

NON-CATALOG

Surface Mount

Voltage Controlled Oscillator

MOS-924-119+

Linear Tuning 851 to 917 MHz

Features

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

Applications

- wireless communications
- line for receiver
- defence systems
- land mobile



CASE STYLE: CZ682

+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)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.	Typ.	Vcc (volts)	Current (mA)
MOS-924-119+	851	917	+0.6	-91	-115	-135	-155	0.5	14	8	49	90	-90	-20	-10	0.04	0.06	5	30			

Pin Connections

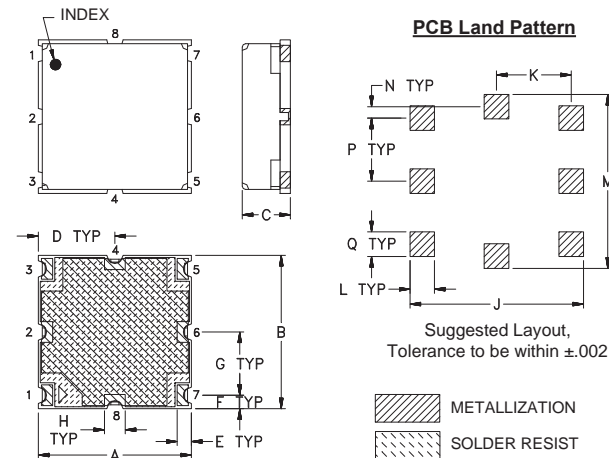
RF OUT	5
VCC	3
V-TUNE	1
GROUND	2,4,6,7,8

Maximum Ratings

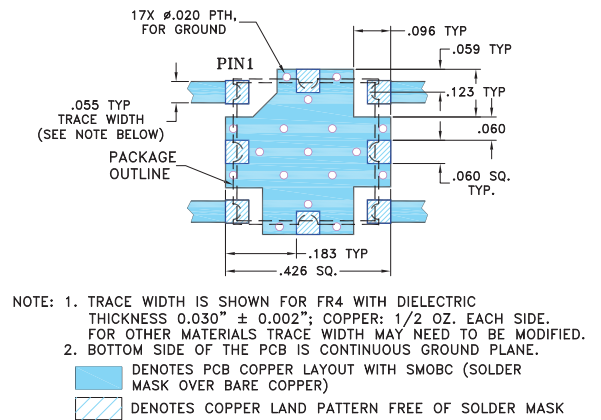
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	15.0V
All specifications	50 ohm system

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

Outline Drawing



Demo Board MCL P/N: TB-128 Suggested PCB Layout (PL-023)



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	wt.
.375	.375	.131	.188	.035	.033	.154	.050	.425	.183	.060	.425	.028	.154	.060	grams
9.52	9.52	3.33	4.77	0.89	0.84	3.91	1.27	10.80	4.65	1.52	10.80	0.71	3.91	1.52	.60



For detailed performance specs & shopping online see web site

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REV. A
 M149087
 EDR-9993F1
 MOS-924-119+
 RAV
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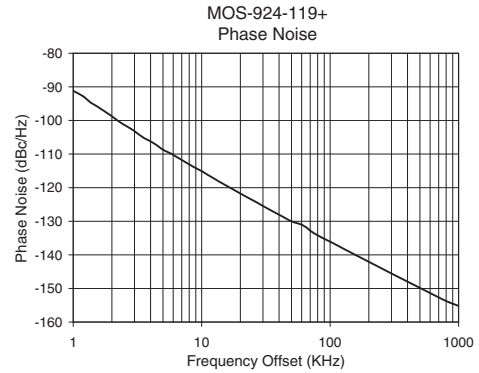
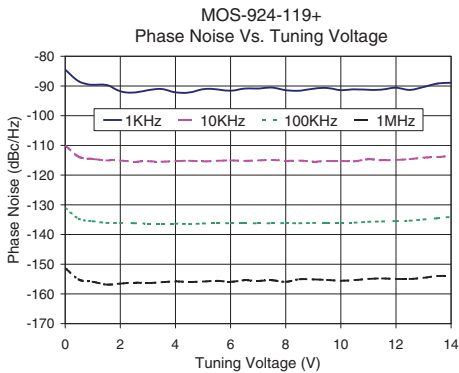
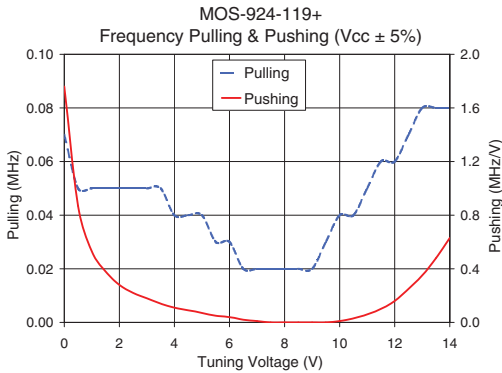
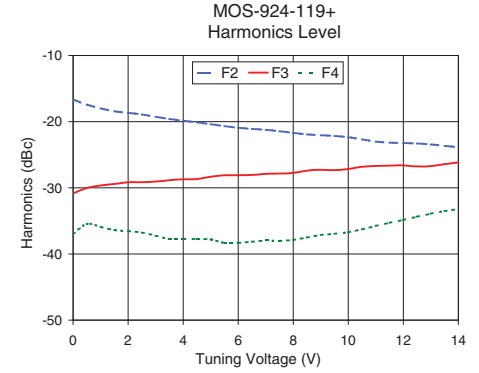
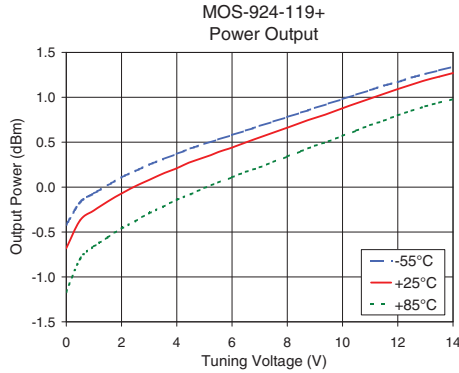
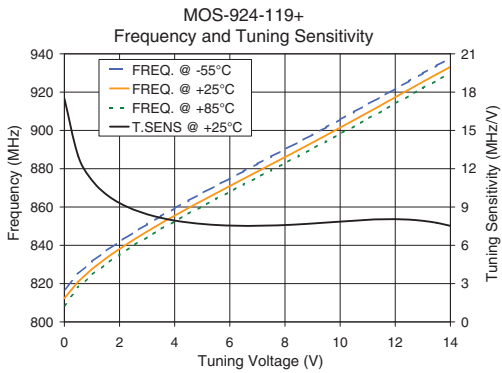
NON-CATALOG

