G2 / SMG2



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

- AVAILABLE IN SURFACE MOUNT
- LOW VSWR: < 1.5:1 (TYP.)
- LOW INSERTION LOSS: 2.3 dB TO 1000 MHz (TYP.)
- LOW DISTORTION: > 75 dB (TYP.) AT Vcontrol = +15V

Specifications (Rev. Date: 3/02)*

Characteristic	Typical	Guaranteed	
		0° to 50°C	-54° to +85°C
Frequency	5-2200 MHz	5-2000 MHz	5-2000 MHz
Maximum Attenuation Available (min.)			
5-500 MHz	34 dB	31 dB	30 dB
500-1000 MHz	28 dB	25 dB	24 dB
1000-2000 MHz	22 dB	20 dB	18 dB
Insertion Loss (Vctrl = +15 V) (max.)			
5-1000 MHz	2.3 dB	3.0 dB	3.5 dB
1000-2000 MHz	2.8 dB	3.5 dB	4.0 dB
VSWR (Worst case in attenuation range)			
5-2000 MHZ	< 1.5:1	2.2:1	2.3:1
Flatness Over Frequency (max.)			
(Attenuation = min. to 15 dB, 5-2000 MHz)	±0.4 dB	±0.8 dB	±1.0 dB
Switching Speed (max.)			
10% - 90%	25 µsec	50 µsec	60 µsec
0% - 100%	70 µsec	125 µsec	140 µsec
Bias Voltage	+5 V	+5 V	+5 V
Bias Current (max.)	5 mA	6.5 mA	7 mA
Control Voltage	0 to +15 V	0 to +15 V	0 to +15 V
Control Current (max.)	4 mA	6 mA	7 mA

*Measured in a 50-ohm system at +15Vdc unless otherwise specified.

Absolute Maximum Ratings

Storage Temperature	-62°C to +125°C
Maximum Case Temperature	+125°C
Maximum DC Voltage	+18 Volts
Maximum DC Bias Voltage	+10 Volts
Maximum Short Term RF Input Power (1 minute max.)	200 mW
Maximum Peak Power (3 µsec max.)	1 W
"S" Series Burn-in Temperature (Case)	+125°C

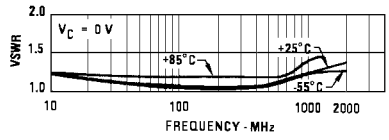
Outline Drawings

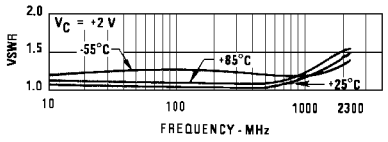
Package	Figure	Model
TO-8	BH	G2
Surface Mount	AC	SMG2
SMA Connectorized	CG	CG2

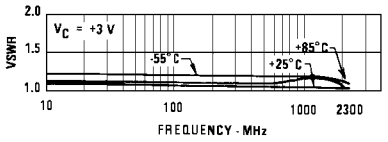
North America: 1-800-366-2266
Visit www.macom.com for complete contact and product information.

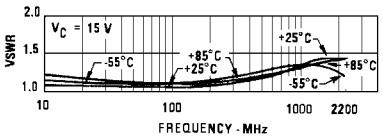
Typical Performance at 25°C

Input VSWR vs. Frequency

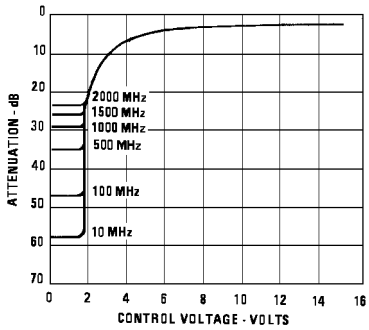




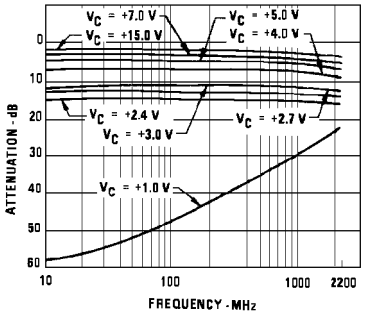




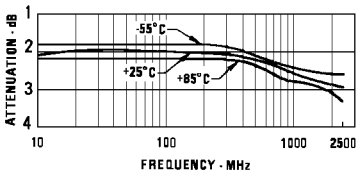
Attenuation vs. Control Voltage



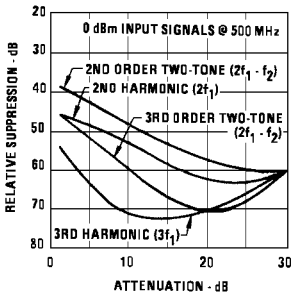
Attenuation vs. V_{CTL} vs. Frequency



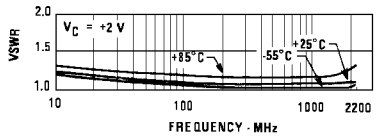
Insertion Loss vs. Frequency

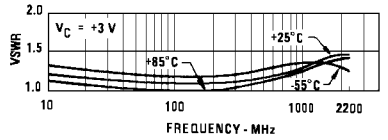


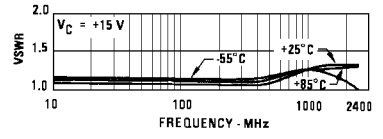
Distortion Products



Output VSWR vs. Frequency







Attenuation vs. Frequency