

Surface Mount

Voltage Controlled Oscillator

ZX95-2404C+

Linear Tuning 2267 to 2404 MHz

Features

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

Applications

- point-to-point communication
- services ancillary to programming / broadcasting



CASE STYLE: CK605

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				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
				dBc/Hz SSB at offset frequencies,kHz				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Vcc (volts)						Current (mA)	
	Typ.				Min.	Max.	Typ.							Typ.	Typ.				Max.
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.	Max.	
ZX95-2404C+	2267	2404	+0.5	-80	-106	-128	-148	1	13	19-27	18	120	-90	-26	-14	0.4	0.5	6	40

Pin Connections

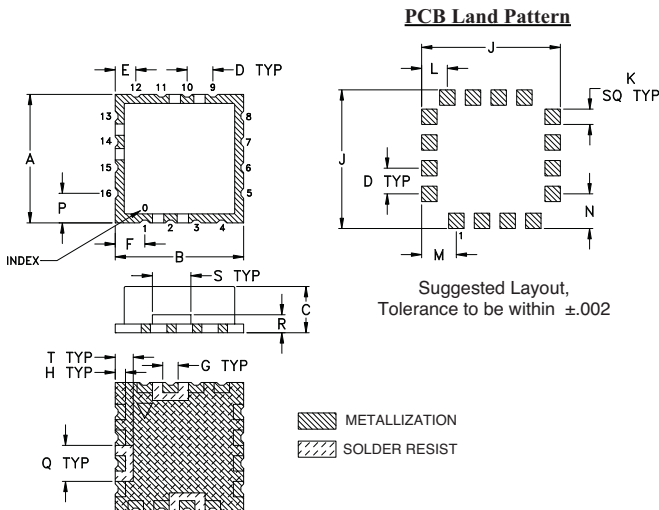
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

Maximum Ratings

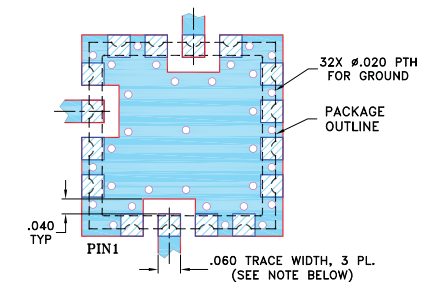
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	15V
All specifications	50 ohm system

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)



NOTES:

1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .030" $\pm$.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.
- 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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For detailed performance specs
& shopping online see web site

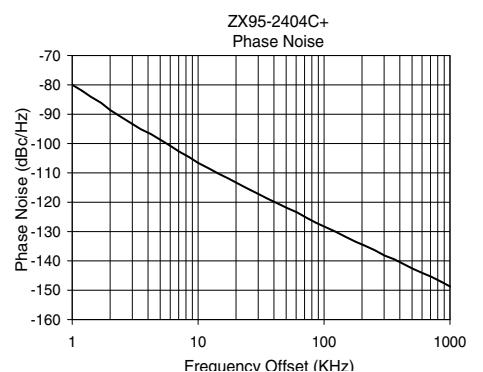
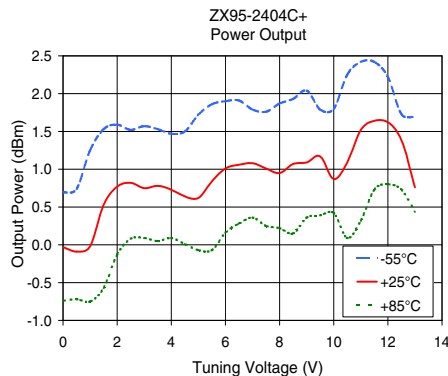
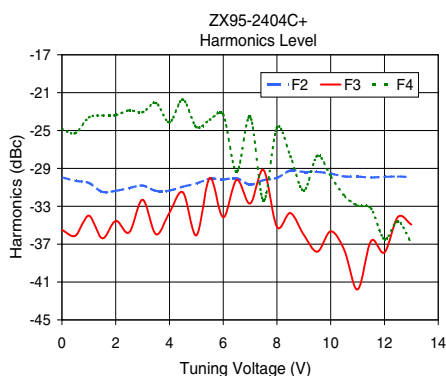
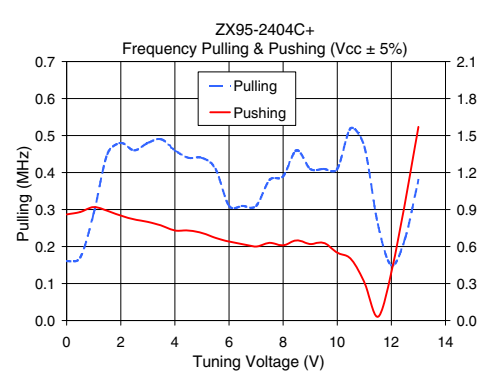
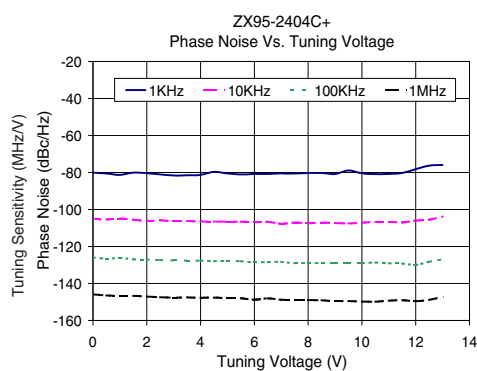
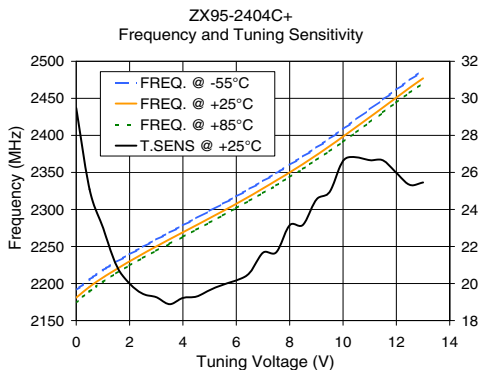
REV. A
M140462
EDR-10997MPF1
ZX95-2404C+
RAV
130207
Page 1 of 2

