

# Plug-In Voltage Controlled Oscillator

## POS-400+ POS-400

Linear Tuning 200 to 380 MHz



### Features

- wideband, 200 to 380 MHz
- excellent harmonic suppression, -28 dBc typ.
- hermetically sealed

### Applications

- test instruments
- agile communications systems

CASE STYLE: A06  
PRICE: \$13.95 ea. QTY (5-49)

**+ 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.*

### Electrical Specifications

FREQUENCY (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.	Typ.		Typ.	Max.
200	380	+9.5	1	16	-76	-98	-120	-140	1.8	0.3	13.7-16.9	-28	-20	0.1	12	20

### Pin Connections

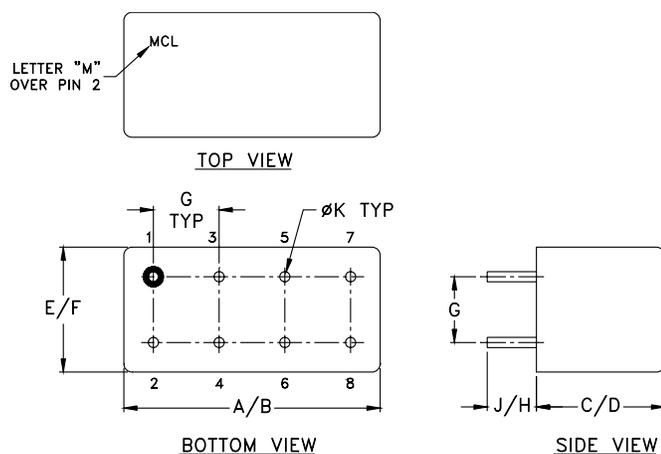
RF OUT	2
VCC	1
V-TUNE	8
GROUND	3,4,5,6,7
CASE GROUND	3,4,5,6,7

### 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



### 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 CERTIFIED

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minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



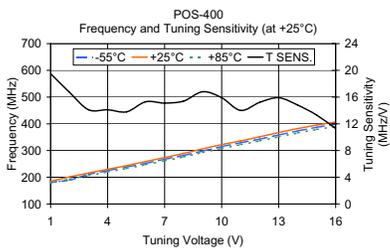
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RF/IF MICROWAVE COMPONENTS

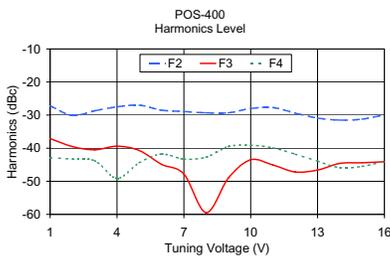
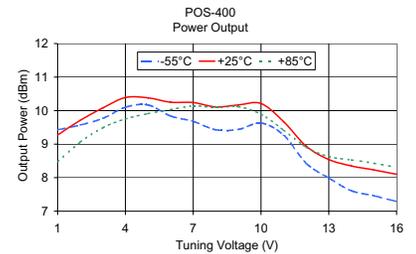
REV. H  
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POS-400  
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# Performance Data & Curves

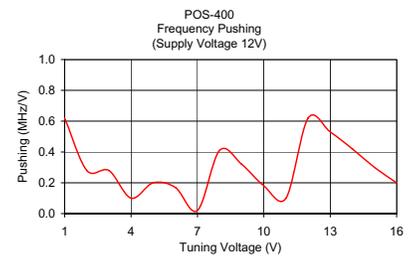
# POS-400+ POS-400



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	19.50	181.60	184.88	178.08	9.43	9.27	8.47
2.00	16.70	189.70	201.58	193.38	9.57	9.71	9.06
3.00	14.10	211.25	215.71	207.00	9.77	10.08	9.49
4.00	14.10	224.98	229.83	220.17	10.10	10.39	9.75
5.00	13.80	238.65	243.63	233.22	10.17	10.38	9.91
6.00	15.30	252.53	258.88	247.43	9.84	10.25	10.03
7.00	15.10	267.80	273.95	261.75	9.68	10.24	10.14
8.00	15.40	282.13	289.35	276.48	9.43	10.11	10.09
9.00	16.80	298.35	306.18	292.55	9.44	10.17	10.12
10.00	15.90	314.65	322.08	308.05	9.63	10.21	9.89
11.00	14.00	329.68	336.13	322.25	9.27	9.67	9.42
12.00	15.20	342.40	351.32	336.42	8.43	8.94	8.91
13.00	15.90	358.26	367.18	351.48	7.99	8.54	8.63
14.00	14.80	373.38	382.00	365.85	7.61	8.35	8.53
15.00	13.30	386.98	395.30	378.86	7.46	8.23	8.43
16.00	11.30	398.75	406.65	390.35	7.29	8.10	8.31



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.00	-27.20	-37.10	-42.90	0.62
2.00	-30.10	-39.50	-43.30	0.28
3.00	-28.70	-40.50	-43.80	0.28
4.00	-27.50	-39.40	-49.10	0.10
5.00	-27.00	-40.70	-44.40	0.20
6.00	-28.50	-44.90	-41.80	0.17
7.00	-28.90	-47.80	-43.30	0.02
8.00	-29.30	-59.50	-42.70	0.41
9.00	-29.30	-49.00	-39.50	0.32
10.00	-28.00	-43.50	-39.10	0.18
11.00	-27.70	-45.10	-39.90	0.10
12.00	-29.40	-47.20	-41.80	0.62
13.00	-30.90	-46.60	-43.90	0.53
14.00	-31.50	-44.60	-45.90	0.42
15.00	-31.20	-44.40	-45.50	0.30
16.00	-29.90	-44.10	-44.00	0.20



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