

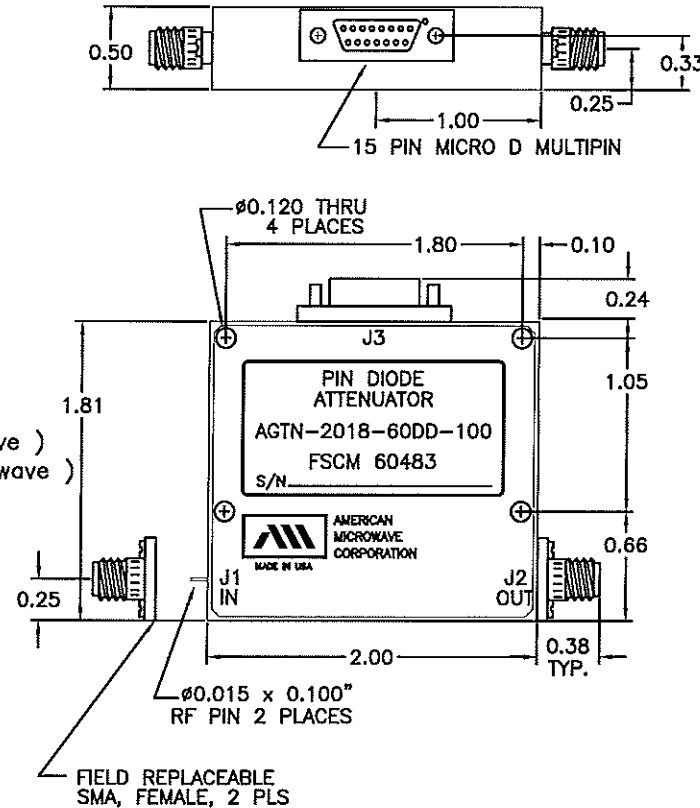
## DESCRIPTION

AMC MODEL AGTN-2018-60DD-100 IS A BROAD BAND VARIABLE ATTENUATOR / MODULATOR CONTROLLED BY 8 BIT POSITIVE TRUE BINARY LOGIC.

REVISIONS				
ECR	REV.	DESCRIPTION	DATE	APPROVED
07-098	-	ORIGINAL RELEASE	07/30/07	RA
	A	SEE ECR# 09-004	1/20/09	RA

## SPECIFICATIONS

- FREQUENCY RANGE: 2.0 TO 18 GHz
- INSERTION LOSS: 4.5 dB MAXIMUM
- ATTENUATION FLATNESS:
  - @ 10 dB = ± 0.9 dB
  - @ 20 dB = ± 1.5 dB
  - @ 40 dB = ± 3.0 dB
  - @ 60 dB = ± 5.5 dB
- ATTENUATION ACCURACY:
  - 0-30 dB = ± 1.0 dB
  - 30-50 dB = ± 1.3 dB
  - 50-60 dB = ± 1.5 dB
- MONOTONICITY: GUARANTEED
- TEMPERATURE VARIATION:
  - ± 2.5dB -10 to 85 deg C Typ
  - ± 3.5dB -40 to 95 deg C Typ
- SWITCHING TIME: 1.5 micro sec MAXIMUM
- SMALL SIGNAL BANDWIDTH: 150 kHz Typ ( 6dB with ±3 dB sinewave )
- LARGE SIGNAL BANDWIDTH: 75 kHz Typ ( 30dB with ±30 dB sinewave )
- RETURN LOSS: -12 dB TYP -8.5 dB MAX
- POWER RATING: +20 dBm (see note 1)
- DIGITAL CONTROL: 8 BIT TTL
- ANALOG CONTROL option: 0-6V ANALOG VOLTAGE, 10dB/VOLT
- POWER SUPPLY: +12VDC @ 250 mA MAXIMUM
- CONNECTORS
- RF INPUT/OUTPUT: FIELD REPLACEABLE SMA (FEMALE)
- POWER AND CONTROLS: 15 PIN MICRO-D
- SIZE: 2.00" x 1.81" x 0.50"



STANDARD PIN NUMBERING	
PIN	FUNCTION
8	GND
7	Option: Latch En
6	Option: Analog I/P
5	GND
4	0.25 dB (LSB)
3	0.5 dB
2	1 dB
1	2 dB
15	4 dB
14	8 dB
13	16 dB
12	32 dB (MSB)
11	+12 to + 15V DC
10	-0.0 to - 15V DC
9	Not Used

