

Voltage Controlled Oscillator

ZX95-2550+

5V Tuning for PLL IC's 2280 to 2550 MHz

Features

- wideband frequency range
- low phase noise
- low pushing
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- wireless communications
- point-to-point & point-to-multipoint video link



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2550-S+

+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.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Max.	Vcc (volts)	Current (mA)
				1	10	100	1000	Min.	Max.	Typ.	Typ.		Typ.	Typ.			Typ.	Max.		Max.
ZX95-2550+	2280	2550	+4.5	-68	-94	-115	-135	0.25	5	96-126	17	100	-90	-20	-10	7	2	5	30	

Maximum Ratings

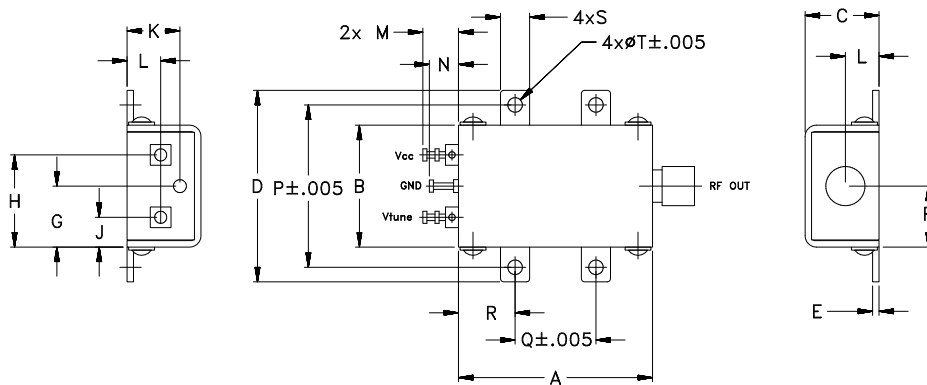
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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



NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminals. See Application Note [AN-40-10](#).

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

Notes

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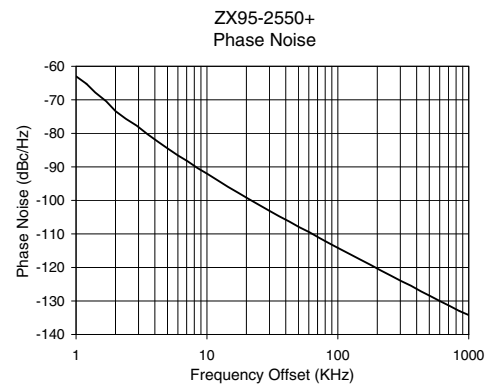
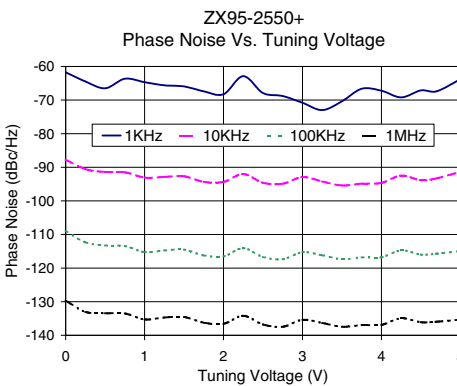
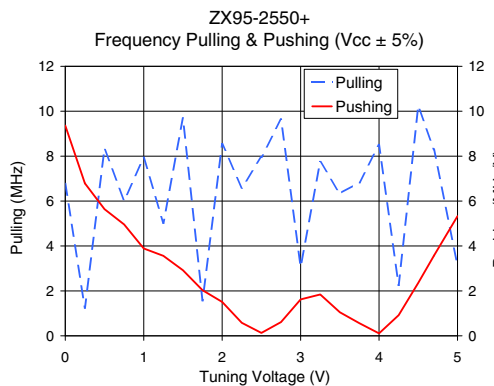
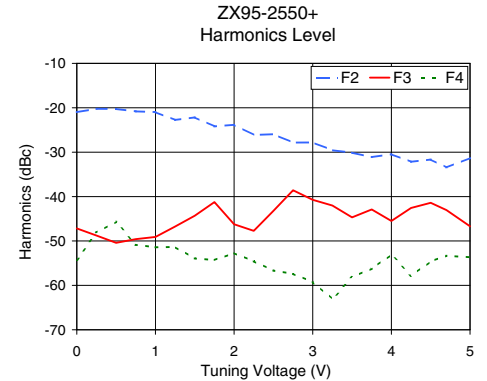
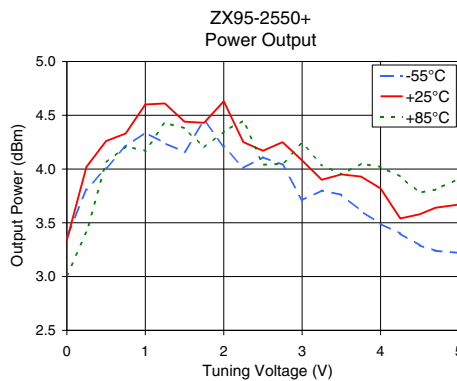
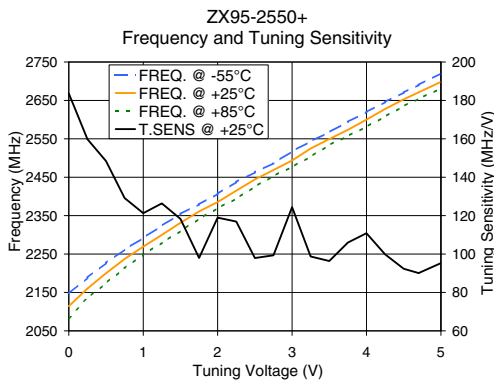


