

Surface Mount Voltage Controlled Oscillator

ROS-2500+ ROS-2500

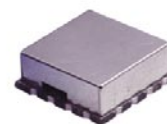
Wide Band 1600 to 2500 MHz

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 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.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Vcc (volts)	Current (mA) Max.
1600	2500	6.5	0.5	14	-66	-90	-113	-133	18.0	5.0	30-180	-14	-8	6	12	25

Pin Connections

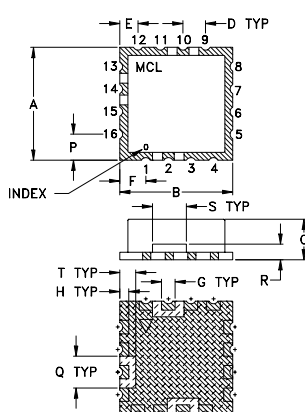
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

Maximum Ratings

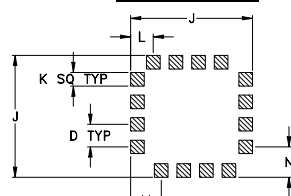
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+15V
Absolute Max. Tuning Voltage (Vtune)	+16V

all specifications: 50 ohm system

Outline Drawing

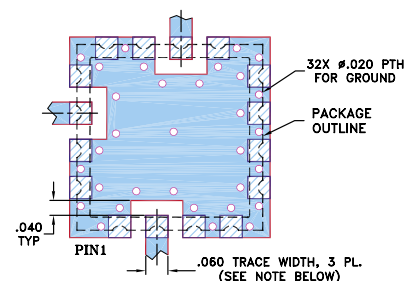


PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Demo Board MCL P/N: 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
.500	.500	.180	.100	.080	.115	.060	.040	.540	.060
12.70	12.70	4.57	2.54	2.03	2.92	1.52	1.02	13.72	1.52
L	M	N	P	Q	R	S	T	wt.	
.100	.135	.135	.115	.140	.070	.150	.070	grams	
2.54	3.43	3.43	2.92	3.56	1.78	3.81	1.78	1.0	

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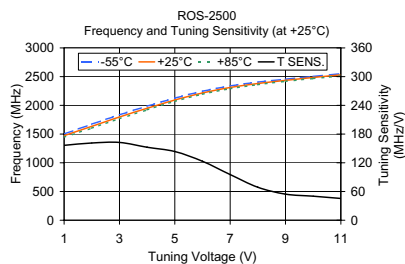
RF/IF MICROWAVE COMPONENTS

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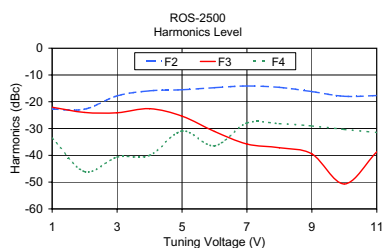
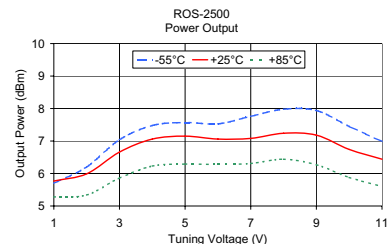
REV. C
M102713
ED-7473B/3
ROS-2160W
MM/TD/CP/AM
070126
Page 1 of 2

Performance Data & Curves

ROS-2500+ 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