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

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

## ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°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

## AMERICAN MICROWAVE CORPORATION

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ISO 9001:2000 CERTIFIED

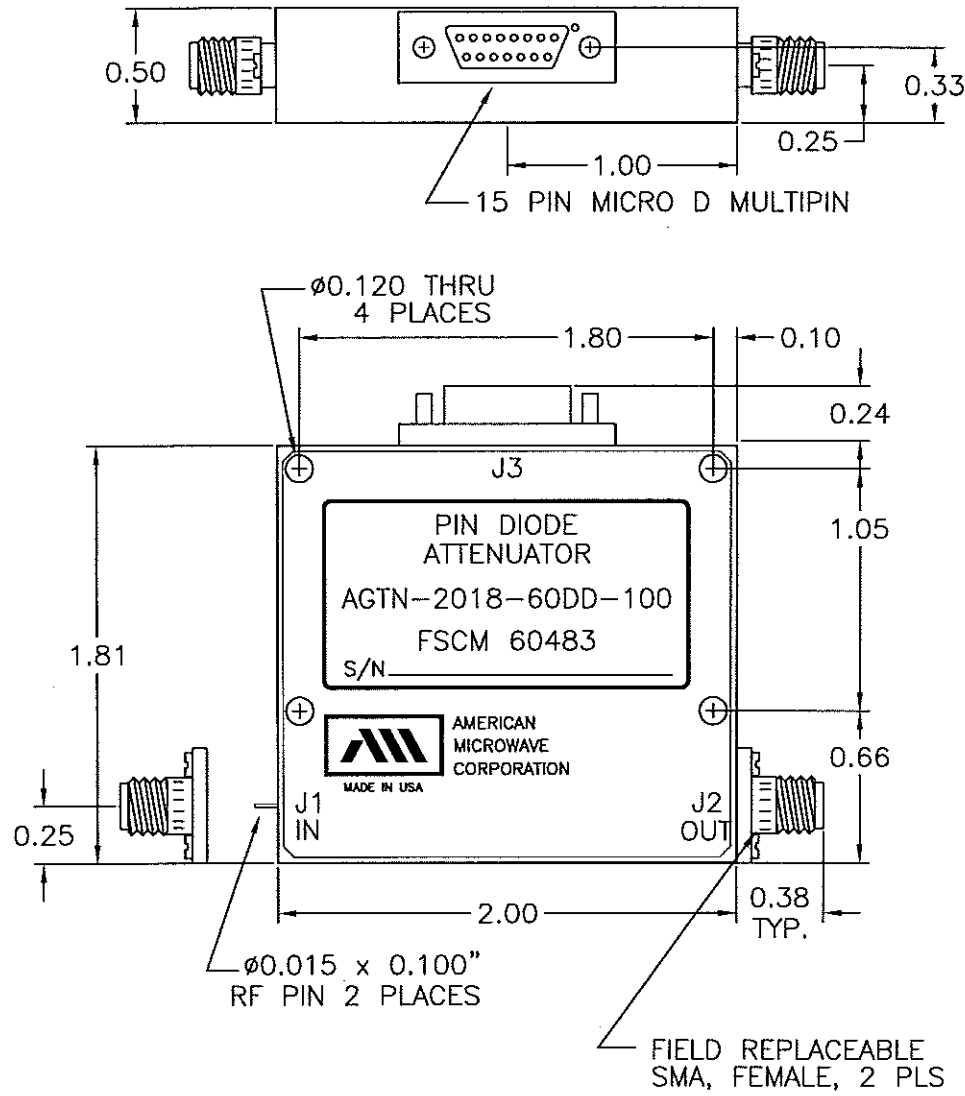


APPROVALS		DATE	TITLE		
DRAWN	PRB	07/30/07	PRODUCT FEATURE AGTN-2018-60DD-100 2-18 GHz FREQUENCY RANGE		
CHECKED	RA	08/02/07	SIZE	FSCM NO.	DWG NO.
RE-DRAWN			A	60483	100-A004-002
			SCALE	SHEET	
			N:1	1 OF 4	

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ECR	REV.	DESCRIPTION	DATE	APPROVED
07-098	-	ORIGINAL RELEASE JOB# 705110-EDO RSS, CA	07/30/07	RA
	A	SEE ECR# 09-004	1/20/09	<i>RA</i>