Performance Data & Curves*

ZX95-2550+

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 2415 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	183.61	2146.9	2114.1	2083.6	3.37	3.34	3.01	17.76	-21.0	-47.2	-54.3	9.36	6.77	-61.8	-87.8	-108.9	-129.7	1.0	-62.99
0.25	159.79	2188.4	2160.0	2134.8	3.81	4.02	3.41	18.20	-20.2	-48.8	-48.1	6.79	1.25	-64.5	-90.6	-112.3	-133.0	2.0	-73.37
0.50	148.41	2226.7	2200.0	2174.3	4.01	4.26	4.06	18.43	-20.3	-50.4	-45.7	5.64	8.32	-66.5	-91.4	-113.3	-133.4	4.2	-82.43
0.75	129.14	2261.8	2237.1	2212.8	4.21	4.33	4.21	18.62	-20.8	-49.6	-50.9	4.96	6.04	-63.7	-91.5	-113.5	-133.5	6.0	-86.57
1.00	121.27	2291.9	2269.4	2249.0	4.34	4.60	4.17	18.92	-21.0	-49.1	-51.4	3.89	7.93	-64.7	-93.1	-115.2	-135.3	8.5	-90.40
1.25	126.38	2323.6	2299.7	2279.3	4.24	4.61	4.43	18.91	-22.8	-46.7	-51.4	3.56	5.03	-65.6	-92.9	-114.7	-134.7	10.0	-92.02
1.50	118.32	2354.4	2331.3	2309.9	4.16	4.44	4.38	18.94	-22.2	-44.3	-53.9	2.92	9.68	-66.0	-92.7	-114.5	-134.6	20.8	-99.55
1.75	97.96	2379.5	2360.9	2341.7	4.45	4.43	4.20	19.19	-24.2	-41.2	-54.3	2.03	1.58	-67.4	-94.3	-116.2	-136.3	42.5	-106.30
2.00	118.94	2406.8	2385.4	2369.3	4.21	4.63	4.35	19.16	-23.8	-46.2	-52.8	1.51	8.54	-68.3	-94.4	-116.5	-136.6	60.7	-109.50
2.25	116.92	2437.8	2415.1	2394.1	4.01	4.25	4.45	18.86	-26.1	-47.7	-54.6	0.58	6.60	-62.9	-92.0	-114.1	-134.2	86.7	-112.88
2.50	97.90	2462.7	2444.3	2425.8	4.11	4.17	4.04	19.09	-25.9	-43.2	-56.7	0.13	7.96	-67.9	-94.6	-116.7	-136.8	100.0	-114.17
2.75	99.36	2486.4	2468.8	2453.3	4.04	4.25	4.05	19.14	-27.9	-38.6	-57.4	0.61	9.63	-68.8	-94.9	-117.4	-137.5	148.1	-117.64
3.00	124.42	2517.2	2493.6	2476.8	3.71	4.08	4.24	18.81	-27.8	-40.7	-59.2	1.62	3.10	-70.8	-92.9	-115.3	-135.4	211.6	-120.84
3.25	98.72	2543.4	2524.7	2503.6	3.80	3.90	4.04	18.78	-29.6	-42.0	-63.1	1.84	7.74	-73.0	-94.2	-116.2	-136.3	302.4	-123.99
3.50	96.36	2567.4	2549.4	2534.0	3.76	3.95	3.95	18.87	-30.1	-44.7	-58.1	1.05	6.34	-70.4	-95.4	-117.4	-137.5	361.5	-125.45
3.75	105.99	2594.1	2573.5	2557.4	3.61	3.93	4.05	18.70	-31.1	-42.9	-56.2	0.56	6.84	-66.6	-94.9	-116.8	-136.9	432.2	-127.13
4.00	110.84	2619.6	2600.0	2581.5	3.49	3.82	4.02	18.57	-30.5	-45.5	-53.1	0.11	8.50	-67.2	-94.7	-116.8	-136.9	507.5	-128.51
4.50	92.31	2670.5	2652.7	2635.2	3.29	3.58	3.78	18.49	-31.7	-41.4	-54.6	2.36	10.21	-67.1	-93.9	-116.0	-136.1	712.4	-131.44
4.70	90.07	2690.2	2671.1	2654.2	3.24	3.64	3.81	18.45	-33.5	-43.1	-53.3	3.57	8.30	-67.4	-93.3	-115.7	-135.9	851.6	-133.04
5.00	95.25	2720.6	2698.1	2681.2	3.22	3.67	3.91	18.35	-31.3	-46.7	-53.7	5.33	3.15	-63.8	-91.4	-115.0	-135.3	1000.0	-134.19

*at 25°C unless mentioned otherwise



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