

# DESCRIPTION

AMC MODEL AGT-2018-80DD-100 IS A BROAD BAND VARIABLE ATTENUATOR/MODULATOR, CONTROLLED BY 9 BIT POSITIVE TRUE BINARY LOGIC.

# SPECIFICATIONS

- FREQUENCY RANGE ..... 2.0-18.0 GHz MINIMUM
- INSERTION LOSS ..... 6.0 dB MAXIMUM
- ATTENUATION FLATNESS ( $\pm$  dB MAXIMUM) ..... 0-30 dB  $\pm$ 1.0 dB MAXIMUM  
 30-40 dB  $\pm$ 1.5 dB MAXIMUM  
 40-50 dB  $\pm$ 2.5 dB MAXIMUM  
 50-80 dB  $\pm$ 4.0 dB MAXIMUM
- ATTENUATION ACCURACY ..... 0-20 dB  $\pm$ 2.5 dB MAXIMUM  
 20-30 dB  $\pm$ 1.5 dB MAXIMUM  
 30-50 dB  $\pm$ 1.5 dB MAXIMUM  
 50-80 dB  $\pm$ 2.0 dB MAXIMUM
- SWITCHING TIME ..... <1  $\mu$ sec (500 nsec TYPICAL)
- VSWR ..... 2.2:1 MAXIMUM
- RF POWER RATINGS  
 OPERATING ..... +20 dBm CW MAXIMUM  
 +10 dBm (0.3 GHz OR BELOW)  
 SURVIVAL ..... +30 dBm CW MAXIMUM  
 +27 dBm (0.3 GHz OR BELOW)
- CONTROL ..... 9 BIT TRUE BINARY LOGIC
- POWER SUPPLY ..... +12VDC @ 375 mA MAXIMUM  
 -12VDC @ 50 mA MAXIMUM
- CONNECTORS  
 RF INPUT/OUTPUT ..... SMA FEMALE  
 POWER AND CONTROLS ..... 15 PIN MICRO-D SUBMINIATURE (MALE)  
 MATING CONNECTOR FURNISHED
- SIZE ..... 3.00" x 2.50" x 0.5"

