Plug-In

Low Noise Amplifier

MAN-1HLN+
MAN-1HLN

50Ω 10 to 500 MHz

Features

- low noise, 3.7 dB typ.
- high IP3, +30 dB typ.
- hermetic case
- protected by US Patent, 6,943,629

Applications

- VHF/UHF
- military, hi-rel applications

Generic photo used for illustration purposes only

CASE STYLE: A06

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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	
					Flatness Max.								
	f_L	f_U	Typ.	Min.	m	Total Range	Output (1 dB Compr.)	Input (no damage)	IP3 Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
MAN-1HLN(+)	10	500	3.7	10	±0.5	±0.8	+15	+15	+30	1.8	1.8	12	70

m = mid range [2 fL to fU/2]

Open load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB

Pin Connections

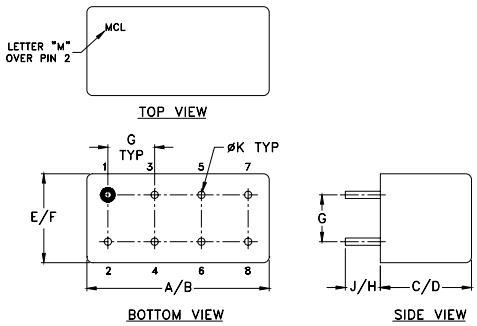
RF IN	1
RF OUT	8
DC	5
GROUND	2,3,4,6
CASE GROUND	2,3,4,6
NOT USED	7

Maximum Ratings

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

Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



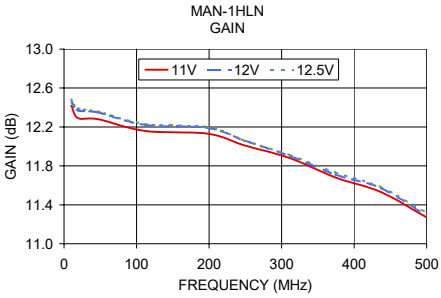
Outline Dimensions (inch / mm)

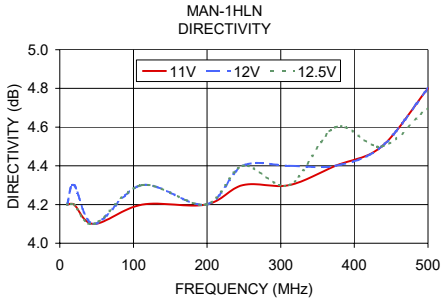
A	B	C	D	E	F	G	H	J	K	wt
.770	.800	.285	.310	.370	.400	.200	.20	.14	.031	grams
19.558	20.32	7.239	7.874	9.398	10.16	5.08	5.08	3.556	0.7874	5.2

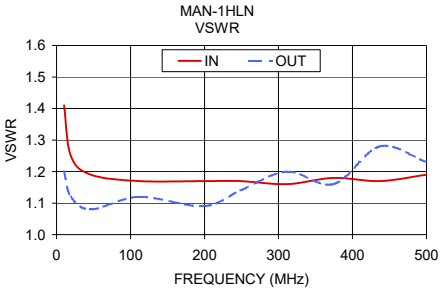
Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

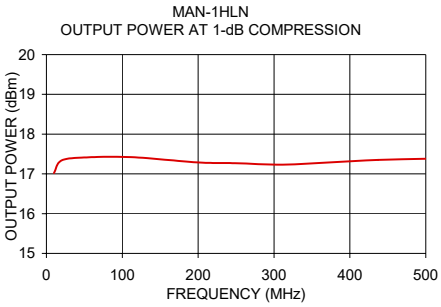
Typical Performance Data/Curves

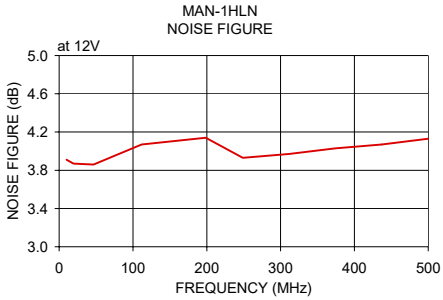
FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	11V	12V	12.5V	11V	12V	12.5V	IN	OUT	12V	12V
10.00	12.42	12.46	12.48	4.20	4.20	4.20	1.41	1.20	3.91	17.02
19.30	12.29	12.37	12.39	4.20	4.30	4.20	1.25	1.12	3.87	17.33
46.50	12.28	12.35	12.36	4.10	4.10	4.10	1.19	1.08	3.86	17.41
111.80	12.16	12.22	12.23	4.20	4.30	4.30	1.17	1.12	4.07	17.42
198.50	12.13	12.19	12.20	4.20	4.20	4.20	1.17	1.09	4.14	17.29
248.70	12.01	12.06	12.06	4.30	4.40	4.40	1.17	1.14	3.93	17.27
311.50	11.88	11.90	11.91	4.30	4.40	4.30	1.16	1.20	3.97	17.23
374.40	11.68	11.71	11.73	4.40	4.40	4.60	1.18	1.16	4.03	17.29
437.20	11.53	11.57	11.58	4.50	4.50	4.50	1.17	1.28	4.07	17.35
500.00	11.27	11.29	11.32	4.80	4.80	4.70	1.19	1.23	4.13	17.38











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