

Plug-In

# Low Noise Amplifier

MAN-1LN

50Ω

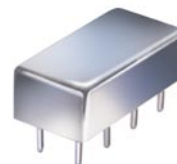
0.5 to 500 MHz

## Features

- low noise, 3.0 dB typ.
- hermetic case
- protected by US Patent, 6,943,629

## Applications

- VHF/UHF
- military, hi-rel applications



CASE STYLE: A05  
PRICE: \$22.20 ea. Qty. (1-9)

## Low Noise Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		NOISE FIGURE (dB)	GAIN (dB)			MAXIMUM POWER (dBm)		INTERCEPT POINT (dBm)	VSWR (:1) Typ.		DC POWER	
	f <sub>L</sub>	f <sub>U</sub>		Flatness Max.	Min.	Total Range	Output (1 dB Compr.)	Input (no damage)		In	Out	Volt (V) Nom.	Current (mA) Max.
MAN-1LN	0.5	500	3.0		28	±0.5 ±1.4	+7*	+15	+18	1.8	1.8	12	60

m = mid range [2 f<sub>L</sub> to f<sub>U</sub>/2]

Open load is not recommended, potentially can cause damage.

With no load derate max input power by 20 dB

\* Below 5 MHz, 1 dB compression point decreases to 6.5 dBm.

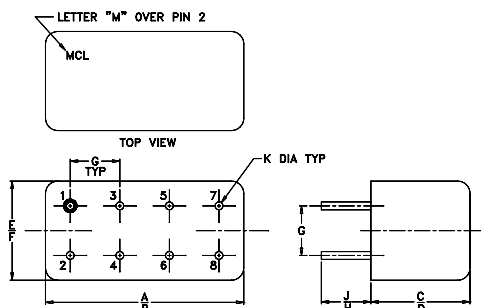
## Pin Connections

RF IN	1
RF OUT	8
DC	5
GROUND	2,3,4,6
CASE GROUND	2,3,4,6
NOT USED	7

## Maximum Ratings

Operating Temperature	-54°C to 85°C
Storage Temperature	-55°C to 100°C
DC Voltage	+12.5V Max.

## Outline Drawing



NOTE: BLUE BEAD INDICATES PIN 1.  
PIN NUMBERS DO NOT APPEAR ON UNIT,  
FOR REFERENCE ONLY.

## Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.240	.250	.370	.400
19.56	20.32	6.10	6.35	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	3.7	



INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

REV. OR  
M98086  
MAN-1LN  
060710  
Page 1 of 2

# Typical Performance Data/Curves

# MAN-1LN

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	11V	12V	12.5V	11V	12V	12.5V	IN	OUT		
0.50	29.88	31.30	31.73	13.20	12.90	12.60	1.35	1.67	—	8.01
1.90	30.44	31.89	32.32	12.50	12.10	11.60	1.13	1.18	—	8.42
11.40	30.58	32.02	32.45	12.50	11.70	11.40	1.04	1.05	2.82	8.32
68.30	30.71	32.13	32.54	12.70	11.50	11.50	1.07	1.05	2.91	8.54
192.60	30.89	32.27	32.66	12.20	11.00	11.10	1.18	1.12	2.81	8.47
243.80	30.93	32.30	32.69	11.60	10.40	10.90	1.24	1.15	2.84	8.45
307.90	30.94	32.29	32.68	11.30	10.40	10.30	1.31	1.23	2.88	8.50
371.90	30.90	32.20	32.58	11.10	9.90	10.30	1.39	1.30	2.95	8.45
436.00	30.82	32.07	32.42	10.40	10.20	9.80	1.45	1.31	3.01	8.49
500.00	30.63	31.80	32.12	9.30	7.80	7.30	1.50	1.46	3.08	8.52

