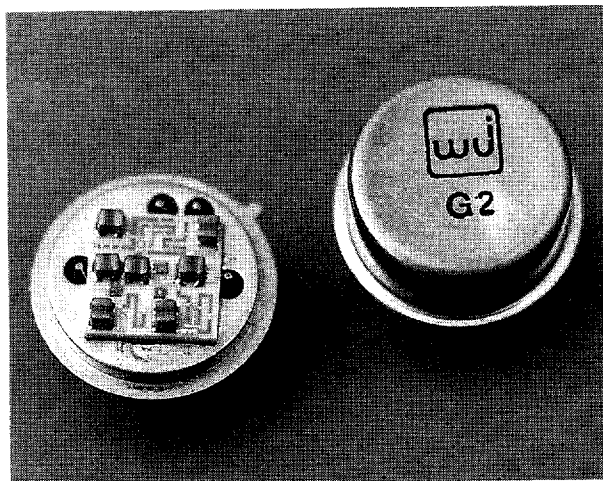


5 TO 2000 MHz TO-8 VOLTAGE-CONTROLLED ATTENUATOR MODULE

- ◆ AVAILABLE IN SURFACE MOUNT
- ◆ LOW VSWR < 1.5:1 (TYP.)
- ◆ LOW INSERTION LOSS:
2.5 dB TO 1000 MHz (TYP.)
- ◆ LOW DISTORTION > 50 dB (TYP.)
HARMONIC SUPPRESSION AT
 $V_{CONTROL} = +15\text{ V}$



Specifications*

Characteristics	Typical	Guaranteed
Frequency Range (Min.)	5 to 2200 MHz	5 to 2000 MHz
Maximum Attenuation Available (Min.)		
5-500 MHz	35 dB	31 dB
500-1000 MHz	29 dB	25 dB
1000-2000 MHz	23 dB	18 dB
Insertion Loss ($V_{cntl} = +15\text{ V}$) (Max.)		
5-1000 MHz	2.5 dB	3.0 dB
1000-2000 MHz	2.8 dB	3.5 dB
VSWR (Worst case in attenuation range) (Max.)		
5-1000 MHz	$\leq 1.3:1$	1.8:1
1000-2000 MHz	$\leq 1.5:1$	2.5:1
Flatness Over Frequency (Max.)		
(Attenuation = min. to 15db, 5 - 1000 MHz)	$\pm 0.4\text{ dB}$	$\pm 1.0\text{ dB}$
Bias Voltage		+5V
Bias Current(Max.)		15 mA
Control Voltage		0 to +15V
Control Current (Max.)		7 mA
Switching Speed (Max.)	75 μsec	125 μsec
0 to 100%		

*Measured in a 50-ohm system at +5.0 Vdc Nominal, guaranteed at 25°C.

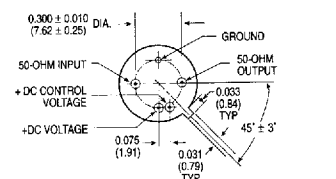
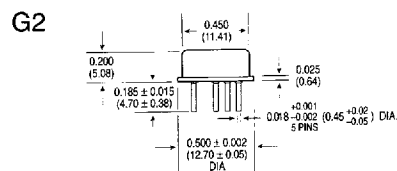
Absolute Maximum Ratings

Storage Temperature	-62°C to +125°C
Maximum Case Temperature	125°C
Maximum DC Control Voltage	+18 Volts
Maximum DC Bias Voltage	+10 volts
Maximum Continuous RF Input Power	+20 dBm
Maximum Short Term RF Input Power (1 Minute Max.).....	200 Milliwatts
Maximum Peak Power	1 Watt (3 μsec Max.)
“S” Series Burn-in Temperature (Case).....	125°C

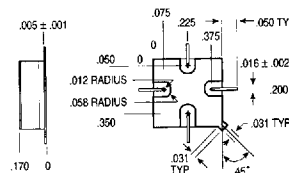
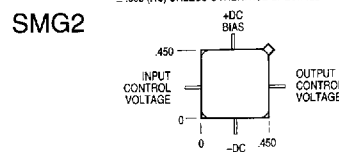
Weight 2.27 grams (0.08 oz.) max

