

HDO202 CATV FIBRE RECEIVER

HDO202 is a dual receiver for return path (upstream) fibre optic links in CATV networks. It is installed into HDX002 installation frame.

Features

- Fibre connectors can be located at the rear or at the front panel
- Front panel test points for optical input power
- Wide range adjustable mid-stage attenuator
- Three output level control modes:
 - Automatic based on OMI, target output level and optical input level
 - Automatic based on optical input level
 - Manual
- Internal or external A/B-back-up switching as a standard feature
- Small form factor family, 2 RU height
- Forced cooling with intelligent temperature control



Management features

- Optical input power measurement and monitoring
- Automatic output level control with monitoring
- Internal / external backup configuration with monitoring
- Signal LEDs for both receiver statuses, module LED for internal status
- Internal temperature measurement and monitoring
- Intelligent fan speed control with monitoring
- Non-volatile logging of 32 latest events, including alarms, alarming values, settings changes and application starts.
- Uptime and total uptime counters
- All adjustments and alarm limits fully user configurable
- Local PC connection through backplane HDO bus with DVX012 cable
- Remote IP connection through HDC100 controller module

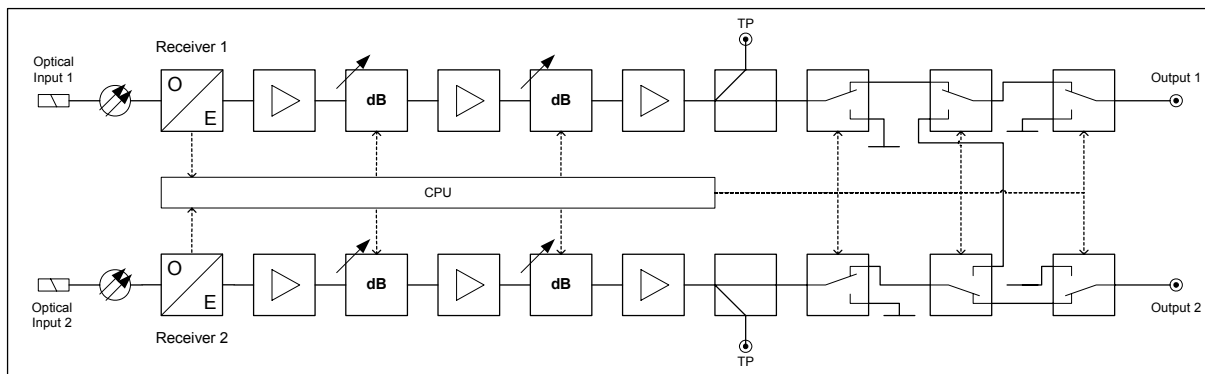
Technical specifications

Parameter	Specification	Note
Optical parameters		
Light wavelength	1000...1620 nm	
Input power	-20...+2 dBm	1)
RF parameters		
Frequency range	5...300 MHz	
Output level	$2 * P_{opt} + 124 \text{ dB}\mu\text{V}$	2)
Flatness	$\pm 0.75 \text{ dB}$	3)
Slope variation	$\pm 0.75 \text{ dB}$	
RF impedance	75 Ω	
Output return loss	18 dB	4)
Level control range	40 dB	
RF test points	20 dB	5)
Isolation	60 dB	6)
Linearity and noise parameters		
Noise current density	7 pA/ $\sqrt{\text{Hz}}$	
3 rd order distortion	-60 dB	7)
2 nd order distortion	-60 dB	8)
General		
Power consumption	10 W	
Supply voltages	25 V / 350 mA 6.3 V / 250 mA	
Optical connectors	SC-APC, E-2000	9)
RF Connectors	F female	10)
Cooling	Field replaceable fan	11)
Dimensions	2U x 7HP x 380 mm Occupies 1/12 of HDX002	h x w x d
Weight	1.5 kg	
EMC compliance	EN 50083-2	
Enclosure classification	IP20	
Operating temperature range	0...+45 °C	
Storage temperature range	-20...+60 °C	
Operating relative humidity	0...85%	

Notes

- 1) Photodiode damage power is +4 dBm.
- 2) Gain limited maximum output level when OMI is 10%.
- 3) Typical value. Maximum value is ± 1.0 dB up to 200 MHz and ± 1.5 dB up to 300 MHz.
- 4) Minimum value up to 200 MHz. Between 200 and 300 MHz minimum value is 15 dB.
- 5) Compared to output. Typical accuracy is ± 0.5 dB. Maximum value is ± 0.75 dB.
- 6) This is the isolation between the separate signal paths 1 and 2 up to 65 MHz. The isolation is 50 dB above 65 MHz.
- 7) Typical distortion distance for two carriers between 5 and 65 MHz when output level is 90 dB μ V.
- 8) Typical distortion distance for two carriers between 5 and 65 MHz when output level is 90 dB μ V.
- 9) Fibre connectors can be located at the rear or at the front panel.
- 10) Fixed connections are located at the rear panel. Test points are located at the front panel.
- 11) The fan can be replaced by the user without signal interruption.

Block diagram



Ordering information

1-
1 2
HDO202

1-1 Fibre location	
F	Front panel
R	Rear panel
1-2 Fibre connector type	
C	E-2000
D	SC/APC, 8 deg.
H	SC/APC with shutter, 8 deg.