

2X Fundamental

Voltage Controlled Oscillator

ROS-6520C-119+

Frequency Doubling 6385 to 6520 MHz

Features

- frequency based on multiplication of carrier frequency
- low phase noise
- low pushing
- low pulling
- aqueous washable



CASE STYLE: CK1113
PRICE: \$ 29.95 ea. QTY (5-49)

Applications

- wireless communications
- wireless broadband access

+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		
	F 2X(1/2F)			Typ.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Max.					Vcc	Current	
	Min.	Max.		1	10	100	1000	Min.	Max.	Typ.	Typ.		Typ.	F0.5	F1.5			F2	Typ.	Typ.
ROS-6520C-119+	6385	6520	+2	-72	-100	-123	-143	0.5	4.5	77-92	13	260	-90	-17	-14	-19	2.0	2.5	5	35

Pin Connections

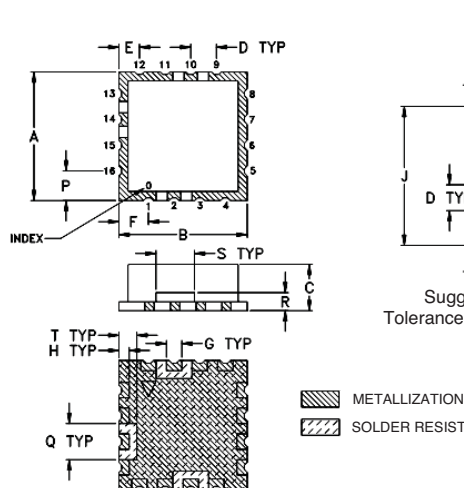
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

Maximum Ratings

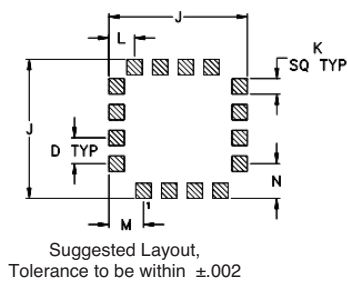
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	6.5V
All specifications	50 ohm system

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

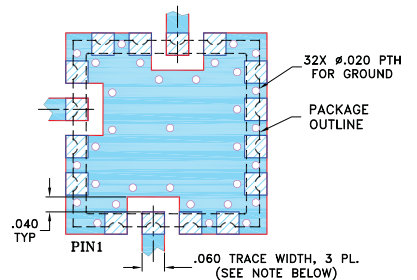
Outline Drawing



PCB Land Pattern



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 BOTTOM IS CONTINUOUS GROUND PLANE.
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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	.220	.100	.080	.115	.060	.040	.540	.060	.100	.135	.135	.115	.140	.070	.150	.070	grams
12.70	12.70	5.59	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	1.2



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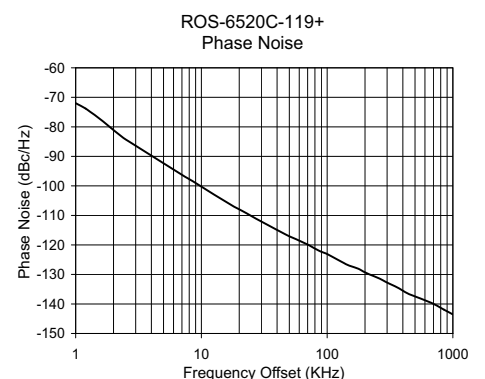
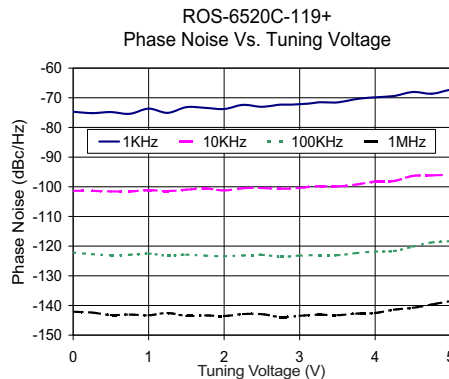
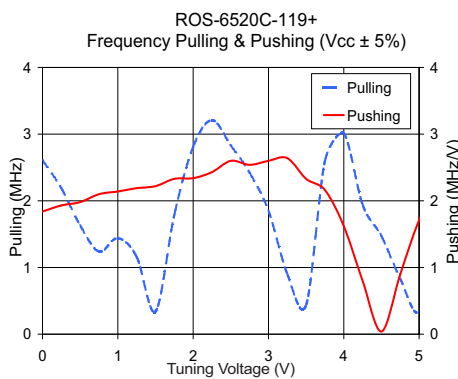
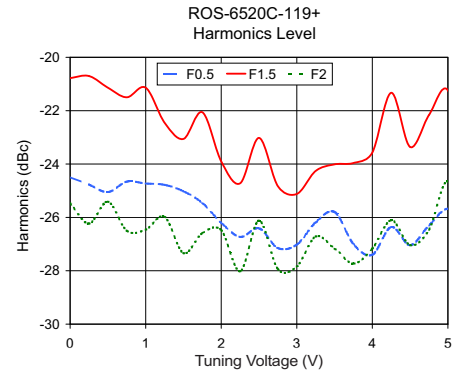
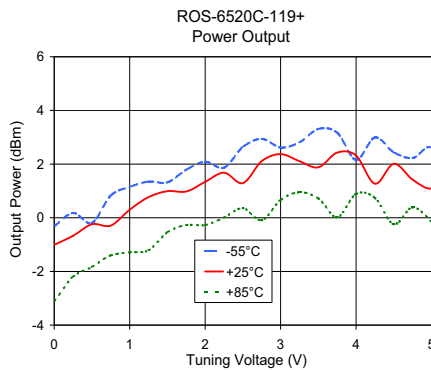
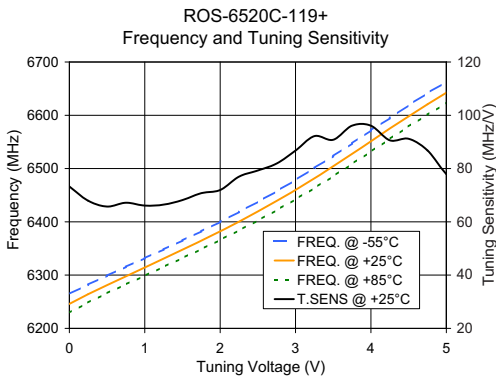
REV. A
M140028
EDR-9702/3F1
ROS-6520C-119+
RAV
130107
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Performance Data & Curves*

