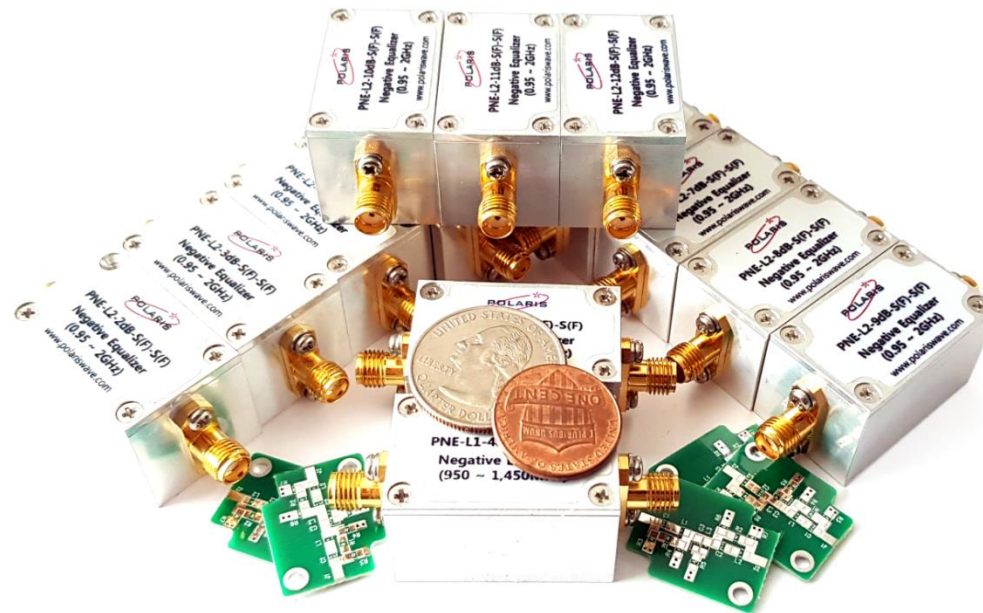


# Gain Equalizer



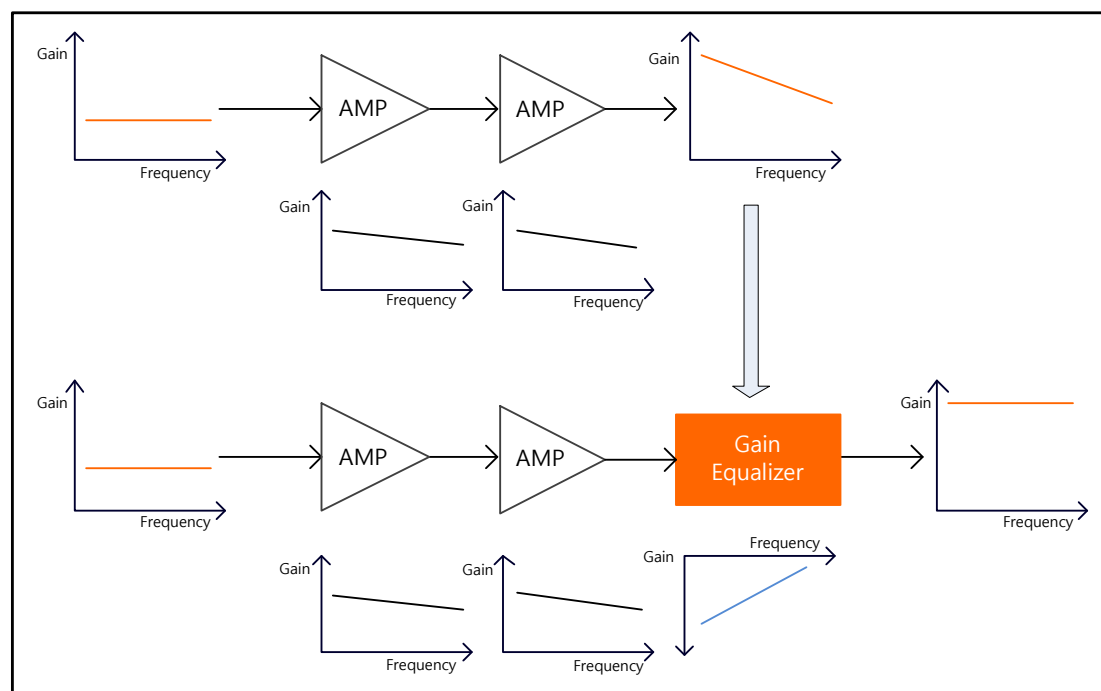
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## ❖ Description

The Polaris Gain Equalizer series is a negative slope equalizer that decreases attenuation linearly with frequency. This product family is used to compensate for the gain slope characteristics in communication equipment using broadband amplifiers such as L-band RF systems and wideband gateways.