## MECHANICAL OUTLINE

STANDARD PIN NUMBERING	
PIN	FUNCTION
8	GND
7	Option: Latch En
6	Option: Analog I/P
5	GND
4	0.25 dB (LSB)
3	0.5 dB
2	1 dB
1	2 dB
15	4 dB
14	8 dB
13	16 dB
12	32 dB (MSB)
11	+12 to +15V DC
10	-0.0 to -15V DC
9	Not Used

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 TOLERANCES:  
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 X.XXX ±0.010

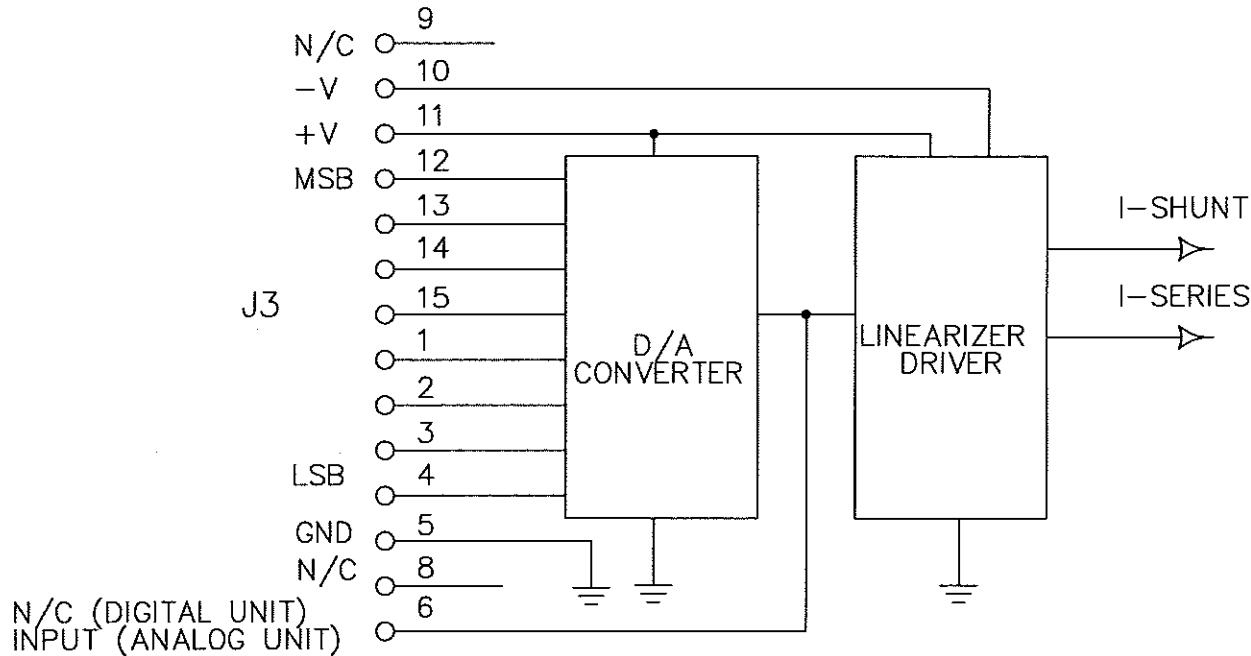
APPROVALS		DATE	TITLE			
DRAWN	<i>PRB</i>	07/30/07	MECHANICAL OUTLINE AGTN-2018-60DD-100			
CHECKED	<i>RA</i>	08/02/07	2-18 GHz FREQUENCY RANGE			
RE-DRAWN			SIZE	FSCM NO.	DWG NO.	REV.
			A	60483	100-A004-002	A
			SCALE	N:S		SHEET
					2 OF 4	

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	A	SEE ECR# 09-004	1/20/09	<i>[Signature]</i>

**FUNCTIONAL BLOCK DIAGRAM**



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APPROVALS		DATE	TITLE			
DRAWN <i>PRB</i>		07/30/07	FUNCTIONAL BLOCK DIAGRAM AGTN-2018-60DD-100			
CHECKED <i>RA</i>		08/02/07	2-18 GHz FREQUENCY RANGE			
RE-DRAWN			SIZE	FSCM NO.	DWG NO.	REV.
			A	60483	100-A004-002	A
			SCALE	SHEET		
			N:S	3 OF 4		