

Voltage Controlled Oscillator

ZX95-585+

5V Tuning for PLL IC's 550 to 585 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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-585-S+

Applications

- r & d
- lab
- instrumentation
- PLL circuitry
- wireless microphones

+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.			Max.	Typ.
ZX95-585+	550	585	0	-90	-114	-135	-152	0.5	5	13	70	50	-90	-19	-11	0.4	0.2	5	16

Maximum Ratings

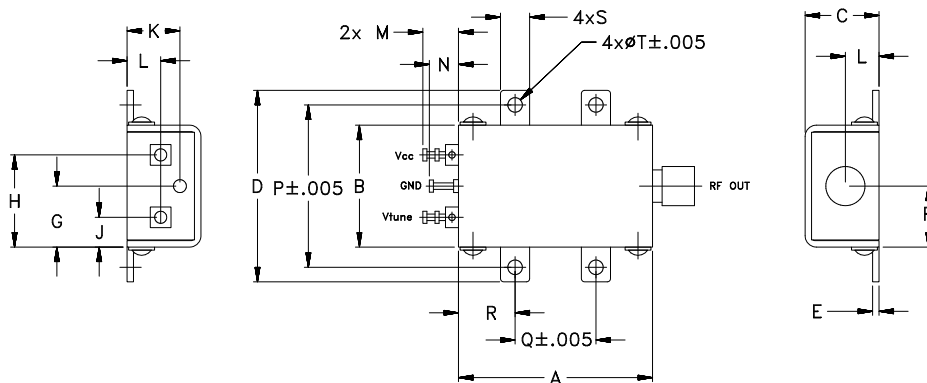
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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



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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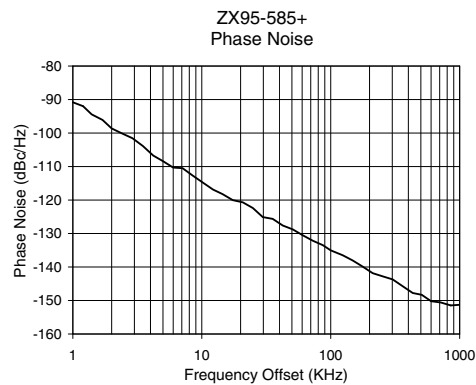
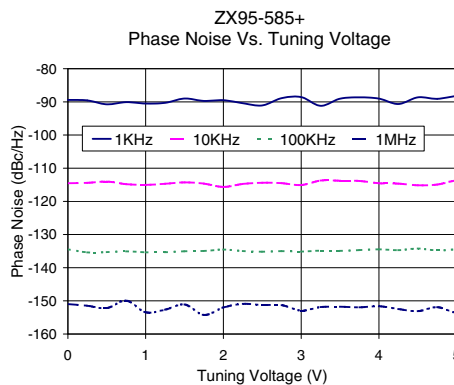
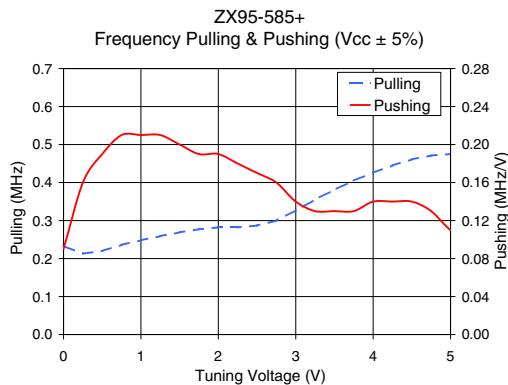
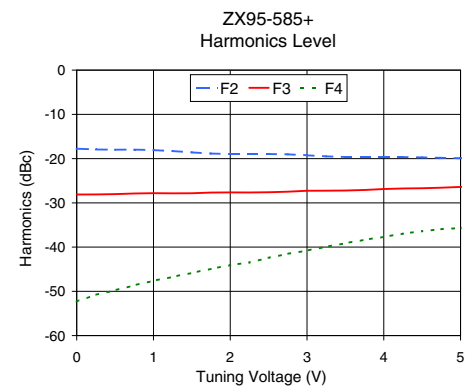
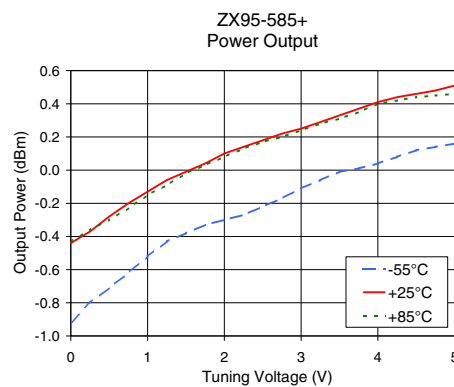
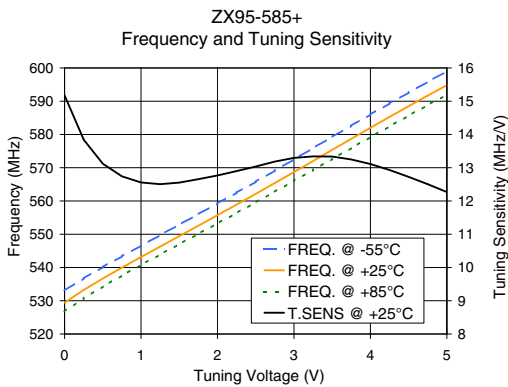


