

# DESCRIPTION

AMC MODEL AGH-8018-60D-120 IS A OVER-OCTAVE BAND VOLTAGE CONTROLLED ATTENUATOR/MODULATOR, WITH 120 dB DYNAMIC RANGE.

# SPECIFICATIONS

- FREQUENCY RANGE ..... 8.0-18.0 GHz
- INSERTION LOSS ..... 7.5 dB MAXIMUM
- ATTENUATION FLATNESS ( $\pm$ dB MAXIMUM)
 

| FREQUENCY RANGE | 10 dB | 20 dB | 40 dB | 60 dB | 80 dB | 120 dB |
|-----------------|-------|-------|-------|-------|-------|--------|
| 8.0-18.0 GHz    | 0.8   | 1.1   | 1.5   | 1.6   | 2.5   | 3.2    |
| 6.0-18.0 GHz    | 0.9   | 1.6   | 3.0   | 3.5   | 5.0   | 7.0    |
- ATTENUATION ACCURACY ..... 0-30 dB  $\pm$ 0.5 dB MAXIMUM (MONOTICITY IS GUARANTEED)
  - 30-50 dB  $\pm$ 1.0 dB MAXIMUM
  - 50-60 dB  $\pm$ 1.5 dB MAXIMUM
  - 60-80 dB  $\pm$ 2.0 dB MAXIMUM
  - 80-120 dB  $\pm$ 2.5 dB MAXIMUM
- TEMPERATURE COEFFICIENT .....  $\pm$ 0.025 dB/C MAXIMUM
- SWITCHING TIME ..... 3  $\mu$ S MAXIMUM
- VSWR @ 0 dB ATTENUATION ..... 8.0-18.0 GHz 2.0:1 MAXIMUM  
6.0-18.0 GHz 2.2:1 MAXIMUM
- RF POWER RATINGS
  - OPERATING POWER ..... +20 dBm CW MAXIMUM
  - SURVIVAL POWER ..... +30 dBm CW MAXIMUM
- CONTROL ..... 20 dB/VOLT (OTHER CONTROL VOLTAGES AVAILABLE)
- POWER SUPPLY ..... +12 VDC @ 250 mA MAXIMUM  
-12 VDC @ 100 mA MAXIMUM
- CONNECTORS
  - RF INPUT/OUTPUT ..... SMA FEMALE
  - POWER AND CONTROLS ..... SOLDER PIN
- SIZE ..... 3.20" x 1.50" x 0.60"  
4.43" x 3.25" x 0.80" (OPTION A04)

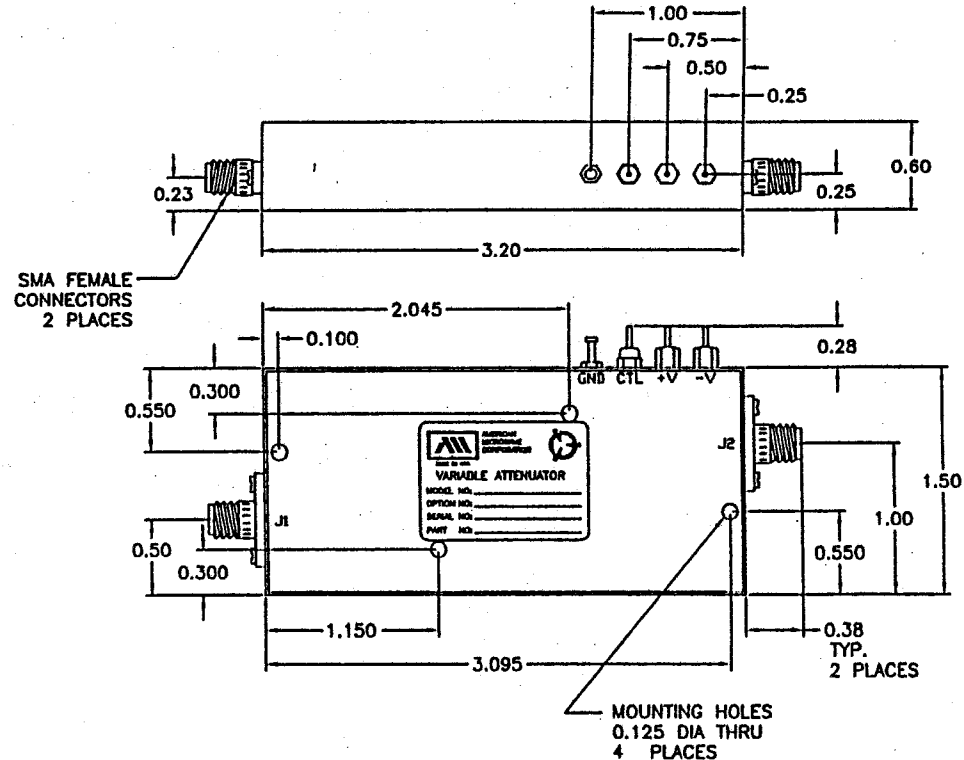
# AVAILABLE OPTIONS

- A01 ..... TWO SMA MALE RF CONNECTORS
- A02 ..... J1 SMA MALE, J2 SMA FEMALE
- A03 ..... MOUNTING SURFACE UNPAINTED
- A04 ..... MULTIPIN ANALOG CONTROLLED UNIT (SEE SHEET 2 OF 2) FOR DIGITALLY CONTROLLED UNITS REFER TO DATA SHEET AGH-8018-60DD-120.
- A05 .....  $\pm$  15 VDC POWER SUPPLY
- A06 ..... 0-90 dB DYNAMIC RANGE
- A07 ..... EXTENDED BANDWIDTH (6.0-18.0 GHz)
- A08 ..... LATCHING STROBE
- A09 ..... HIGH SPEED 500 nS MAXIMUM
- SCS ..... SPECIAL CUSTOMER SPECIFICATIONS

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

| ZONE |  | REV. | DESCRIPTION      | DATE     | APPROVED |
|------|--|------|------------------|----------|----------|
|      |  | A    | ORIGINAL RELEASE | 12/18/97 |          |


# MECHANICAL OUTLINE



- NOTES:
- DIMENSIONS ARE IN INCHES
  - TOLERANCES: X.XX  $\pm$ 0.020  
X.XXX  $\pm$ 0.010  
APPROX. 7.0 02
  - WEIGHT:

# ENVIRONMENTAL RATINGS

- TEMPERATURE ..... -55°C TO +85°C (OPERATING)  
-65°C TO +125°C (STORAGE)
- HUMIDITY ..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK ..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION ..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE ..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE ... MIL-STD-202F, METHOD 107D COND. A

|   |                  |   |              |
|---|------------------|---|--------------|
|  |                  | <b>AMERICAN MICROWAVE CORPORATION</b><br>7311G GROVE RD., FREDERICK, MD. 21701<br>TEL: (301) 662-4700 FAX: (301) 662-4938 |              |
|   |                  | PRELIMINARY PRODUCT FEATURE<br><b>AGH-8018-60D-120</b><br>8.0-18.0 GHz, VOLTAGE VARIABLE ATTENUATOR                       |              |
| APPROVALS<br>DRAWN: <i>RLG</i><br>CHECKED: <i>WP</i>                                  | DATE<br>12/18/97 | SIZE: A   | SHEET 1 OF 2 |

*Handwritten initials and date:*  
 PA  
 12/19/97

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