

Voltage Controlled Oscillator

ZX95-1344+

5V Tuning for PLL IC's 1296 to 1344 MHz

Features

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

Applications

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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-1344-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.	Typ.	Max.
	Typ.																				
ZX95-1344+	1296	1344	-2	-85	-111	-132	-151	0.5	5	19	40	110	-90	-25	-15	0.2	0.1	5	35		

Maximum Ratings

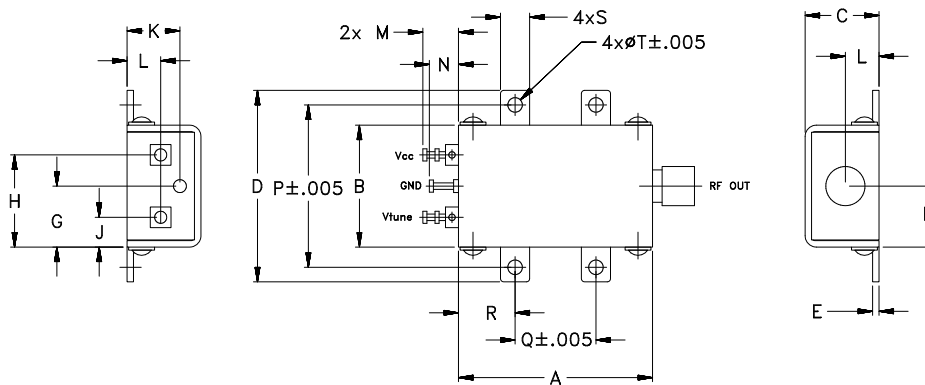
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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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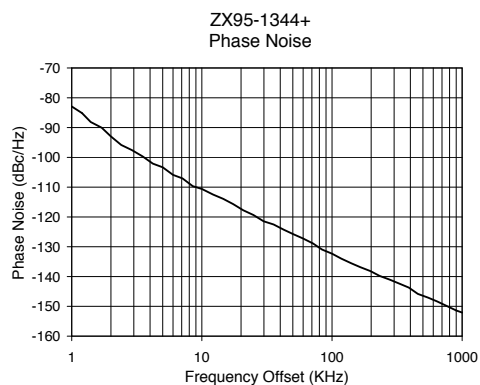
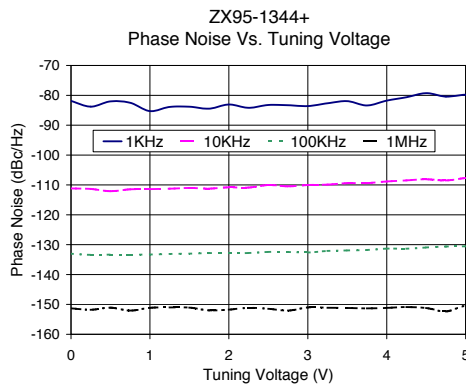
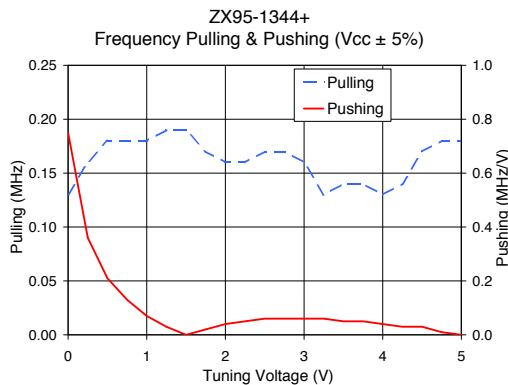
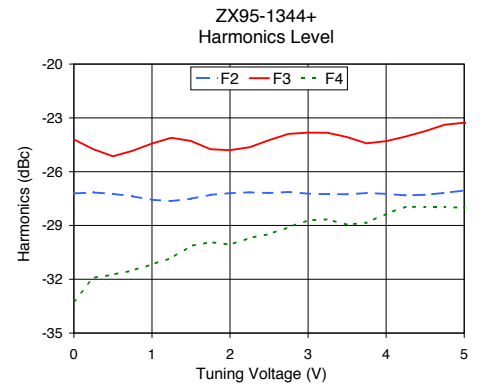
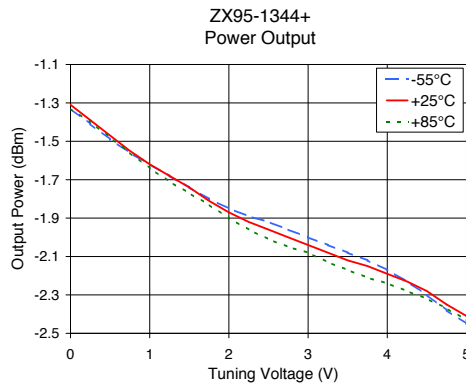
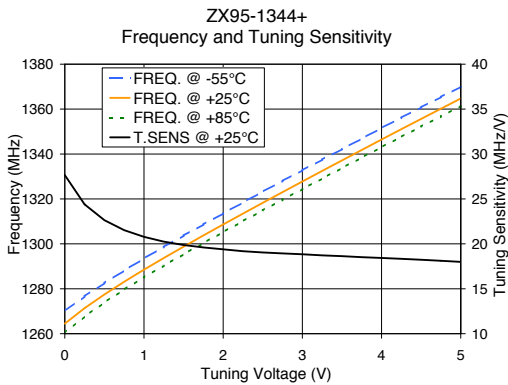