Performance Data & Curves*

ZX95-2404C+

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 2336 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	29.48	2191.3	2180.9	2174.0	0.69	-0.03	-0.74	28.16	-29.9	-35.5	-24.9	0.86	0.16	-80.08	-105.0	-125.9	-145.9	1.0	-79.97
1.00	23.03	2218.0	2208.1	2202.1	1.25	-0.02	-0.75	28.43	-30.5	-34.0	-23.6	0.92	0.29	-81.29	-104.9	-126.2	-146.6	2.0	-88.57
1.50	20.99	2229.1	2219.7	2213.6	1.53	0.53	-0.57	28.58	-31.5	-36.4	-23.4	0.89	0.45	-80.08	-105.6	-126.9	-146.7	3.5	-95.10
2.00	20.00	2239.5	2230.2	2224.4	1.59	0.77	-0.13	28.72	-31.4	-34.6	-23.4	0.85	0.48	-80.45	-106.2	-127.1	-147.1	6.0	-100.77
2.50	19.44	2249.5	2240.2	2234.4	1.52	0.82	0.08	28.84	-31.1	-35.8	-22.9	0.82	0.46	-80.94	-105.9	-127.4	-147.4	8.5	-104.66
3.00	19.26	2259.3	2249.9	2244.1	1.57	0.75	0.09	28.93	-30.8	-32.3	-23.1	0.80	0.48	-81.72	-106.3	-127.5	-147.7	10.0	-106.59
3.50	18.89	2268.8	2259.5	2253.7	1.53	0.78	0.05	29.04	-31.4	-36.0	-22.1	0.77	0.49	-81.50	-106.2	-127.7	-147.6	20.8	-113.69
4.00	19.22	2278.5	2269.0	2263.2	1.47	0.73	0.09	29.12	-31.3	-33.7	-24.1	0.73	0.46	-81.31	-106.5	-127.7	-147.8	35.5	-118.76
4.50	19.29	2288.1	2278.6	2272.5	1.50	0.64	0.01	29.19	-30.9	-31.5	-21.7	0.73	0.44	-79.65	-106.5	-127.9	-147.6	60.7	-123.41
5.00	19.64	2297.9	2288.2	2282.2	1.72	0.62	-0.07	29.27	-30.6	-36.1	-24.6	0.71	0.44	-80.52	-106.6	-127.8	-148.0	86.7	-127.03
5.50	19.94	2307.7	2298.0	2291.8	1.86	0.84	-0.07	29.36	-30.1	-30.0	-23.9	0.67	0.41	-81.10	-106.6	-128.0	-148.0	100.0	-128.26
6.00	20.16	2317.6	2308.0	2301.8	1.90	1.01	0.16	29.49	-30.2	-34.2	-23.3	0.64	0.31	-80.77	-106.9	-128.6	-148.7	148.1	-131.79
7.00	21.67	2338.3	2328.4	2322.2	1.79	1.08	0.36	29.69	-30.7	-32.7	-23.6	0.60	0.31	-80.49	-107.7	-128.4	-148.8	177.0	-133.41
8.00	23.15	2360.2	2350.0	2343.7	1.87	0.95	0.22	29.88	-30.0	-35.2	-24.7	0.61	0.39	-80.43	-107.4	-128.9	-149.0	211.6	-134.83
9.00	24.53	2383.5	2373.2	2366.7	2.04	1.09	0.36	30.11	-29.4	-36.0	-31.4	0.62	0.41	-80.84	-107.3	-129.0	-149.6	302.4	-138.19
10.00	26.63	2408.5	2397.9	2391.2	1.80	0.87	0.42	30.29	-29.6	-35.7	-29.8	0.55	0.41	-80.48	-107.1	-129.0	-149.8	361.5	-139.45
10.50	26.82	2421.7	2411.3	2404.1	2.25	1.09	0.09	30.41	-29.9	-37.6	-31.9	0.50	0.52	-80.91	-106.7	-128.7	-149.8	507.5	-142.68
11.00	26.66	2435.0	2424.7	2417.6	2.42	1.52	0.32	30.6	-29.9	-41.8	-32.9	0.31	0.47	-80.77	-106.7	-129.1	-149.25	606.7	-144.16
12.00	25.98	2461.6	2451.3	2444.3	2.22	1.62	0.80	30.86	-29.9	-37.9	-36.5	0.39	0.15	-78.26	-106.0	-129.9	-149.6	851.6	-147.10
13.00	25.46	2487.9	2477.0	2470.1	1.69	0.76	0.44	30.98	-29.9	-34.9	-36.9	1.57	0.38	-75.94	-103.8	-126.9	-147.2	1000.0	-148.70

*at 25°C unless mentioned otherwise



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