

Coaxial

Voltage Controlled Oscillator

ZX95-3997+

5V Tuning for PLL IC's 3989 to 3997 MHz

Features

- low phase noise
- low pulling
- low pushing
- protected by US patent 6,790,049



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communications
- WiMAX

Connectors	Model
SMA	ZX95-3997-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.	1	10	100	1000	VOLTAGE RANGE (V)		SENSI- TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Max.	Vcc (volts)	Current (mA)
	Min.	Max.							Min.	Max.													
ZX95-3997+	3989	3997	+4.5	-78	-107	-130	-150	0.5	5	15	17	100	-90	-20	-10	1.5	0.3	5	33				

Maximum Ratings

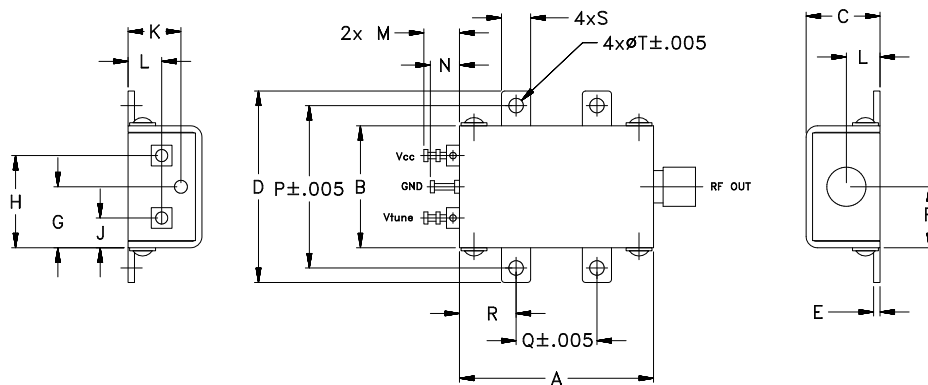
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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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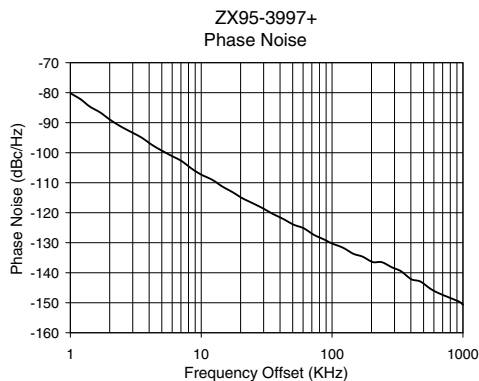
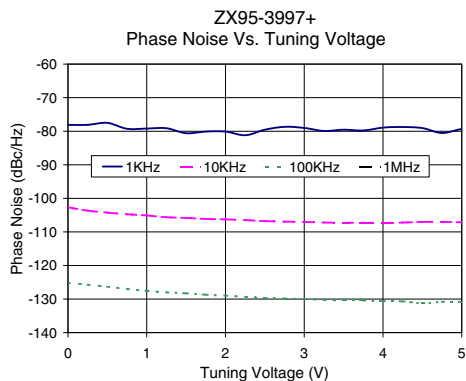
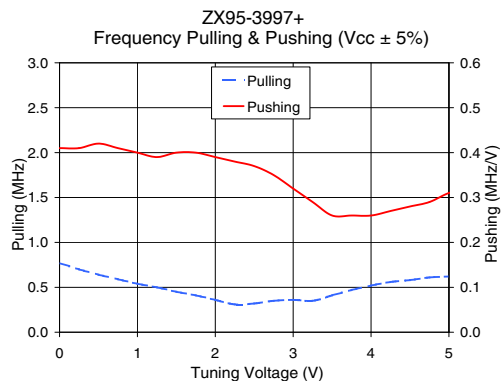
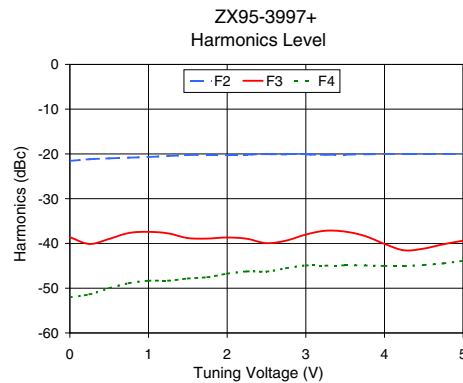
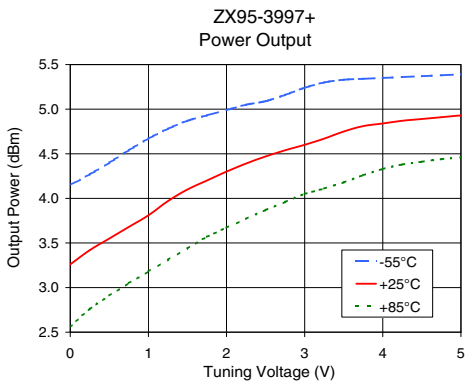
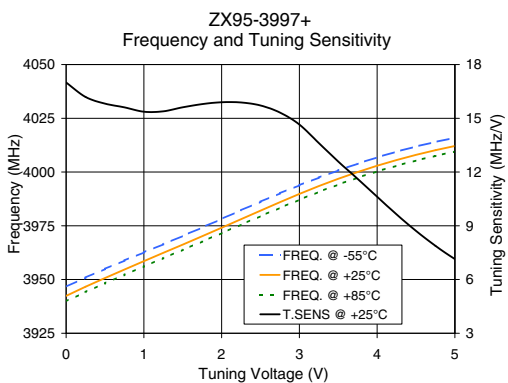
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ZX95-3997+
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Performance Data & Curves*

