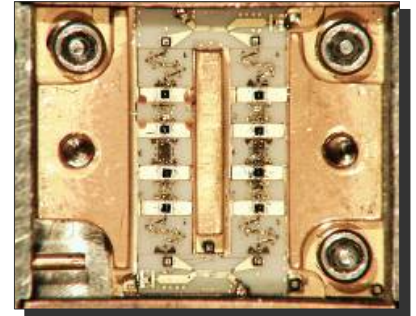


# MMW Fast Settling Digital Attenuator

## TECHNICAL FEATURE

### Features

- 31.5 dB range/ 0.5 dB step size
- Serial Command Interface
- Ultra-fast 50 ns setting time
- Programmed compensation for enhanced accuracy



### Performance

Frequency Range .....	20 – 21.4 GHz
Attenuation Range .....	31.5 dB
Bit Step Size.....	0.5 dB (8-Bits)
Serial Interface Control .....	RS-422
Attenuation Set Time .....	50 ns max (Control input to attenuation settled output)
Insertion Loss.....	4.0 dB max
VSWR .....	1.3:1 max
Attenuation Accuracy.....	+/-0.2 dB or 2%
Operating Voltage (input) .....	+/- 15 and +/-5 VDC
RF Connection Interface .....	SMP Male
Connector (power and control).....	M24308/9-2
Operating Temperature Range .....	+35 to +45°C
Package Size .....	3.0" x 2.0" x 0.75"

### Description

The MMW Variable Attenuator represents a significant advancement in control device technology. Through the application of advanced digital techniques, and superior microwave circuit design, a very compact and advanced signal control device is realized. Utilizing a serial control interface, the unit is readily adaptable into a complex RF system which has many device interfaces, and requires those devices to be controlled from a central processor. The digital core processor compensates performance for the specific input settings and operating temperature to assure optimum performance.

The RF circuit design utilizes a well-proven analog attenuator technology based on PIN diodes. The diode current is carefully controlled to achieve the precise level of attenuation desired for the particular system setting. The attenuator circuit utilizes a balanced configuration to optimize the VSWR performance.

This device is representative of a custom design for a specific application. These advanced techniques and circuit topologies can be applied to many other applications and specific requirements. Please contact us with your specifications.

**Switching Speed Measurement**

