

Coaxial

Voltage Controlled Oscillator

ZX95-470+

5V Tuning for PLL IC's 435 to 470 MHz

Features

- linear tuning characteristics
- low phase noise
- low pushing
- low pulling
- 0.5-5V tuning voltage range
- protected by US patent 6,790,049

Applications

- R & D
- lab
- instrumentation
- PLL circuitry
- wireless microphones



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-470-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

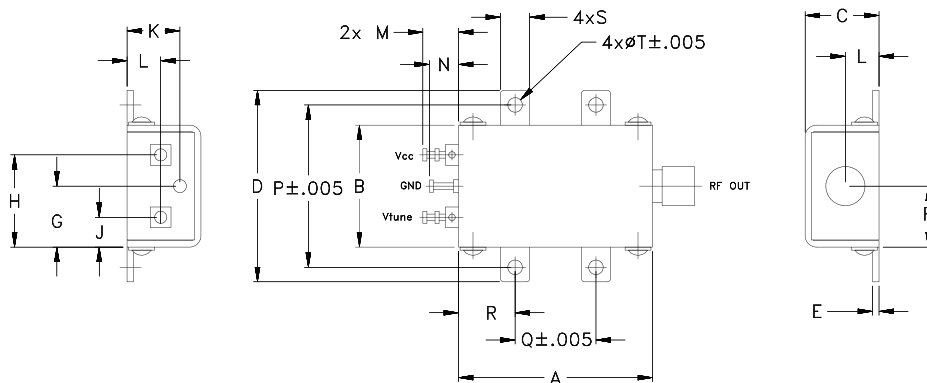
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, KHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-470+	435	470	-0.3	-89	-114	-135	-155	0.5	5	11-13	50	80	-90	-21	-13	0.4	0.2	5	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)	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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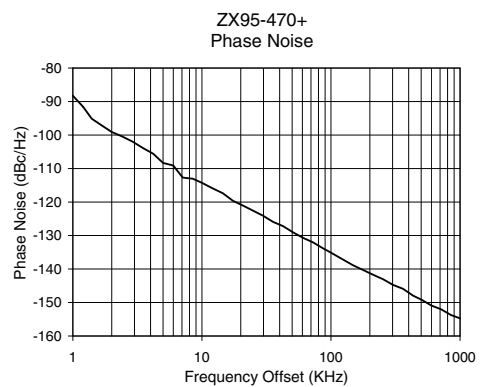
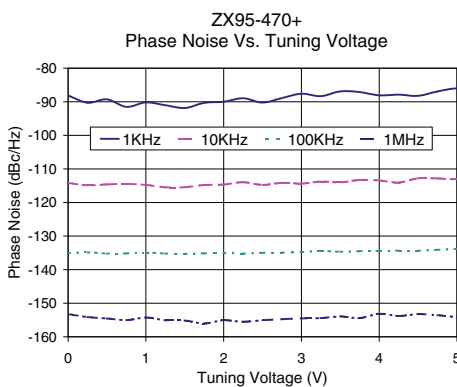
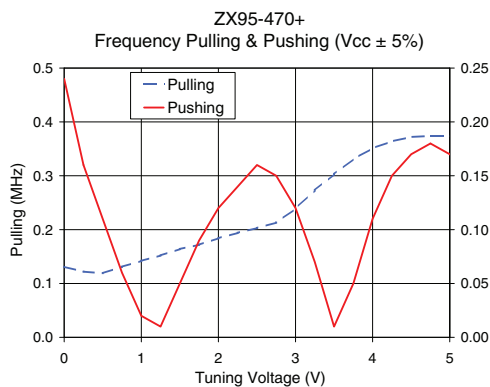
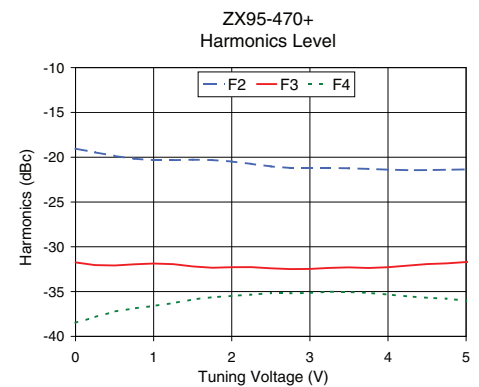
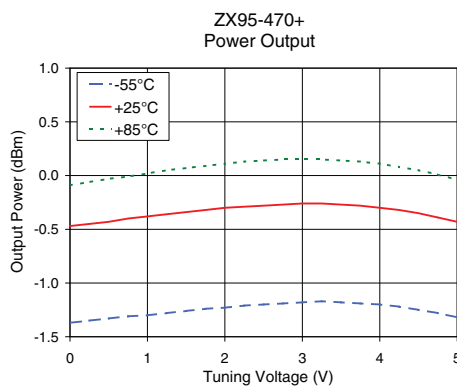
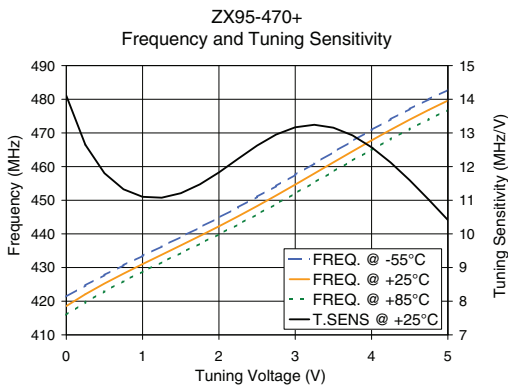
REV. OR
M108877
EDR-7747/2
ZX95-470+
RAV
120830
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Performance Data & Curves*

