Surface Mount

Voltage Controlled Oscillator

MOS-975-119+

Linear Tuning 900 to 975 MHz

Features

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

Applications

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

CASE STYLE: CZ682
PRICE: $ 15.95 ea. QTY (5-49)

+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 Typ.				TUNING VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
																		Vcc (volts)	Current (mA)
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.		Max.
MOS-975-119+	900	975	+0.8	-90	-114	-135	-154	0.5	14	8	35	70	-90	-25	-15	0.3	0.3	5	40

Pin Connections

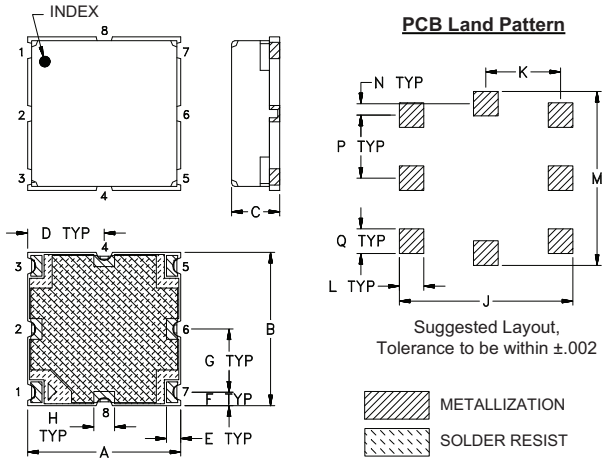
RF OUT	5
VCC	3
V-TUNE	1
GROUND	2,4,6,7,8

Maximum Ratings

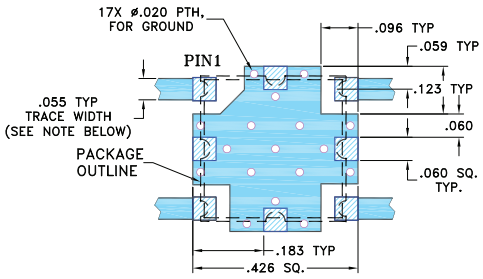
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	16V
All specifications	50 ohm system

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)



NOTE: 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; 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	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

REV. OR
M125166
EDR-9992F1
MOS-975-119+
RAV
121009

Performance Data & Curves*

MOS-975-119+

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 939 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	8.49	883.8	880.0	877.2	1.71	0.69	-0.88	33.24	-27.7	-27.0	-37.2	0.10	0.47	-87.6	-112.9	-134.1	-153.5	1.0	-88.80
0.50	7.80	888.0	884.3	881.5	1.70	0.70	-0.86	33.23	-27.6	-27.0	-36.9	0.09	0.49	-88.0	-112.2	-135.3	-154.0	2.0	-98.04
1.00	7.61	891.9	888.2	885.4	1.69	0.71	-0.85	33.23	-27.4	-26.9	-36.5	0.09	0.49	-90.1	-114.4	-135.4	-153.9	3.5	-104.02
2.50	7.78	903.4	899.6	896.9	1.68	0.74	-0.81	33.22	-26.4	-26.3	-36.7	0.11	0.46	-89.5	-114.5	-135.5	-153.3	6.0	-109.50
3.00	7.88	907.3	903.5	900.7	1.69	0.76	-0.80	33.22	-26.1	-26.5	-36.8	0.12	0.43	-90.1	-114.5	-135.5	-154.0	8.5	-113.14
3.50	7.97	911.2	907.4	904.7	1.69	0.77	-0.78	33.22	-25.9	-26.0	-36.7	0.14	0.40	-90.2	-114.3	-135.6	-154.1	10.0	-114.21
4.00	8.05	915.2	911.4	908.6	1.70	0.77	-0.77	33.22	-26.0	-26.0	-36.2	0.15	0.36	-88.7	-114.4	-135.4	-153.9	20.8	-121.19
4.50	8.12	919.2	915.4	912.7	1.71	0.78	-0.77	33.22	-25.8	-26.1	-36.7	0.17	0.31	-89.6	-114.4	-135.4	-154.2	35.5	-126.07
5.50	8.22	927.3	923.6	920.8	1.73	0.77	-0.77	33.22	-25.5	-26.1	-37.0	0.20	0.21	-90.3	-114.3	-135.5	-154.5	60.7	-130.43
6.00	8.27	931.5	927.7	924.9	1.74	0.76	-0.78	33.22	-25.3	-26.0	-37.2	0.21	0.15	-90.1	-114.2	-135.4	-153.5	86.7	-133.90
6.50	8.30	935.6	931.8	929.0	1.75	0.76	-0.79	33.22	-24.8	-25.9	-37.1	0.23	0.10	-90.5	-114.2	-135.1	-154.4	100.0	-135.17
7.00	8.33	939.7	936.0	933.1	1.76	0.74	-0.80	33.22	-24.9	-25.7	-37.6	0.24	0.04	-90.0	-114.2	-135.3	-154.2	148.1	-138.51
7.50	8.34	943.9	940.1	937.3	1.76	0.73	-0.82	33.22	-24.6	-25.6	-37.2	0.26	0.02	-89.9	-113.8	-135.1	-154.5	177.0	-139.99
8.50	8.32	952.3	948.5	945.6	1.74	0.69	-0.87	33.22	-24.5	-25.6	-38.7	0.29	0.14	-90.4	-113.2	-134.7	-154.4	211.6	-141.57
9.50	8.20	960.6	956.8	954.0	1.70	0.65	-0.93	33.23	-24.2	-25.6	-39.5	0.34	0.25	-90.5	-113.3	-134.5	-154.3	302.4	-144.66
10.00	8.10	964.7	960.9	958.1	1.68	0.63	-0.95	33.22	-24.1	-25.5	-39.2	0.36	0.30	-89.2	-113.0	-134.6	-153.7	361.5	-145.90
11.00	7.81	972.7	968.9	966.2	1.64	0.61	-0.98	33.23	-24.0	-25.7	-39.3	0.41	0.38	-90.4	-113.3	-134.8	-154.3	507.5	-149.41
12.00	7.43	980.4	976.6	973.9	1.59	0.61	-0.99	33.23	-23.7	-25.7	-40.0	0.45	0.43	-89.0	-113.0	-134.4	-154.3	606.7	-150.78
13.50	6.76	991.3	987.4	984.7	1.55	0.60	-1.01	33.24	-23.9	-25.9	-41.1	0.48	0.47	-89.2	-112.9	-134.6	-154.7	851.6	-153.20
14.00	6.53	994.7	990.8	988.1	1.55	0.61	-1.01	33.24	-23.8	-25.8	-40.7	0.48	0.47	-89.3	-113.0	-134.4	-155.2	1000.0	-154.27

*at 25°C unless mentioned otherwise