PRODUCT DATASHEET

26.5 GHz Negative Slope Equalizers

Model EQ3007

Flatten broadband RF performance with passive equalization.

Precision cable-loss compensation from 5 GHz to 26.5 GHz.

The EQ3007 series passively offsets frequency-dependent attenuation to improve gain flatness and preserve signal integrity in demanding microwave signal chains. Compact, rugged construction supports communications, radar, aerospace
and RF test applications.

5 - 26.5 GHz	10 / 15 / 20 dB	±0.75 / ±1.5 / ± 3.0 dB	-54 to +125°C
BROADBAND RANGE	SLOPE OPTIONS	LINEARITY	OPERATING RANGE

Key Features

- Broadband operation from 5 to 26.5 GHz
- Passive cable loss compensation
- Precision negative slope equalization
- Maintains a flatter system frequency response
- 1 W power handling
- Compact 2.92 mm coaxial package
- Low insertion loss and excellent VSWR

Applications

- K-band and microwave communications
- Radar and electronic warfare (EW) systems
- RF and microwave test equipment
- SATCOM and aerospace platforms
- Cable loss compensation
- High-frequency cable assemblies
- System gain equalization

Electrical Specifications

Parameter	Value
Frequency Range	5 - 26.5 GHz
Available Delta Slopes	10, 15, & 20 dB *Δ slope relative to loss at 26.5 GHz*
Max. Insertion Loss at 26.5 GHz	2.0 dB
Linearity EQ3007-10 EQ3007-20 EQ3007-30	 ±0.75 dB ±1.5 dB ±3.0 dB *Deviation from nominal delta slope*
VSWR (Input/Output)	1.80:1 Max.
Power (Input/Output)	1 Watt @+25°C Max. *Derated linearity to 5 W at +125°C*
Temperature Range Operating Non-Operating	 -54°C to +125°C -65°C to +125°C

Mechanical Specifications

Feature	Material
2.9mm Connectors	Passivated Stainless Steel
Conductors	Gold Plated Beryllium Copper
Weight	6 grams max.

Connector mates both mechanically and electrically with all SMA, K & 3.5mm series connectors*

*K is a trademark of Anritsu/Wiltron Corp.

Compact. Rugged. Easy to integrate.

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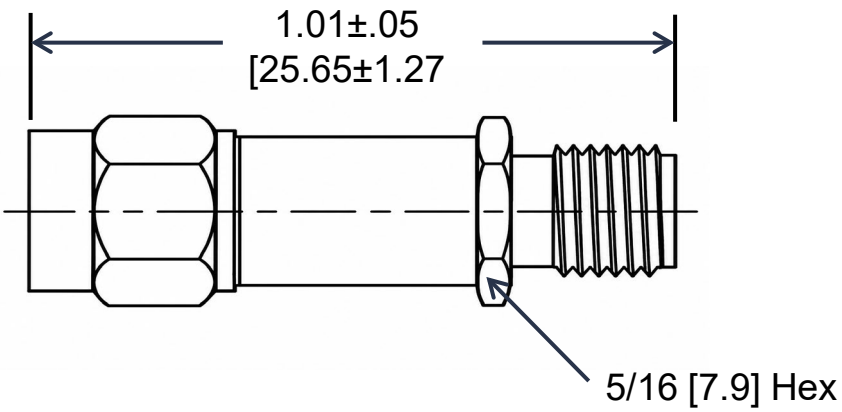
Spectrum Control reserves the right to make changes to datasheets at any time without notice.

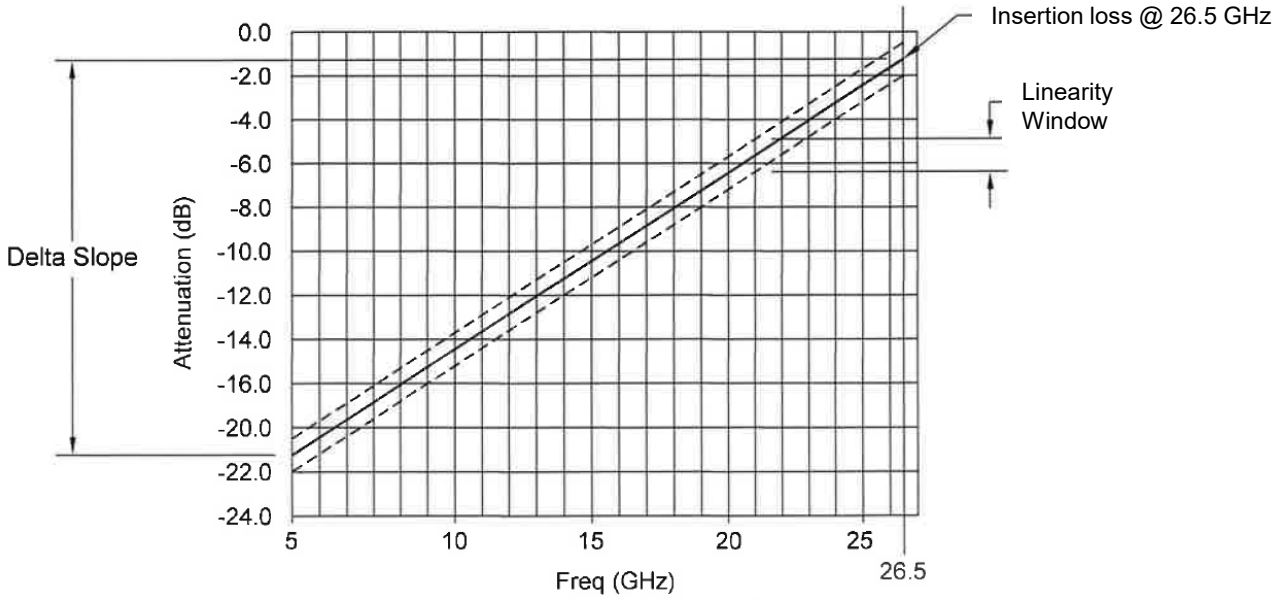
Part Numbers

Model	Data Slope (dB)	Freq. Range (GHz)	Max. Power (Watts)	Connector Type	Configuration
High Frequency Equalization					
EQ3007-10	10	5-26.5	1	2.9mm	Male/Female
EQ3007-15	15	5-26.5	1	2.9mm	Male/Female
EQ3007-20	20	5-26.5	1	2.9mm	Male/Female

Physical Dimensions



Units are Bidirectional.
Units are RoHS compliant.

Epoxy sealed connectors available.

Typical Slope for EQ3007-20