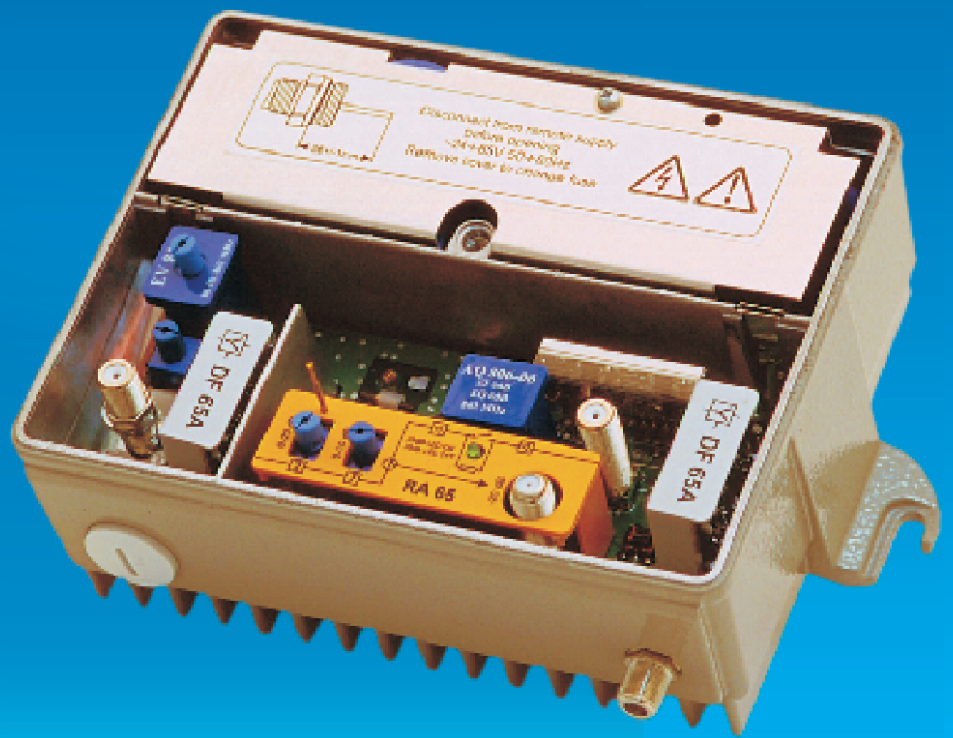




VECTOR

λ



broadband distribution amplifiers
LAMBDA

INTRODUCTION

LAMBDA is a broadband distribution amplifier dedicated to be used as the last active element in HFC networks. Based on a long experience in broadband industry it is tailored to meet present requirements of the market, and is ready for the demands of the future.

Modern technology applied in LAMBDA supports high output RF levels with low intermodulation distortions. Therefore using one distribution amplifier, it is possible to reach more subscribers, while sustaining excellent system performance.

LAMBDA with its modular design allows flexible configuration and step-by step development of the system. The use of universal plug-in modules common for all VECTOR amplifiers leads to convenient maintenance and operational costs reduction.

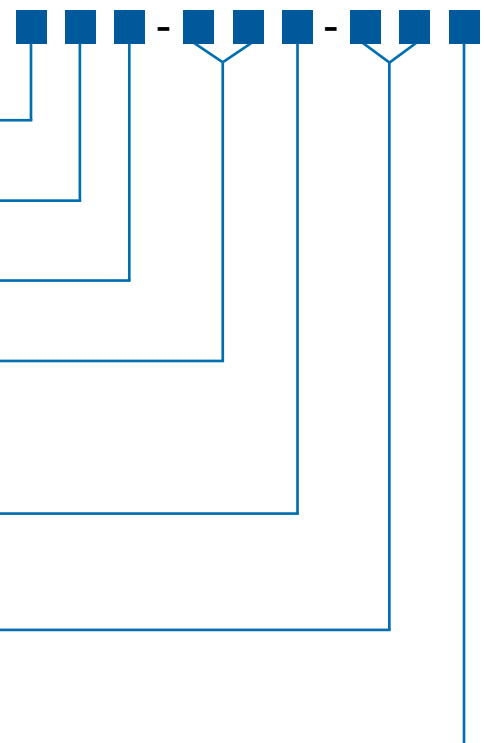
Reverse path in LAMBDA is available as a highly adjustable active or passive plug-in module. This enables quick and easy introduction of new interactive services, while distributing capital expenditures in time.