ZX95-470+

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 446 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	14.11	421.4	418.6	415.9	-1.37	-0.47	-0.09	10.62	-19.0	-31.8	-38.5	0.24	0.13	-88.1	-114.2	-135.1	-153.2	1.0	-88.26
0.50	11.80	427.8	425.2	422.9	-1.33	-0.43	-0.03	10.66	-19.9	-32.1	-37.2	0.11	0.12	-89.3	-114.6	-135.2	-154.6	2.0	-99.09
0.75	11.32	430.7	428.2	425.9	-1.31	-0.40	-0.01	10.68	-20.2	-32.0	-36.9	0.06	0.13	-91.5	-114.5	-135.2	-155.0	3.5	-103.89
1.00	11.10	433.5	431.0	428.8	-1.30	-0.38	0.02	10.69	-20.3	-31.9	-36.6	0.02	0.14	-90.2	-114.8	-134.9	-154.3	6.0	-109.10
1.25	11.08	436.3	433.8	431.6	-1.28	-0.36	0.05	10.71	-20.3	-31.9	-36.3	0.01	0.15	-91.0	-115.5	-135.2	-155.1	8.5	-113.05
1.50	11.21	439.1	436.6	434.3	-1.26	-0.34	0.07	10.72	-20.3	-32.2	-35.9	0.05	0.16	-91.9	-115.4	-135.3	-155.1	10.0	-114.28
1.75	11.47	441.9	439.4	437.1	-1.24	-0.32	0.09	10.74	-20.3	-32.3	-35.6	0.09	0.17	-90.3	-114.8	-135.2	-156.0	20.8	-121.07
2.00	11.83	444.8	442.2	439.9	-1.23	-0.30	0.11	10.76	-20.5	-32.3	-35.5	0.12	0.18	-90.0	-114.7	-135.1	-155.1	35.5	-125.92
2.25	12.23	447.9	445.2	442.8	-1.21	-0.29	0.13	10.78	-20.8	-32.3	-35.3	0.14	0.19	-89.0	-113.9	-135.2	-155.5	60.7	-130.68
2.50	12.62	451.0	448.3	445.8	-1.20	-0.28	0.14	10.80	-21.0	-32.4	-35.2	0.16	0.20	-90.2	-114.8	-135.0	-155.1	86.7	-133.81
2.75	12.95	454.2	451.4	448.9	-1.19	-0.27	0.15	10.81	-21.2	-32.5	-35.2	0.15	0.21	-88.9	-114.1	-134.9	-154.8	100.0	-135.12
3.00	13.17	457.6	454.7	452.1	-1.18	-0.26	0.15	10.83	-21.2	-32.5	-35.2	0.12	0.24	-87.6	-114.4	-134.8	-154.5	148.1	-138.88
3.25	13.24	460.9	457.9	455.3	-1.17	-0.26	0.15	10.85	-21.2	-32.4	-35.0	0.07	0.27	-88.3	-113.8	-134.4	-154.4	177.0	-140.27
3.50	13.16	464.3	461.3	458.6	-1.18	-0.27	0.14	10.86	-21.2	-32.3	-35.0	0.01	0.30	-86.9	-114.0	-134.7	-153.9	211.6	-141.69
3.75	12.93	467.6	464.5	461.8	-1.19	-0.28	0.13	10.87	-21.3	-32.4	-35.2	0.05	0.33	-87.1	-113.3	-134.5	-154.4	302.4	-144.75
4.00	12.57	470.9	467.8	465.0	-1.20	-0.30	0.11	10.88	-21.4	-32.3	-35.3	0.11	0.35	-88.1	-113.4	-134.5	-153.1	361.5	-145.92
4.25	12.12	474.1	470.9	468.1	-1.22	-0.32	0.08	10.88	-21.5	-32.1	-35.5	0.15	0.36	-87.9	-114.1	-134.3	-153.8	507.5	-149.26
4.50	11.59	477.1	473.9	471.2	-1.25	-0.35	0.05	10.88	-21.4	-31.9	-35.7	0.17	0.37	-88.2	-112.8	-134.4	-153.2	600.0	-150.91
4.75	11.02	480.0	476.8	474.1	-1.28	-0.39	0.01	10.88	-21.4	-31.9	-35.8	0.18	0.37	-86.9	-112.8	-134.1	-153.6	851.6	-153.75
5.00	10.41	482.8	479.6	476.8	-1.32	-0.43	-0.04	10.87	-21.4	-31.7	-36.0	0.17	0.37	-86.0	-113.1	-133.8	-154.0	1000.0	-154.72

*at 25°C unless mentioned otherwise



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