# AVAILABLE OPTIONS

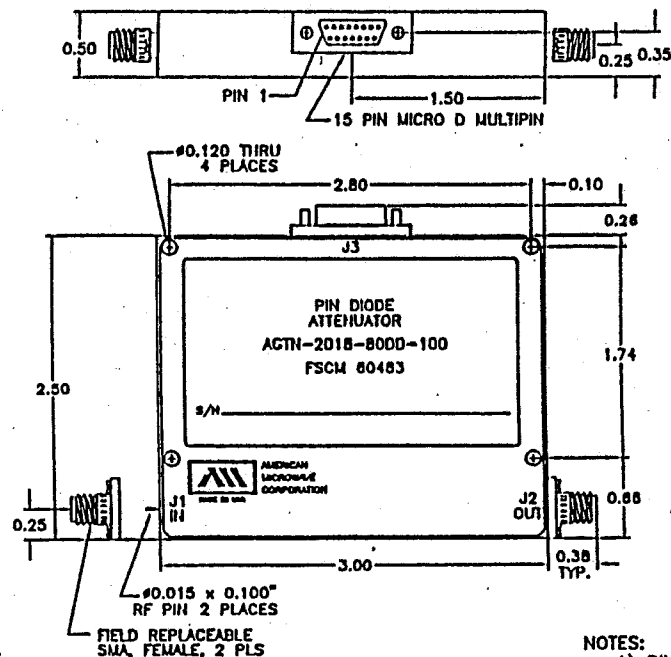
- A01 ..... TWO SMA MALE RF CONNECTORS
- A02 ..... J1 SMA MALE, J2 SMA FEMALE
- A03 ..... MOUNTING SURFACE UNPAINTED
- A04 ..... ANALOG CONTROLLED UNIT OF 15dB/VOLT. PIN 2 IS USED USED AS CONTROL (OTHER CONTROL VOLTAGES AVAILABLE). FOR SOLDER PIN UNITS REFER TO DATA SHEET AGTN-2018-80D-100.
- A05 .....  $\pm$ 15VDC POWER SUPPLY
- A06 ..... 0-30 dB RANGE  
FLATNESS: 0 - 15dB:  $\pm$ 0.5dB    ACCURACY: 0 - 10dB:  $\pm$ 2.5dB  
 15 - 20dB:  $\pm$ 1.0dB            10 - 20dB:  $\pm$ 1.5dB  
 20 - 25dB:  $\pm$ 1.5dB            20 - 30dB:  $\pm$ 1.5dB  
 25 - 30dB:  $\pm$ 2.0dB
- A07 ..... EXTENDED FREQUENCY RANGE UNITS AND OPTIONS  
 200M18 OPTION ..... EXTENDED BANDWIDTH (200 MHz TO 18 GHz)  
 300M18 OPTION ..... EXTENDED BANDWIDTH (300 MHz TO 18 GHz)  
 10M18 OPTION ..... EXTENDED BANDWIDTH (10 MHz TO 18 GHz) WITH SLOWER SPEED  
 REFER TO DATA SHEETS AGT-2018-80DD-100 (DIGITAL CONTROL)  
 OR AGT-2018-80D-100 (SOLDER PIN ANALOG CONTROLLED).
- 219 OPTION ..... EXTENDED BANDWIDTH (2 GHz TO 19 GHz)
- A08 ..... 8 BIT TRUE BINARY LOGIC
- A09 ..... FREQUENCY BAND OF 2 - 8 GHz
- A10 ..... 10 BIT TRUE BINARY LOGIC
- A11 ..... 11 BIT TRUE BINARY LOGIC
- A12 ..... 12 BIT TRUE BINARY LOGIC
- A13 ..... FREQUENCY BAND OF 10 MHz - 2 GHz REFER TO DATA SHEET AGT-2000-80D-100 (SLIM LINE), FOR DIGITAL VERSION REFER TO: DATA SHEET AGT-2000-80DD-100 (SLIM LINE)
- SCS ..... SPECIAL CUSTOMER SPECIFICATIONS

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

*Handwritten initials and date:*  
 H.A. 10/20/97  
 H.H. 10/20/97  
 W.P.

REVISIONS			DATE	APPROVED
ZONE	REV.	DESCRIPTION		
	A	ORIGINAL RELEASE	10/11/97	

# MECHANICAL OUTLINE




9 BIT TRUE BINARY LOGIC J3 PIN FUNCTION	
PIN #	FUNCTION
1	GND
2	LATCHING STROBE OPTIONAL
3	0.18 dB (LSB)
4	GND
5	0.31 dB
6	0.63 dB
7	1.25 dB
8	2.5 dB
9	5.0 dB
10	10.0 dB
11	20.0 dB
12	40.0 dB (MSB)
13	+V
14	-V
15	N/C

- NOTES:  
 1) DIMENSIONS ARE IN INCHES  
 2) TOLERANCES: X.XX  $\pm$ 0.020  
 X.XXX  $\pm$ 0.010  
 3) WEIGHT: APPROX. 4.0 OZ

# ENVIRONMENTAL RATINGS

- TEMPERATURE ..... -55°C TO +125°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> 7311G GROVE RD., FREDERICK, MD. 21701 TEL: (301) 662-4700 FAX: (301) 662-4938		
		<b>PRELIMINARY PRODUCT FEATURE</b> <b>AGTN-2018-80DD-100</b> 2-18 GHz, PROGRAMMABLE VARIABLE ATTENUATOR		
APPROVALS DRAWN: <i>R.P.G.</i> CHECKED: <i>L.A.</i>	DATE 10/20/97 10/20/97	SIZE A	SHEET 1 OF 2	DWG. # 100-4247