Taking advantage of improvements in technology, LAMBDA is consuming very little power. Either remote or mains powering options are provided. Multistage overvoltage protection for all RF ports increases durability of the amplifier resulting in higher reliability of the network.

Available in 5 standard versions with IP54 compact housing broadband amplifier LAMBDA is the optimum solution for the distribution HFC network.

LAMBDA

- type _____
D - distribution
- forward bandwidth _____
8 - up to 862MHz
- reverse bandwidth _____
X - depends on diplex filter
- output stage _____
AE - GaAs Power Doubler
AF - GaAs Push Pull
BJ - Si Push Pull
- connectors _____
5 - F input / F output
6 - PG11 input / F output
- forward gain _____
34 - 34dB
36 - 36dB
- powering _____
M - mains
W - remote only from input RF port



FEATURES

- High output level with excellent performance
- Low power consumption
- Modular design and flexible configuration
- Remote or mains powering
- IP 54 compact housing



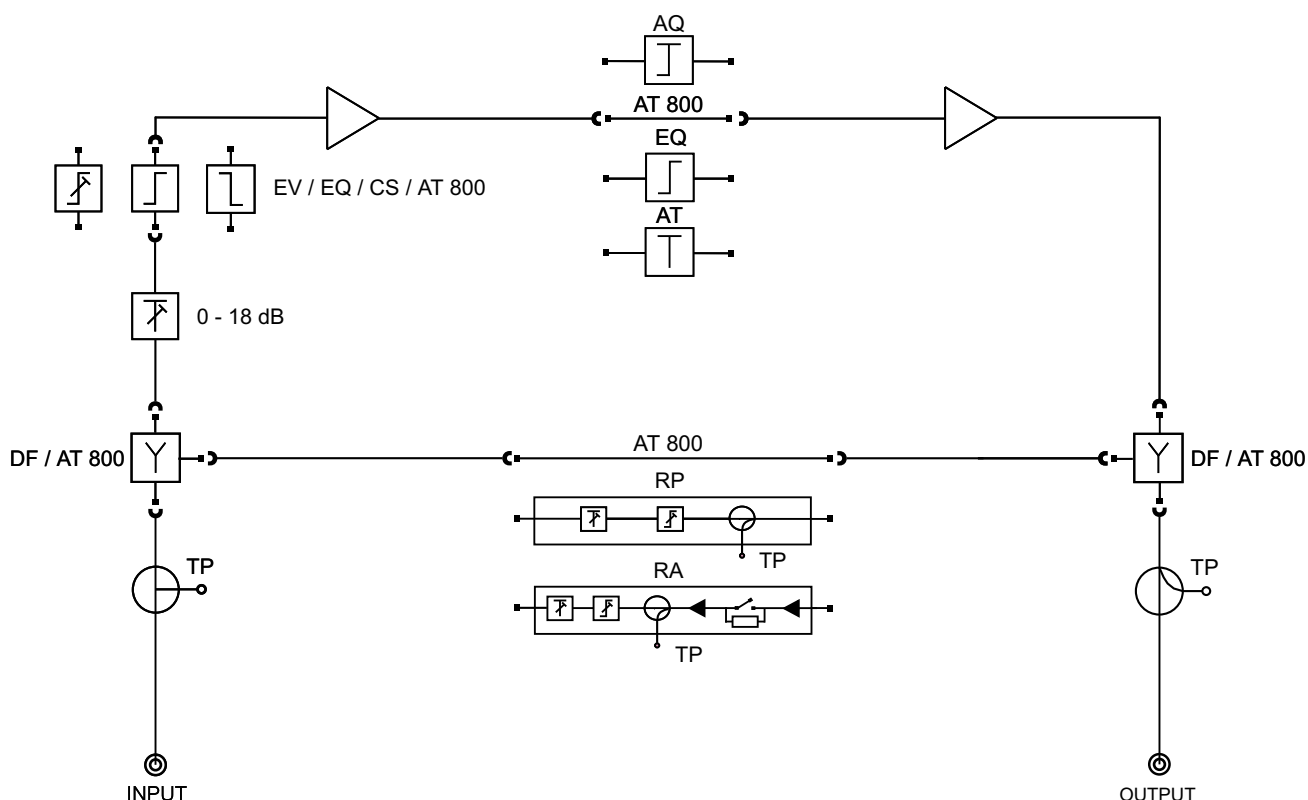
PARAMETERS

| PARAMETER | D8X-AE6-36W | D8X-AF6-36W D8X-AF5-36M | D8X-BJ6-34W D8X-BJ5-34M | COMMENT |
|--|----------------|----------------------------|----------------------------|--|
| Forward bandwidth [MHz] | 47...85 ÷ 862 | 47...85 ÷ 862 | 47...85 ÷ 862 | Diplex filters DF |
| Forward gain @ 862MHz [dB] | 36 ± 0.7 | 36 ± 0.7 | 34 ± 0.7 | Diplex filters DF and jumpers AT 800 |
| Noise figure [dB] | ≤ 7 | ≤ 7 | ≤ 7 | Diplex filters DF and jumpers AT 800 |
| Forward flatness [dB] | ±0.75 | ±0.75 | ±0.75 | |
| Forward slope [dB] | ±1 | ±1 | ±1 | |
| Output level typ. [dBμV] CTB ≤ -60dBc CSO ≤ -60dBc | 114 118 | 110 114 | 107 110 | According to EN 50083-3; 9dB interstage slope, 42 carriers CENELEC |
| Reverse bandwidth [MHz] | 5 ÷ 30...65 | 5 ÷ 30...65 | 5 ÷ 30...65 | Diplex filters DF |
| Max. reverse gain [dB] | 23.5 | 23.5 | 23.5 | Diplex filters DF and reverse amplifier RA |
