

Coaxial

Voltage Controlled Oscillator

ZX95-258+

5V Tuning for PLL IC's 258 MHz

Features

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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-258-S+

Applications

- R & D
- lab
- instrumentation
- wireless communications
- GSM

+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)		PORT SENSITIVITY (MHz/V)	CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Typ.	Typ.	Vcc (volts)	Current (mA)
	Min.	Max.							Min.	Max.												
ZX95-258+	258		+4.5	-97	-120	-141	-160	0.5	5	5.3	53	45	-90	-23	-15	0.15	0.1	5	25			

Maximum Ratings

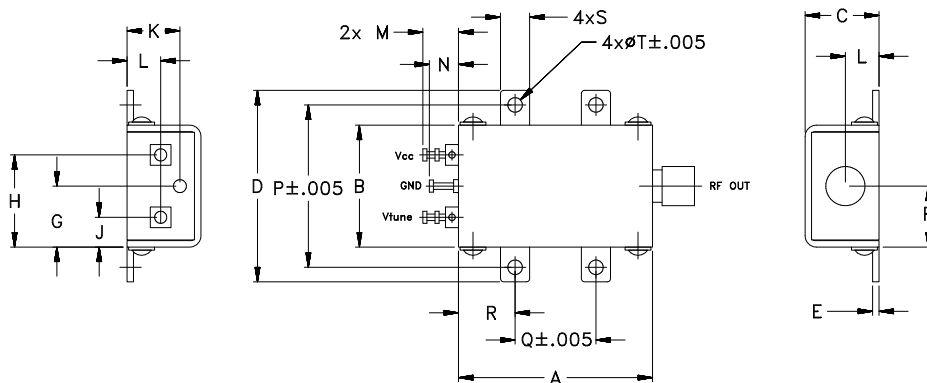
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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



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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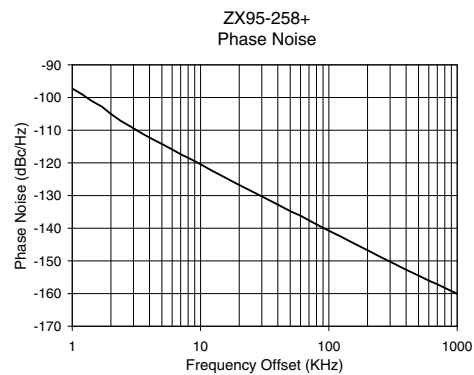
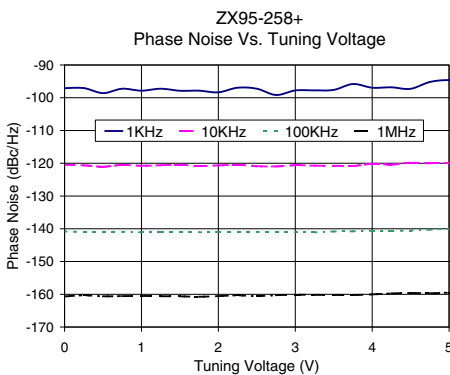
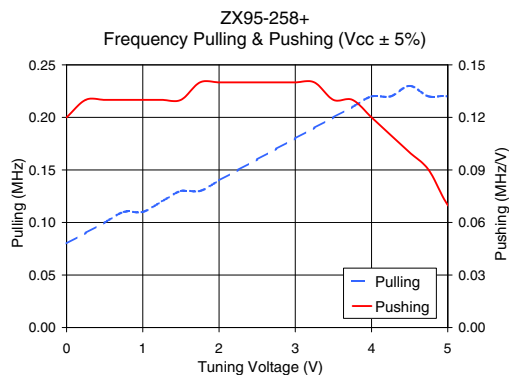
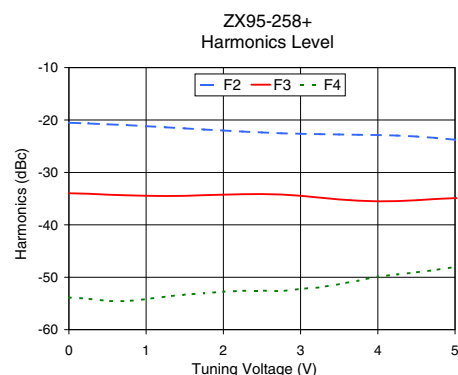
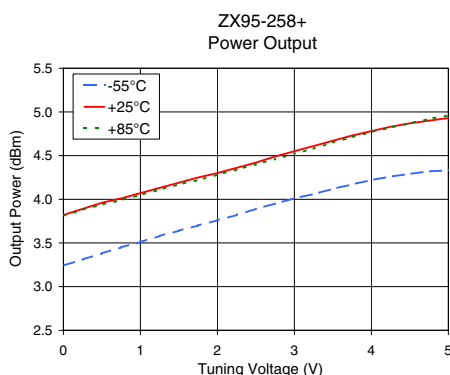
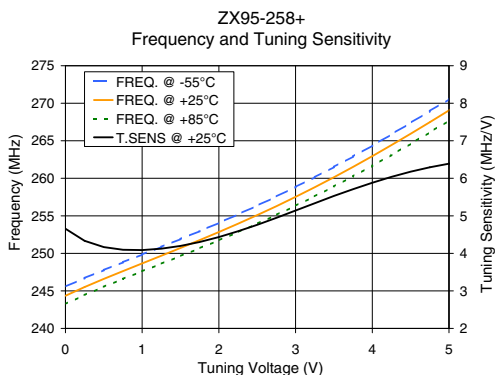
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Performance Data & Curves*

