

Surface Mount Voltage Controlled Oscillator

ROS-2500+

Wide Band 1600 to 2500 MHz

Features

- wideband, 1600 to 2500 MHz
- low phase noise, -133 dBc/Hz at 1 MHz offset, typ.
- aqueous washable

Applications

- PCS



CASE STYLE: CK605
PRICE: \$21.95 ea. QTY (5-49)

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

The +Suffix has been added in order to identify 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)				PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)	3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
			SSB at offset frequencies: Typ.									Vcc (volts)	Current (mA) Max.
Min. Max.	Typ.	Min. Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ. Max.	Typ.	12	25
1600 2500	6.5	0.5 14	-66	-90	-113	-133	18.0	5.0	30-180	-14 -8	6		

Pin Connections

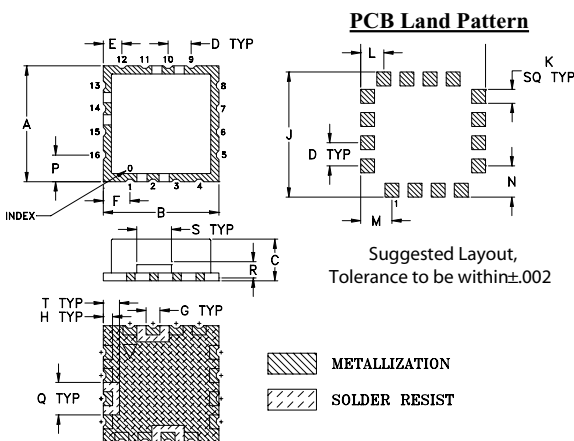
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

Maximum Ratings

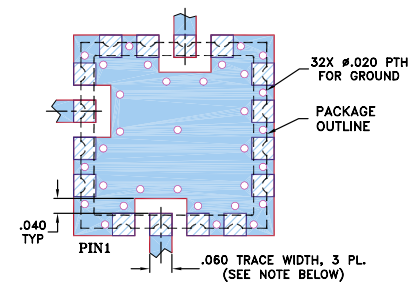
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+15V
Absolute Max. Tuning Voltage (Vtune)	+16V

all specifications: 50 ohm system

Outline Drawing



Demo Board MCL PIN: TB-10 Suggested PCB Layout (PL-012)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt.
.500	.500	.180	.100	.080	.115	.060	.040	.540	.060	.100	.135	.135	.115	.140	.070	.150	.070	grams
12.70	12.70	4.57	2.54	2.03	2.92	1.52	1.02	13.72	1.52	2.54	3.43	3.43	2.92	3.56	1.78	3.81	1.78	1.0



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



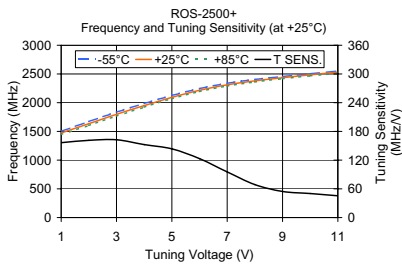
The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

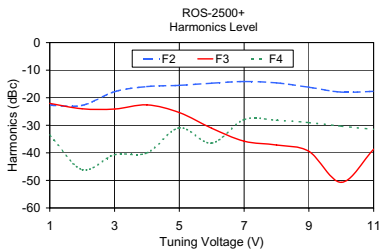
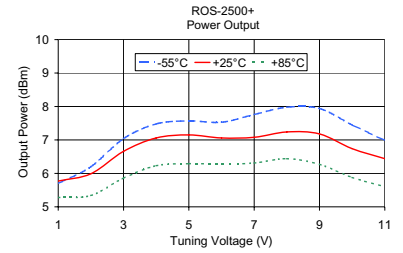
REV. C
M108294
ED-7473B/3
ROS-2500+
MM/TD/CP/AM
070604
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Performance Data & Curves

ROS-2500+



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	156.40	1501.52	1473.06	1445.18	5.70	5.77	5.28
2.00	161.35	1671.28	1634.41	1603.80	6.20	5.99	5.34
3.00	162.52	1835.76	1796.93	1766.70	7.04	6.66	5.86
4.00	152.45	1986.50	1949.39	1922.75	7.48	7.06	6.23
5.00	143.59	2126.51	2092.98	2068.65	7.57	7.15	6.29
6.00	123.11	2245.23	2216.09	2194.09	7.53	7.06	6.28
7.00	95.41	2338.10	2311.50	2290.61	7.76	7.08	6.31
8.00	68.87	2405.31	2380.37	2360.90	7.98	7.24	6.44
9.00	54.46	2455.83	2434.83	2417.91	7.94	7.18	6.27
10.00	50.25	2504.20	2485.08	2467.35	7.45	6.74	5.88
11.00	45.50	2551.88	2530.58	2511.16	6.99	6.44	5.60



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.00	-22.77	-22.05	-33.59	0.08
2.00	-22.77	-24.00	-46.07	0.19
3.00	-17.81	-24.11	-40.65	1.14
4.00	-15.93	-22.59	-40.02	2.78
5.00	-15.51	-25.38	-30.92	3.63
6.00	-14.73	-31.08	-36.45	4.26
7.00	-14.11	-35.78	-27.91	3.83
8.00	-14.60	-37.16	-28.17	2.58
9.00	-16.19	-39.47	-29.03	1.47
10.00	-17.95	-50.70	-30.33	0.79
11.00	-17.67	-38.68	-31.47	0.52

