

Coaxial

# Voltage Controlled Oscillator

## ZX95-4240+

5V Tuning for PLL IC's 4120 to 4240 MHz

### Features

- linear tuning characteristics
- low phase noise
- low pulling & pushing
- protected by US patent 6,790,049

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- industrial communications
- wireless microphones
- radio altimetry



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-4240-S+	\$ 44.95 ea.	(1-9)

**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Electrical Specifications

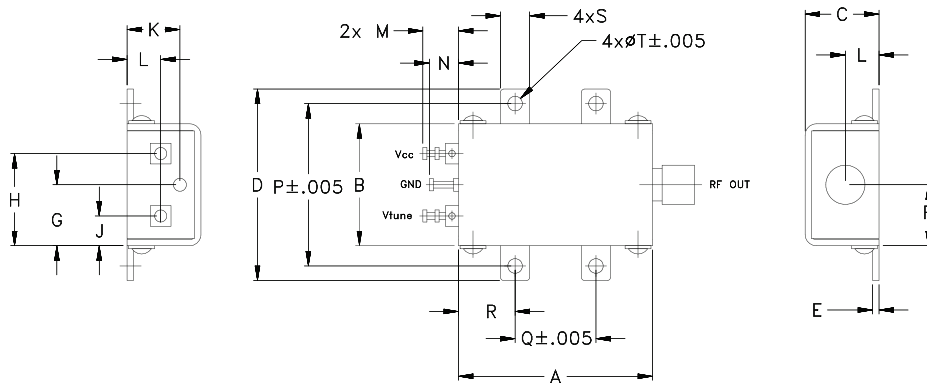
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Typ.	Typ.
ZX95-4240+	4120	4240	+4	-69	-97	-118	-138	0.5	5	57-68	10	120	-90	-27	-18	1.6	2	5	50

### 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)	7V
All specifications	50 ohm system

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

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt.
1.20	.75	.46	1.18	.04	.38	.38	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	grams
30.48	19.05	11.68	29.97	1.02	9.65	9.65	14.48	4.57	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0



For detailed performance specs & shopping online see web site

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**Notes:** 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

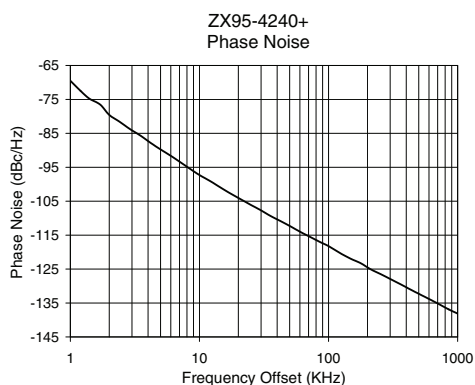
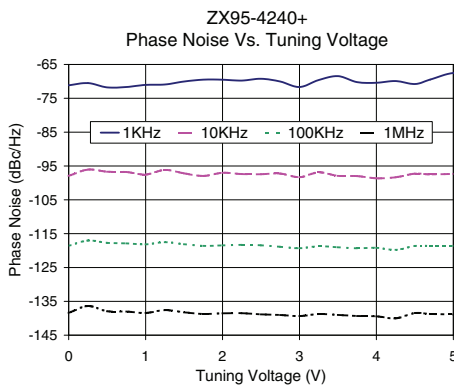
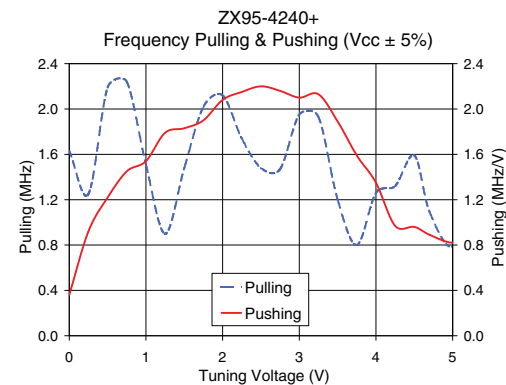
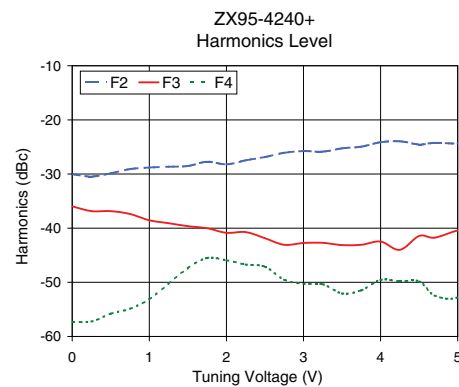
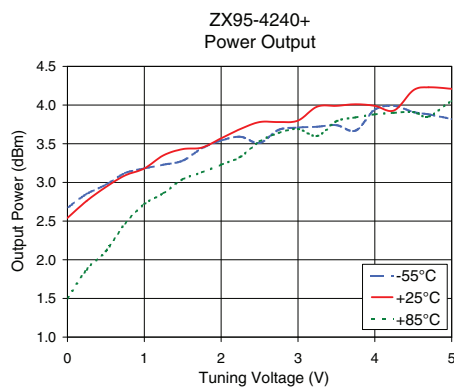
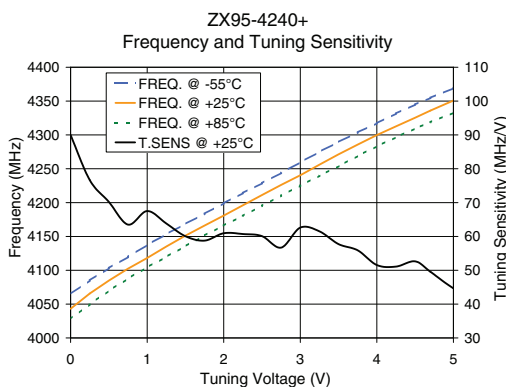
REV. OR  
M122038  
EDR-9571F2  
ZX95-4240+  
RAV  
120906  
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# Performance Data & Curves\*

