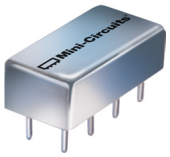
Plug-In

Amplifier

MAN-11AD+
MAN-11AD

50Ω High Isolation 2 to 2000 MHz



CASE STYLE: A06
PRICE: $34.20ea. QTY (1-9)

Features
- wideband, 2 to 2000 MHz
- hermetic, metal case
- protected by US Patent, 6,943,629

Applications
- military, hi-rel applications
- receivers
- two-tone, 3rd order IM testing
- cellular
- satellite communication
- GPS

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

Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)			MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1) Typ.		ACTIVE DIRECTIVITY* (dB)				DC POWER	
				Flatness Max.		Output (1 dB Compr.)			NF (dB)	IP3 (dBm)			L		U		Volt (V)	Current (mA)
	f_L	f_U	Min.	m	Total Range	L	U	Input (no damage)	Typ.	Typ.	In	Out	Typ.	Min.	Typ.	Min.	Nom.	Max.
MAN-11AD(+)	2	2000	8	±0.5	±1.5	-2	-3.5**	+10	6.5	+14	3.0	2.0	21	14	16	12	15	22

*Active Directivity(dB)= Isolation (dB)- Gain (dB)
** Above 1 GHz, -5 dBm min.
Open load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB.

L= low range (f_L to $f_U/2$) m= mid range ($2f_L$ to $f_U/2$) U= upper range ($f_U/2$ to f_U)

Pin Connections

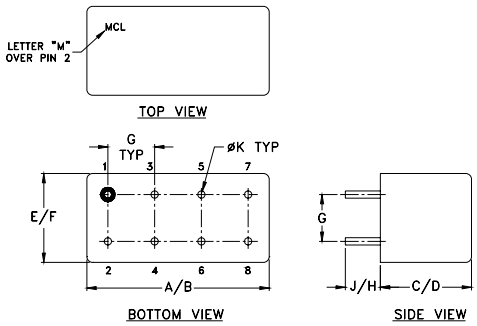
RF IN	1
RF OUT	8
DC	5
GROUND	2,3,4,6
CASE GROUND	2,3,4,6
NOT USED	7

Maximum Ratings

Operating Temperature	-54°C to 85°C
Storage Temperature	-55°C to 100°C
DC Voltage	+16V Max.

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

Outline Drawing



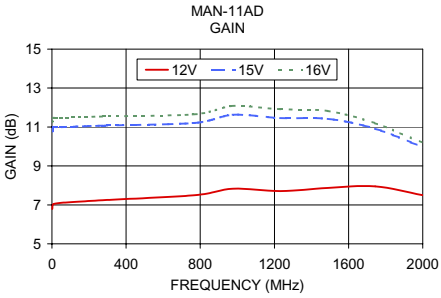
Outline Dimensions (inch / mm)

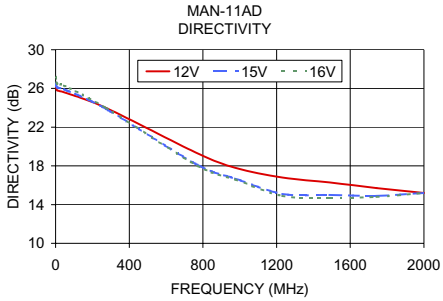
A	B	C	D	E	F	G	H	J	K	wt
.770	.800	.285	.310	.370	.400	.200	.20	.14	.031	grams
19.558	20.32	7.239	7.874	9.398	10.16	5.08	5.08	3.556	0.7874	5.2

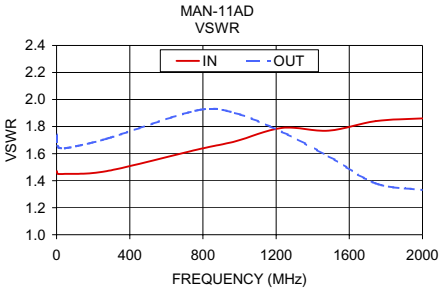
Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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

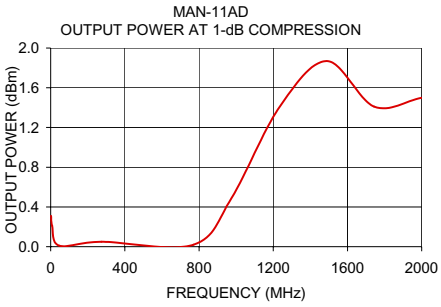
Typical Performance Data/Curves

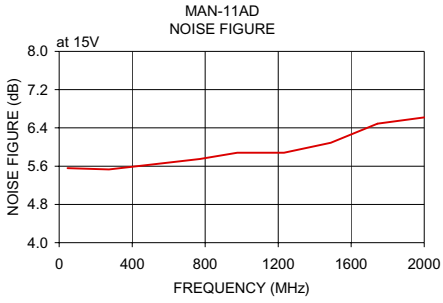
FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	12V	15V	16V	12V	15V	16V	IN	OUT	15V	15V
2.00	6.79	10.76	11.24	26.50	26.60	27.20	1.47	1.74	—	0.31
7.60	7.04	10.99	11.47	25.80	26.10	26.50	1.45	1.65	—	0.21
45.70	7.10	10.99	11.47	25.60	25.90	26.30	1.45	1.64	5.56	0.01
273.20	7.24	11.07	11.54	24.00	23.90	24.00	1.47	1.71	5.53	0.05
770.50	7.50	11.21	11.65	19.30	18.10	18.00	1.63	1.92	5.75	0.02
975.40	7.83	11.63	12.08	17.80	16.70	16.60	1.69	1.90	5.88	0.49
1231.50	7.71	11.46	11.91	16.80	15.10	14.90	1.79	1.76	5.88	1.40
1487.70	7.87	11.42	11.82	16.30	15.00	14.70	1.77	1.58	6.09	1.87
1743.80	7.95	10.91	11.19	15.70	14.90	14.80	1.84	1.38	6.49	1.41
2000.00	7.50	9.96	10.19	15.20	15.20	15.20	1.86	1.33	6.62	1.50











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