

## DESCRIPTION

AMC MODEL AGTN-0320-60DD-100 IS A DIGITALLY CONTROLLED VARIABLE ATTENUATOR DESIGNED TO OPERATE BETWEEN THE 0.1 TO 20 GHz FREQUENCY RANGE, 0.3 TO 20 GHz OPTIMIZED.

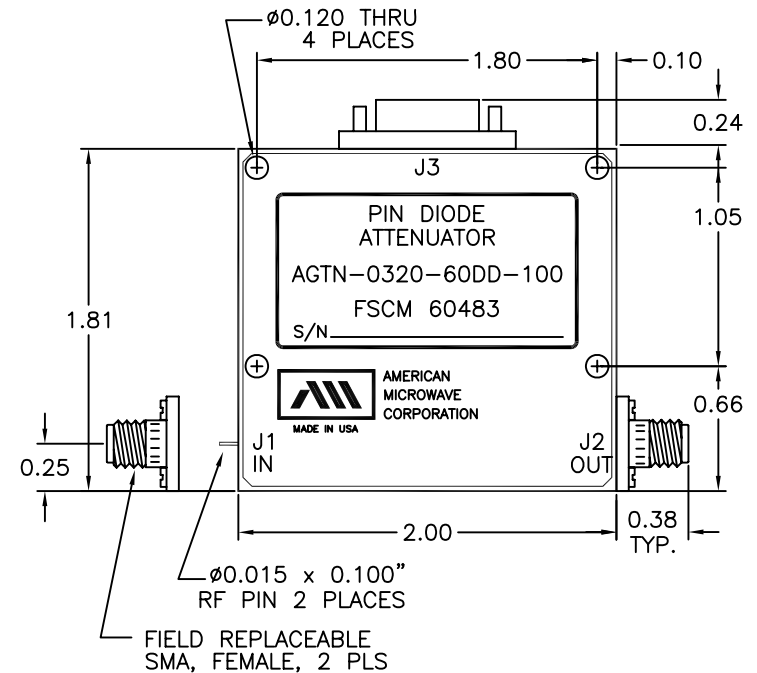
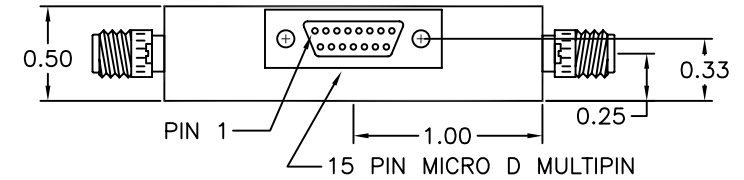
## SPECIFICATIONS

- FREQUENCY RANGE: 0.1 TO 20 GHz (0.3 TO 20 GHz OPTIMIZED)
- INSERTION LOSS: 5.0 dB MAXIMUM
- ATTENUATION FLATNESS: 0-10 dB ± 1.0 dB MAXIMUM  
(± dB MAXIMUM) 10-30 dB ± 2.0 dB MAXIMUM  
30-50 dB ± 3.0 dB MAXIMUM  
50-60 dB ± 7.0 dB MAXIMUM
- ATTENUATION ACCURACY: 0-10 dB ± 2.0 dB MAXIMUM  
10-20 dB ± 1.0 dB MAXIMUM  
20-40 dB ± 1.5 dB MAXIMUM  
40-60 dB ± 2.0 dB MAXIMUM
- SWITCHING TIME: 30 uSec MAXIMUM
- 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: 8 BIT TRUE BINARY LOGIC
- POWER SUPPLY: +12 VDC @ 250 mA MAXIMUM  
-12 VDC @ 50 mA MAXIMUM
- CONNECTORS:  
RF INPUT/OUTPUT: SMA FEMALE  
POWER AND CONTROLS: 15 PIN MICRO-D SUBMINIATURE (FEMALE, 15SSP)  
MATING CONNECTOR FURNISHED
- SIZE: 2.00" x 1.81" x 0.50"

8 BIT TRUE BINARY LOGIC J3 PIN FUNCTIONS	
PIN NO.	FUNCTIONS.
1	GND
2	N/C *
3	N/C *
4	GND
5	0.25 dB (LSB)
6	0.5 dB
7	1.0 dB
8	2.0 dB
9	4.0 dB
10	8.0 dB
11	16.0 dB
12	32.0 dB
13	+V
14	-V
15	N/C *

\* N/C = NO CONNECTION

REVISIONS				
ECR	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 508201XN-3	9/20/05	
07-032	A	CHNG. DB CONN. TO FEMALE	02/27/07	RA



