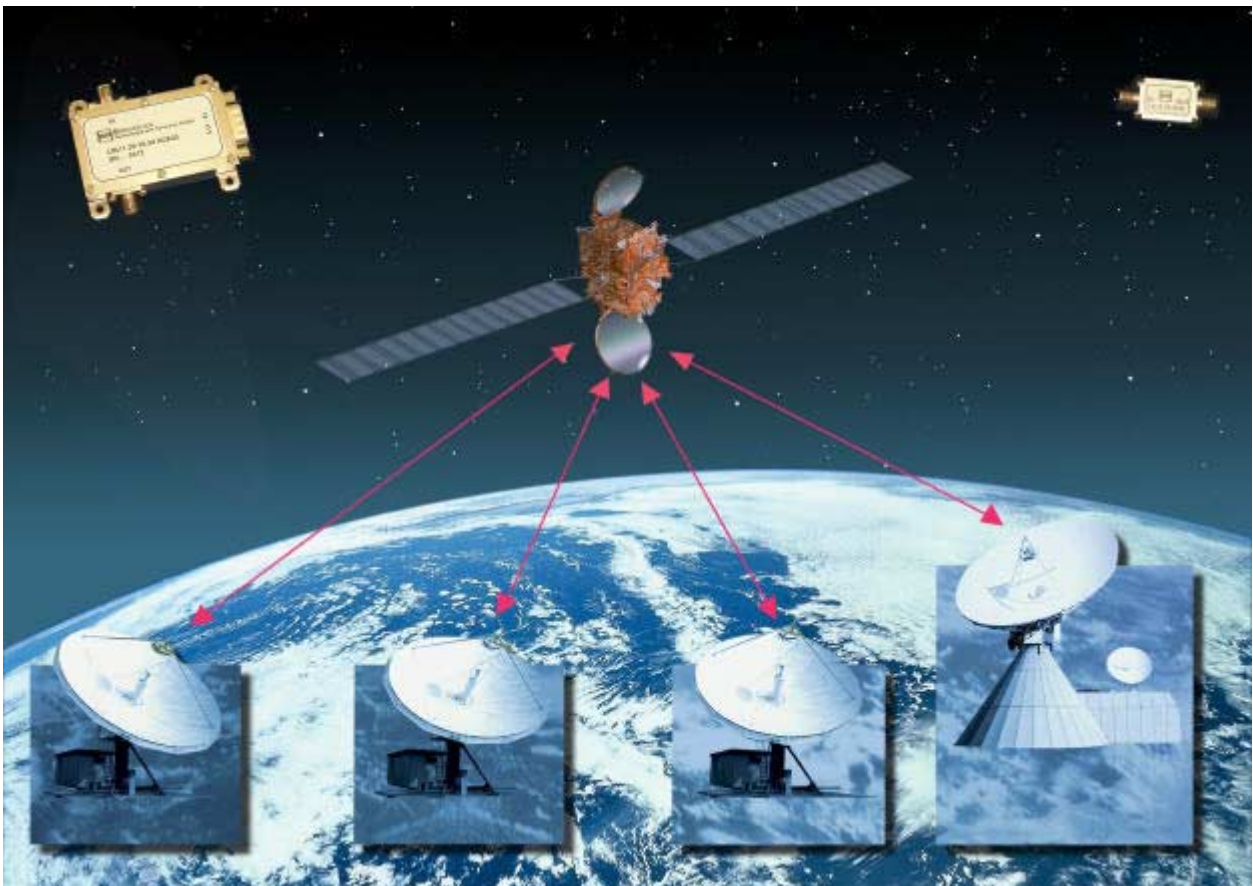


Linearizers for C-, Ku- and Ka-band TWTs



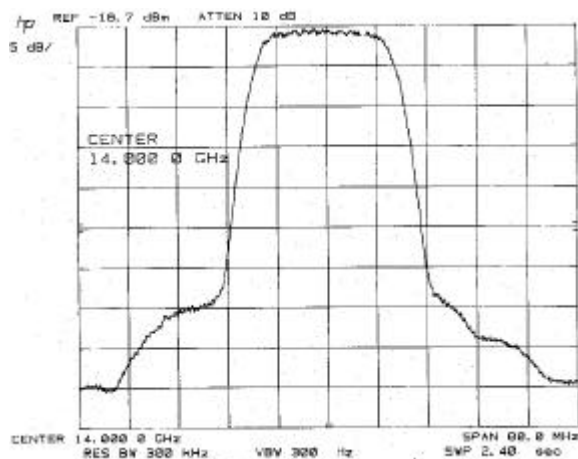
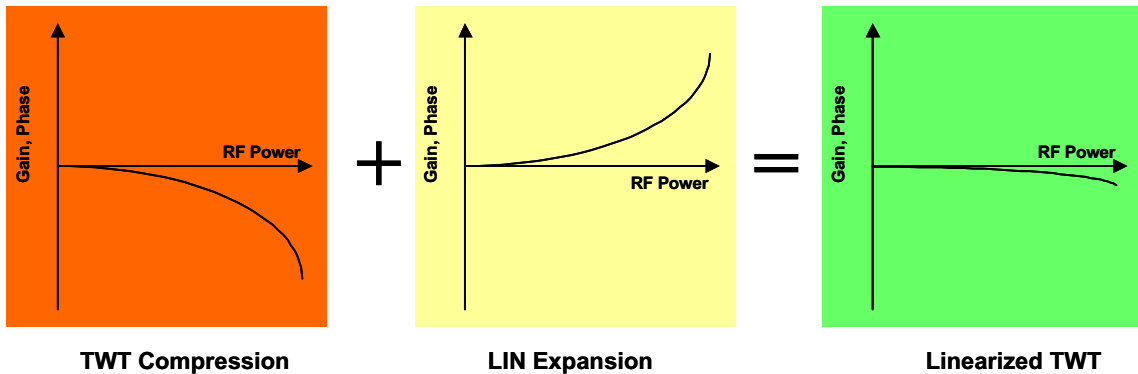
*The best performance worldwide
-at an unbeatable low price*

