

Surface Mount

Voltage Controlled Oscillator

ROS-2800-719+

Wide Band 1400 to 2800 MHz

Features

- Very wide band
- Low phase noise
- Low pushing
- Low pulling
- Aqueous washable

Applications

- Instrumentation
- Cable TV
- Lab



CASE STYLE: CK605
PRICE: \$24.95 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

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				
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.	Typ.	V _{cc} (volts)	Current (mA)
ROS-2800-719+	1400	2800	+3.5	-69	-95	-116	-137	0.5	25	42	107	80	130	-90	-15	-	6	2.5	5	30		

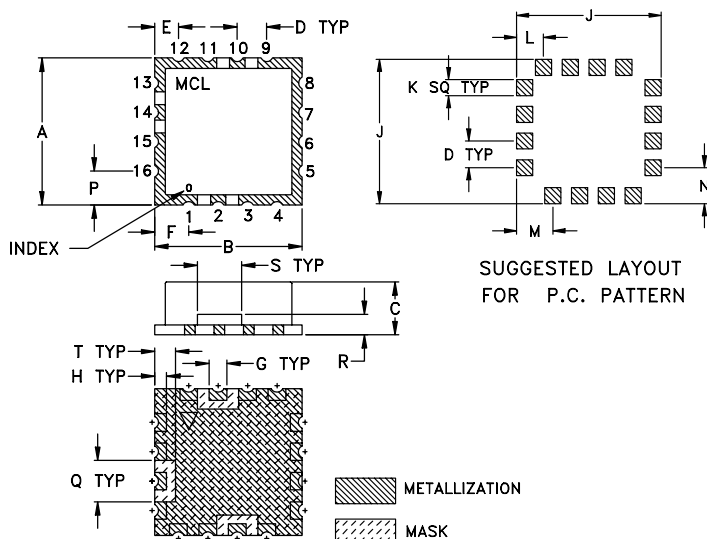
Pin Connections

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

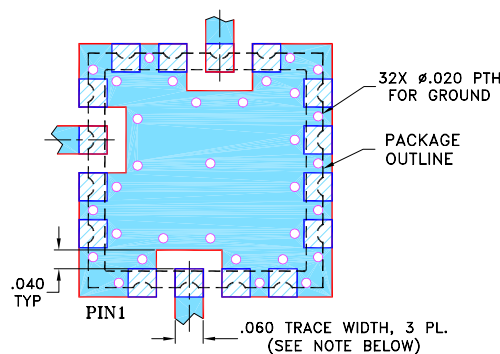
Maximum Ratings

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)	27V
All specifications	50 ohm system

Outline Drawing



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. OR
M105224
EDR-7332
ROS-2800-719+
RAV
060604
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Performance Data & Curves*

ROS-2800-719+

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 2050 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	82.57	1248.7	1227.9	1203.9	3.56	3.47	3.37	24.32	-14.2	-23.5	-30.0	2.99	8.76	-67.8	-90.2	-110.2	-130.2	1.0	-68.01
0.25	82.17	1269.2	1248.5	1224.6	3.49	3.38	3.22	24.26	-14.6	-24.2	-31.0	2.90	7.96	-69.4	-90.9	-112.1	-132.2	2.0	-76.59
2.00	78.25	1409.8	1391.5	1368.9	3.16	2.91	2.30	23.99	-17.2	-29.5	-32.7	2.61	4.61	-70.8	-93.6	-113.7	-133.8	3.5	-83.69
3.00	79.00	1488.4	1469.7	1449.6	3.16	2.90	2.00	23.95	-18.7	-27.9	-34.0	1.97	3.62	-72.7	-95.3	-115.6	-135.5	6.0	-89.97
4.00	79.86	1566.8	1548.7	1530.3	3.31	2.95	1.94	23.96	-19.3	-26.2	-34.7	1.84	3.27	-70.6	-95.0	-115.4	-135.2	8.5	-93.58
6.00	86.85	1730.0	1711.5	1695.3	3.67	3.14	2.11	24.08	-18.1	-27.6	-38.3	1.18	1.43	-70.8	-95.7	-116.6	-136.8	10.0	-95.06
8.00	96.45	1902.3	1884.9	1868.9	4.02	3.45	2.50	24.29	-18.9	-22.7	-32.6	0.90	1.47	-70.7	-96.2	-117.4	-138.8	20.8	-101.54
9.00	106.80	2002.0	1981.3	1965.3	3.65	2.88	1.32	23.91	-23.3	-24.1	-35.9	1.47	1.77	-70.3	-93.6	-115.5	-136.1	35.5	-106.69
10.00	92.86	2105.6	2088.1	2072.3	4.43	3.85	2.70	24.35	-23.5	-23.0	-32.3	-0.70	3.72	-68.4	-95.2	-115.8	-138.3	60.7	-111.96
12.00	82.73	2284.7	2269.3	2256.8	4.72	4.21	3.47	24.73	-25.7	-22.6	-28.4	-3.21	3.31	-66.5	-93.6	-115.4	-138.8	86.7	-115.12
14.00	64.74	2441.0	2426.6	2414.6	4.35	3.87	3.33	24.79	-26.4	-21.6	-28.1	-3.19	4.63	-65.2	-93.5	-115.1	-137.6	100.0	-115.41
16.00	62.84	2562.4	2552.9	2545.0	4.11	3.49	2.89	24.79	-43.8	-24.7	-34.2	-0.41	6.32	-68.6	-98.2	-117.8	-138.5	148.1	-119.85
18.00	49.21	2685.9	2672.3	2658.3	3.08	2.72	2.34	24.77	-26.5	-23.3	-45.3	0.74	7.09	-69.2	-94.8	-117.0	-138.1	177.0	-121.31
19.00	44.68	2736.9	2721.5	2707.2	2.79	2.61	2.25	24.77	-24.5	-23.4	-41.4	0.83	6.47	-68.7	-95.4	-116.2	-136.9	211.6	-122.91
20.00	41.93	2782.7	2766.2	2750.9	2.65	2.38	2.05	24.73	-23.1	-22.7	-39.6	1.08	5.49	-68.5	-94.7	-115.8	-136.8	302.4	-126.10
21.00	37.68	2824.3	2808.1	2792.6	2.56	2.25	1.88	24.71	-22.0	-23.4	-38.5	1.17	4.66	-67.9	-93.0	-114.5	-135.4	361.5	-127.96
22.00	36.37	2863.0	2845.8	2830.7	2.37	2.14	1.85	24.66	-21.3	-24.3	-37.2	1.50	6.36	-68.2	-93.5	-115.1	-136.0	507.5	-131.34
23.00	33.99	2899.1	2882.1	2866.6	2.16	1.95	1.65	24.64	-20.2	-23.8	-37.0	1.68	4.97	-69.3	-93.8	-115.1	-135.8	606.7	-133.16
24.00	31.69	2932.6	2916.1	2900.9	2.01	1.80	1.52	24.62	-20.1	-23.3	-36.2	1.65	4.53	-67.5	-94.8	-115.0	-135.9	851.6	-136.48
25.00	31.06	2964.8	2947.8	2931.6	1.82	1.61	1.39	24.57	-19.7	-22.2	-34.7	1.97	6.41	-67.6	-94.5	-115.5	-135.9	1000.0	-138.00

*at 25°C unless mentioned otherwise

