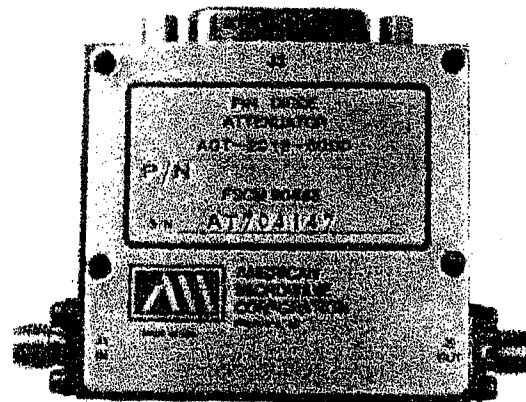


AGT 2018-60DD MULTI-OCTAVE PIN DIODE ATTENUATOR/MODULATOR 0.3 - 18 GHz



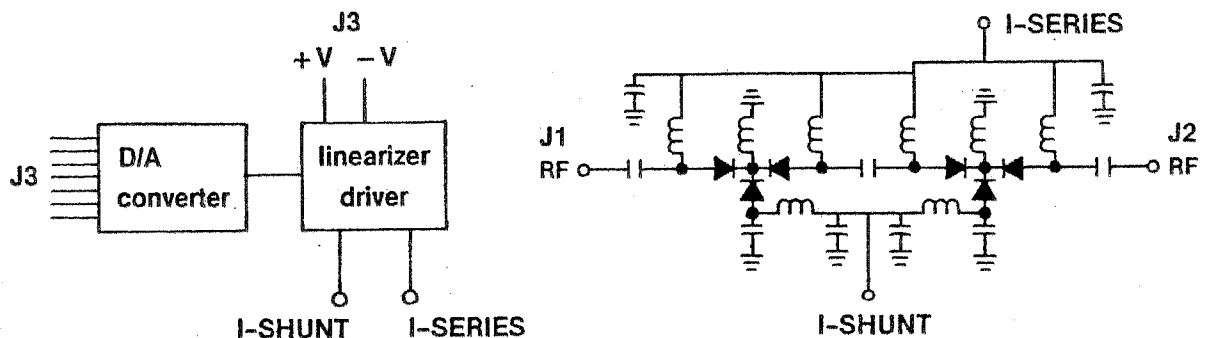
FEATURES

- Solid State Reliability
- Absorptive Type
- Linearized
- 8 Bit Digital Control

DESCRIPTION

The AGT Suffix DD Series are digitally controlled linearized attenuator/modulators that operate over the 0.3 to 18 GHz band and are non-reflective at all attenuation levels. The units consist of an AGT Seris Dual "Tee" Pad Pin Diode Attenuator and Integrated Hybrid Linearizers for the Series and Shunt Diodes. The standard model covers the frequency band from 2 - 18 GHz with a band extension option to 0.3 GHz.

FUNCTIONAL SCHEMATIC



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OCTOBER 9, 1997

10/88

STANDARD SPECIFICATIONS

Frequency Range:	2 - 18 Ghz (Standard Unit) 0.3 - 18 Ghz (Option 007)
Insertion loss:	4.5 dB, Maximum
Attenuation Range:	0 - 60 dB (see note 1)
Attenuation Flatness:	0 - 30 dB ± 1 dB 30 - 40 dB ± 2 dB 40 - 50 dB ± 3 dB 50 - 60 dB ± 5.5 dB
Accuracy: (see note 1)	0 - 10 dB ± 2 dB 10 - 20 dB ± 1 dB 20 - 40 dB ± 1.5 dB 40 - 60 dB ± 2 dB
Power Handling (Operating):	+20 dBm, (2 - 18 Ghz) +10 dBm, (0.3 - 2 Ghz) Option 007 only
Power Handling (Survival):	+30 dBm, Survival +27 dBm, Survival (Option 007)
Rise and Fall Time:	3 microseconds, Maximum
Monotonicity:	Guaranteed
Control Characteristics:	8 Bit Positive. True Binary. See Table 1
Power Supply Requirements:	+12V, $\pm 5\%$ @ 250 mA Maximum, 210 mA Typical -12V, $\pm 5\%$ @ 50 mA Maximum, 30 mA Typical

NOTES

1. Attenuators are linearized to nominal (average) attenuation over the operating band unless otherwise specified. Attenuation range and accuracy are expressed in terms of nominal attenuation setting.

