

Voltage Controlled Oscillator

ROS-680+

5V Tuning for PLL IC's 650 to 680 MHz

Features

- Linear tuning characteristics
- Low phase noise
- Low pushing
- Low pulling
- 0.5-5V tuning voltage range
- Aqueous washable

Applications

- PLL circuitry
- Frequency synthesizers
- Wireless microphones



CASE STYLE: CK605

PRICE: \$19.95 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. There has been no change to the model's material, form, fit, or function. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies,KHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB _r (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
								VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)								
	Typ.	1		10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.		Typ.	Typ.			Max.	Typ.
	Min.	Max.	Typ.															Max.	
ROS-680+	650	680	0.5	-91	-114	-134	-154	0.5	5.0	11 - 12	70	50	-90	-24	-16	0.3	0.2	5	18

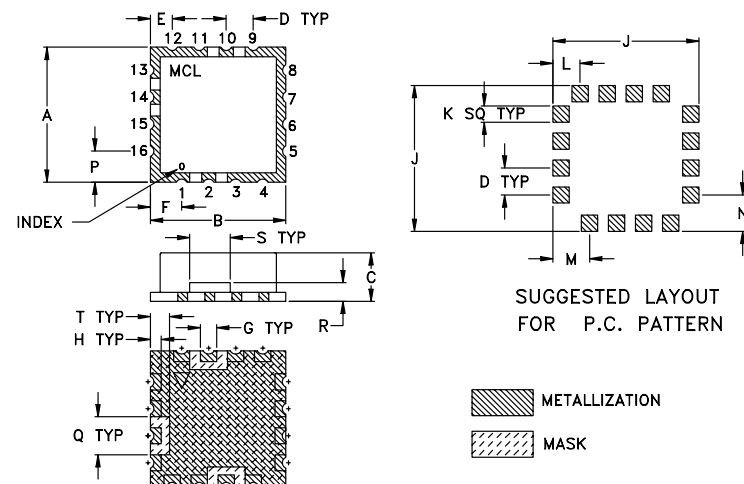
Pin Connections

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

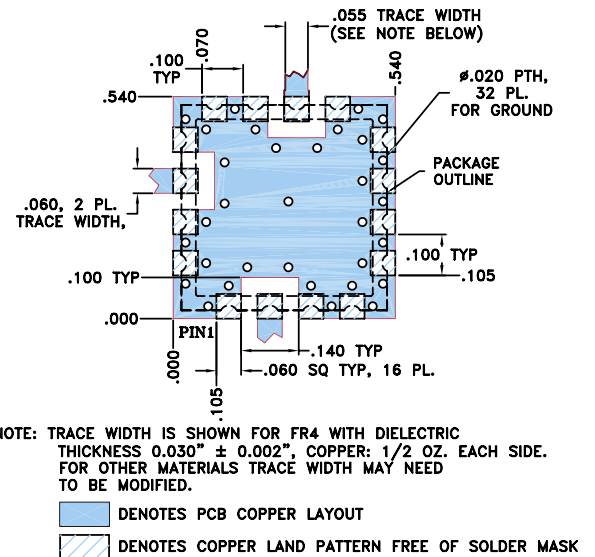
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

