

Voltage Controlled Oscillator

ROS-1600PV

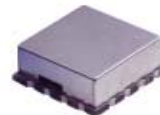
5V Tuning for PLL IC's 1520 to 1600 MHz

Features

- supply voltage, 5V
- tuning voltage, 5V
- linear tuning, 25-38 MHz/V typ.
- low phase noise, -100 dBc/Hz at 10 kHz offset, typ.
- aqueous washable

Applications

- PCS
- CDMA
- PLL circuitry



CASE STYLE: CK605
PRICE: \$18.95 ea. QTY (5-49)

Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	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.		1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Voltage (V)	Current (mA) Max.
ROS-1600PV	1520	1600	7	-75	-100	-120	-140	10	3.0	25-38	-26	-16	1.0	5	25

TUNING VOLTAGE TO COVER FREQUENCY RANGE 0.5V MIN. TO 5V MAX.

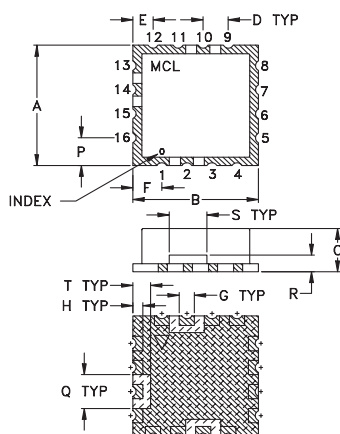
Pin Connections

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

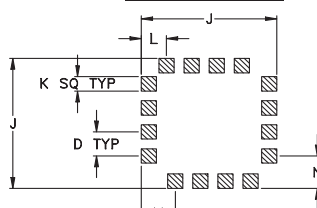
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+6V
Absolute Max. Tuning Voltage (Vtune)	+6V
all specifications: 50 ohm system	

Outline Drawing

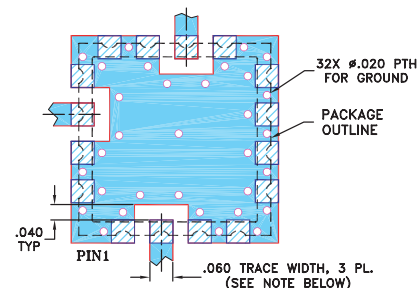


PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Demo Board MCL P/N: TB-10 Suggested PCB Layout (PL-012)

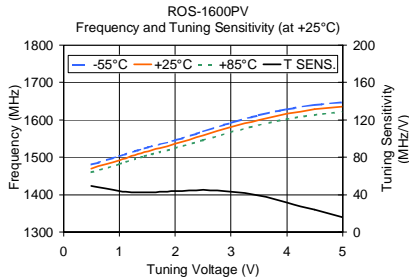


- NOTES: 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

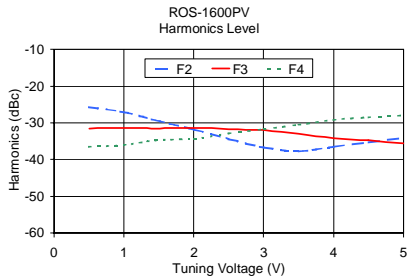
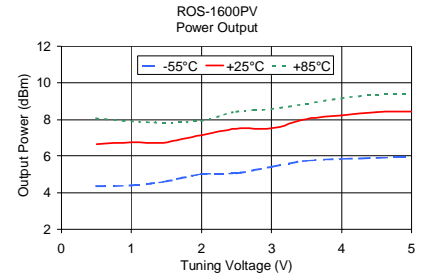
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Outline Dimensions (inch)

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



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
0.50	49.70	1481.38	1470.62	1460.02	4.36	6.65	8.06
1.00	44.10	1503.13	1492.65	1481.95	4.40	6.75	7.91
1.45	42.60	1524.32	1513.92	1503.01	4.59	6.73	7.83
2.00	43.90	1545.66	1535.90	1524.43	5.01	7.16	7.93
2.50	45.20	1569.15	1558.52	1546.12	5.07	7.50	8.43
3.00	43.60	1592.01	1580.33	1567.14	5.42	7.51	8.57
3.50	39.30	1612.34	1600.00	1586.13	5.74	8.03	8.86
4.00	32.10	1628.52	1616.05	1601.77	5.84	8.24	9.16
4.50	23.90	1639.88	1627.97	1613.35	5.90	8.41	9.36
5.00	16.20	1646.98	1636.06	1621.15	5.94	8.45	9.40



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
0.50	-25.70	-31.50	-36.50	1.82
1.00	-27.10	-31.30	-36.00	2.46
1.45	-29.30	-31.50	-34.80	2.98
2.00	-31.80	-31.30	-34.30	3.33
2.50	-34.40	-31.70	-32.90	3.33
3.00	-36.70	-32.00	-31.70	2.90
3.50	-37.70	-33.00	-30.50	2.31
4.00	-36.50	-34.20	-29.20	2.22
4.50	-35.30	-34.80	-28.50	2.92
5.00	-34.10	-35.60	-28.00	4.02