| NPR [dBc] | ≤ -60 | ≤ -60 | ≤ -60 | Reverse amplifier RA, 60MHz load @ 26dBμV/Hz |
| HUM modulation [dBc] | ≤ -65 | ≤ -65 | ≤ -65 | @ 343.25MHz |
| Return loss [dB] | ≤ -14 | ≤ -14 | ≤ -14 | f ≤ 40MHz; f > 40MHz: +1.5/oct but ≤ -10 |
| Test point @ input [dB] | -20 ± 1.5 | -20 ± 1.5 | -20 ± 1.5 | Bi-directional |
| Test point @ output [dB] | -20 ± 1 | -20 ± 1 | -20 ± 1 | Directional |
| Number of RF inputs/outputs | 1/1 | 1/1 | 1/1 | |
| Connectors @ input/output | PG11/F | PG11/F F/F | PG11/F F/F | Others on request |
| AC voltage range [V] | 24 ÷ 65 | 24 ÷ 65 187 ÷ 253 | 24 ÷ 65 187 ÷ 253 | AC 50 ÷ 60Hz |
| Power consumption [W] | 12.5/14 | 9.5/11 11.5/13 | 10.5/12 12.5/14 | Without / with reverse amplifier RA |
| Protection class IP | IP54 | IP54 | IP54 | |
| Temperature range [°C] | -25 ÷ +60 | -25 ÷ +60 | -25 ÷ +60 | |
| Dimensions (W x L x H) [mm] | 206 x 133 x 83 | 206 x 133 x 83 | 206 x 133 x 83 | Main body with screwdrivers |
| Weight [kg] | 1.8 | 1.8 | 1.8 | |

CONFIGURATION

| PARAMETER | VALUE | MODULE |
|---|---------------------------------------|---|
| Reverse/forward bandwidth [MHz] | 47 ÷ 862 5 ÷ 30...65/47...85 ÷ 862 | Jumper AT 800 Diplex filters DF |
| Input adjustment: signal slope [dB] | 0 1 ÷ 24 step 1 | Jumper AT 800 Fixed equalizer EQ Variable equalizer EV |
| signal level [dB] | 0 ÷ 18 -3, -6 0 ÷ 18 | Cable simulator CS Variable attenuator on the main board |
| Interstage adjustment: signal slope [dB] | 0 1 ÷ 12 step 1 | Jumper AT 800 Fixed equalizer EQ |
| signal level [dB] | 0 ÷ 12 step 1 | Fixed attenuator AT |
| signal level & slope [dB] | 6/6; 6/9; 10/6; 10/9 | Fixed attenuator & equalizer AQ |
| Reverse gain [dB] | 23.5 or 18.5/0 | Reverse amplifier RA / jumper AT 800 or passive reverse RP |

All plug-in modules must be ordered separately.



Specifications are subject to change without notice.

02.08.07 page 4 of 4