

Plug-In

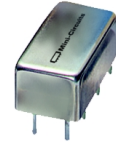
Voltage Controlled Oscillator

POS-200+
POS-200

Linear Tuning 100 to 200 MHz

Features

- excellent harmonic suppression, -24 dBc typ.
- output suitable for LO drive to level 10 mixers
- hermetically sealed



CASE STYLE:A06

Applications

- frequency synthesizers
- test instruments

+ 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 dBr (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
	Min.	Max.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Vcc (volts)	Current (mA) Max.
POS-200(+)	100	200	+10	1	16	-80	-102	-122	-142	1.0	0.2	7.1-8.6	-24	-20	0.1	12	20

Pin Connections

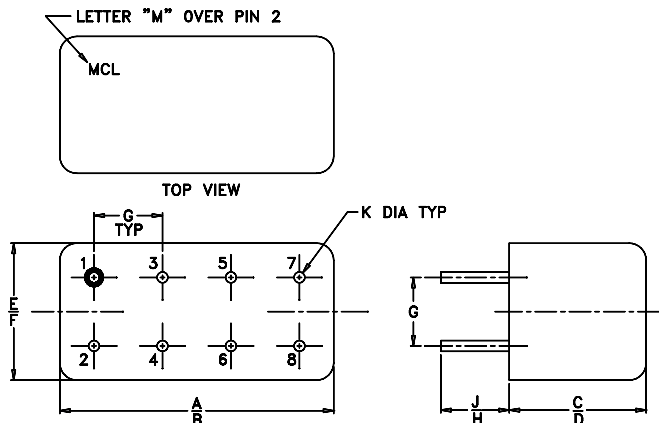
RFOUT	2
VCC	1
V-TUNE	8
GROUND	3,4,5,6,7
CASE GROUND	3,4,5,6,7

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+16V
Absolute Max. Tuning Voltage (Vtune)	+18V

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/mm)

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



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

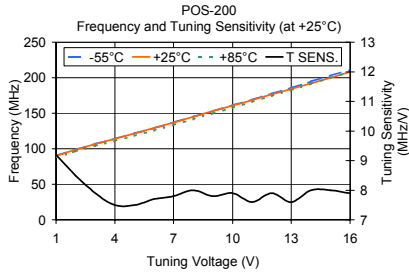
Mini-Circuits ISO 9001 & ISO 14001 Certified

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

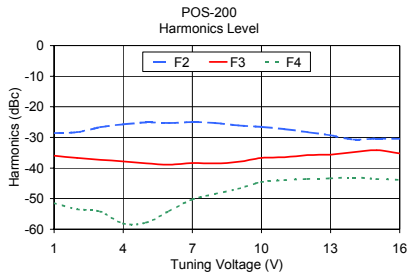
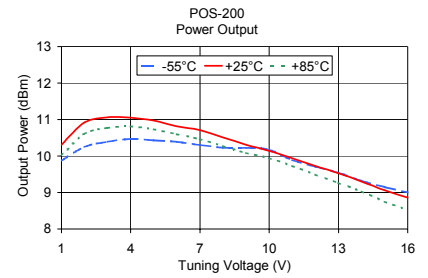
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Performance Curves

POS-200+ POS-200



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
1.0	9.2	90.2	90.1	87.8	9.8	10.3	10.0
2.0	8.5	99.0	98.6	96.6	10.2	10.9	10.6
3.0	7.9	106.8	106.5	104.1	10.3	11.0	10.7
4.0	7.5	114.1	114.0	111.2	10.4	11.0	10.8
5.0	7.5	121.5	121.6	118.3	10.4	10.9	10.7
6.0	7.7	129.0	129.3	125.8	10.3	10.8	10.6
7.0	7.8	136.9	137.1	133.5	10.3	10.7	10.4
8.0	8.0	145.1	145.1	141.5	10.2	10.5	10.2
9.0	7.8	153.0	152.9	149.7	10.2	10.3	10.0
10.0	7.9	161.3	160.8	157.8	10.1	10.1	9.9
11.0	7.6	169.3	168.4	166.0	9.8	9.9	9.7
12.0	7.9	177.6	176.3	174.3	9.7	9.7	9.4
13.0	7.6	185.6	183.9	182.6	9.5	9.5	9.2
14.0	8.0	194.5	191.9	191.2	9.3	9.3	9.0
15.0	8.0	202.9	200.0	199.7	9.1	9.0	8.7
16.0	7.9	211.2	207.8	208.1	9.0	8.8	8.5



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.0	-28.6	-36.0	-51.5	0.15
2.0	-28.3	-36.7	-53.5	0.24
3.0	-26.7	-37.3	-54.2	0.16
4.0	-25.7	-37.9	-58.2	0.17
5.0	-25.1	-38.5	-57.9	0.13
6.0	-25.3	-38.9	-54.1	0.15
7.0	-25.0	-38.4	-50.3	0.20
8.0	-25.3	-38.5	-48.5	0.22
9.0	-26.1	-38.0	-46.8	0.26
10.0	-26.6	-36.7	-44.6	0.18
11.0	-27.3	-36.5	-44.0	0.25
12.0	-28.3	-35.8	-43.6	0.12
13.0	-29.3	-35.6	-43.4	0.10
14.0	-30.7	-34.8	-43.1	0.15
15.0	-30.4	-34.2	-43.6	0.15
16.0	-30.5	-35.3	-43.9	0.33

