have been specially designed to facilitate the supervision, adjustment, maintenance and troubleshooting thence to provide convenience to the user.

Features:

- Capable to work at both 1310 and 1550nm optic wavelengths with no additional setting.
- Optical and RF connectors arranged on front panel for easy installation.
- Easy monitoring of optical power status – LCD's showing NO POWER, NORMAL RANGE, OVERLOAD.
- Optical power level converted into proportional DC voltage measurable at testpoint on front panel.
- Wide frequency bandwidth – 5 ÷ 200MHz.
- High/low RF gain presettable by internal jumper.
- Front panel manual adjustment of RF output level.
- RF output signal testpoint on front panel.
- Low power consumption.
- Light and compact housing.

Specifications:

Optical

Parameter	Units		
Wavelength	nm	1310 and 1550	
Optical Input Power Range	Low RF gain preset	dBm	0 ÷ -15
	High RF gain preset	dBm	-6 ÷ -15
Optical Test Point	V/mW	1 ±10%, located on front panel	
Optical Status LED indicators	Red – OPTICAL POWER BELOW LIMIT Green – NORMAL RANGE Orange – OVERLOAD (>1mW)		
Optical Input Connector	SC/APC on front panel		

RF

Parameter	Measurement Conditions	Units	
Bandwidth		MHz	5 ÷ 200
Output Level	Input Optical Power = 0dBm; OMI ¹⁾ = 10%; Attenuation = 0dB; Gain preset = LOW	dBμV	107
	Input Optical Power = 0dBm; OMI ¹⁾ = 10%; Attenuation = 0dB; Gain preset = HIGH	dBμV	117
Output Level Adjustment		dB	0 ÷ -20, stepless adjustable
Gain Preset	HIGH – LOW, selectable by internal jumper		
Flatness	Over frequency range 5 ÷ 200 MHz	dB	±0.75
Return Loss	75Ω Load	dB	< -18
RF Test Point	75Ω Load	dB	-20; F-connector on front panel
RF Output Connector	F-type on front panel; 75Ω output impedance		

Electrical

Parameter	Units	
Supply Voltage	V DC	24 ±10%
Power consumption	W	5

Environmental

Parameter	Units	
Operating temperature range	°C	+5 ÷ +40
Maximum relative humidity	%	80 (at +30°C max)
		50 (at +40°C max)

Mechanical

Parameter	Units		
Housing	Plastic, ABS		
Dimensions	Length	mm	185
	Width	mm	137
	Height	mm	45
Weight	kg	0.4 (with adapter)	

1) OMI – Optical Modulation Index