

HDO611 WIDEBAND AMPLIFIER

HDO611 is a wideband amplifier module for HDO product family. It is installed into HDX installation frame. HDO611 can be used as a general gain block in headend and hub systems.

Features

- Two gain options
- One input with level and slope adjustments
- High output level and high linearity
- Small form factor family, 2 RU height
- Local and remote software control of all adjustments
- RF test point at front
- Forced cooling through the unit



Management features

- Signal level adjustment
- Slope adjustment
- Spectrum analyser module option, allowing signal monitoring with fully user programmable frequencies and limits
- LED indicators for signal and module statuses
- 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

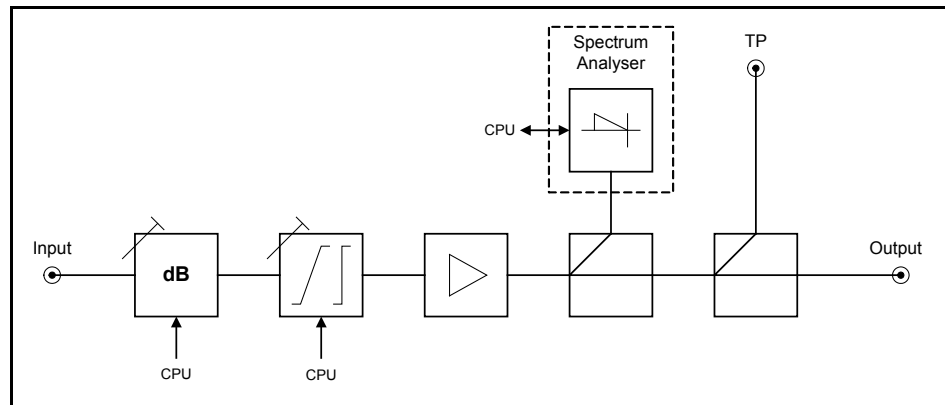
Technical specifications

Parameter	Specification	Note
RF parameters		
Frequency range	47...1006 MHz	
Gain	17 dB or 21 dB	1)
Flatness	±0.5 dB	2)
RF impedance	75 Ω	
Return loss	18 dB	3)
Level adjustment range	19 dB	
Input equaliser	0...10 dB	
RF output test point	20 dB	4)
Noise figure		
17 dB model	7.0 dB	5)
21 dB model	8.5 dB	5)
Output level, CTB CENELEC 42 chs	111 dBμV	6)
Output level, CSO CENELEC 42 chs	111 dBμV	6)
Spectrum analyser module (optional)		
Measurement range	50...860 MHz, 0.25 MHz steps	
Measurement bandwidth	1.5 MHz	7)
Dynamic range	75...115 dBμV	8)
Measurement accuracy	±1 dB	9)
General		
Power consumption		
Without spectrum analyser	11.8 W	
With spectrum analyser	13.1 W	
Supply voltages		
Without spectrum analyser	25 V / 435 mA 6.3 V / 140 mA	
With spectrum analyser	25 V / 445 mA 6.3 V / 305 mA	
Connectors, RF	F female	
Cooling	Field replaceable fan	10)
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

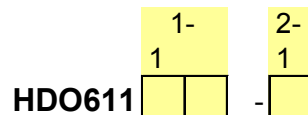
- 1) Nominal gain. The gain is configured when the product is ordered.
- 2) Typical value.
- 3) Typical value is 18 dB below 862 MHz. The minimum value is 18 dB and above 40 MHz - 1.0 dB/ octave.
- 4) The tolerance is ± 0.75 dB at 47...862 MHz and ± 1.0 dB at 862...1006 MHz.
- 5) Typical value.
- 6) Minimum value at worst case frequency.
- 7) Typical -3 dB bandwidth. Typical -20 dB bandwidth is 2.5 MHz.
- 8) For modulated PAL signal at the main output. For QAM detection the dynamic range is approximately 6 dB higher.
- 9) This is the typical performance over band 50...740 MHz for PAL signals. For PAL signals between 740...860 MHz and all QAM signals the accuracy is ± 2.0 dB.
- 10) The fan can be replaced by the user without signal interruption.

Block diagram



Ordering information

HDO611 configuration map



1-1 Gain
17 17 dB Gain
21 21 dB gain

2-1 Signal monitoring
A Spectrum analyser
X None