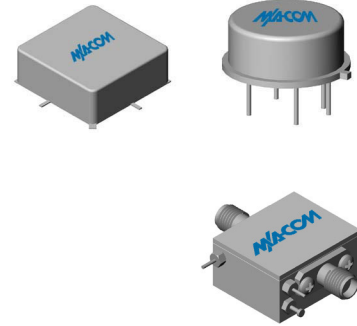




G2 / SMG2



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 |

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

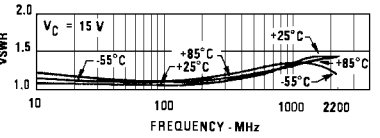
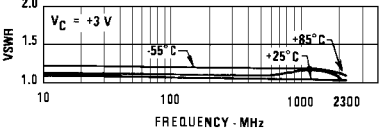
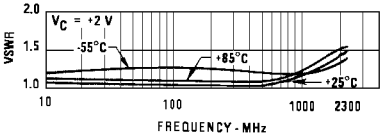
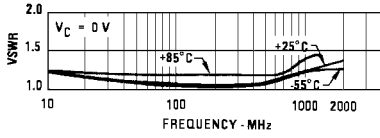
North America: 1-800-366-2266

Visit www.macom.com for complete contact and product information.

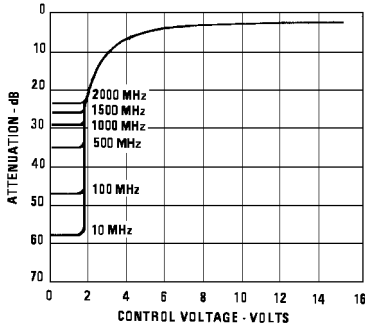


Typical Performance at 25°C

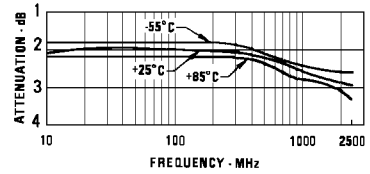
Input VSWR vs. Frequency



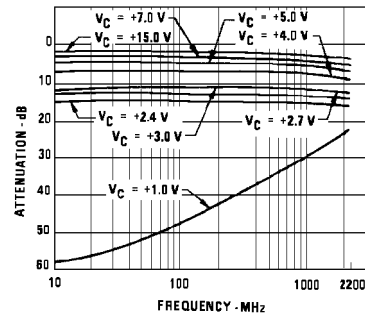
Attenuation vs. Control Voltage



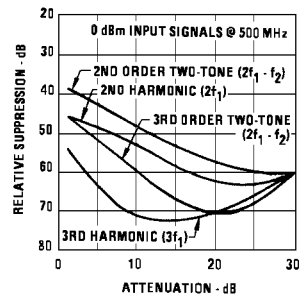
Insertion Loss vs. Frequency



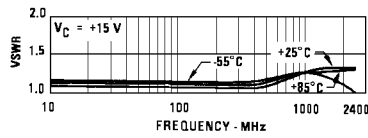
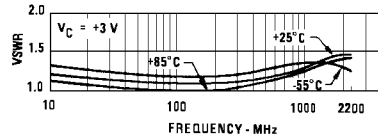
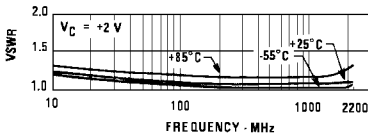
Attenuation vs. VCTL vs. Frequency



Distortion Products



Output VSWR vs. Frequency



Attenuation vs. Frequency

