High Dynamic Range Amplifier, 12.5 dB Gain
300 - 1000 MHz

AM-/AMC-155

V2.00

Features

- 2.5 dB Typical Midband Noise Figure
- +21 dBm Typical Midband Output Power
- +37 dBm Typical Midband Third Order Intercept

Guaranteed Specifications*

(From −55°C to +85°C Case Temp)

Frequency Range		300-1000 MHz
Gain (+25°C) @ 600 MHz		12.25 ±1.0 dB
Frequency Response		±0.5 dB Max
Gain Variation with Temperature		±0.7 dB Max
Output Power (1 dB Compression)		+18 dBm Min
Noise Figure		
300-700 MHz		4.0 dB Max
300-1000 MHz		5.5 dB Max
Reverse Transmission		−10 dB Max −14 dB Typ
VSWR	**Input**	**Output**
	2.0:1	3.0:1 Max
Intermodulation Intercept Point (for two-tone output power up to +5 dBm)		
Second Order		+40 dBm Min
Third Order		+27 dBm Min
Bias Power		+15 VDC @ 60 mA Max (50 mA, 750 mW Typical)

Operating Characteristics

Impedance	50 Ohms Nominal
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.

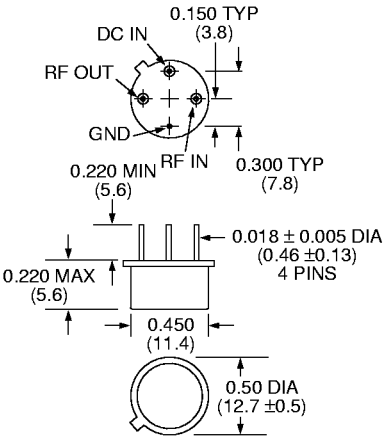
Heat Sinking: Operation at case temperature above 95°C is not recommended. Heat sinking adequate to dissipate 0.90 W. Must be provided in use.

Ordering Information

Model No.		Package
AM-155*	PIN	TO-8-1
AMC-155	SMA	Connectorized

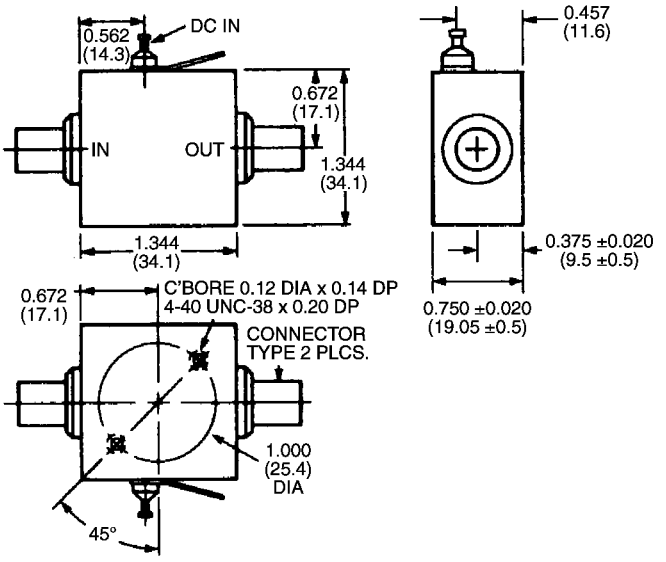
*Mounting kit part number AU00071 required for PCB applications.

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

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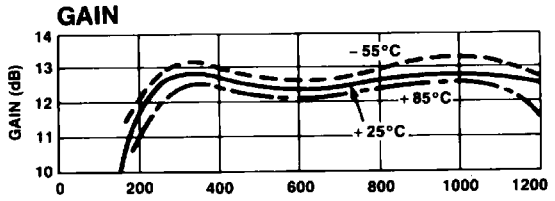
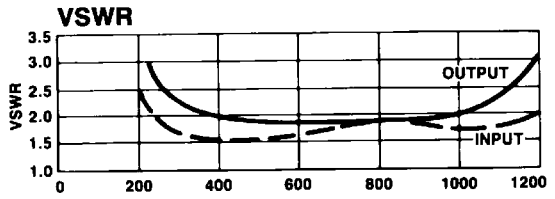
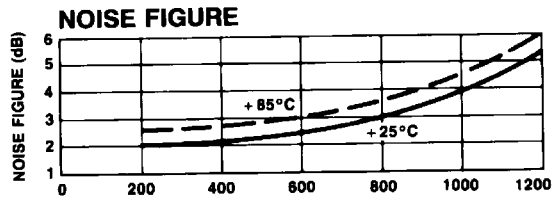
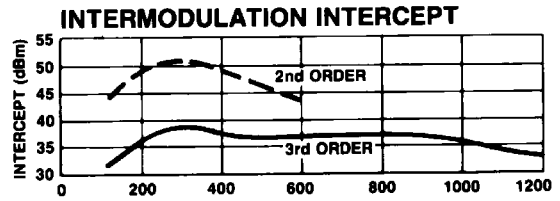
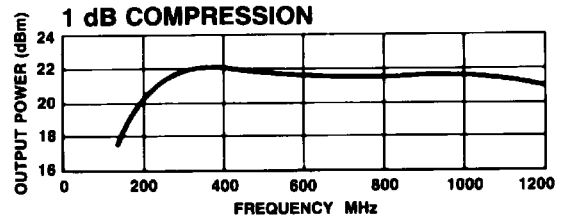
Typical Performance











Selected S-Parameter Data

AM-155	S_{11}		S_{21}		S_{12}		S_{22}	
FREQUENCY	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
300.0	0.30	42.3	4.05	166.3	0.18	173.3	0.36	87.8
350.0	0.26	12.9	4.12	153.2	0.18	161.3	0.33	80.5
400.0	0.24	-25.7	4.13	142.0	0.19	150.6	0.30	76.2
500.0	0.20	-88.2	4.03	122.0	0.20	131.8	0.28	73.4
600.0	0.23	-123.0	3.94	104.9	0.20	115.3	0.27	67.8
700.0	0.26	-144.7	3.88	89.4	0.21	100.1	0.28	51.3
800.0	0.29	-163.9	3.88	74.5	0.21	85.2	0.28	21.3
900.0	0.27	175.6	4.01	59.5	0.22	69.8	0.30	-20.2
1000.0	0.25	147.1	4.22	41.3	0.23	53.6	0.32	-63.0

Frequency in MHz

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