

## COMPACT END AMPLIFIER

LAMBDA PRO 42G is a dual output end amplifier designed to meet the requirements of modern broadband networks. Applied Gallium Arsenide technology guarantees high output level and improves system performance. Amplifier is powered remotely through RF port or locally with 24-65 V AC.

LAMBDA PRO 42G is equipped with input RF test point allowing signal level measurements.

It is also equipped with RF detector and FSK transceiver for communication with the Group Hand Held Terminal (GHHT).

Compact size of the amplifier allows installation of the units in small cabinets. In order to simplify configuration, maintenance and reduce number of necessary plug-in modules, device was designed for remote configuration.

During automatic system adjustment procedure, a communication link is opened by GHHT (connected to the primary amplifier or node) for remote adjustment of output level and slope, both in forward and reverse path of the LAMBDA PRO 42G. Value of interstage attenuator and equalizer is automatically recognized by  $\mu$ P Controller.

Such a design of LAMBDA PRO 42G allows to reduce number of plug-in modules and to calibrate the HFC Network by less experienced engineers, in the time slot shorter than a few seconds. That fact makes the installation process much faster and less expensive than traditional one. Moreover this guarantees achieving stable and repeatable required network settings.

LAMBDA PRO 42G is equipped with QIS (Quick Installation Stick), which is external memory card, allows to save amplifier's all set-ups. This might be used in case of the amplifiers replacement or for data storage simplifying.

### LAMBDA PRO 42G



- ▶ 1GHz in downstream
- ▶ QIS for easy reinstallation and data storage
- ▶ Remote or local configuration via GHHT
- ▶ LED state visualisation
- ▶ RF detector
- ▶ FSK transmission
- ▶ Built in active reverse path and DF
- ▶ Electronic adjustment
- ▶ Low power consumption
- ▶ RS port for local firmware exchange

## PRODUCT SPECIFICATIONS

RF PARAMETERS	
Forward Channel	
Bandwidth	85 ÷ 1002 MHz
Gain	2 x 32 ± 0.75 dB
Noise figure <sup>1</sup>	< 9 dB
Flatness <sup>2</sup>	± 0.75 dB
Slope	0 ± 1 dB
Output level typ. <sup>3</sup> :	
CTB ≤ -60dBc	2 x 103 dBμV
CSO ≤ -60dBc	2 x 103 dBμV
Return loss <sup>4</sup>	≥ 18 dB
Input testpoint (bi-directional)	-20 ± 1.5 dB
Forward gain, slope control:	
A1, E1	0 ÷ 20, step 0,5 dB
Reverse Channel	
Bandwidth	5 ÷ 65 MHz
Return loss <sup>4</sup>	≥ 18 dB
Gain / port - port	2 x 17 ± 1 dB
Flatness	± 0.75 dB
Reverse gain control:	
A2	0 ÷ 20, step 0,5 dB

OTHER	
AC voltage range	24 ÷ 65 V AC
Max. current for AC IN	4 A
Max. current for RF ports <sup>5</sup>	3,5 A
Power consumption	< 11 W
Operation temperature range	-20 ÷ 60 °C
Connectors (input / output)	3 x IEC 14M
Protection class	IP 65
Dimensions (WxLxH)	205 x 155 x 77 mm
Weight	1.2 kg

<sup>1</sup> Up to 1002MHz, with duplex filter

<sup>2</sup> Valid from 90 to 1002MHz @20 °C

<sup>3</sup> With 0dB interstage equalizer, according to EN50083-3, 42 channels CENELEC

<sup>4</sup> 18dB for f ≤ 40MHz; 18 - 1.5dB /oct. for f > 40MHz

<sup>5</sup> For f > 7MHz, HUM < -60dBc

## BLOCK DIAGRAM