Outline Drawing



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



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

Performance Data & Curves*

ROS-680+

V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 652 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1KHz	10KHz	100KHz	1MHz		
0.00	13.06	637.3	634.2	631.6	-0.43	0.19	0.39	12.87	-24.2	-30.5	-32.2	0.00	0.12	-90.8	-114.5	-134.5	-151.6	1.0	-90.86
0.50	11.52	643.4	640.3	637.9	-0.38	0.25	0.46	12.91	-24.4	-30.5	-31.9	0.08	0.14	-90.1	-113.5	-134.2	-152.6	2.0	-98.49
0.75	11.01	646.2	643.2	640.8	-0.36	0.28	0.49	12.93	-24.4	-30.6	-31.6	0.10	0.15	-90.6	-114.3	-134.3	-155.5	3.5	-103.27
1.00	11.01	649.0	646.0	643.6	-0.34	0.31	0.53	12.95	-24.3	-30.9	-31.7	0.13	0.16	-90.9	-114.6	-134.4	-153.8	6.0	-110.68
1.25	11.01	651.8	648.7	646.3	-0.32	0.34	0.56	12.97	-24.3	-31.2	-31.9	0.14	0.17	-92.9	-113.9	-134.5	-154.1	8.5	-111.92
1.50	11.01	654.5	651.5	649.0	-0.30	0.37	0.59	12.99	-24.3	-31.4	-31.5	0.16	0.18	-91.9	-114.1	-134.4	-155.1	10.0	-113.97
1.75	11.26	657.3	654.2	651.6	-0.27	0.39	0.62	13.00	-24.4	-31.6	-30.7	0.17	0.20	-90.7	-113.9	-134.2	-153.8	20.8	-119.98
2.00	11.01	660.2	657.0	654.4	-0.25	0.42	0.64	13.02	-24.4	-32.0	-30.3	0.18	0.21	-91.6	-114.2	-134.1	-155.0	35.5	-125.65
2.25	11.26	663.0	659.8	657.2	-0.23	0.44	0.67	13.04	-24.3	-32.5	-30.2	0.19	0.22	-91.3	-114.4	-134.5	-154.5	60.7	-129.70
2.50	11.78	666.0	662.6	660.0	-0.21	0.46	0.69	13.07	-24.3	-33.0	-29.9	0.19	0.23	-91.0	-114.2	-134.5	-154.3	86.7	-133.21
2.75	11.78	668.9	665.5	662.8	-0.19	0.49	0.71	13.08	-24.2	-33.2	-30.2	0.20	0.24	-90.4	-113.6	-134.2	-154.1	100.0	-134.74
3.00	11.52	671.9	668.5	665.7	-0.18	0.51	0.73	13.10	-24.1	-33.5	-31.0	0.20	0.25	-89.7	-114.1	-134.3	-153.0	148.1	-137.52
3.25	12.03	674.9	671.4	668.6	-0.16	0.52	0.75	13.12	-24.1	-34.0	-31.3	0.19	0.27	-91.8	-113.8	-134.1	-154.2	177.0	-139.20
3.50	12.03	677.9	674.4	671.6	-0.14	0.54	0.76	13.15	-24.0	-34.7	-31.1	0.19	0.28	-90.3	-114.5	-134.1	-152.8	211.6	-140.40
3.75	11.52	681.0	677.4	674.5	-0.13	0.55	0.78	13.17	-24.0	-35.3	-31.1	0.18	0.30	-90.4	-113.4	-133.9	-153.0	302.4	-143.61
4.00	11.78	684.0	680.3	677.4	-0.12	0.56	0.78	13.19	-23.9	-35.8	-30.9	0.17	0.31	-89.6	-113.7	-133.6	-153.1	361.5	-145.44
4.25	12.03	687.0	683.2	680.4	-0.11	0.57	0.79	13.20	-23.7	-36.5	-30.2	0.16	0.32	-89.2	-113.5	-134.2	-153.3	507.5	-148.16
4.50	11.26	689.9	686.2	683.2	-0.10	0.57	0.79	13.22	-23.6	-37.6	-29.7	0.15	0.33	-91.4	-113.8	-134.3	-154.0	600.0	-149.69
4.75	11.26	692.8	689.0	686.1	-0.09	0.57	0.79	13.24	-23.4	-39.0	-30.0	0.14	0.33	-89.4	-114.1	-133.8	-153.2	851.6	-153.40
5.00	11.26	695.7	691.8	688.9	-0.09	0.57	0.78	13.25	-23.4	-40.4	-30.2	0.13	0.33	-90.2	-113.3	-133.7	-153.2	1000.0	-153.69

*at 25°C unless mentioned otherwise

