

Description

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

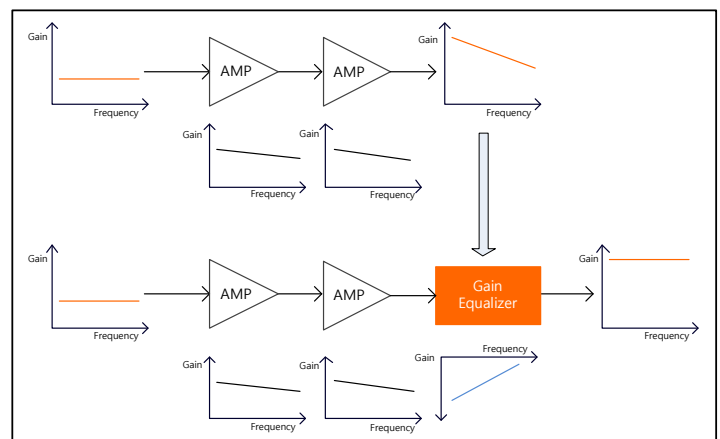


Features

- Two types of negative gain equalizer available:
 - Surface mount type (L x W x T): .59"[15 mm] x .47"[12 mm] x .02"[0.5 mm]
 - SMA connectorized module type (L x W x H): 1.30"[33 mm] x .79"[20 mm] x .80"[20.3 mm]
- Excellent performance:
 - Frequency range: up to 950MHz to 2,150MHz
 - Slope linearity: $\pm 0.75\text{dB}$ max. ($\pm 0.5\text{dB}$ typ.)
 - VSWR: 1.67 : 1 max. (1.5 : 1 typ.)
 - Insertion loss at max. frequency: 1.75dB max. (1.0dB typ.)
 - Slope compensation range: 1dB to 10dB
- Affordable price

Applications

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



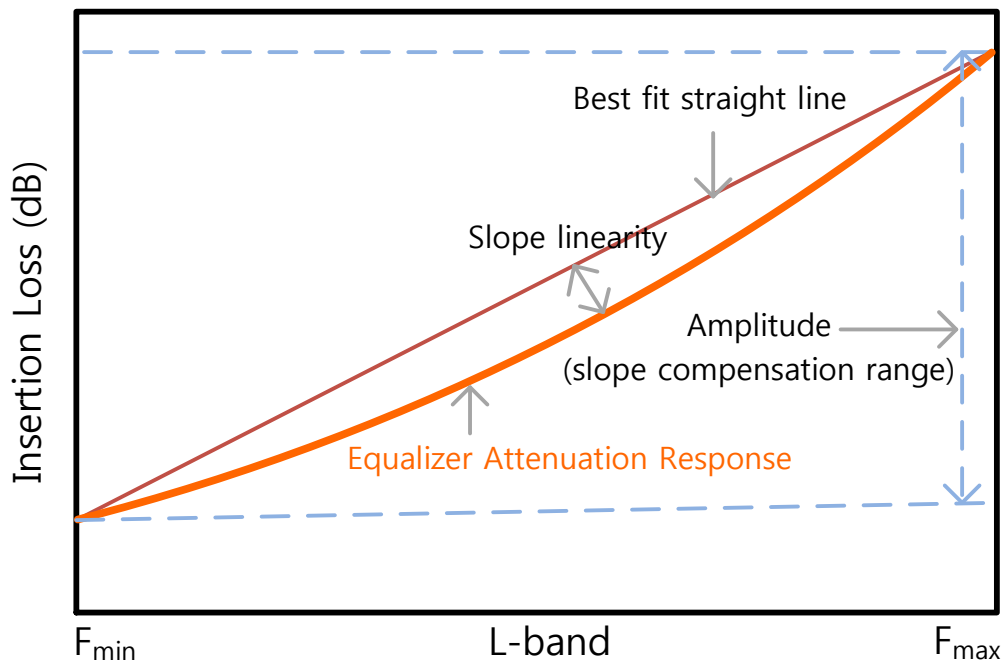
Specifications

Parameters	Specifications	
	Surface mount type	SMA connectorized module type
Frequency Range	L-band	L-band
Slope Shape	Negative Slope	Negative Slope
Insertion Loss at F_{max} (MHz)	1.5 dB (typ.), 1.75 dB (max.)	1.5 dB (typ.), 1.75 dB (max.)
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})
Slope Linearity	± 0.5 dB (typ.), ± 0.75 dB (max.)	$\pm \pm 0.5$ dB (typ.), ± 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 Ω	50 Ω
RF Connector		SMA (Jack or Plug)
Size (L x W x H)***	.59"[15] x .47"[12] x .02"[0.5]	1.30"[33] x .79"[20] x .80"[20.3]

