Surface Mount

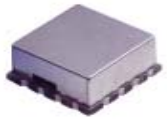
Voltage Controlled Oscillator

ROS-1435PV

5V Tuning for PLL IC's 1375 to 1435 MHz

Features

- linear tuning, 20-30 MHz/V typ.
- low phase noise, -121 dBc/Hz at 100 kHz offset, typ.
- 5V power supply
- excellent harmonic suppression, -26 dBc typ.
- aqueous washable



CASE STYLE: CK605
PRICE: $19.95 ea. QTY (5-49)

Applications

- satellite receiver
- PLL circuitry

Electrical Specifications

MODEL NO.	FREQ. (MHz)	POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies: Typ.				PULLING pk-pk @ 12 dBr (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
													Voltage	Current (mA)
	Min.	Max.	Typ.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	(V)	Max.
ROS-1435PV	1375	1435	3	-78	-101	-121	-141	4.0	1.7	20-30	-26	-18	5.0	5	20

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

Pin Connections

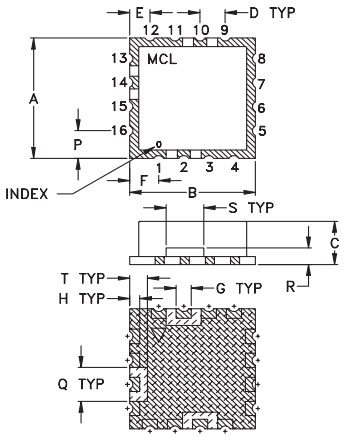
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

Maximum Ratings

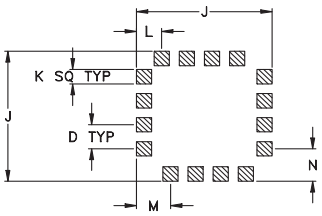
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+6V
Absolute Max. Tuning Voltage (Vtune)	+6V

all specifications: 50 ohm system

Outline Drawing

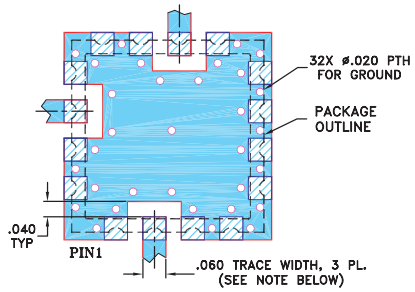


PCB Land Pattern



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 / 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

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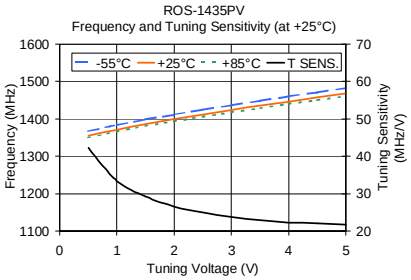
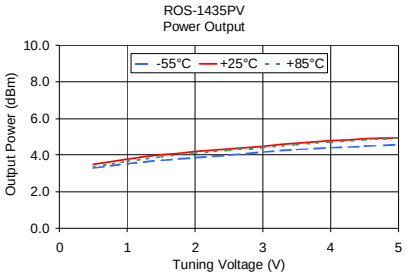
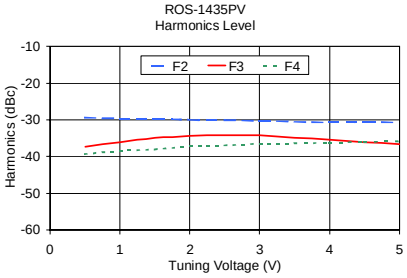
REV. A
M955517
ED-8347/3
ROS-1435PV
MM/TD/CP/AM
060623

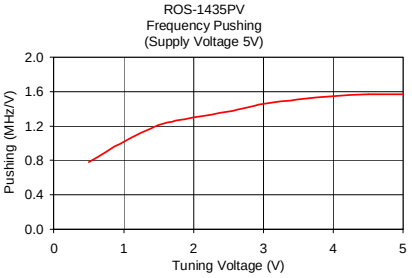


V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz) -55°C	+25°C	+85°C	POWER OUTPUT (dBm) -55°C	+25°C	+85°C
0.50	42.22	1367.29	1354.58	1349.90	3.28	3.51	3.35
1.00	33.44	1383.81	1371.29	1366.43	3.53	3.78	3.66
1.50	29.28	1398.46	1385.93	1380.79	3.71	4.01	3.91
2.00	26.65	1411.91	1399.26	1393.87	3.86	4.18	4.11
2.50	24.97	1424.55	1411.74	1406.08	4.00	4.34	4.26
3.00	23.83	1436.65	1423.66	1417.71	4.16	4.49	4.41
3.50	22.97	1448.37	1435.14	1428.89	4.30	4.64	4.57
4.00	22.40	1459.82	1446.34	1439.78	4.40	4.78	4.71
4.50	22.07	1471.14	1457.38	1450.46	4.48	4.88	4.83
5.00	21.75	1482.33	1468.25	1460.97	4.56	4.94	4.93





V TUNE	HARMONICS (dBc) F2	F3	F4	FREQ. PUSHING (MHz/V)
0.50	-29.40	-37.32	-39.33	0.78
1.00	-29.64	-36.08	-38.44	1.02
1.50	-29.69	-34.94	-38.04	1.21
2.00	-30.00	-34.40	-37.25	1.30
2.50	-30.09	-34.13	-36.96	1.37
3.00	-30.23	-34.20	-36.53	1.46
3.50	-30.52	-34.84	-36.42	1.51
4.00	-30.67	-35.32	-36.19	1.55
4.50	-30.60	-36.06	-36.00	1.57
5.00	-30.73	-36.62	-35.82	1.57



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