350

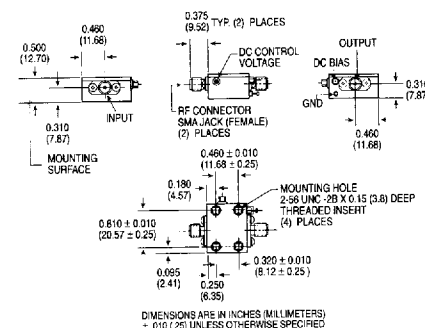
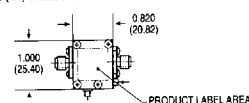
Outline Drawing



DIMENSIONS ARE IN INCHES (MILLIMETERS)
± .005 (.13) UNLESS OTHERWISE SPECIFIED



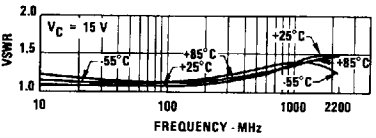
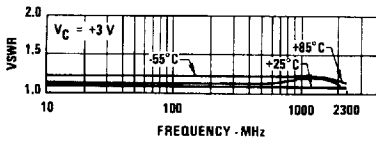
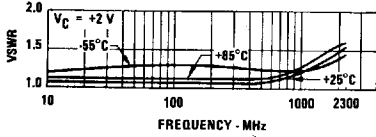
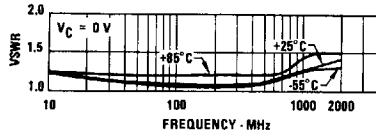
DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.010 (.25) UNLESS OTHERWISE SPECIFIED



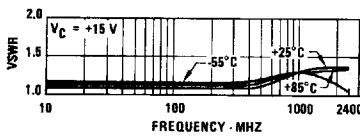
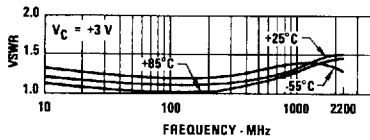
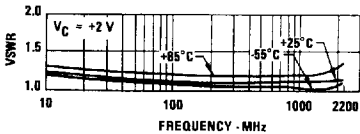
DIMENSIONS ARE IN INCHES (MILLIMETERS)
+ .010 (.25) UNLESS OTHERWISE SPECIFIED

Typical Performance at 25°C

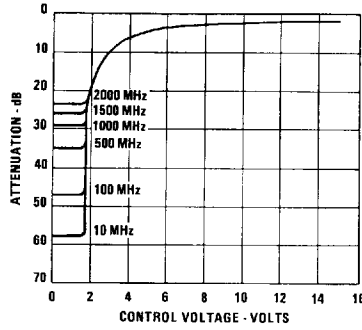
Input VSWR vs. Frequency



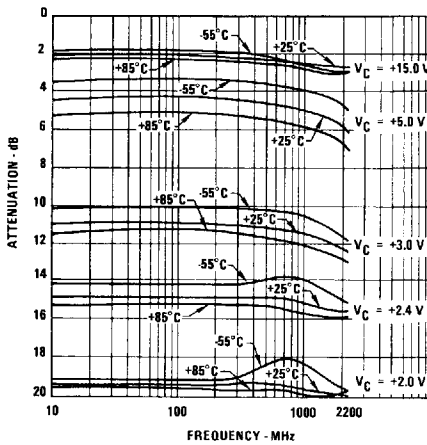
Output VSWR vs. Frequency



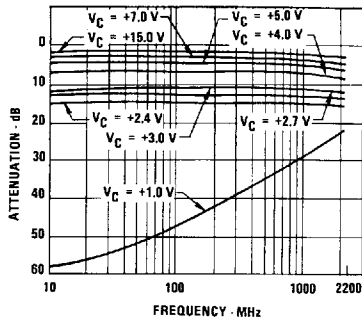
Attenuation vs. Control Voltage



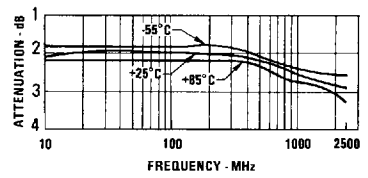
Attenuation vs. Frequency



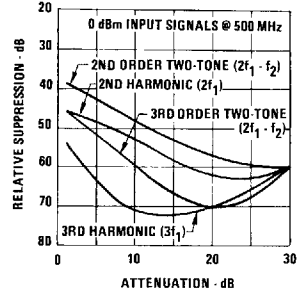
Attenuation vs. VCTL vs. Frequency



Insertion Loss vs. Frequency



Distortion Products



Schematic Diagram

