

Plug-In

Voltage Controlled Oscillator

POS-500W+
POS-500W

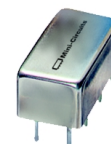
Wideband, 250 to 500 MHz

Features

- octave linear tuning
- low pulling, 1.5 MHz typ.
- flat power output
- low phase noise, -140 typ. dBc at 1 MHz offset, typ.

Applications

- VHF/UHF receivers/transmitters
- test instruments
- wideband frequency synthesizers



CASE STYLE:A06

PRICE: \$18.95 ea. QTY (5-49)

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

See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	TUNING VOLTAGE (V)		PHASE NOISE dBc/Hz SSB at offset frequencies: Typ.				PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
	Min.	Max.		Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Vcc (volts)	Current (mA) Max.
POS-500W(+)	250	500	+10.0	1	16	-79	-100	-120	-140	1.5	0.2	17-23	-25	-18	0.1	12	25

Pin Connections

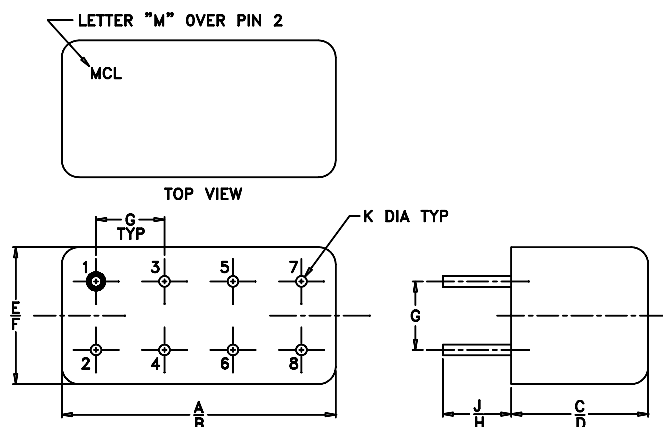
RFOUT	2
VCC	1
V-TUNE	8
GROUND	3,4,5,6,7
CASE GROUND	3,4,5,6,7

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+15V
Absolute Max. Tuning Voltage (Vtune)	+20V

all specifications: 50 ohm system

Outline Drawing



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

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	wt.
.770	.800	.285	.310	.370	.400	.200	.20	.14	.031	grams
19.56	20.32	7.24	7.87	9.40	10.16	5.08	5.08	3.56	.79	5.2



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

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

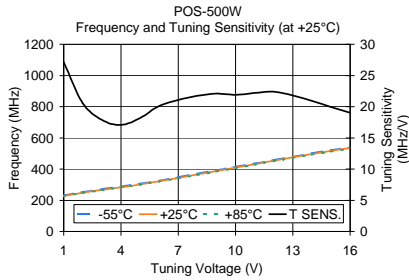
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

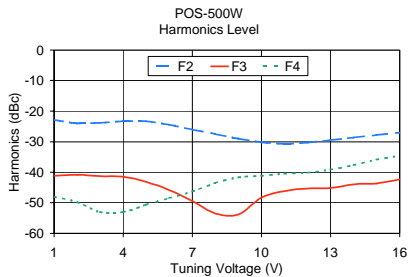
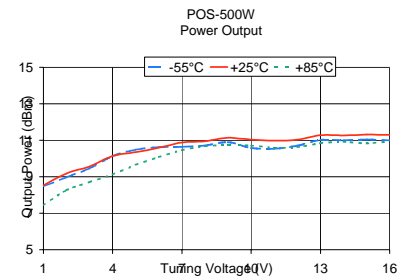
REV. B
M98898
ED-7822/2
POS-500W
SK/TD/CP
051206
page 1 of 2

Performance Curves

POS-500W+ POS-500W



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
1.00	27.1	231.0	228.5	227.3	8.4	8.5	7.4
2.00	20.5	252.1	249.1	247.0	8.9	9.1	8.2
3.00	17.9	270.6	267.0	264.4	9.4	9.5	8.7
4.00	17.0	288.3	284.1	281.9	10.1	10.1	9.1
5.00	18.1	305.6	302.3	300.4	10.4	10.3	9.6
6.00	20.1	325.6	322.4	319.8	10.6	10.5	10.0
7.00	21.1	347.5	343.5	340.2	10.6	10.8	10.4
8.00	21.7	369.9	365.2	361.4	10.7	10.9	10.6
9.00	22.0	392.2	387.3	383.5	10.8	11.1	10.7
10.00	21.9	414.0	409.2	406.0	10.5	11.0	10.7
11.00	22.2	435.1	431.4	428.5	10.5	10.9	10.5
12.00	22.4	457.2	453.8	450.6	10.7	11.0	10.6
13.00	21.8	479.4	475.6	471.9	11.0	11.2	10.8
14.00	20.9	500.6	496.5	492.4	11.0	11.2	10.9
15.00	19.9	520.9	516.5	512.0	11.0	11.3	10.8
16.00	19.0	540.2	535.5	530.7	10.9	11.2	10.9



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.00	-22.83	-41.17	-48.00	0.13
2.00	-24.00	-40.84	-49.84	0.00
3.00	-23.83	-41.33	-53.00	0.08
4.00	-23.34	-41.50	-53.00	0.09
5.00	-23.34	-43.17	-50.67	0.15
6.00	-24.50	-45.84	-48.50	0.04
7.00	-26.00	-49.50	-46.33	0.09
8.00	-27.50	-53.50	-43.50	0.20
9.00	-29.00	-53.84	-41.67	0.24
10.00	-30.16	-48.33	-41.16	0.14
11.00	-30.67	-46.17	-40.50	0.15
12.00	-30.33	-45.33	-40.16	0.23
13.00	-29.50	-45.17	-39.17	0.20
14.00	-28.66	-44.00	-37.66	0.16
15.00	-27.84	-43.67	-35.84	0.12
16.00	-27.00	-42.33	-34.66	0.10