* IL: Insertion Loss

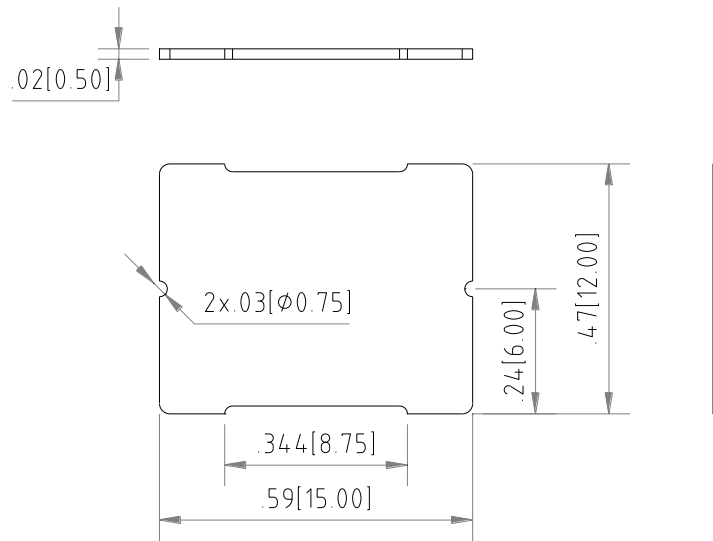
** Customizable. Please contact us for more details.

*** All dimensions are inches [millimeters].

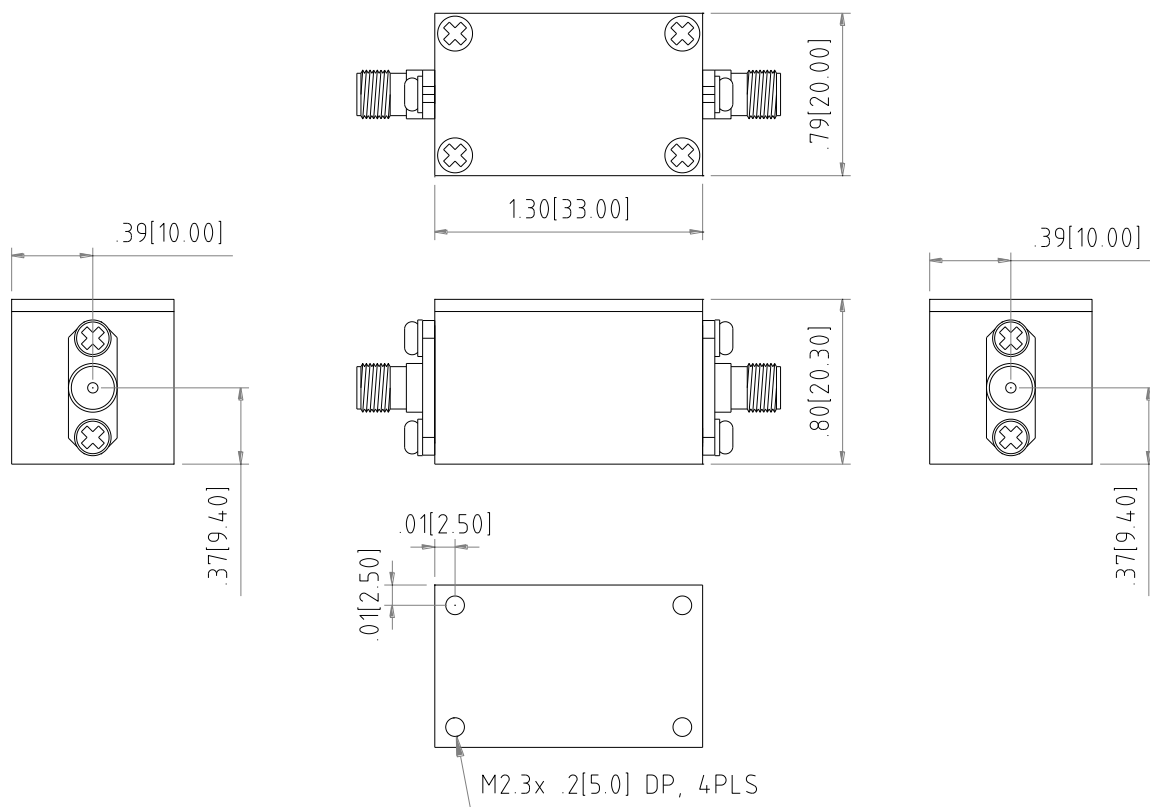


Outline Drawing

All dimensions are in inches [millimeters].



Surface mount type



SMA Connectorized module type

Ordering Information

❖ PNE-**ww-xxx-yz**

PNE: Polaris Negative Slope 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} (MHz) – Insertion Loss at F_{\min} (MHz))

- **y**: Product type

S = Surface mount type

C = SMA connectorized module type

- **z**: Connector

J = Jack / Jack

P = Plug / Plug

❖ Examples

▪ PNE-**L1-7R5-S**

L1: 950 MHz to 1,450 MHz

7R5: 7.5 dB

S: Surface mount type

▪ PNE-**L6-010-CJ**

L6: 950 MHz to 2,150 MHz

010: 10 dB

C: SMA connectorized module type

J: Jack / Jack

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