ZX95-258+

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 258 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	4.66	245.6	244.3	243.2	3.24	3.82	3.81	17.20	-20.5	-34.0	-53.9	0.12	0.08	-97.1	-120.5	-140.8	-160.7	1.0	-97.25
0.50	4.17	247.8	246.6	245.5	3.38	3.96	3.94	17.27	-20.8	-34.2	-54.5	0.13	0.10	-98.6	-121.1	-140.9	-160.6	2.0	-105.04
0.75	4.10	248.8	247.6	246.6	3.45	4.01	3.99	17.31	-21.0	-34.4	-54.6	0.13	0.11	-97.3	-120.5	-140.9	-160.6	3.5	-111.02
1.00	4.09	249.8	248.7	247.6	3.51	4.07	4.05	17.34	-21.2	-34.5	-54.2	0.13	0.11	-97.8	-120.8	-141.1	-160.5	6.0	-115.88
1.25	4.13	250.9	249.7	248.6	3.58	4.13	4.11	17.37	-21.4	-34.5	-53.7	0.13	0.12	-97.2	-120.6	-141.0	-160.6	8.5	-118.98
1.50	4.20	251.9	250.7	249.6	3.64	4.19	4.17	17.40	-21.6	-34.5	-53.3	0.13	0.13	-97.9	-120.5	-141.1	-160.6	10.0	-120.42
1.75	4.30	253.0	251.8	250.7	3.70	4.25	4.22	17.43	-21.8	-34.3	-53.1	0.14	0.13	-97.8	-120.9	-141.1	-160.7	20.8	-127.09
2.00	4.43	254.1	252.8	251.7	3.76	4.30	4.28	17.46	-22.0	-34.3	-52.8	0.14	0.14	-98.3	-120.7	-141.0	-160.6	35.5	-131.73
2.25	4.59	255.2	254.0	252.8	3.82	4.36	4.34	17.49	-22.2	-34.2	-52.6	0.14	0.15	-96.9	-120.5	-141.0	-160.3	60.7	-136.24
2.50	4.76	256.4	255.1	254.0	3.89	4.42	4.40	17.51	-22.4	-34.1	-52.5	0.14	0.16	-97.2	-120.9	-141.0	-160.6	86.7	-139.53
2.75	4.95	257.6	256.3	255.1	3.95	4.49	4.46	17.54	-22.5	-34.2	-52.7	0.14	0.17	-99.2	-121.0	-141.0	-160.3	100.0	-140.76
3.00	5.14	258.8	257.5	256.3	4.01	4.55	4.52	17.56	-22.6	-34.5	-52.2	0.14	0.18	-97.8	-120.6	-141.0	-160.1	148.1	-144.14
3.25	5.34	260.1	258.8	257.6	4.06	4.61	4.58	17.58	-22.7	-34.8	-51.9	0.14	0.19	-97.7	-120.7	-141.1	-160.2	177.0	-145.70
3.50	5.53	261.5	260.1	258.9	4.12	4.67	4.65	17.59	-22.8	-35.2	-51.3	0.13	0.20	-97.6	-120.8	-140.8	-160.2	211.6	-147.22
3.75	5.71	262.9	261.5	260.3	4.17	4.73	4.71	17.60	-22.8	-35.4	-50.6	0.13	0.21	-95.8	-120.8	-140.8	-160.2	302.4	-150.31
4.00	5.88	264.4	263.0	261.7	4.22	4.78	4.77	17.60	-22.9	-35.5	-49.9	0.12	0.22	-96.9	-120.2	-140.6	-160.0	355.1	-151.69
4.25	6.04	265.9	264.4	263.1	4.26	4.83	4.82	17.60	-23.0	-35.5	-49.5	0.11	0.22	-96.8	-120.4	-140.6	-159.8	498.5	-154.47
4.50	6.18	267.4	265.9	264.6	4.29	4.87	4.87	17.59	-23.2	-35.3	-49.1	0.10	0.23	-97.3	-119.8	-140.5	-159.6	595.9	-155.96
4.75	6.29	269.0	267.5	266.1	4.32	4.90	4.92	17.58	-23.4	-35.1	-48.6	0.09	0.22	-95.2	-120.0	-140.3	-159.7	982.3	-159.91
5.00	6.39	270.5	269.1	267.7	4.33	4.93	4.96	17.56	-23.8	-34.9	-48.0	0.07	0.22	-94.6	-119.9	-140.2	-159.5	1000.0	-160.04

*at 25°C unless mentioned otherwise



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