

HDO610 WIDEBAND AMPLIFIER

HDO610 is a wideband amplifier module for HDO platform. It is installed into HDX002 installation frame. HDO610 can be used as a general gain block for HDX headend and hub systems. It is designed to drive up to sixteen HDO902 transmitters and can be cascaded for any number of broadcast transmitters. A high isolation narrowcast input allows convenient realizing of narrowcast segments.

Features

- Small form factor family, 2 RU height
- Broadcast and narrowcast input
- Broadcast and narrowcast level adjustments
- High narrowcast isolation
- Four outputs
- Forced cooling with intelligent temperature control
- Local and remote software control of all adjustments
- Forced cooling through the unit

Management features

- LED indicators for signal and module statuses
- Manual level adjustment
- 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 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



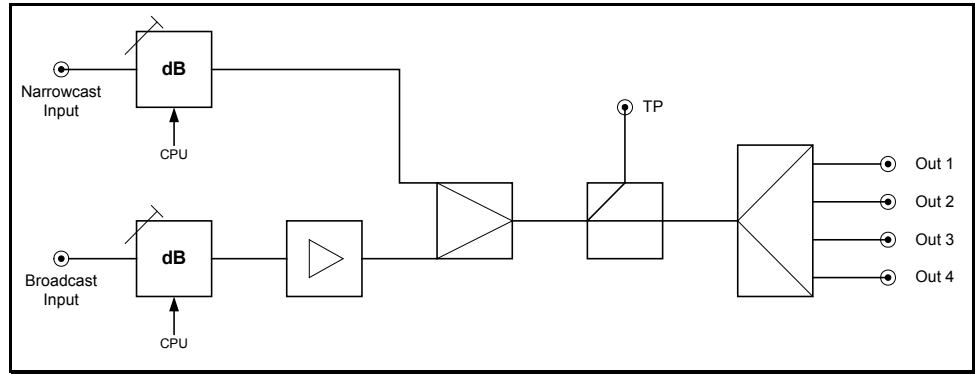
Technical specifications

Parameter	Specification	Note
RF parameters		
Frequency range	47...1006 MHz	1)
RF impedance	75 Ω	
Return loss	18 dB	2)
RF output test point	-20 dB	3)
Broadcast branch		
Gain	10 dB	
Flatness	± 0.5 dB	4)
Level adjustment range	10 dB	
Noise figure	7 dB	5)
Output level, CTB CENELEC	98 dB μ V	6)
Output level, CSO CENELEC	96 dB μ V	6)
Narrowcast branch		
Gain	-15 dB	
Flatness	± 0.5 dB	
Level adjustment range	10 dB	
Narrowcast isolation	60 dB	
General		
Power consumption	12 W	
Supply voltages	25 V / 400 mA 6.3 V / 270 mA	
Connectors, RF	F	
Cooling	Field replaceable fan	7)
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 $^{\circ}$ C	
Storage temperature range	-20...+60 $^{\circ}$ C	
Operating relative humidity	0...85 %	

Notes

- 1) The frequency range 862...1006 MHz is recommended to be used for QAM transmission
- 2) Typical value is 18 dB below 862 MHz. The minimum value is 18 dB and above 40 MHz -1.0 dB/octave.
- 3) Compared to the outputs.
- 4) Typical value. The frequency response is slightly U-shaped to improve the matching to the intended main application: booster amplifier before several optical transmitters. The frequency band above 862 MHz is less flat.
- 5) Typical value. The maximum value at 862 MHz is 8 dB.
- 6) Minimum value at each output at worst case frequency. The typical value is 100 dB μ V. The distortion performance is adequate for driving up to sixteen HDO902 transmitters when there are 1:4 splitters at the outputs of HDO610 i.e. 4x4 output configuration.
- 7) The fan can be replaced by the user without signal interruption.

Block diagram



Ordering information

HDO610 1-
1

1-1	Signal monitoring
A	Spectrum analyser. Not available yet.
X	None