Performance Data & Curves*

MOS-924-119+

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 884 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	17.50	816.9	812.3	808.6	-0.42	-0.68	-1.17	20.93	-16.7	-30.8	-37.0	1.76	0.07	-84.5	-110.0	-131.0	-151.3	1.0	-91.17
0.50	12.99	825.1	821.1	817.9	-0.17	-0.37	-0.80	21.07	-17.4	-30.0	-35.5	0.87	0.05	-88.5	-113.9	-134.7	-155.2	2.0	-98.85
1.00	11.10	831.5	827.6	824.6	-0.07	-0.26	-0.66	21.09	-18.0	-29.7	-35.9	0.53	0.05	-89.6	-114.5	-135.5	-155.9	3.5	-105.06
2.50	8.81	846.6	842.8	839.9	0.18	0.01	-0.38	21.13	-18.9	-29.1	-36.8	0.22	0.05	-92.2	-115.4	-136.2	-156.2	6.0	-110.18
3.00	8.43	851.0	847.2	844.3	0.25	0.08	-0.29	21.13	-19.3	-29.1	-37.2	0.18	0.05	-91.4	-115.3	-136.3	-156.3	8.5	-113.64
3.50	8.15	855.2	851.4	848.5	0.31	0.15	-0.22	21.14	-19.6	-28.8	-37.7	0.14	0.05	-91.0	-115.5	-136.3	-156.1	10.0	-115.08
4.00	7.94	859.3	855.5	852.5	0.37	0.21	-0.14	21.15	-19.9	-28.7	-37.7	0.11	0.04	-92.2	-115.3	-136.3	-155.8	20.8	-122.14
4.50	7.78	863.3	859.5	856.5	0.43	0.28	-0.08	21.15	-20.1	-28.7	-37.8	0.09	0.04	-92.2	-115.2	-136.5	-155.9	35.5	-126.99
5.50	7.59	871.1	867.2	864.2	0.53	0.39	0.05	21.16	-20.7	-28.1	-38.3	0.05	0.03	-91.1	-115.2	-136.2	-155.6	60.7	-131.09
6.00	7.54	874.9	871.0	868.0	0.58	0.44	0.11	21.17	-20.9	-28.1	-38.3	0.04	0.03	-91.6	-115.1	-136.2	-155.9	86.7	-134.93
6.50	7.52	878.7	874.8	871.7	0.63	0.50	0.17	21.17	-21.1	-28.1	-38.2	0.02	0.02	-90.9	-115.2	-136.2	-155.4	100.0	-136.08
7.00	7.52	882.5	878.5	875.5	0.68	0.55	0.22	21.18	-21.2	-27.9	-38.0	0.01	0.02	-90.9	-115.1	-136.3	-155.6	148.1	-139.58
7.50	7.55	886.3	882.3	879.2	0.73	0.61	0.28	21.18	-21.5	-27.8	-38.0	0.00	0.02	-90.5	-114.9	-136.2	-155.4	177.0	-141.04
8.50	7.64	894.0	889.8	886.7	0.83	0.72	0.40	21.19	-21.9	-27.4	-37.5	0.00	0.02	-91.6	-115.1	-136.2	-155.1	211.6	-142.60
9.50	7.78	901.7	897.5	894.3	0.93	0.82	0.51	21.19	-22.2	-27.3	-37.0	0.00	0.03	-90.7	-115.3	-136.0	-155.3	302.4	-145.60
10.00	7.86	905.7	901.4	898.2	0.98	0.88	0.57	21.20	-22.4	-27.2	-36.7	0.01	0.04	-91.4	-115.2	-136.0	-155.6	361.5	-147.05
11.00	8.00	913.6	909.3	906.1	1.08	0.99	0.69	21.20	-23.0	-26.7	-35.8	0.06	0.05	-91.3	-114.7	-135.7	-154.9	507.5	-149.91
12.00	8.04	921.7	917.3	914.1	1.17	1.09	0.80	21.21	-23.2	-26.6	-34.9	0.16	0.06	-90.6	-114.9	-135.5	-155.0	606.7	-151.52
13.50	7.76	933.8	929.3	926.0	1.30	1.23	0.94	21.22	-23.7	-26.4	-33.5	0.48	0.08	-89.2	-114.0	-134.5	-154.0	851.6	-154.19
14.00	7.53	937.7	933.2	929.9	1.34	1.27	0.98	21.23	-23.9	-26.2	-33.2	0.63	0.08	-88.9	-113.5	-134.1	-153.9	1000.0	-155.20

*at 25°C unless mentioned otherwise



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