## 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

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

## AMERICAN MICROWAVE CORPORATION

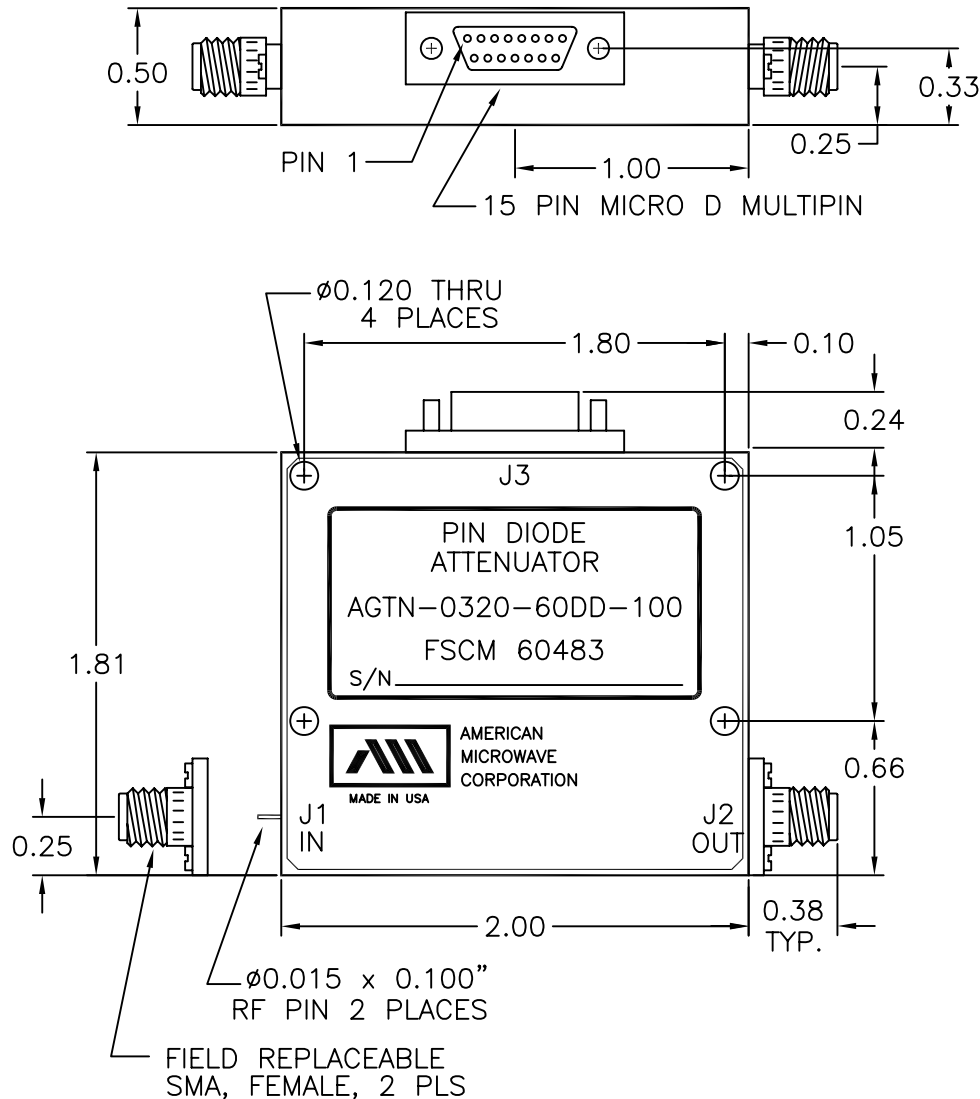
7311-G GROVE ROAD  
FREDERICK, MARYLAND 21704 USA  
TEL: 301-662-4700 FAX: 301-662-4938  
WEBSITE: [www.americanmicrowavecorp.com](http://www.americanmicrowavecorp.com)  
E-MAIL: [sales@americanmicrowavecorp.com](mailto:sales@americanmicrowavecorp.com)  
ISO 9001:2000 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN <i>JDJ</i>		9/20/05	PRODUCT FEATURE AGTN-0320-60DD-100			
CHECKED <i>LB</i>		9/20/06	0.1-20 GHz, DIGITALLY CONTROLLED VARIABLE ATTENUATOR 0.3-20 GHz OPTIMIZED FREQUENCY RANGE			
RE-DRAWN <i>PRB</i>		02/27/07	SIZE	FSCM NO.	DWG NO.	REV.
			A	60483	100-A004-000	A
			SCALE	SHEET		
			N:S	1 OF 4		

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07-032	A	CHNG. DB CONN. TO FEMALE	02/27/07	RA