ROS-6520C-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 6453 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F0.5	F1.5	F2			1kHz	10kHz	100kHz	1MHz		
0.00	73.25	6264.7	6245.9	6229.3	-0.32	-1.01	-3.11	24.52	-24.5	-20.8	-25.5	1.84	2.61	-74.7	-101.3	-122.1	-142.1	1.0	-71.97
0.25	67.92	6282.0	6264.2	6248.5	0.18	-0.67	-2.20	24.65	-24.8	-20.7	-26.2	1.93	2.19	-75.2	-101.4	-122.7	-142.4	2.0	-81.13
0.50	65.72	6298.9	6281.2	6266.0	-0.19	-0.24	-1.83	24.78	-25.1	-21.1	-25.4	1.98	1.63	-74.8	-101.6	-123.1	-143.2	3.5	-88.20
0.75	67.18	6315.5	6297.6	6282.6	0.83	-0.29	-1.40	24.88	-24.7	-21.5	-26.5	2.10	1.24	-75.4	-101.6	-122.9	-143.1	5.0	-92.32
1.00	66.09	6331.8	6314.4	6298.8	1.15	0.30	-1.29	24.98	-24.7	-21.1	-26.5	2.14	1.44	-73.7	-101.1	-122.5	-143.3	7.1	-96.43
1.25	66.43	6348.2	6330.9	6315.4	1.35	0.77	-1.21	25.09	-24.8	-22.5	-26.0	2.19	1.16	-75.1	-101.5	-123.2	-142.6	8.5	-98.36
1.50	68.17	6365.0	6347.5	6332.0	1.32	0.99	-0.54	25.20	-25.0	-23.1	-27.3	2.22	0.34	-73.2	-101.0	-122.9	-143.5	20.8	-108.32
1.75	70.75	6382.2	6364.6	6348.8	1.79	0.98	-0.27	25.30	-25.5	-22.1	-26.6	2.33	1.79	-73.4	-100.6	-123.2	-143.4	35.5	-113.77
2.00	71.96	6399.8	6382.3	6366.0	2.09	1.34	-0.27	25.42	-26.2	-23.9	-26.5	2.34	2.81	-73.8	-101.2	-123.4	-143.6	60.7	-118.61
2.25	76.96	6418.5	6400.3	6384.0	1.87	1.68	0.01	25.52	-26.7	-24.7	-28.0	2.43	3.21	-72.4	-100.5	-123.2	-142.9	72.5	-120.21
2.50	79.28	6437.6	6419.5	6402.4	2.64	1.29	0.36	25.62	-26.4	-23.0	-26.1	2.60	2.83	-73.0	-100.4	-123.0	-142.9	86.7	-122.02
2.75	81.88	6457.5	6439.3	6422.0	2.94	2.11	-0.09	25.75	-27.2	-24.8	-27.9	2.54	2.42	-72.3	-100.7	-123.6	-143.9	148.1	-126.93
3.00	86.74	6478.5	6459.8	6442.4	2.62	2.37	0.66	25.85	-27.0	-25.1	-27.8	2.60	1.85	-72.2	-100.4	-123.2	-143.5	177.0	-128.07
3.25	92.18	6501.0	6481.5	6463.4	2.81	2.11	0.95	25.95	-26.2	-24.3	-26.7	2.64	0.90	-71.5	-99.8	-123.0	-143.1	211.6	-129.81
3.50	90.80	6523.4	6504.5	6485.5	3.31	1.88	0.72	26.10	-25.8	-24.0	-27.2	2.33	0.44	-71.6	-99.9	-123.1	-143.3	302.4	-132.82
3.75	96.10	6547.4	6527.2	6508.9	3.17	2.43	0.02	26.18	-27.0	-24.0	-27.7	2.16	2.60	-70.5	-99.2	-122.4	-142.8	361.5	-134.41
4.00	96.08	6571.9	6551.2	6531.7	2.16	2.32	0.89	26.29	-27.4	-23.6	-27.2	1.62	3.01	-69.8	-98.2	-121.9	-142.6	507.5	-137.54
4.25	90.58	6594.9	6575.3	6555.5	2.99	1.27	0.74	26.43	-26.4	-21.3	-26.1	0.80	1.94	-69.4	-98.1	-121.6	-141.4	606.7	-138.83
4.50	91.16	6618.8	6597.9	6579.0	2.44	2.01	-0.24	26.52	-27.0	-23.4	-27.0	0.04	1.47	-68.1	-96.3	-120.2	-140.8	851.6	-141.94

*at 25°C unless mentioned otherwise



ISO 9001 ISO 14001 AS 9100 CERTIFIED

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