ZX95-3997+

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 3993 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	17.00	3946.6	3942.4	3939.9	4.15	3.26	2.56	24.73	-21.6	-38.6	-52.0	0.41	0.77	-78.1	-102.7	-125.2	-145.7	1.0	-80.17
0.50	15.82	3954.9	3950.7	3948.2	4.40	3.55	2.91	24.80	-21.0	-39.0	-50.0	0.42	0.64	-77.5	-104.3	-126.3	-146.9	2.0	-88.93
0.75	15.61	3958.8	3954.7	3952.2	4.54	3.68	3.05	24.82	-20.8	-37.7	-48.9	0.41	0.59	-79.3	-104.8	-127.0	-147.7	3.5	-94.96
1.00	15.37	3962.6	3958.6	3956.1	4.67	3.81	3.18	24.85	-20.7	-37.4	-48.3	0.40	0.54	-79.2	-105.1	-127.6	-148.0	6.0	-101.14
1.25	15.39	3966.4	3962.4	3959.9	4.78	3.97	3.31	24.87	-20.5	-37.8	-48.3	0.39	0.50	-79.1	-105.6	-128.0	-148.8	8.5	-105.37
1.50	15.61	3970.3	3966.2	3963.8	4.87	4.10	3.44	24.90	-20.3	-38.8	-47.8	0.40	0.45	-80.6	-105.8	-128.3	-149.2	10.0	-107.32
1.75	15.79	3974.2	3970.2	3967.7	4.93	4.20	3.57	24.92	-20.2	-38.9	-47.5	0.40	0.41	-80.1	-106.1	-128.7	-149.4	20.8	-115.25
2.00	15.89	3978.2	3974.1	3971.6	4.99	4.30	3.67	24.94	-20.2	-38.7	-46.8	0.39	0.36	-80.1	-106.3	-129.0	-149.9	35.5	-120.47
2.25	15.88	3982.2	3978.1	3975.5	5.05	4.39	3.77	24.95	-20.2	-39.0	-46.3	0.38	0.31	-81.2	-106.5	-129.3	-149.5	60.7	-125.17
2.50	15.71	3986.2	3982.0	3979.5	5.09	4.47	3.87	24.97	-20.0	-40.0	-46.3	0.37	0.32	-79.6	-106.8	-129.7	-149.9	86.7	-128.90
2.75	15.32	3990.1	3986.0	3983.3	5.16	4.54	3.96	24.98	-20.1	-39.4	-45.5	0.35	0.35	-78.7	-106.9	-129.9	-150.1	100.0	-130.25
3.00	14.65	3993.8	3989.8	3987.1	5.24	4.60	4.05	24.99	-20.1	-38.0	-44.9	0.32	0.36	-79.0	-107.0	-130.0	-150.3	145.5	-133.69
3.25	13.62	3997.4	3993.5	3990.7	5.30	4.67	4.11	25.00	-20.2	-37.2	-45.0	0.29	0.35	-79.9	-107.2	-130.2	-150.2	170.8	-134.62
3.50	12.58	4000.8	3996.9	3994.2	5.33	4.75	4.18	25.01	-20.2	-37.4	-44.9	0.26	0.41	-79.6	-107.3	-130.4	-150.2	204.2	-136.44
3.75	11.62	4003.9	4000.0	3997.4	5.34	4.81	4.26	25.02	-20.1	-38.3	-44.9	0.26	0.47	-79.8	-107.3	-130.4	-150.0	286.7	-138.19
4.00	10.62	4006.8	4002.9	4000.3	5.35	4.84	4.33	25.03	-20.0	-40.1	-45.0	0.26	0.52	-78.9	-107.2	-130.6	-151.2	336.6	-139.53
4.25	9.64	4009.5	4005.6	4002.9	5.36	4.87	4.38	25.04	-20.0	-41.5	-45.1	0.27	0.56	-78.8	-107.2	-130.7	-150.1	472.5	-142.92
4.50	8.71	4011.8	4008.0	4005.4	5.37	4.89	4.41	25.05	-20.0	-41.2	-44.8	0.28	0.58	-79.1	-107.0	-131.3	-149.9	564.9	-145.35
4.75	7.88	4014.0	4010.2	4007.5	5.38	4.91	4.44	25.05	-20.0	-40.2	-44.5	0.29	0.61	-80.5	-107.0	-130.8	-150.2	931.1	-149.63
5.00	7.14	4015.9	4012.1	4009.5	5.39	4.93	4.46	25.05	-20.0	-39.4	-43.9	0.31	0.62	-79.3	-107.2	-130.9	-150.7	1000.0	-150.65

*at 25°C unless mentioned otherwise



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