2. Option 6 Accuracy Insertion Loss and Flatness is as specified below:

Flatness:	0 - 15 dB ± 0.5 dB	Accuracy:	0 - 10 dB ± 2.0 dB
	15 - 20 dB ± 1.0 dB		10 - 20 dB ± 1.0 dB
	20 - 25 dB ± 1.5 dB		20 - 30 dB ± 1.5 dB
	25 - 30 dB ± 2.0 dB		

Insertion Loss: 3.5 dB Maximum

Control Voltage: 0 to +3V DC

3. Option 7 Flatness specifications are the same as standard unit

TABLE 1

J3	
PIN NO.	8 BIT
1.	GND
2.	ANALOG INPUT
3.	NC
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.	NC

PROGRAMMING: POSITIVE TRUE BINARY

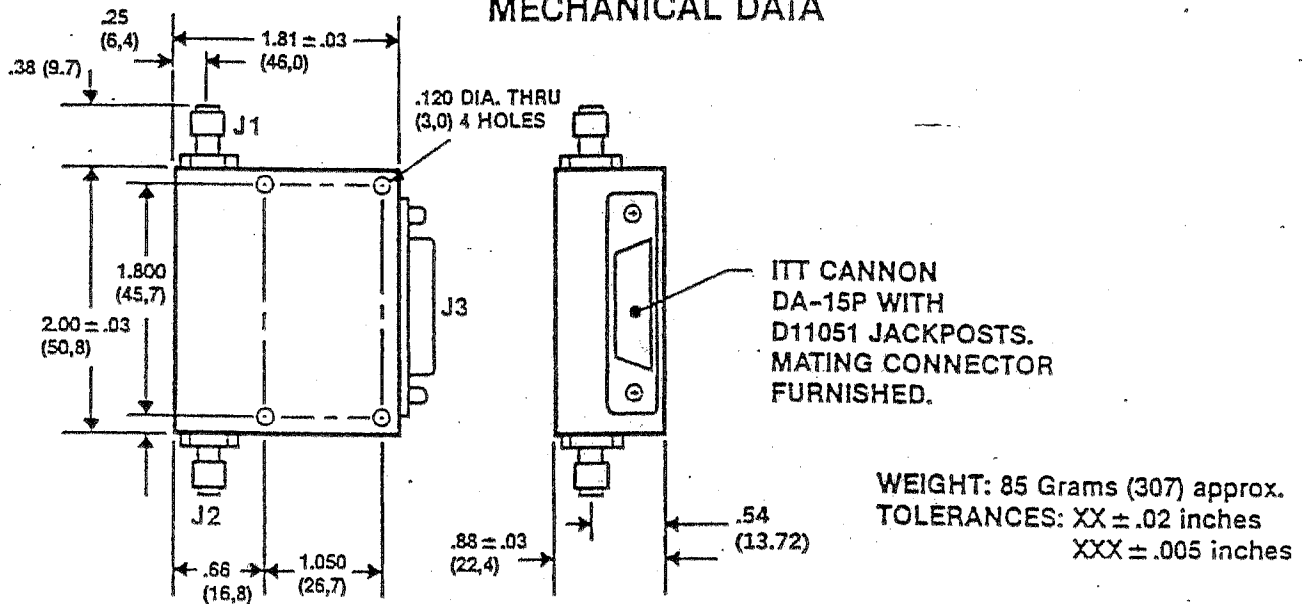
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R.A. TH
BG W+
Pw
EK
HW

AVAILABLE OPTIONS

Option No.	Description
001	Two SMA male RF connectors
002	One SMA male and one SMA female RF connector
003	SMA female control connector
005	$\pm 15V$ DC power supply
006	0 - 30 dB range (see Note 2)
007	Extend frequency band 0.3 - 18 GHz (see Note 3)
008	Frequency Band 2 - 8 GHz

MECHANICAL DATA



ENVIRONMENTAL RATINGS

Temperature Range:

Operating: $-55^{\circ}C$ to $+125^{\circ}C$

Storage: $-65^{\circ}C$ to $+125^{\circ}C$

Humidity: MIL-STD-202C, Method 103B, Cond. B
(96 Hrs. @ 95%)

Shock: MIL-STD-202C, Method 213, Cond. B
(75G, 6 msec)

Vibration: MIL-STD-202C, Method 204A, Cond. B
(.06" double amplitude or 15G whichever is less).

Altitude: MIL-STD-202C, Method 105C, Cond. B
(50,000 ft.)

Temp. Cycling: MIL-STD-202C, Method 102, Cond. D, 5 cycles.

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R.A. WP NH
B9 MW EK