

# DESCRIPTION

AMC MODEL AGH-2550-60DD-120 IS A OVER-OCTAVE BAND VARIABLE ATTENUATOR/MODULATOR, CONTROLLED BY 8 BIT POSITIVE TRUE BINARY LOGIC WITH 120 dB DYNAMIC RANGE.

# SPECIFICATIONS

- FREQUENCY RANGE.....2.5-5.0 GHz
- INSERTION LOSS.....2.5-5.0 GHz 4.2 dB MAXIMUM  
1.9-5.6 GHz 5.2 dB MAXIMUM
- ATTENUATION FLATNESS ( $\pm$ dB MAXIMUM)

FREQUENCY RANGE	10 dB	20 dB	40 dB	60 dB	80 dB	120 dB
2.5-5.0 GHz	0.5	0.9	1.5	1.6	2.5	3.2
1.9-5.6 GHz	0.7	1.5	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.....2.5-5.0 GHz 2.0:1 MAXIMUM  
1.9-5.6 GHz 2.2:1 MAXIMUM
- RF POWER RATINGS  
OPERATING POWER.....+20 dBm CW MAXIMUM  
SURVIVAL POWER.....+30 dBm CW MAXIMUM
- CONTROL.....8 BIT TRUE BINARY LOGIC
- POWER SUPPLY.....+12VDC @ 250 mA MAXIMUM  
-12VDC @ 100 mA MAXIMUM
- CONNECTORS  
RF INPUT/OUTPUT.....SMA FEMALE  
POWER AND CONTROLS.....15 PIN D TYPE SUBMINIATURE MALE,  
MATING CONNECTOR FURNISHED
- SIZE.....4.68" x 3.80" x 0.80"

# AVAILABLE OPTIONS

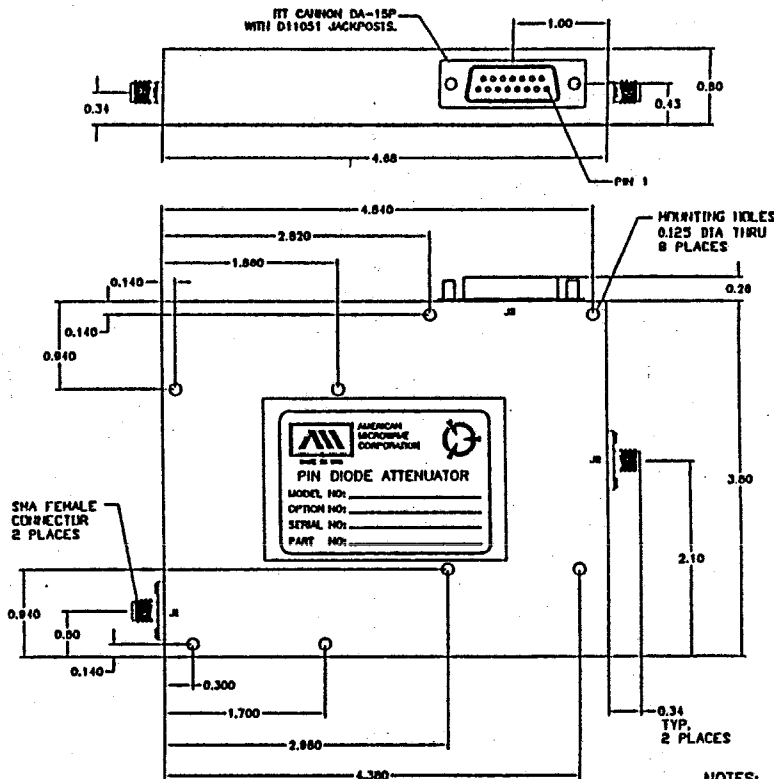
- A01.....TWO SMA MALE RF CONNECTORS
- A02.....J1 SMA MALE, J2 SMA FEMALE
- A03.....MOUNTING SURFACE UNPAINTED
- A04.....ANALOG CONTROLLED UNIT OF 20dB/VOLT. PIN 2 IS USED AS CONTROL. (OTHER CONTROL VOLTAGES AVAILABLE.) FOR SOLDER PIN UNITS REFER TO DATA SHEET AGH-2550-60D-120.
- A05..... $\pm$ 15VDC POWER SUPPLY
- A06.....0-90 dB DYNAMIC RANGE
- A07.....EXTENDED BANDWIDTH (1.9-5.6 GHz)
- A08.....LATCHING STROBE (NOT AVAILABLE WITH OPTION A12)
- A09.....9 BIT TRUE BINARY LOGIC
- A10.....10 BIT TRUE BINARY LOGIC
- A11.....11 BIT TRUE BINARY LOGIC
- A12.....12 BIT TRUE BINARY LOGIC
- A13.....HIGH SPEED 500 nS MAXIMUM
- SCS.....SPECIAL CUSTOMER SPECIFICATIONS

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

as 11/12/97  
WP 1/12/97

ZONE		REV.	DESCRIPTION	DATE	APPROVED
		A	ORIGINAL RELEASE	11/12/97	

# MECHANICAL OUTLINE




8 BIT TRUE BINARY LOGIC	
J3 PIN #	PIN FUNCTION
1	GND
2	LATCHING STROBE OPTIONAL
3	N/C
4	GND
5	0.50 dB (LSB)
6	1.0 dB
7	2.0 dB
8	4.0 dB
9	8.0 dB
10	16.0 dB
11	32.0 dB
12	64.0 dB (MSB)
13	+V
14	-V
15	N/C

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

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		PRELIMINARY PRODUCT FEATURE <b>AGH-2550-60DD-120</b> 2.5-5.0 GHz, PROGRAMMABLE VARIABLE ATTENUATOR	
APPROVALS DRAWN: B.L.G. CHECKED: [Signature]	DATE 11/12/97	SIZE A	SHEET 1 OF 2

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