

## Flatten broadband RF performance with passive equalization.

### Precision cable-loss compensation from 3 GHz to 35 GHz.

The EQ3009 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.

|                               |                             |                                   |                                  |
|-------------------------------|-----------------------------|-----------------------------------|----------------------------------|
| 3 - 35 GHz<br>BROADBAND RANGE | 10 / 15 dB<br>SLOPE OPTIONS | $\pm 0.75 / \pm 1.5$<br>LINEARITY | -54 to +125°C<br>OPERATING RANGE |
|-------------------------------|-----------------------------|-----------------------------------|----------------------------------|

### Key Features

- Broadband operation from 3 to 35 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               | 3 - 35 GHz                                                                                     |
| Available Delta Slopes        | 10 & 15 dB<br><i>Δ slope relative to loss at 35 GHz</i>                                        |
| Max. Insertion Loss at 35 GHz | 2.0 dB                                                                                         |
| Linearity                     | EQ3009-10 $\pm 0.75$ dB<br>EQ3009-15 $\pm 1.5$ dB<br><i>Deviation from nominal delta slope</i> |
| VSWR (Input/Output)           | 1.80:1 Max.                                                                                    |
| Power (Input/Output)          | 1 Watt @ +25°C Max.<br><i>Derated linearity to 5 W at +125°C</i>                               |
| Temperature Range             | Operating -54°C to +125°C<br>Non-Operating -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.

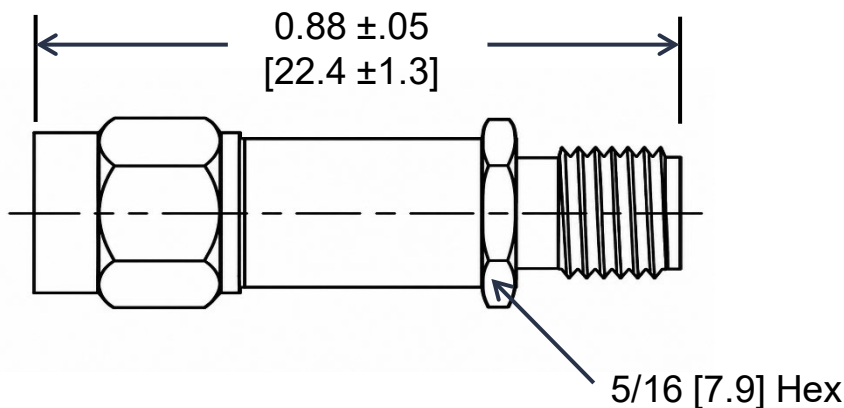


**Compact. Rugged. Easy to integrate.**

Part Numbers

| Model                       | Data Slope (dB) | Freq. Range (GHz) | Max. Power (Watts) | Connector Type | Configuration |
|-----------------------------|-----------------|-------------------|--------------------|----------------|---------------|
| High Frequency Equalization |                 |                   |                    |                |               |
| EQ3009-10                   | 10              | 3-35              | 1                  | 2.9mm          | Male/Female   |
| EQ3009-15                   | 15              | 3-35              | 1                  | 2.9mm          | Male/Female   |

Physical Dimensions



Units are Bidirectional.  
Units are RoHS compliant.

Epoxy sealed connectors available.

Typical Slope

