

Features

- 0.5 dB Attenuation Steps to 15.5 dB
- Ultra Low DC Power Consumption
- Low Intermodulation Product: +45 dBm IP3
- SOIC-16 Plastic Package
- Tape and Reel Packaging Available
- Temperature Stability: +/-0.15 dB from -40°C to +85°C

Description

M/A-COM's AT-280 is a 5-bit, 0.5-dB step GaAs MMIC digital attenuator in a low cost SOIC 16-lead surface mount plastic package. The AT-280 is ideally suited for use where high accuracy, fast switching, very low power consumption and low intermodulation products are required at a low cost.

Typical applications include radio and cellular equipment, wireless LANS, GPS equipment and other gain/level control circuits.

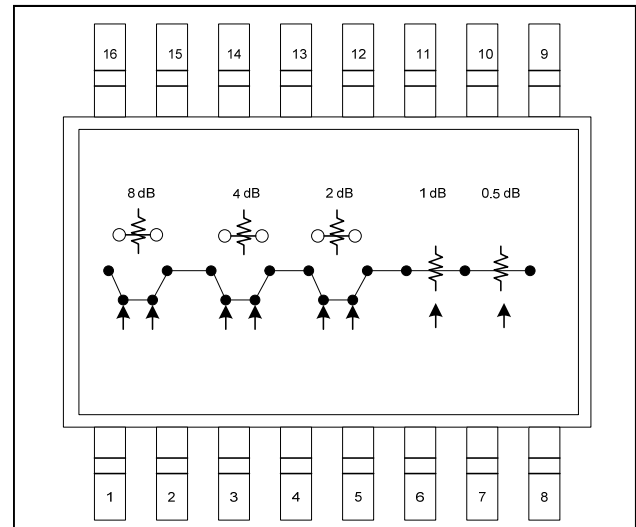
The AT-280 is fabricated with a monolithic GaAs MMIC using a mature 1-micron process. The process features full chip passivation for increased performance and reliability.

Ordering Information ¹

Part Number	Package
AT-280	SOIC 16-Lead
AT-280TR	Forward Tape and Reel
AT-280SMB	Sample Test Board (Includes 5 Samples)

1. Reference Application Note M513 for reel size information.

Functional Schematic



Pin Configuration

Pin No.	Function	Pin No.	Function
1	VC1	9	RF2
2	$\overline{\text{VC1}}$	10	Ground
3	VC2	11	Ground
4	$\overline{\text{VC2}}$	12	Ground
5	VC3	13	Ground
6	$\overline{\text{VC3}}$	14	Ground
7	$\overline{\text{VC4}}$	15	Ground
8	$\overline{\text{VC5}}$	16	RF1

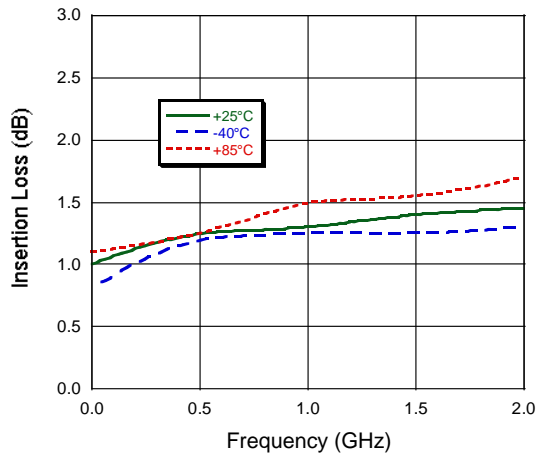
Absolute Maximum Ratings ²

Parameter	Absolute Maximum
Input Power: 0.05 GHz 0.5 - 2.0 GHz	+27 dBm +34 dBm
Control Voltage	-8.5 V \leq V _C \leq +5 V
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

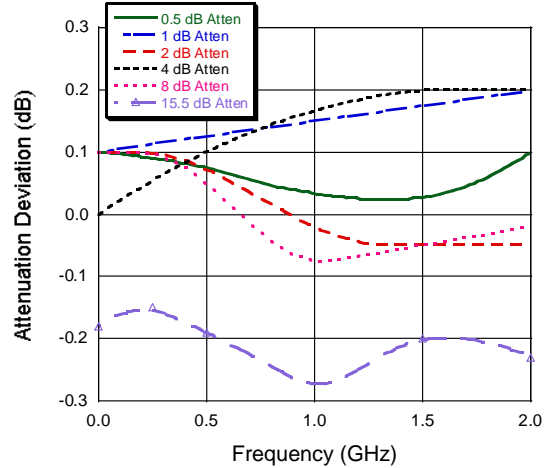
2. Exceeding any one or combination of these limits may cause permanent damage to this device.

Typical Performance Curves

Insertion Loss



Attenuation Accuracy



VSWR