Linearizers for TWTs



Modern communication systems carrying large numbers of signals require High Power Amplifiers which provide RF power with high linearity and high efficiency. Travelling-wave tube amplifiers (TWTAs) are best suited for these applications. Linearizers are used to improve the performance of these amplifier types.

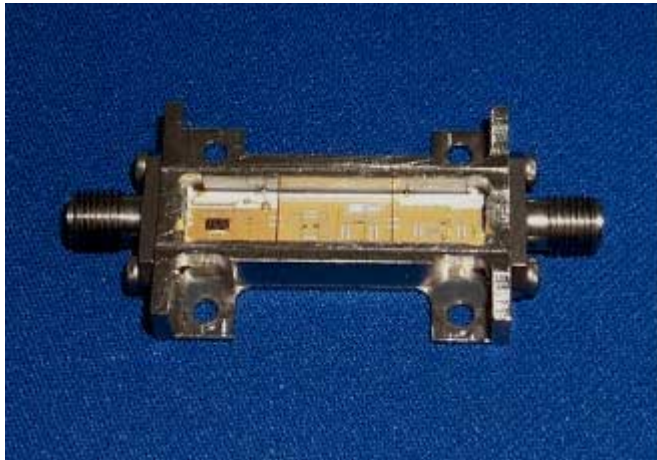
Linearizers shall shape the overall amplitude and phase transfer curves of TWTAs to generate less distortion for a given output power, resulting in operation capabilities much closer to saturation of TWTs.



ASTYX offers linearizers which summarizes

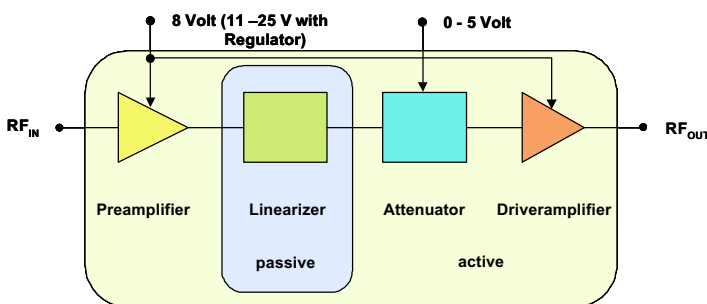
- Lowest cost
- Smallest size, lowest mass (< 20 g)
- Low DC power consumption
- Passive linearizers w/o any DC connector
- Excellent RF performance
- Hermetically sealed for all applications
- Modular concept
- Standard products available from stock

Video-Modulated Signal of a Linearized TWT



Typical Performance :

- Bandwidth up to
 - 500 MHz @ C-Band Frequencies
 - 2 GHz @ Ku-Band Frequencies
 - 4 GHz @ Ka-Band Frequencies
- Gain Expansion 6 – 7 dB
- Phase Expansion 30 – 50 °
- VSWR 1.4 : 1
- Output Power up to 18 dBm
- Temperature Range –40 ... +85 °C
- DC Power Consumption
 - No DC required for passive Linearizers
- Dimensions see Overview
- Mass < 20 g up to 150 g



Blockdiagram :

Linearizers are available as

- passive Linearizers
- Linearizers with Preamplifier , Attenuator and Driveramplifier with fixed 8 Volt DC source
- Linearizers with Voltage Regulators
- Custom designed Linearizers
- Space qualified on request

ASTYX-Linearizer Dimensions

Frequency / GHz	Passive Linearizer	Fixed 8 Volt Linearizer	var. Voltage Linearizer
3.7 – 4.2	25 x 16 x 7	53 x 24.5 x 7	69 x 63 x 16.5
5.8 – 6.8	20 x 16 x 7	53 x 24.5 x 7	69 x 63 x 16.5
8.0 – 9.0	20 x 16 x 7	53 x 24.5 x 7	69 x 63 x 16.5
10.7 – 12.7	15 x 16 x 7	36.5 x 24.5 x 7	52.5 x 63 x 16.5
12.7 – 14.5	15 x 16 x 7	36.5 x 24.5 x 7	52.5 x 63 x 16.5
13.7 – 15.5	15 x 16 x 7	36.5 x 24.5 x 7	52.5 x 63 x 16.5
17.3 – 18.5	15 x 16 x 7	36.5 x 24.5 x 7	52.5 x 63 x 16.5
17.8 – 20.2	15 x 16 x 7	36.5 x 24.5 x 7	52.5 x 63 x 16.5

Dimensions in mm without SMA connectors

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