# ZX95-4240+

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 984 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	89.98	4064.9	4043.1	4028.2	2.67	2.54	1.50	34.10	-30.0	-36.0	-57.3	0.36	1.63	-71.2	-97.9	-118.6	-138.4	1.0	-69.52
0.25	76.67	4085.0	4065.6	4049.7	2.85	2.76	1.87	34.12	-30.5	-36.9	-57.2	0.92	1.25	-70.5	-96.1	-117.0	-136.4	2.0	-79.56
0.50	70.20	4103.3	4084.8	4069.9	2.97	2.94	2.11	34.23	-29.9	-36.9	-55.8	1.22	2.19	-71.8	-96.7	-117.7	-137.9	4.2	-87.86
0.75	63.50	4119.8	4102.4	4087.8	3.12	3.09	2.47	34.32	-29.1	-37.4	-54.9	1.45	2.24	-71.7	-96.8	-117.9	-138.0	6.0	-91.63
1.00	67.51	4137.4	4118.2	4104.4	3.18	3.18	2.72	34.41	-28.8	-38.5	-53.1	1.54	1.51	-71.0	-97.5	-118.2	-138.4	8.5	-95.52
1.25	63.81	4153.3	4135.1	4119.9	3.23	3.35	2.86	34.44	-28.7	-39.1	-50.2	1.79	0.90	-70.9	-96.2	-117.5	-137.6	10.0	-97.28
1.50	60.05	4168.4	4151.1	4135.6	3.28	3.43	3.04	34.57	-28.5	-39.6	-47.4	1.83	1.48	-70.0	-97.2	-118.1	-138.3	20.8	-104.41
1.75	58.75	4183.5	4166.1	4151.4	3.44	3.45	3.13	34.70	-27.7	-40.0	-45.5	1.90	2.02	-69.5	-98.0	-118.6	-138.7	42.5	-110.87
2.00	60.93	4198.8	4180.8	4166.2	3.54	3.57	3.23	34.78	-28.2	-40.9	-45.9	2.08	2.12	-69.5	-97.0	-118.5	-138.5	60.7	-114.08
2.25	60.71	4214.1	4196.0	4180.4	3.59	3.69	3.33	34.88	-27.5	-40.7	-46.7	2.15	1.74	-69.8	-97.4	-118.3	-138.5	86.7	-117.11
2.50	60.09	4228.7	4211.2	4195.3	3.51	3.78	3.53	34.99	-26.9	-41.9	-47.1	2.20	1.48	-69.2	-97.4	-118.4	-138.9	100.0	-118.23
2.75	56.69	4243.9	4226.2	4210.2	3.68	3.78	3.64	35.14	-26.1	-43.1	-49.5	2.16	1.47	-70.0	-97.3	-118.9	-139.0	148.1	-121.95
3.00	62.60	4259.6	4240.4	4225.1	3.71	3.80	3.69	35.25	-25.8	-42.7	-50.3	2.10	1.95	-71.7	-98.3	-119.3	-139.4	211.6	-125.04
3.25	61.50	4275.0	4256.0	4239.7	3.72	3.98	3.60	35.32	-25.9	-42.7	-50.4	2.13	1.93	-69.6	-96.9	-118.7	-138.8	302.4	-127.96
3.50	57.71	4289.5	4271.4	4253.8	3.74	3.99	3.79	35.49	-25.3	-43.1	-52.1	1.89	1.20	-68.4	-97.9	-119.0	-139.0	432.2	-131.06
3.75	55.89	4303.8	4285.8	4269.0	3.67	4.01	3.84	35.65	-25.0	-43.1	-51.5	1.59	0.80	-70.2	-98.0	-119.3	-139.3	507.5	-132.41
4.00	51.55	4317.2	4299.8	4283.2	3.94	3.99	3.88	35.79	-24.1	-42.5	-49.5	1.35	1.26	-70.4	-98.6	-119.2	-139.4	606.7	-133.90
4.50	52.64	4344.9	4325.5	4309.4	3.91	4.19	3.91	35.90	-24.6	-41.4	-49.8	0.96	1.59	-70.8	-97.3	-118.6	-138.5	712.4	-135.28
4.70	49.55	4354.8	4336.0	4318.8	3.88	4.23	3.85	35.96	-24.2	-41.8	-52.5	0.89	1.09	-69.5	-97.5	-118.6	-138.7	851.6	-136.88
5.00	44.68	4369.0	4350.8	4332.7	3.82	4.21	4.05	36.11	-24.4	-40.4	-52.8	0.82	0.79	-67.5	-97.4	-118.6	-138.9	1000.0	-138.12

\*at 25°C unless mentioned otherwise



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