Performance Data & Curves*

ZX95-1344+

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 1320 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	27.65	1270.1	1264.5	1260.4	-1.33	-1.31	-1.33	28.51	-27.2	-24.2	-33.2	0.75	0.13	-81.9	-111.2	-133.0	-151.3	1.0	-82.92
0.50	22.63	1282.6	1277.5	1273.9	-1.49	-1.47	-1.48	28.46	-27.2	-25.1	-31.7	0.21	0.18	-82.0	-112.1	-133.3	-151.1	2.0	-92.99
0.75	21.53	1288.1	1283.1	1279.7	-1.56	-1.55	-1.56	28.42	-27.4	-24.8	-31.5	0.13	0.18	-82.5	-111.5	-133.4	-152.1	3.5	-99.68
1.00	20.78	1293.5	1288.5	1285.1	-1.62	-1.62	-1.64	28.39	-27.6	-24.4	-31.2	0.07	0.18	-85.3	-111.4	-133.3	-151.1	6.0	-105.89
1.25	20.25	1298.6	1293.7	1290.3	-1.68	-1.68	-1.71	28.36	-27.6	-24.1	-30.8	0.03	0.19	-83.9	-111.2	-133.1	-151.0	8.5	-109.65
1.50	19.88	1303.7	1298.8	1295.4	-1.74	-1.74	-1.77	28.32	-27.5	-24.3	-30.1	0.00	0.19	-83.8	-111.0	-133.0	-151.1	10.0	-110.60
1.75	19.60	1308.7	1303.7	1300.4	-1.80	-1.81	-1.83	28.28	-27.3	-24.8	-29.9	0.02	0.17	-84.5	-111.2	-132.8	-152.0	20.8	-117.75
2.00	19.39	1313.6	1308.6	1305.3	-1.85	-1.87	-1.90	28.25	-27.2	-24.8	-30.1	0.04	0.16	-83.1	-110.8	-132.8	-151.7	35.6	-122.51
2.25	19.18	1318.4	1313.5	1310.1	-1.89	-1.92	-1.96	28.21	-27.2	-24.6	-29.7	0.05	0.16	-84.2	-110.9	-132.8	-151.1	59.7	-127.18
2.50	19.04	1323.2	1318.3	1314.9	-1.92	-1.96	-2.01	28.18	-27.2	-24.2	-29.5	0.06	0.17	-83.2	-110.0	-132.4	-151.5	83.8	-130.94
2.75	18.94	1328.0	1323.0	1319.7	-1.96	-2.00	-2.05	28.14	-27.1	-23.9	-29.1	0.06	0.17	-83.3	-110.5	-132.5	-152.1	100.0	-132.32
3.00	18.84	1332.8	1327.8	1324.4	-2.00	-2.04	-2.08	28.10	-27.2	-23.8	-28.7	0.06	0.16	-83.6	-110.0	-132.6	-151.0	140.7	-135.55
3.25	18.72	1337.5	1332.5	1329.1	-2.04	-2.08	-2.13	28.06	-27.3	-23.8	-28.7	0.06	0.13	-82.7	-109.9	-132.1	-151.1	165.2	-136.85
3.50	18.63	1342.2	1337.2	1333.8	-2.08	-2.12	-2.17	28.02	-27.3	-24.1	-29.0	0.05	0.14	-82.0	-109.4	-131.9	-151.2	197.5	-138.17
3.75	18.52	1346.9	1341.8	1338.4	-2.12	-2.15	-2.21	27.98	-27.2	-24.4	-28.8	0.05	0.14	-83.4	-109.4	-131.8	-151.3	277.2	-141.03
4.00	18.43	1351.5	1346.5	1343.0	-2.17	-2.19	-2.24	27.94	-27.2	-24.3	-28.4	0.04	0.13	-81.8	-108.8	-131.3	-151.2	325.5	-142.27
4.25	18.33	1356.2	1351.1	1347.6	-2.23	-2.23	-2.28	27.89	-27.3	-24.0	-28.0	0.03	0.14	-80.7	-108.5	-131.4	-150.9	457.0	-145.81
4.50	18.23	1360.8	1355.6	1352.2	-2.30	-2.28	-2.32	27.85	-27.3	-23.7	-28.0	0.03	0.17	-79.3	-108.1	-130.9	-151.2	546.3	-147.06
4.75	18.11	1365.4	1360.2	1356.8	-2.38	-2.35	-2.37	27.81	-27.2	-23.4	-28.0	0.01	0.18	-80.4	-108.5	-130.6	-152.4	900.7	-151.38
5.00	17.99	1369.9	1364.7	1361.3	-2.45	-2.41	-2.43	27.77	-27.1	-23.3	-28.0	0.00	0.18	-79.8	-107.7	-130.6	-150.4	1000.0	-152.08

*at 25°C unless mentioned otherwise



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