

# General Purpose Amplifier, 19 dB Gain 5 - 300 MHz

**AM-105**

V2.00

## Features

- 5.2 dB Typical Midband Noise Figure
- +17 dBm Typical Compression Level

## Guaranteed Specifications\* (From -55°C to +85°C Case Temp)

<b>Frequency Range</b>	5-300 MHz
<b>Gain (+25°C) @ 50 MHz</b>	19 ± 0.5 dB
<b>Frequency Response</b>	±1.5 dB Max
<b>Gain Variation with Temperature</b>	+1.0, -1.5 dB Max
<b>Output Power (1 dB Compression)</b>	+15 dBm Min
<b>Noise Figure</b>	
5-300 MHz	14 dB Max
10-100 MHz	9 dB Max
<b>Reverse Transmission</b>	-29 dB Max -30 dB Typ

## VSWR

Input (5-300 MHz)	1.5:1 Max
Input (10-100 MHz)	1.5:1 Max
Output (5-300 MHz)	2.5:1 Max
Output (10-100 MHz)	1.5:1 Max

## Intermodulation Intercept Point (for two-tone output power to +5 dBm)

Second Order (5-300 MHz)	+28 dBm Min
Second Order (10-100 MHz)	+36 dBm Min
Third Order (5-300 MHz)	+23 dBm Min
Third Order (10-100 MHz)	+27 dBm Min

## Bias Power

-20 VDC @ 130 mA Max  
(105 mA, 2.1W Typical)

## Operating Characteristics

**Impedance** 50 Ohms Nominal

**Maximum Rating**  
RF Input +19 dBm

## Environmental

MIL-STD-883 screening available.

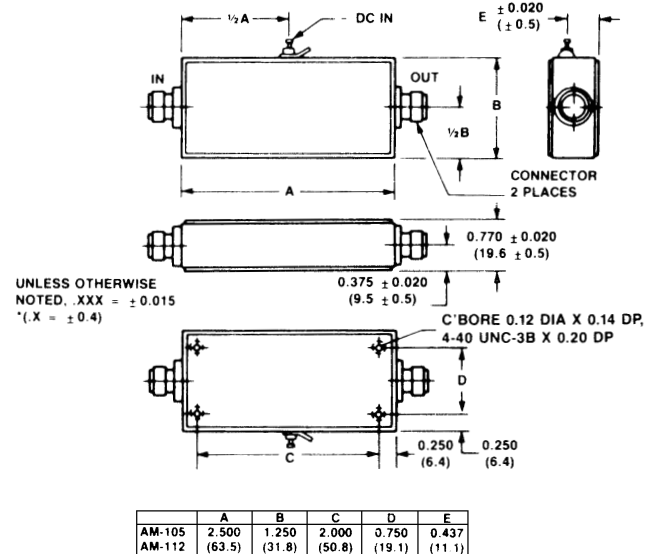
\*All specifications apply when operated at -20 VDC, with 50 ohm source impedance.

Heat Sinking: Operation at case temperature above 95°C is not recommended. Heat sinking adequate to dissipate 2.6 W. Must be provided in use.

## Ordering Information

Model No.	Package
AM-105 BNC	Connectorized
AM-105 SMA	Connectorized

## C-16



Dimensions in ( ) are in mm.

AM-105	S11	S21	S12	S22
FREQUENCY	MAG	ANG	MAG	ANG
5.0	0.05	-159.0	8.84	10.1
10.0	0.04	-139.2	8.92	-2.6
20.0	0.03	-65.6	8.87	-17.4
50.0	0.03	-41.2	8.72	-50.2
100.0	0.04	-52.9	8.58	-102.8
150.0	0.06	-80.0	8.32	-154.4
200.0	0.07	-117.5	8.16	-153.2
250.0	0.08	-169.2	8.06	99.6
300.0	0.08	-9.6	8.13	41.0

Specifications Subject to Change Without Notice.

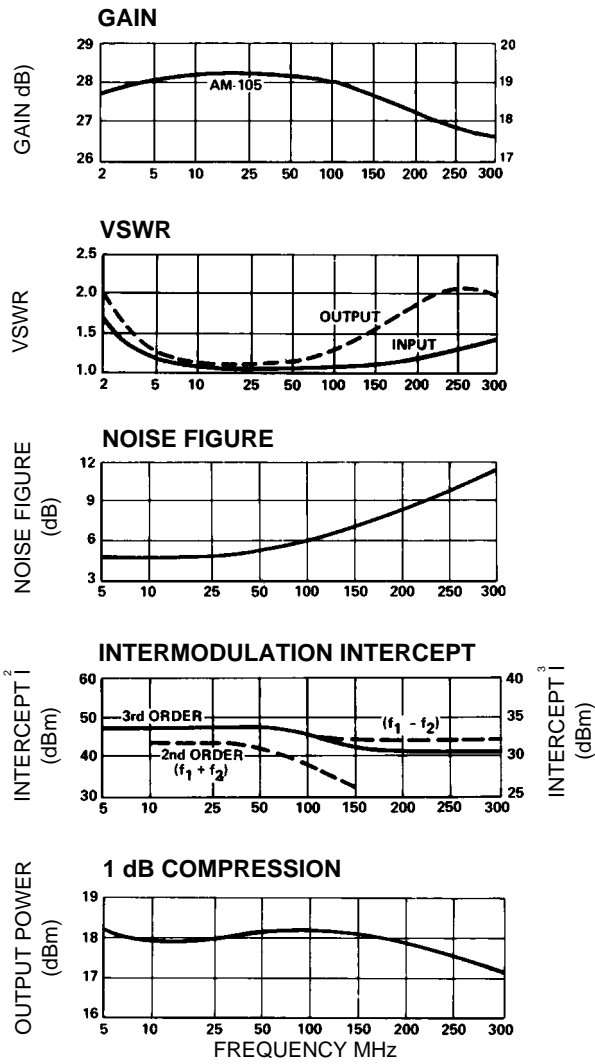
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Typical Performance



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