

# SURFACE MOUNT-CERAMIC ATTENUATOR, PIN DIODE

150-2000 MHz

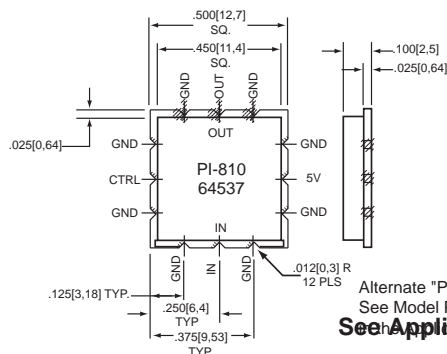
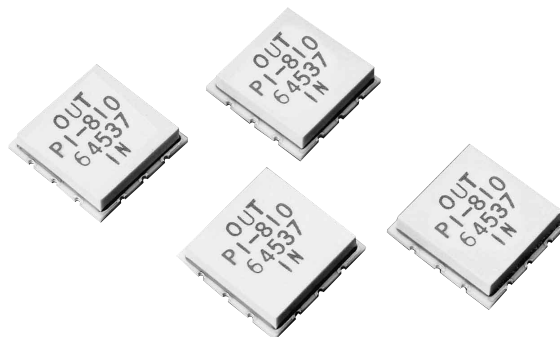
## MODEL PI-810

### FEATURES

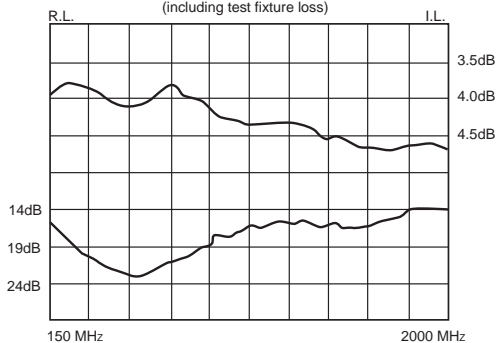
- PCS Frequency Coverage: 150-2000 MHz
- Balanced 4 Diode  $\pi$  Configuration Increases Attenuation and Doubles Upper Frequency Limit
- Low VSWR and Flat Attenuation Characteristics
- Silicon PIN Diodes on Ceramic Offer Improved Insertion Loss Compared to GaAs
- Superior Intermodulation Distortion Characteristics
- Inherently Compensates for VSWR and Temperature Variations
- Rugged Alumina "Surfpac" Package Ideal for Surface Mount Applications
- Can be Optimized Over Lower Frequency Ranges by Changing Capacitor Values
- BEST CHOICE for PCS and GSM Applications
- Lower Cost Alternative to PI-820 Version

### ELECTRICAL SPECIFICATIONS

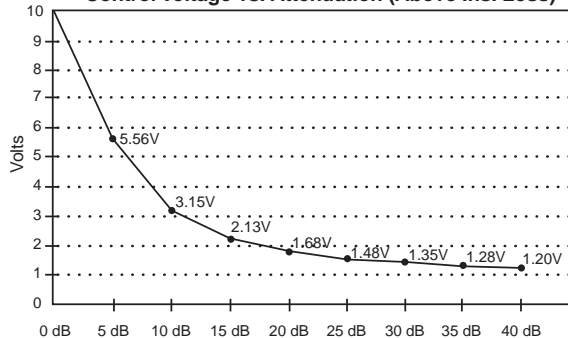
<b>Frequency Range:</b>	150 - 2000 MHz
<b>Insertion Loss:</b>	4.0 dB typical
<b>Attenuation Range:</b>	0 - 30 dB typical
<b>VSWR:</b>	1.5:1 maximum
<b>DC Supply:</b>	+5V DC at 20 mA maximum
<b>Control Voltage:</b>	0V / 10V at 15 mA maximum for Attenuation/Insertion Loss
<b>1 dB Compression Point:</b>	+27 dBm
<b>Attenuation Accuracy:</b>	+/-0.75dB to 20dB +/-1.50dB to 30dB
<b>Temperature:</b>	-10 to +80°C. See application note for recommended maximum reflow soldering temperatures.



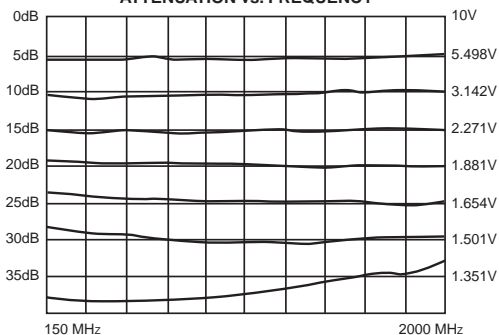
**INSERTION LOSS AND RETURN LOSS**  
(including test fixture loss)



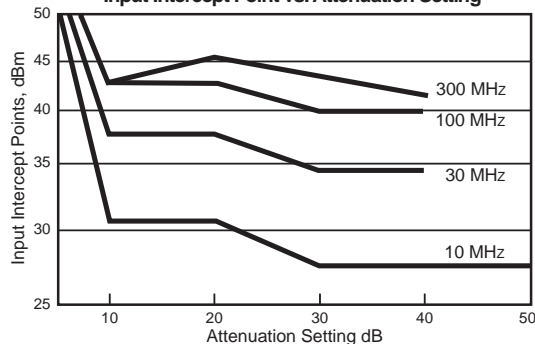
**Control Voltage vs. Attenuation (Above Ins. Loss)**



**ATTENUATION vs. FREQUENCY**



**Typical Two-Tone, 3rd Order Intermodulation Distortion**  
Input Intercept Point vs. Attenuation Setting



KEY: Inches[Millimeters] .XX ±.03 .XXX ±.010 [.X ±0.8 .XX ±0.25]



60 South Jefferson Road, Whippany, NJ 07981  
Tel: 973-887-8100 • Fax: 973-884-0445  
E-Mail: kdisales@aol.com  
See us on the web @ [www.kditriangle.com](http://www.kditriangle.com)