

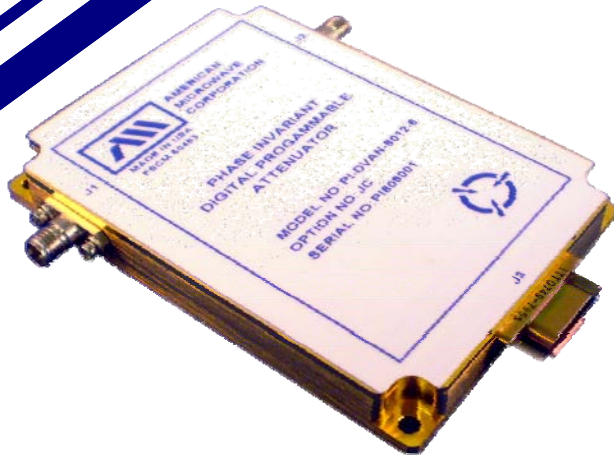


AMERICAN MICROWAVE CORPORATION

PHASE INVARIANT DIGITAL PROGRAMMABLE ATTENUATOR

6 TO 18 GHz

MODEL: PI-DVAN-6018



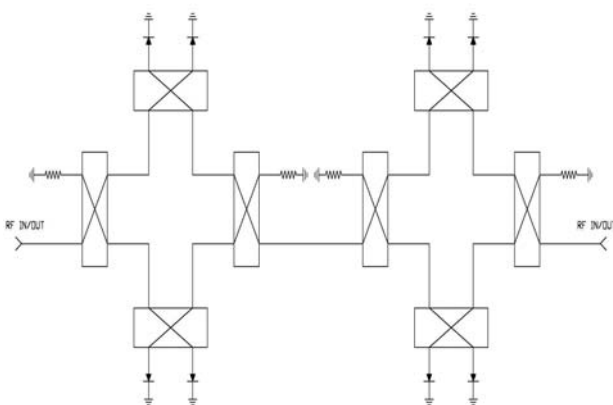
DESCRIPTION

The Phase Invariant Digital Programmable Attenuator offers essentially constant phase, adjustable attenuation over 40 dB in the 6 to 18 GHz range. The attenuator utilizes a unique double balanced arrangement of diodes and quadrature couplers to achieve the phase independent attenuation characteristics.

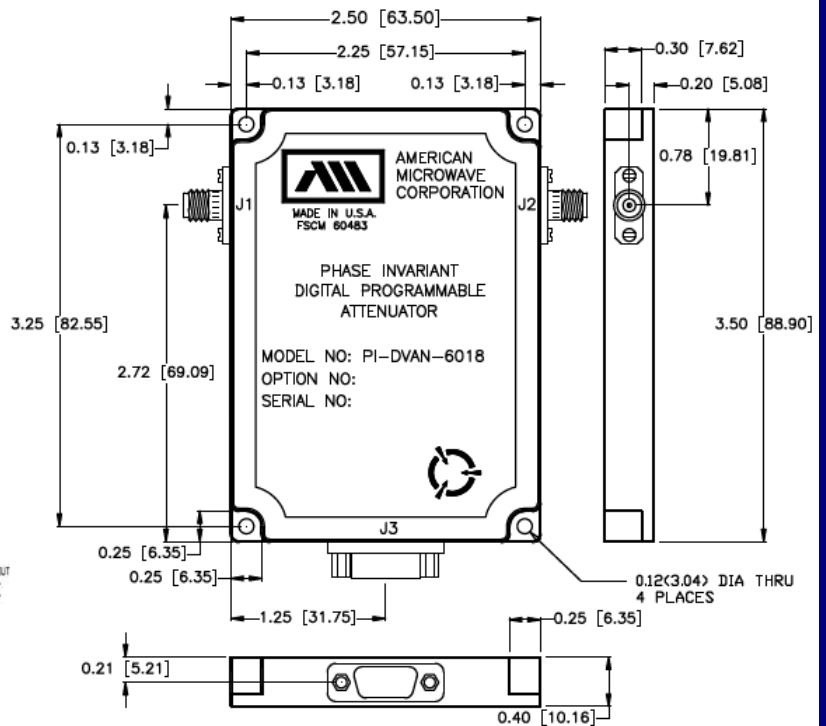
FEATURES

- Excellent Temperature Stability
- High Speed
- Over 40 dB Dynamic Range
- 0.1 dB Digital Resolution
- Uses the latest in digital technology