## MECHANICAL OUTLINE

8 BIT TRUE BINARY LOGIC	
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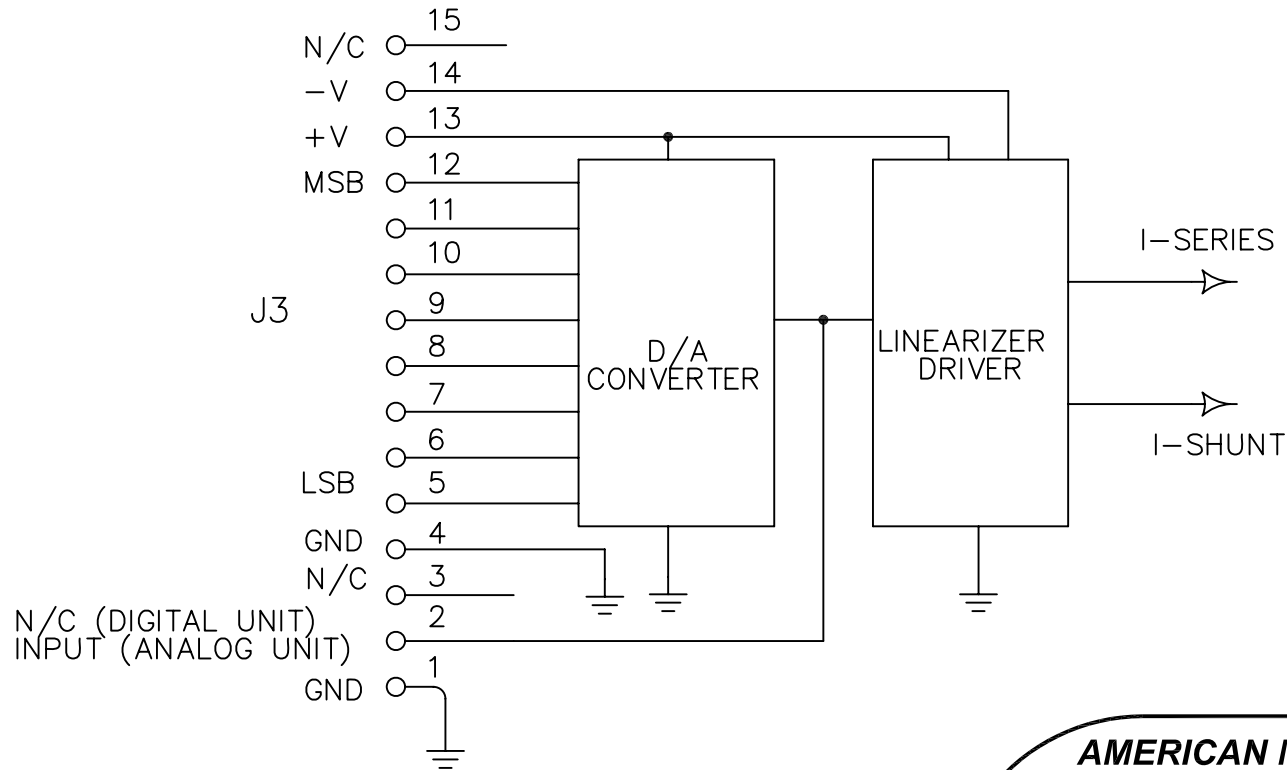
APPROVALS		DATE	TITLE			REV.
DRAWN	<i>JDJ</i>	9/20/05	MECHANICAL OUTLINE			
CHECKED	<i>LB</i>	9/20/06	AGTN-0320-60DD-100			
RE-DRAWN	<i>PRB</i>	02/27/07	0.1-20 GHz, DIGITALLY CONTROLLED VARIABLE ATTENUATOR			
			0.3-20 GHz OPTIMIZED FREQUENCY RANGE			
			SIZE	FSCM NO.	DWG NO.	REV.
			A	60483	100-A004-000	A
			SCALE	N:S		SHEET
						2 OF 4

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	-	ORIGINAL RELEASE JOB# 508201XN-3	9/20/05	
07-032	A	CHNG. DB CONN. TO FEMALE	02/27/07	RA

## FUNCTIONAL BLOCK DIAGRAM



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DRAWN <i>JDJ</i>		9/20/05	FUNCTIONAL BLOCK DIAGRAM AGTN-0320-60DD-100			
CHECKED <i>LB</i>		9/20/06	0.1-20 GHz, DIGITALLY CONTROLLED VARIABLE ATTENUATOR 0.3-20 GHz OPTIMIZED FREQUENCY RANGE			
RE-DRAWN <i>PRB</i>		02/27/07	SIZE	FSCM NO.	DWG NO.	REV.
			A	60483	100-A004-000	A
			SCALE	N:S		SHEET 3 OF 4