General Purpose Amplifier, 30 dB Gain 0.5 - 100 MHz

AM-110

V2.00

Features

- 4.5 dB Typical Midband Noise Figure
- +23 dBm Typical Compression Level

Guaranteed Specifications*

(From −55°C to +85°C Case Temp)

Frequency Range	0.5-100 MHz
Gain (+25°C) @ 10 MHz	29.7 ±0.5 dB
Frequency Response	
0.5-100 MHz	±0.5 dB Max
1-60 MHz	±0.3 dB Max
Gain Variation with Temperature	
0.5-100 MHz	±0.8 dB Max
1-60 MHz	±0.4 dB Max
Output Power (1 dB Compression)	+21 dBm Min
Noise Figure	5.5 dB Max
Reverse Transmission	−35 dB Max −37 dB Typ
VSWR	
0.5-100 MHz	1.7:1 Max
1-60 MHz	1.4:1 Max
Intermodulation Intercept Point (for two-tone output power up to +10 dBm)	
Second Order (0.5-100 MHz)	+33 dBm Min
Second Order (1-60 MHz)	+42 dBm Min
Third Order	+33 dBm Min
Bias Power	20 VDC @ 130 mA Max (110 mA, 2.2W Typical)

Operating Characteristics

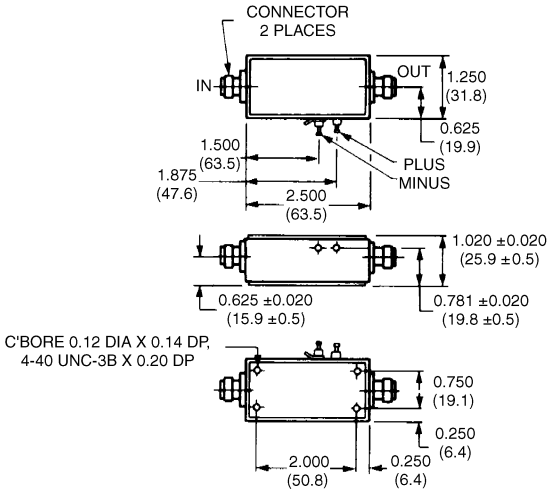
Impedance	50 Ohms Nominal
Maximum Rating	
RF Input	+18 dBm Max
Environmental	
MIL-STD-883 screening available.	

* All specifications apply when operated at 20 VDC, with 50 ohm source and load impedance.
Heat Sinking: Operation at case temperature above 95°C is not recommended. Heat sinking adequate to dissipate 2.2 W. Must be provided in use.

Ordering Information

Model No.	Package
AM-110 BNC	Connectorized
AM-110 SMA	Connectorized

C-23

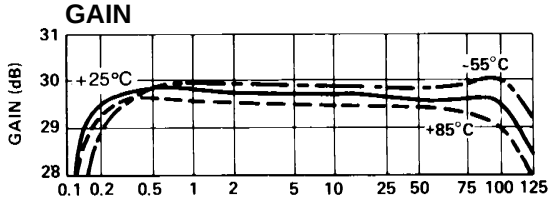


Dimensions in ( ) are in mm.
Unless Otherwise Noted: .xxx = ± 0.015 (.x = ± 0.4)
WEIGHT (APPROX): 5 OUNCES 142 GRAMS

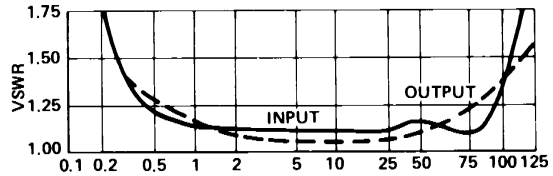
North America: Tel. (800) 366-2266 Fax (800) 618-8883 ■ Asia/Pacific: Tel. +81 (03) 3226-1671 Fax +81 (03) 3226-1451 ■ Europe: Tel. +44 (1344) 869 595 Fax +44 (1344) 300 020

Typical Performance

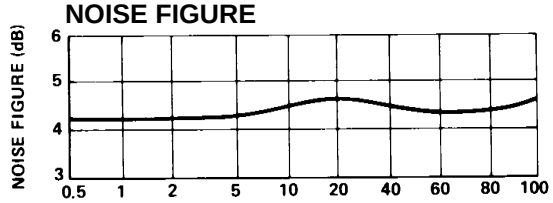
GAIN



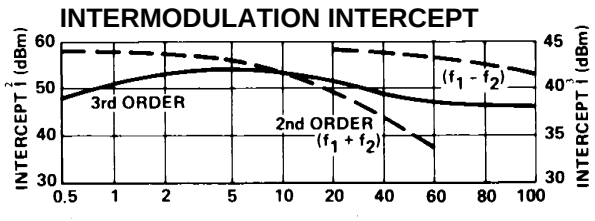
VSWR



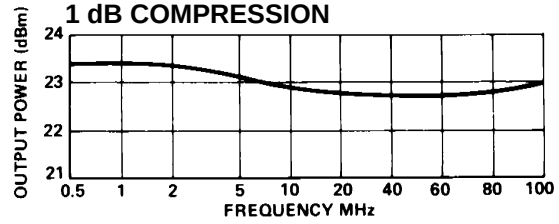
NOISE FIGURE



INTERMODULATION INTERCEPT



1 dB COMPRESSION



Typical S-Parameter Data

AM-110	S11		S21		S12		S22	
FREQUENCY	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
0.5	0.11	-114.6	29.74	29.7	0.01	26.8	0.08	70.2
1.0	0.06	-138.4	30.01	14.3	0.01	13.8	0.04	56.9
2.0	0.04	-158.0	30.03	4.6	0.01	6.4	0.03	42.8
5.0	0.04	172.5	30.04	-5.8	0.01	0.5	0.02	9.9
10.0	0.04	145.1	29.52	-16.0	0.01	-3.3	0.02	-3.7
25.0	0.04	91.6	29.24	-42.7	0.01	-12.6	0.03	-31.5
50.0	0.05	39.6	28.81	-85.5	0.01	-27.8	0.06	-57.4
75.0	0.05	-31.0	29.00	-130.5	0.01	-44.0	0.11	-80.4
100.0	0.08	-152.5	29.00	-178.4	0.01	-61.8	0.20	-111.0

Frequency in MHz

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