

HDO203 CATV FIBRE RECEIVER

HDO203 is a dual receiver module for fibre optic return path (upstream) links in CATV networks. It is installed into HDX installation frame. HDO203 has an integrated alarm receiver to enable a monitoring data of AC800 FTTLA node or CXE880 node.

Features

- Two independent return path receivers
- Integrated node alarm receiver (AC800 FTTLA or CXE880 counterpart)
- Monitoring of 32 nodes
- Wide input power / output level range
- Three output level control modes:
 - Automatic based on OMI, target output level and optical input level
 - Automatic based on optical input level
 - Manual
- Small form factor family, 2 RU height



Management features

- Optical input power measurement and monitoring
- Automatic output level control with monitoring
- AC800 FTTLA or CXE880 node monitoring: presence, identification data, measurements, statistics (see also node specification)
- 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 DVX021 cable
- Remote IP connection through HDC100 controller module
- SNMP monitoring and configuration through HDC100 controller module

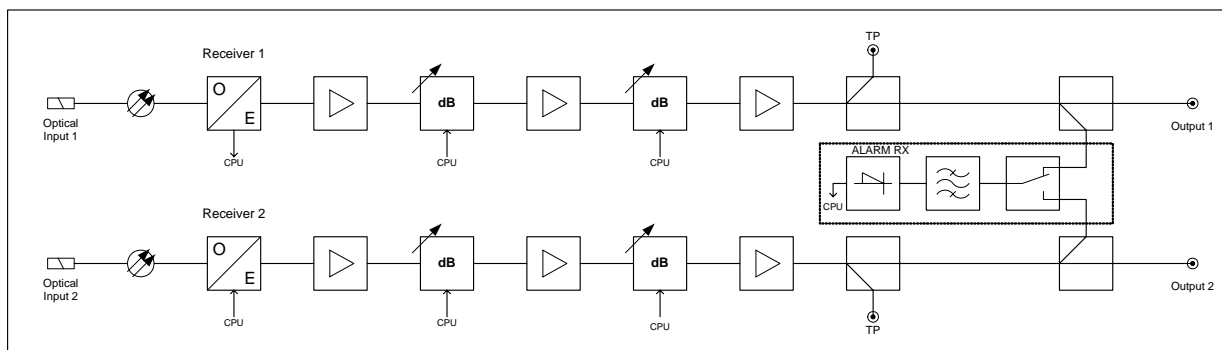
Technical specifications

Parameter	Specification	Note
Optical parameters		
Light wavelength	1000...1620 nm	
Input power	-20...+2 dBm	1)
RF parameters		
Frequency range	5...65 MHz	
Output level	2 * P _{opt} + 124 dB μ V	2)
Flatness	\pm 0.75 dB	3)
Slope variation	\pm 0.75 dB	
RF impedance	75 Ω	
Output return loss	18 dB	
Level control range	40 dB	
RF test points	20 dB	4)
Isolation	60 dB	5)
Linearity and noise parameters		
Noise current density	7 pA/ \sqrt Hz	
3 rd order distortion	-60 dB	6)
2 nd order distortion	-60 dB	7)
Alarm receiver		
Maximum number of monitored nodes	2 x 16	8)
Data carrier frequency	10.7 MHz	
Modulation method	ASK 9600 bps or FSK 38400 bps	9)
Channel bandwidth	0.4 MHz	10)
ASK decision making threshold	75 dB μ V	11)
General		
Power consumption	5 W	
Supply voltages	25 V / 180 mA	
	6.3 V / 80 mA	12)
Optical connectors	SC-APC	13)
RF Connectors	F female	14)
Cooling	Free air flow	15)
Dimensions	2U x 7HP x 380 mm	h x w x d
	Occupies 1/12 of HDX002	
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.
- 4) Compared to output. Typical accuracy is ± 0.5 dB. Maximum value is ± 0.75 dB.
- 5) This is the isolation between the separate signal paths 1 and 2 up to 65 MHz.
- 6) Typical distortion distance for two carriers between 5 and 65 MHz when output level is 90 dB μ V.
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- 8) In FSK mode each receiver can monitor up to 16 nodes. In ASK mode one node per one receiver.
- 9) ASK is the factory setting value. A user can select ASK or FSK mode.
- 10) In ASK mode typical selectivity >45 dB outside channel between 5...65 MHz.
- 11) Equivalent level at RF output. Accuracy ± 3 dB.
- 12) 280 mA if an optional fan is installed to the unit front panel. This increases the total power consumption by 1.3 W.
- 13) Fibre connectors are located at the front panel.
- 14) Fixed connections are located at the rear panel. Test points are located at the front panel.
- 15) Optional cooling fan can be installed or replaced by the user without signal interruption.

Block diagram



Ordering information

	1-
	1 2
HDO203	
1-1 Fibre location	
F Front panel	
1-2 Fibre connector type	
C E-2000	
D SC/APC, 8 deg.	
H SC/APC with shutter, 8 deg.	