Performance Data & Curves*

ZX95-585+

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 560 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	15.18	533.1	529.4	526.8	-0.92	-0.44	-0.43	10.83	-17.8	-28.1	-52.3	0.09	0.23	-89.4	-114.5	-134.5	-151.0	1.0	-90.82
0.50	13.12	540.1	536.7	534.3	-0.71	-0.28	-0.30	10.91	-18.0	-28.0	-49.8	0.19	0.22	-90.7	-114.0	-135.3	-152.2	2.0	-98.62
0.75	12.74	543.4	540.0	537.6	-0.62	-0.20	-0.23	10.95	-18.0	-27.9	-48.6	0.21	0.24	-90.1	-114.8	-135.1	-149.9	3.5	-103.91
1.00	12.56	546.6	543.2	540.8	-0.52	-0.13	-0.15	10.98	-18.1	-27.8	-47.6	0.21	0.25	-90.5	-115.0	-135.4	-153.4	6.0	-110.31
1.25	12.50	549.7	546.3	543.9	-0.43	-0.06	-0.09	11.00	-18.3	-27.9	-46.7	0.21	0.26	-90.3	-114.7	-135.3	-152.7	8.5	-112.70
1.50	12.55	552.9	549.4	547.0	-0.38	-0.01	-0.02	11.03	-18.6	-27.8	-45.8	0.20	0.27	-89.0	-114.3	-135.1	-151.1	10.0	-114.57
1.75	12.66	556.0	552.6	550.1	-0.33	0.04	0.03	11.05	-18.9	-27.7	-44.9	0.19	0.28	-89.7	-114.7	-135.0	-154.3	20.8	-120.69
2.00	12.77	559.2	555.7	553.2	-0.30	0.10	0.08	11.08	-19.0	-27.6	-44.1	0.19	0.28	-89.5	-115.7	-134.5	-152.0	35.5	-125.64
2.25	12.90	562.5	558.9	556.4	-0.27	0.14	0.13	11.10	-19.0	-27.7	-43.5	0.18	0.28	-90.4	-114.7	-135.0	-150.9	60.7	-130.52
2.50	13.04	565.8	562.1	559.6	-0.22	0.18	0.17	11.12	-19.0	-27.6	-42.4	0.17	0.29	-91.1	-114.4	-135.2	-151.3	86.7	-133.47
2.75	13.18	569.2	565.4	562.8	-0.17	0.22	0.20	11.14	-19.0	-27.5	-41.5	0.16	0.30	-88.9	-114.5	-135.0	-151.3	100.0	-135.03
3.00	13.30	572.5	568.7	566.1	-0.11	0.25	0.24	11.16	-19.3	-27.3	-40.8	0.14	0.33	-88.6	-115.1	-135.2	-153.0	148.1	-138.05
3.25	13.34	575.9	572.0	569.3	-0.06	0.29	0.28	11.17	-19.5	-27.3	-39.9	0.13	0.36	-91.2	-113.7	-134.9	-151.9	177.0	-139.87
3.50	13.34	579.3	575.4	572.6	-0.01	0.33	0.31	11.19	-19.6	-27.2	-39.1	0.13	0.38	-89.1	-113.8	-134.9	-151.8	211.6	-141.83
3.75	13.25	582.6	578.7	575.9	0.01	0.37	0.35	11.20	-19.7	-27.1	-38.4	0.13	0.41	-88.6	-113.9	-134.7	-151.9	302.4	-143.69
4.00	13.11	586.0	582.0	579.2	0.04	0.41	0.40	11.21	-19.6	-26.9	-37.7	0.14	0.43	-89.0	-114.5	-134.5	-151.6	361.5	-145.74
4.25	12.93	589.3	585.3	582.5	0.08	0.44	0.42	11.22	-19.7	-26.8	-37.0	0.14	0.45	-90.6	-114.7	-134.7	-152.5	507.5	-148.30
4.50	12.72	592.6	588.5	585.7	0.12	0.46	0.44	11.23	-19.7	-26.7	-36.4	0.14	0.46	-88.6	-115.2	-134.2	-153.1	600.0	-150.21
4.75	12.50	595.8	591.7	588.8	0.14	0.48	0.45	11.23	-19.8	-26.6	-36.0	0.13	0.47	-89.1	-114.9	-134.8	-151.9	851.6	-151.46
5.00	12.27	599.0	594.8	592.0	0.16	0.51	0.46	11.23	-19.9	-26.4	-35.7	0.11	0.48	-88.3	-113.7	-134.5	-153.6	1000.0	-151.28

*at 25°C unless mentioned otherwise



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