

High Performance Amplifier, 11 dB Gain 10 - 1000 MHz

AM-/AMC-145

V2.00

Features

- 2.5 dB Typical Midband Noise Figure
- +19 dBm Typical Midband Output Power
- +37 dBm Typical Midband Third Order Intercept

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

Frequency Range	10-1000 MHz
Gain (+25°C) @ 300 MHz	10.7 ± 0.6 dB
Frequency Response	± 1.0 dB
Gain Variation with Temperature	+ 1.0, - 0.8 dB
Output Power (1 dB Compression)	
10-1000 MHz	+ 14 dBm Min
100-1000 MHz	+ 17 dBm Min

Noise Figure	
10-1000 MHz	5.5 dB Max
10-500 MHz	4.0 dB Max

Reverse Transmission	- 11 dB Max - 13.5 dB Typ
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VSWR	
10-1000 MHz	3:1 Max
10-500 MHz	2:1 Max

Intermodulation Intercept Point (for two-tone output power up to +5 dBm)	
Second Order	+ 38 dBm Min
Third Order	+ 26 dBm Min

Bias Power	+ 15 VDC @ 60 mA Max (50 mA, 750 mW Typical)
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Operating Characteristics

Impedance	50 Ohms Nominal
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Maximum Rating	
RF Input	+ 10 dBm

Environmental

MIL-STD-883 screening available.

* All specifications apply when operated at +15 VDC, with 50 ohm source and load impedance

This product contains elements protected by United States Patent Number 3,624,536.

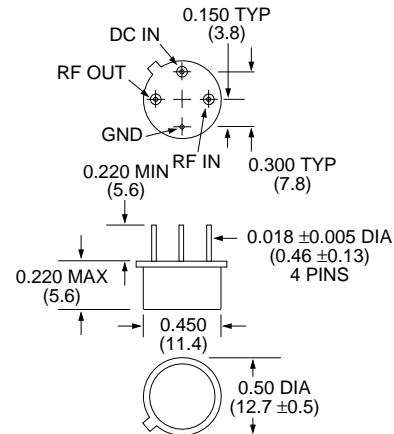
Heat Sinking: Operation at case temperature above 95°C is not recommended. Heat sinking adequate to dissipate 0.8 W. Must be provided in use.

Ordering Information

Model No.	Package
AM-145* PIN	TO-8-1
AMC-145 SMA	Connectorized

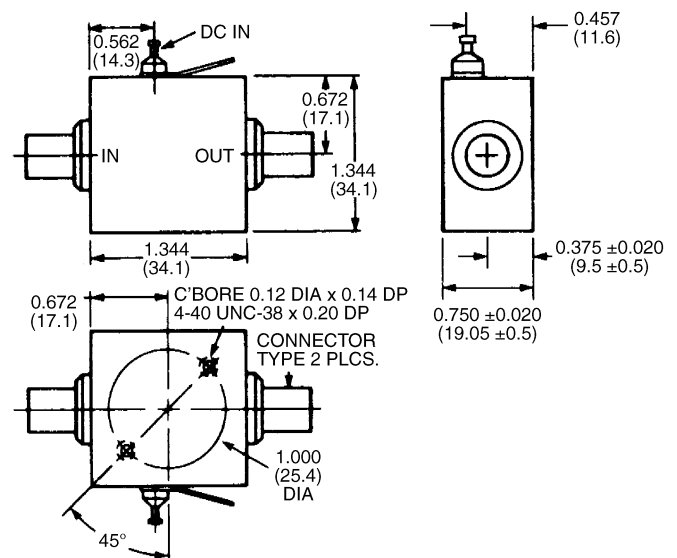
*Mounting kit part number AU00071 required for PCB applications.

TO-8-1



Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 0.10 OUNCES 2.8 GRAMS

C-32



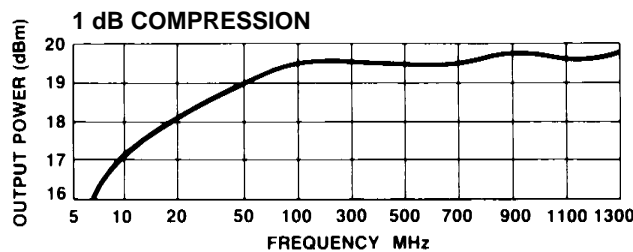
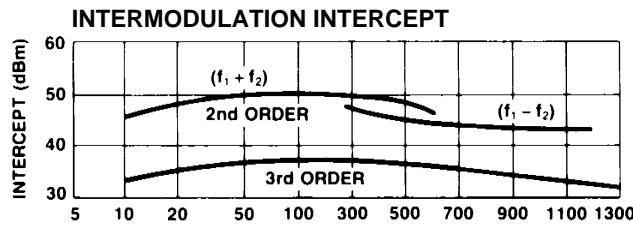
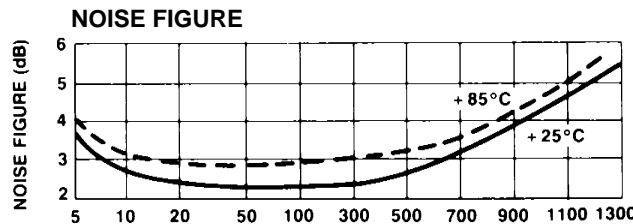
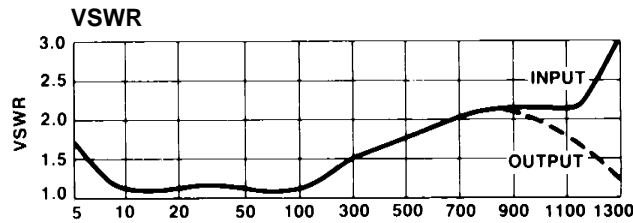
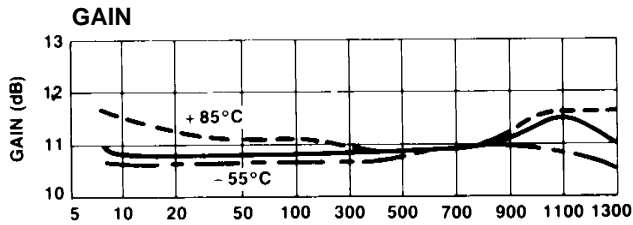
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 1.62 OUNCES 46 GRAMS

Specifications Subject to Change Without Notice.

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Typical Performance



Selected S-Parameter Data

AM-145	S ₁₁		S ₂₁		S ₁₂		S ₂₂	
FREQUENCY	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
10.0	0.03	59.0	3.53	-160.8	0.21	-168.6	0.05	60.4
20.0	0.02	107.8	3.42	-171.3	0.22	-175.4	0.04	94.5
50.0	0.03	81.9	3.43	179.0	0.22	177.3	0.04	83.4
100.0	0.04	55.5	3.47	171.3	0.22	170.1	0.05	61.5
200.0	0.07	30.2	3.48	157.2	0.22	157.5	0.08	36.2
400.0	0.10	-18.6	3.5	131.8	0.22	134.3	0.11	-1.5
600.0	0.14	-64.1	3.54	106.9	0.23	111.8	0.14	-32.1
800.0	0.17	-115.9	3.49	82.1	0.23	90.6	0.16	-62.0
1000.0	0.21	162.9	3.51	55.5	0.23	69.3	0.18	-89.9

Frequency in MHz

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