

# DESCRIPTION

AMC MODEL AGH-6012-60DD-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.....6.0-12.0 GHz
- INSERTION LOSS.....6.0-12.0 GHz 5.5 dB MAXIMUM  
4.5-13.5 GHz 6.0 dB MAXIMUM

### ATTENUATION FLATNESS (±dB MAXIMUM)

FREQUENCY RANGE	10 dB	20 dB	40 dB	60 dB	80 dB	120 dB
6.0-12.0 GHz	0.7	1.0	1.5	1.6	2.5	3.2
4.5-13.5 GHz	0.9	1.6	3.0	3.5	5.0	7.0

- ATTENUATION ACCURACY.....0-30 dB ±0.5 dB MAXIMUM  
(MONOTICITY IS GUARANTEED) 30-50 dB ±1.0 dB MAXIMUM  
50-60 dB ±1.5 dB MAXIMUM  
60-80 dB ±2.0 dB MAXIMUM  
80-120 dB ±2.5 dB MAXIMUM

- TEMPERATURE COEFFICIENT.....±0.025 dB/°C MAXIMUM
- SWITCHING TIME.....3 μS MAXIMUM

- VSWR @ 0 dB ATTENUATION.....6.0-12.0 GHz 2.0:1 MAXIMUM  
4.5-13.5 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 3.45" x 0.80"

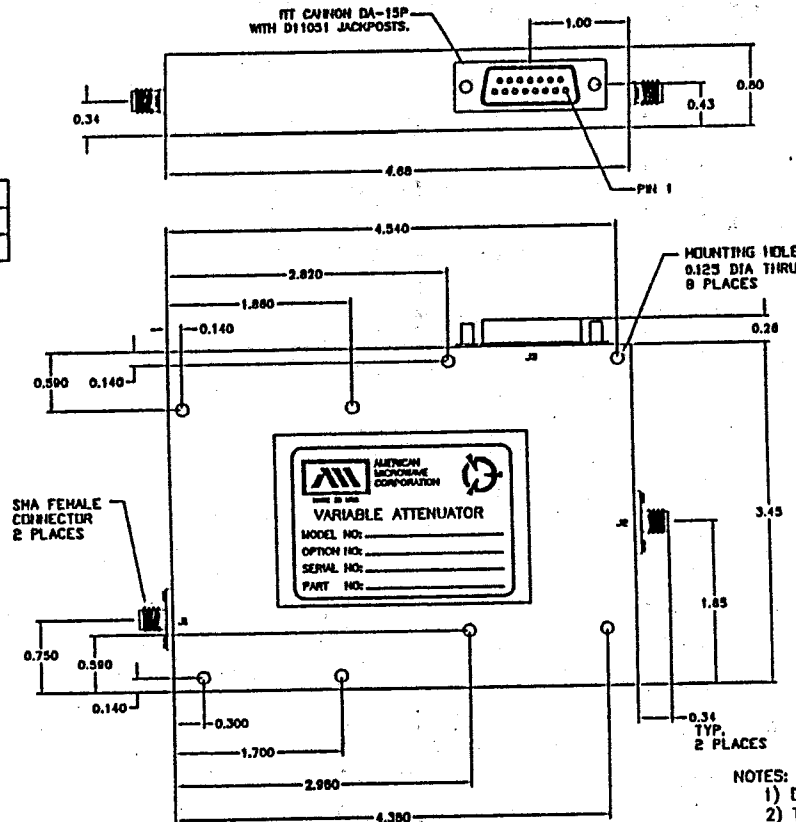
# AVAILABLE OPTIONS

- 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-6012-60D-120.
- A05.....±15VDC POWER SUPPLY
- A06.....0-90 dB DYNAMIC RANGE
- A07.....EXTENDED BANDWIDTH (4.5-13.5 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

REVISIONS			APPROVED
ZONE	REV.	DESCRIPTION	
	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:
- 1) DIMENSIONS ARE IN INCHES
  - 2) TOLERANCES: X.XX ±0.020  
X.XXX ±0.010  
APPROX. 7.0 OZ
  - 3) 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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APPROVALS	DATE
DRAWN: <i>Boyle</i>	11/12/97
CHECKED: <i>[Signature]</i>	11/14/97

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PRELIMINARY PRODUCT FEATURE  
**AGH-6012-60DD-120**  
6.0-12.0 GHz, PROGRAMMABLE VARIABLE ATTENUATOR

SIZE A | SHEET 1 OF 2 | DWG. # 100-4261

*11/12/97*  
*WCP 11/12/97*