

# Voltage Controlled Oscillator

POS-2000A

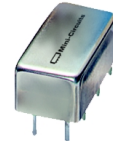
Linear Tuning 1370 to 2000 MHz

### Features

- wide frequency range
- linear tuning characteristics
- low phase noise, -137 dBc/Hz @ 1 MHz offset
- hermetically sealed

### Applications

- wideband frequency synthesizer
- PLL circuitry
- measurement instrumentation



CASE STYLE:A06  
PRICE: \$14.95 ea. QTY (5-49)

### 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.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Vcc (volts)	Current (mA) Max.
POS-2000A	1370	2000	+11.8	1	20	-73	-97	-117	-137	12	3	30-45	-24	-12	4.0	8	30

### Pin Connections

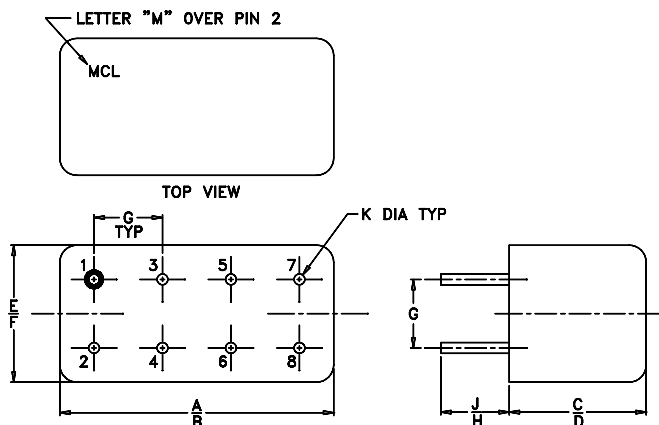
RFOUT	2
VCC	1
V-TUNE	8
GROUND	3,4,5,6,7
CASE GROUND	3,4,5,6,7

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+10V
Absolute Max. Tuning Voltage (Vtune)	+25V

all specifications: 50 ohm system

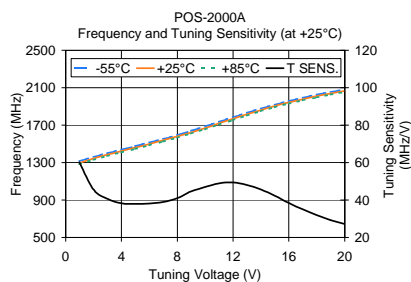
### Outline Drawing



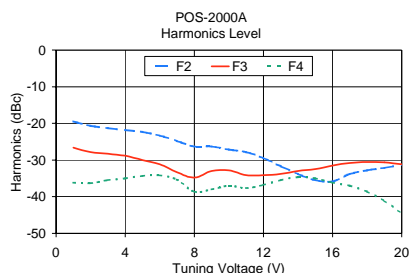
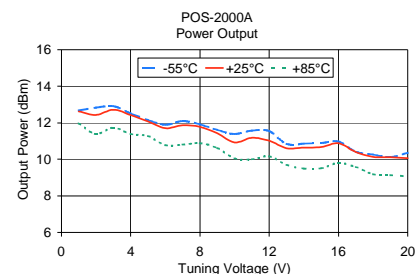
NOTE: BLUE BEAD INDICATES PIN 1.  
PIN NUMBERS DO NOT APPEAR ON UNIT,  
FOR REFERENCE ONLY.

### 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



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	60.2	1315.7	1298.6	1282.3	12.6	12.6	11.9
2.0	45.6	1360.3	1344.3	1329.0	12.8	12.4	11.3
3.0	40.6	1400.1	1384.9	1370.5	12.9	12.7	11.7
4.0	38.2	1438.0	1423.2	1409.2	12.5	12.4	11.3
5.0	37.8	1475.6	1461.1	1447.4	12.1	12.0	11.2
6.0	38.2	1513.4	1499.3	1485.9	11.8	11.7	10.7
7.0	38.9	1552.2	1538.3	1525.2	12.0	11.8	10.8
8.0	40.9	1593.0	1579.3	1566.3	11.9	11.7	10.8
9.0	44.5	1639.4	1623.8	1610.3	11.6	11.4	10.6
10.0	46.9	1686.8	1670.8	1656.9	11.3	10.9	10.0
11.0	48.9	1735.0	1719.7	1705.7	11.5	11.1	10.0
12.0	49.4	1784.3	1769.1	1755.2	11.5	11.0	10.1
13.0	48.1	1831.9	1817.2	1803.7	10.8	10.6	9.7
14.0	45.6	1877.1	1862.8	1849.5	10.8	10.6	9.4
15.0	42.3	1919.1	1905.1	1891.9	10.8	10.6	9.5
16.0	38.4	1957.4	1943.6	1930.5	10.9	10.8	9.8
17.0	35.0	1992.4	1978.6	1965.6	10.4	10.4	9.5
18.0	31.9	2024.6	2010.6	1997.4	10.2	10.1	9.1
19.0	29.2	2054.1	2039.9	2026.7	10.1	10.1	9.1
20.0	27.1	2081.1	2067.0	2053.7	10.3	10.0	9.0



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.0	-19.5	-26.6	-36.1	2.92
2.0	-20.6	-27.8	-36.3	3.02
3.0	-21.3	-28.3	-35.5	2.97
4.0	-21.8	-28.8	-35.0	2.91
5.0	-22.3	-30.0	-34.3	2.86
6.0	-23.3	-31.1	-34.1	2.69
7.0	-24.8	-33.3	-35.3	2.50
8.0	-26.3	-34.8	-38.6	2.22
9.0	-26.3	-33.0	-38.0	2.29
10.0	-27.1	-32.8	-37.0	2.14
11.0	-27.8	-34.1	-37.6	2.10
12.0	-29.5	-34.1	-36.8	2.08
13.0	-31.6	-33.8	-35.5	2.08
14.0	-33.8	-33.0	-34.6	2.19
15.0	-35.5	-32.5	-35.0	2.30
16.0	-35.8	-31.5	-36.1	2.41
17.0	-33.8	-30.8	-37.0	2.49
18.0	-32.8	-30.5	-38.6	2.56
19.0	-32.1	-30.6	-41.1	2.55
20.0	-31.3	-31.1	-44.5	2.56

