

# RF Attenuator

## Low Insertion Loss

# Model TG9001

5 to 2000 MHz

### Features

- 5 MHz to 2000 MHz
- Low Insertion Loss
- High Third Order Intercept: +39 dBm Typical
- Environmental Screening Available

### Specifications

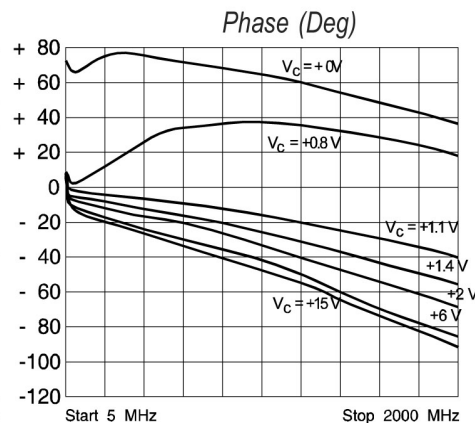
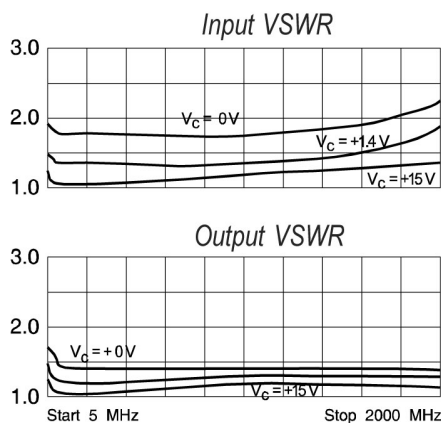
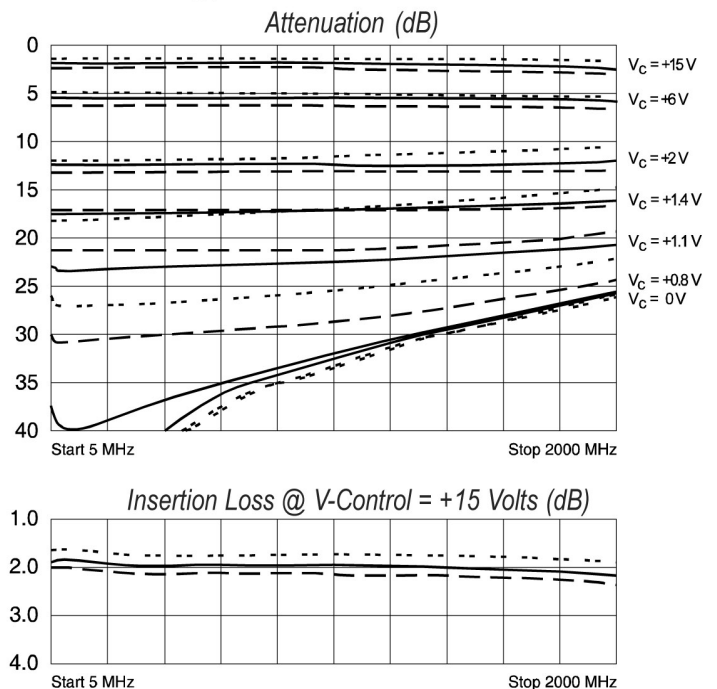
| CHARACTERISTIC                  | TYPICAL<br>Ta = 25 °C | MIN/MAX<br>Ta = -55 °C to +85 °C |
|---------------------------------|-----------------------|----------------------------------|
| Frequency (MHz)                 | 5 - 2000 MHz          | 5 - 2000 MHz                     |
| <b>Insertion Loss (Vc = 15)</b> |                       |                                  |
| 5-500 MHz                       | 2.0                   | 2.3 Max.                         |
| 5-1000 MHz (dB)                 | 2.2                   | 2.5 Max.                         |
| 5-2000 MHz                      | 2.5                   | 3.5 Max.                         |
| <b>Max Attenuation</b>          |                       |                                  |
| 5-500 MHz                       | 33                    | 31 Min.                          |
| 5-1000 MHz (dB)                 | 27                    | 25 Min.                          |
| 5-2000 MHz                      | 23                    | 18 Min.                          |
| <b>VSWR (Worst Case)</b>        |                       |                                  |
| 5-500 MHz                       | 1.75:1                | 2.0:1 Max.                       |
| 5-1000 MHz (dB)                 | 1.75:1                | 2.0:1 Max.                       |
| 5-2000 MHz                      | 2.2:1                 | 2.2:1 Max.                       |
| <b>Flatness over Freq.</b>      |                       |                                  |
| 5-500 MHz                       | ±0.15                 | ±0.25 Max.                       |
| 5-1000 MHz (dB)                 | ±0.5                  | ±1.0 Max.                        |
| 5-2000 MHz                      | ±0.7                  | ±1.5 Max.                        |
| <b>Bias Power</b> Vdc           | +15                   | +15                              |
| mA                              | 5.5                   | 10 Max.                          |
| <b>Control Power</b> Vdc        | 0 to +15              | 0 to +15                         |
| mA                              | 5.5                   | 0 to 7 Max.                      |
| <b>Switching Speed (µsec)</b>   | 40                    | 60 Max.                          |
| 10% to 90%                      |                       |                                  |

Note: Care should always be taken to effectively ground the case of each unit.

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18 Volts  
 Continuous RF Input Power ..... + 20 dBm  
 Short Term RF Input Power... 200 Milliwatts (1 Minute Max.)  
 Maximum Peak Power..... 0.2 Watt ( 3 µsec Max.)

### Typical Performance Data



### Packaging Options (see Appendix)

TG9001, 5 Pin TO-8 (T5)  
 TNG9001, 4 Pin Surface Mount (SM3)  
 BXG9001, Connectorized Housing (H6)