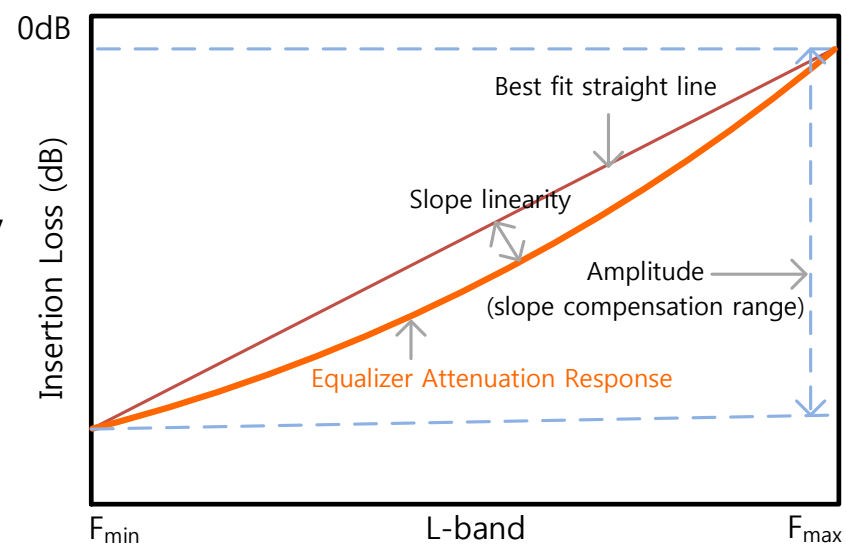
## ❖ Applications

- L-band converters
- Wideband routers and gateways
- Multi-band cellular phone signal repeaters
- DAS(Distributed Antenna Systems)
- RF transceiver modules



## ❖ Features

- Two types of negative gain equalizers:
  - Surface mountable PCB (L x W x T): .59"[15] x .47"[12] x .02"[0.5]
  - Housing with SMA connectors (L x W x H): 1.30"[33] x .79"[20] x .80"[20.3]
- Excellent performance:
  - Frequency range: 950 MHz to 2,150 MHz,
  - Slope linearity:  $\pm 0.75$  dB max. ( $\pm 0.5$  dB typ.),
  - VSWR: 1.67 : 1 max. (1.5 : 1 typ.),
  - Insertion loss at max. frequency: 1.75 dB max. (1.0 dB typ.),
  - Slope compensation range: 1 to 10dB
- Affordable price



## ❖ Specifications

Parameters	Specifications		Remarks
	Surface mountable PCB	Housing with SMA connectors	
Frequency Range	L-band	L-band	See datasheet
Slope	Negative	Negative	
Insertion Loss	1 dB typ., 1.75 dB max. at $F_{max}$ MHz	1 dB typ., 1.75 dB max. at $F_{max}$ MHz	
Amplitude* (Slope Compensation Range)	1dB to 10dB (IL at $F_{max}$ – IL at $F_{min}$ )	1dB to 10dB (IL at $F_{max}$ – IL at $F_{min}$ )	IL: Insertion Loss
Slope Linearity	$\pm 0.5$ dB typ., $\pm 0.75$ dB max.	$\pm 0.5$ dB typ., $\pm 0.75$ dB max.	
Input / Output VSWR	1.5 : 1 typ., 1.67 : 1 max.	1.5 : 1 typ., 1.67 : 1 max.	
Impedance	50 $\Omega$	50 $\Omega$	
RF Connector	-	SMA (Female or Male)	
Size (L x W x H) (mm)	.59"[15] x .47"[12] x .02"[0.5]	1.30"[33] x .79"[20] x .80"[20.3]	

\* Customizable. Please contact us for more details.



## ❖ Ordering information

- Model Number: PNE-**ww-xxx-yz**

PNE: Polaris Negative Equalizer

- **ww**: Frequency Range

L1: 950 MHz to 1,450 MHz, L2: 950 MHz to 1,525 MHz

L3: 950 MHz to 1,750 MHz, L4: 950 MHz to 1,825 MHz

L5: 950 MHz to 1,950 MHz, L6: 950 MHz to 2,150 MHz

- **xxx**: Amplitude (Slope Compensation Range)

dB value (Insertion Loss at  $F_{\max}$  – Insertion Loss at  $F_{\min}$ )

- **y**: Product type

S: Surface mountable PCB

H: Housing with SMA connectors

- **z**: SMA connector configuration

F: Female/Female

M: Male/Male

Blank: Surface mountable PCB

- Examples

PNE-**L1-7R5-S**

L1: 950 MHz to 1,450 MHz

7R5: 7.5 dB

S: Surface mountable PCB

PNE-**L6-010-HF**

L6: 950 MHz to 2,150 MHz

010: 10 dB

H: Housing with SMA connector

F: Female/Female