FUNCTIONAL BLOCK DIAGRAM



MECHANICAL OUTLINE



DIMENSIONS ARE IN INCHES<MM>

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ISO9001 : 2000 CERTIFIED

GUARANTEED SPECIFICATIONS

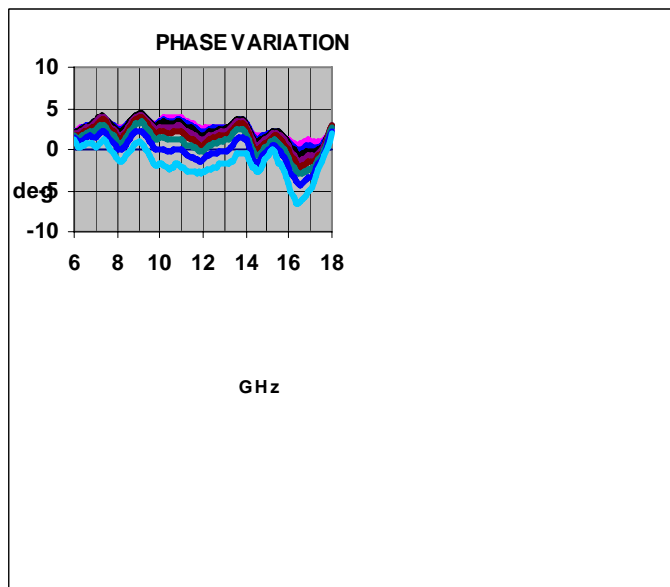
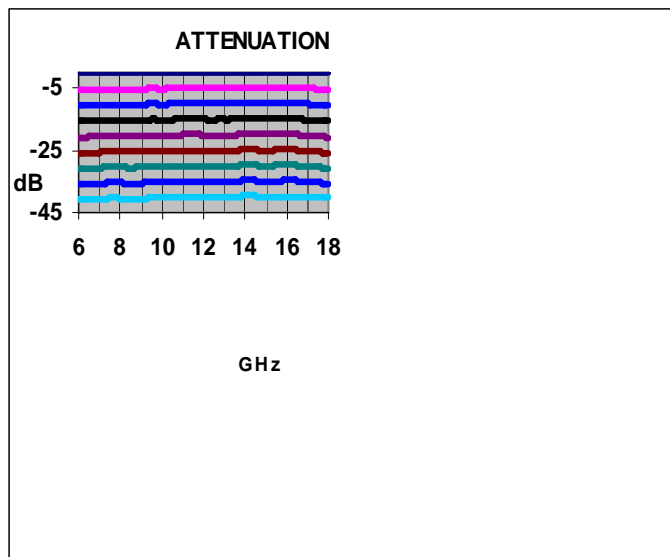
PARAMETER	SPECIFICATIONS
• Attenuation Range	40 dB
• Insertion Loss	6.5 dB @ Mid band 8.0 dB @ 18 GHz
• Return Loss	-9.54 dB (2.0:1)
• Attenuation Accuracy	±0.75 dB
• Flatness	±0.75 dB from 0 to 30 dB and ±1.0 dB from >30 to 40 dB ±1.0 dB over temp from 0 to 30 dB ±1.2 dB over temp from >30 to 40 dB
• Phase	±5° max. 0 to 30 dB ±7° max. >30 to 40 dB ±7° max. 0 to 30 dB over temp. ±10° max. >30 to 40 dB over temp.
• Control	9 Bit, 0.1 dB Step
• Switching Speed	250 nSec max.
• RF Input Power (Operating)	100mW (+20 dBm)
• Rf Input Power (Non- Operating)	0.5W (+27 dBm)
• Temp. Coefficient	0.01 dB/°C from 0 to 30 dB 0.02 dB/°C from >30 to 40 dB
• Power Supply	+7vdc to +12VDC @ 300 mA max
• Size	2.5" (L) x 3.5" (W) x 0.4" (H)

ENVIRONMENTAL RATINGS*

Operating Temperature Range:	-40°C to +95°C
Non-Operating Temperature Range	-65°C to +125°C
Humidity:	MIL-STD-202F, Method 103 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 107F Cond. A

* Units are designed to meet Environmental Ratings but not tested. If Environmental Testing is required, please contact Sales Department.

TYPICAL PERFORMANCE



PIN No	FUNCTION
1	B0
2	B1
3	B2
4	B3
5	B4
6	B5
7	B6
8	B7
9	B8
10	Reserved for options
11	Reserved for options
12	Reserved for options
13	CLOCK
14	+V DC
15	GND

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