

NON-CATALOG

Surface Mount

Voltage Controlled Oscillator

ROS-4940-119+

5V Tuning for PLL IC's 4940 to 5040 MHz



CASE STYLE: CK605

Features

- linear tuning characteristics
- low phase noise
- low pulling
- low pushing
- aqueous washable

Applications

- wireless communications
- wire-line broadband access cable system

+RoHS Compliant

The +Suffix identifies 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 (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Vcc (volts)	Current (mA)
ROS-4940-119+	4940	5040	+0.7	-69	-94	-115	-135	0.5	4.5	71-80	7	260	-90	-24	-15	1	5.5	5	33

Pin Connections

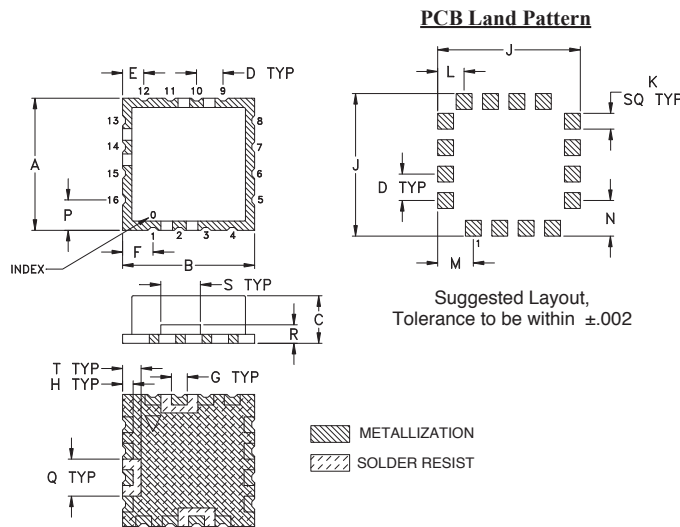
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

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

Permanent damage may occur if any of these limits are exceeded.

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



For detailed performance specs & shopping online see web site

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REV. A
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RAV
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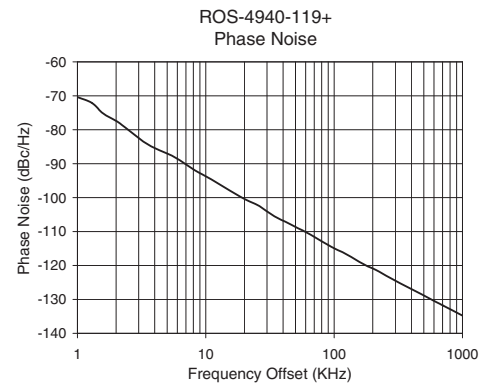
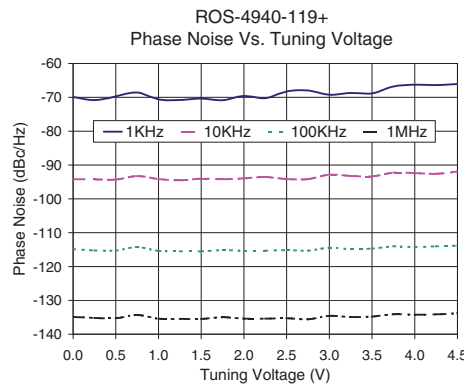
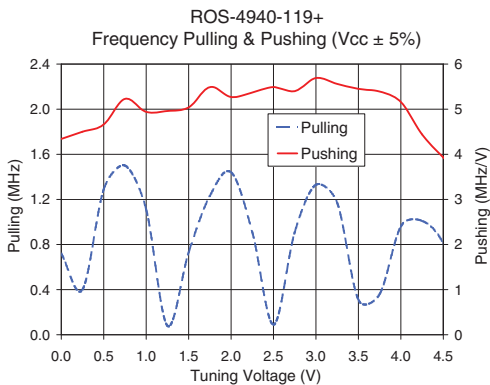
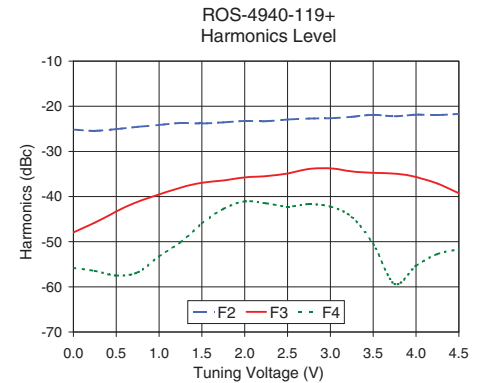
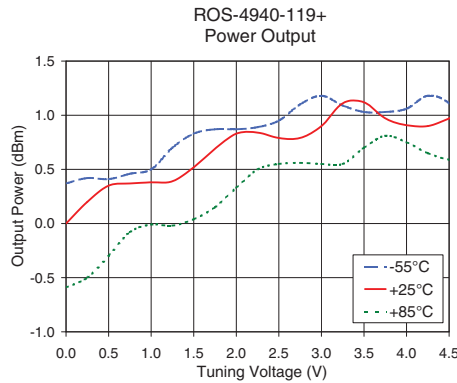
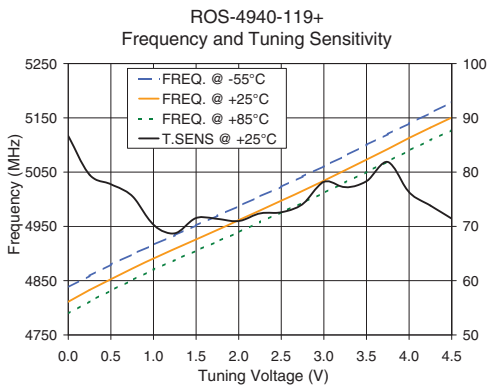
NON-CATALOG

