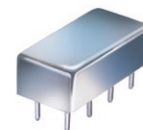


Plug-In Amplifier

MAN-11AD+ MAN-11AD

50Ω High Isolation 2 to 2000 MHz



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

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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

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

Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)			MAXIMUM POWER (dBm)			DYNAMIC RANGE		VSWR (:1) Typ.		ACTIVE DIRECTIVITY* (dB)				DC POWER	
	f_L	f_U	Min.	m	Flatness Max. Total Range	Output (1 dB Compr.)		Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	L		U		Volt (V) Nom.	Current (mA) 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

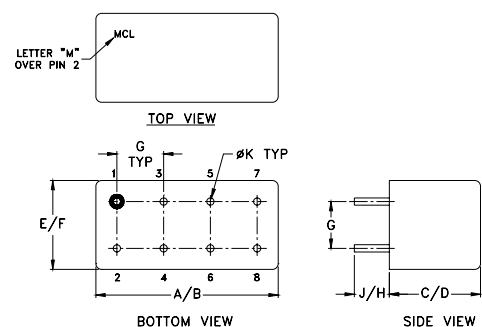
RF IN	1
RF OUT	8
DC	5
GROUND	2,3,4,6
CASE GROUND	2,3,4,6
NOT USED	7

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

Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs
& shopping online see web site

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IF/RF MICROWAVE COMPONENTS

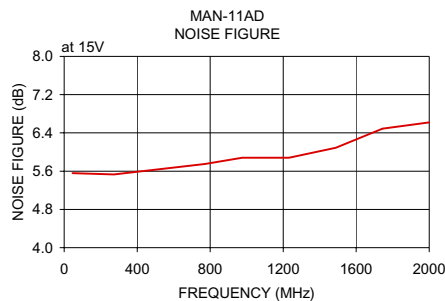
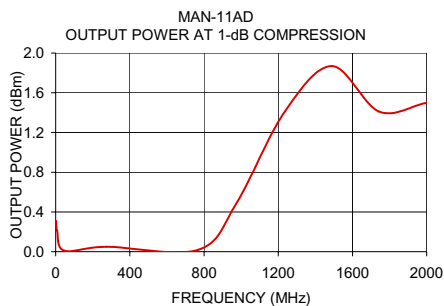
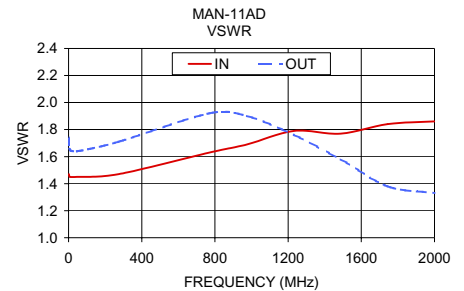
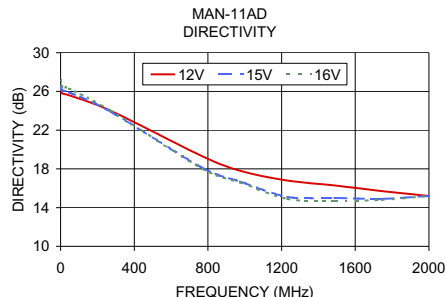
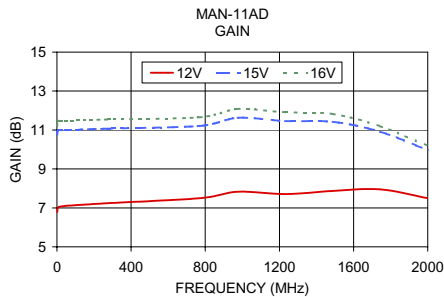
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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Page 1 of 2

Typical Performance Data/Curves

MAN-11AD+ MAN-11AD

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		
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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