Performance Data & Curves*

ROS-4940-119+

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 4990 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	86.65	4837.8	4811.1	4789.2	0.37	0.00	-0.59	26.14	-25.2	-47.9	-55.8	4.34	0.72	-69.9	-94.2	-114.9	-134.9	1.0	-70.38
0.25	79.52	4859.0	4832.8	4811.8	0.42	0.20	-0.50	26.19	-25.4	-45.8	-56.5	4.50	0.40	-70.8	-94.2	-115.2	-135.2	2.0	-77.39
0.50	77.76	4879.6	4852.7	4831.8	0.41	0.35	-0.30	26.23	-25.1	-43.4	-57.5	4.66	1.29	-69.7	-94.3	-115.3	-135.3	4.1	-85.59
0.75	75.60	4898.3	4872.1	4850.8	0.46	0.37	-0.08	26.26	-24.6	-41.1	-56.8	5.23	1.50	-68.6	-93.3	-114.3	-134.3	6.5	-89.36
1.00	70.30	4916.1	4891.0	4870.3	0.50	0.38	-0.01	26.33	-24.1	-39.6	-53.3	4.94	1.11	-70.6	-94.1	-115.4	-135.4	8.2	-91.94
1.25	68.72	4933.7	4908.6	4888.0	0.70	0.39	-0.02	26.38	-23.7	-38.0	-50.1	4.96	0.08	-70.8	-94.5	-115.5	-135.5	10.0	-93.72
1.50	71.55	4951.9	4925.8	4905.2	0.83	0.52	0.04	26.41	-23.8	-36.9	-46.0	5.04	0.73	-70.4	-94.0	-115.5	-135.5	20.7	-100.69
1.75	71.39	4969.6	4943.7	4922.2	0.87	0.69	0.15	26.44	-23.6	-36.4	-42.8	5.49	1.23	-70.9	-94.2	-115.2	-135.0	41.6	-107.10
2.00	70.98	4987.2	4961.5	4939.3	0.87	0.83	0.33	26.48	-23.3	-35.8	-41.1	5.27	1.44	-69.6	-94.0	-115.3	-135.4	66.1	-110.98
2.25	72.40	5005.2	4979.3	4958.1	0.89	0.84	0.50	26.52	-23.3	-35.5	-41.5	5.37	0.91	-70.3	-93.6	-115.3	-135.4	83.4	-113.27
2.50	72.60	5023.0	4997.4	4975.9	0.95	0.79	0.55	26.57	-23.0	-34.9	-42.2	5.49	0.09	-68.3	-94.2	-115.2	-135.3	100.0	-114.93
2.75	74.11	5042.0	5015.5	4993.7	1.10	0.79	0.56	26.60	-22.7	-33.9	-41.7	5.40	0.91	-68.0	-94.2	-115.3	-135.6	132.6	-117.23
3.00	78.22	5060.9	5034.0	5011.8	1.18	0.90	0.55	26.61	-22.7	-33.8	-42.2	5.69	1.33	-69.2	-92.9	-114.4	-134.6	210.9	-121.30
3.25	77.21	5079.9	5053.6	5030.9	1.09	1.11	0.55	26.64	-22.3	-34.4	-44.5	5.56	1.17	-68.7	-93.2	-114.9	-134.9	270.7	-123.52
3.50	78.33	5100.1	5072.9	5050.2	1.03	1.12	0.70	26.66	-21.9	-34.8	-50.5	5.45	0.31	-68.8	-93.4	-114.7	-134.8	341.4	-125.70
3.75	81.87	5120.1	5092.5	5069.6	1.03	0.97	0.81	26.67	-22.2	-34.9	-59.4	5.39	0.36	-66.8	-92.3	-114.1	-134.1	438.3	-127.66
4.00	76.30	5139.5	5112.9	5089.8	1.06	0.91	0.75	26.68	-21.9	-35.7	-55.3	5.16	0.96	-66.3	-92.4	-114.3	-134.3	552.7	-129.74
4.25	73.82	5158.8	5132.0	5108.9	1.18	0.90	0.65	26.68	-21.9	-37.1	-52.7	4.44	1.01	-66.4	-92.6	-114.0	-134.1	709.5	-131.85
4.50	71.43	5178.6	5150.5	5127.1	1.11	0.97	0.59	26.65	-21.7	-39.3	-51.7	3.93	0.81	-66.1	-91.9	-113.8	-133.8	1000.0	-134.78

*at 25°C unless mentioned otherwise



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