

Coaxial

Voltage Controlled Oscillator

ZX95-1240-S+

Linear Tuning 1160 to 1240 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- radio link



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-1240-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 Typ.				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB _r (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
								VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	V _{cc} (volts)						Current (mA)	
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.	Max.	
ZX95-1240-S+	1160	1240	+5.4	-89	-114	-135	-155	0.5	12	12	37	60	-90	-29	-19	0.7	0.05	5	35

Maximum Ratings

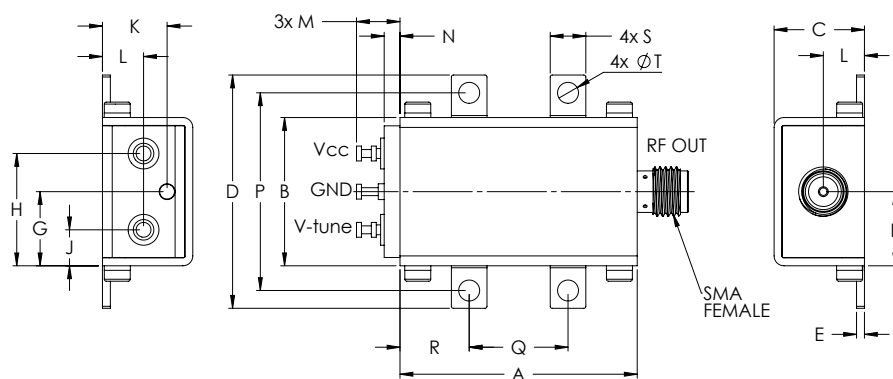
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	14V
All specifications	50 ohm system

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	.08	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	2.03	25.40	12.70	8.89	4.57	2.69	35.0

Notes

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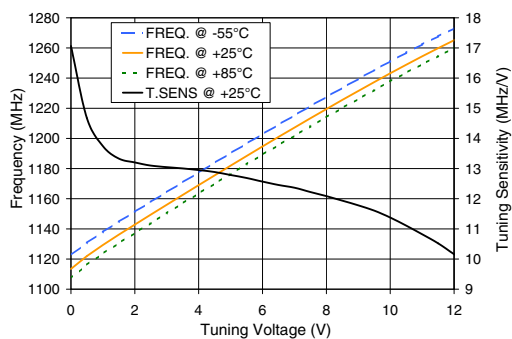
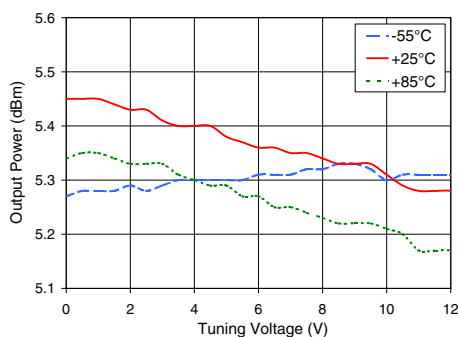
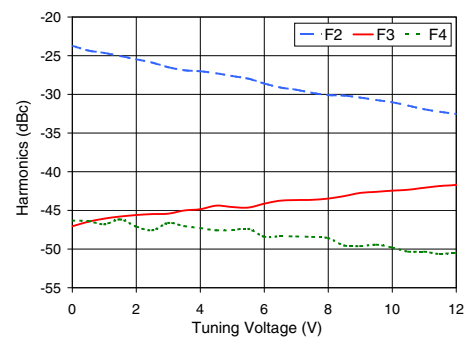
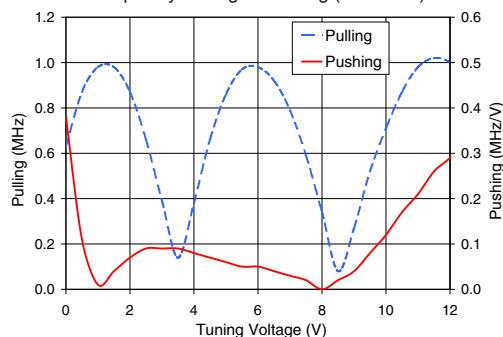
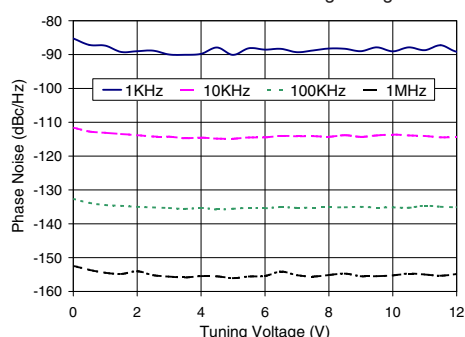
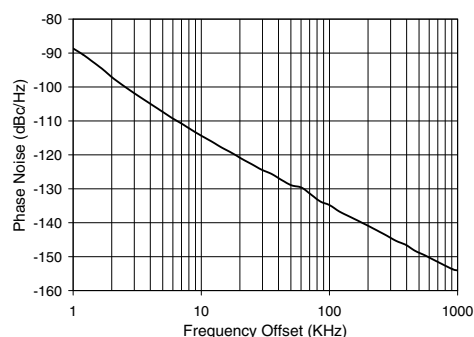
REV. B
M171494
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ZX95-1240-S+
RAV
181227
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Performance Data & Curves*

ZX95-1240-S+

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 1200 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	17.07	1122.6	1113.4	1107.2	5.27	5.45	5.34	23.01	-23.7	-47.1	-46.3	0.38	0.63	-85.2	-111.6	-132.6	-152.4	1.0	-88.65
0.50	14.67	1130.7	1122.0	1116.2	5.28	5.45	5.35	23.02	-24.3	-46.5	-46.4	0.11	0.87	-87.2	-112.7	-133.8	-153.6	2.0	-97.08
1.00	13.75	1137.9	1129.3	1123.6	5.28	5.45	5.35	23.03	-24.7	-46.1	-46.8	0.01	0.98	-87.4	-113.1	-134.5	-154.5	3.5	-103.51
2.00	13.20	1151.3	1142.9	1137.3	5.29	5.43	5.33	23.08	-25.5	-45.6	-47.1	0.07	0.87	-89.0	-113.8	-135.0	-154.0	6.0	-109.29
3.00	13.05	1164.4	1156.0	1150.5	5.29	5.41	5.33	23.13	-26.5	-45.4	-46.6	0.09	0.39	-90.0	-114.3	-135.3	-155.6	8.5	-112.78
3.50	13.01	1170.9	1162.5	1157.0	5.30	5.40	5.31	23.16	-26.9	-45.0	-47.0	0.09	0.14	-90.1	-114.7	-135.6	-155.9	10.0	-114.35
4.00	12.95	1177.3	1169.0	1163.5	5.30	5.40	5.30	23.19	-27.0	-44.9	-47.3	0.08	0.38	-89.8	-114.5	-135.3	-155.5	20.8	-121.22
4.50	12.89	1183.8	1175.5	1170.0	5.30	5.40	5.29	23.23	-27.3	-44.4	-47.6	0.07	0.66	-87.9	-114.8	-135.8	-155.5	35.5	-125.66
5.00	12.79	1190.2	1181.9	1176.5	5.30	5.38	5.29	23.27	-27.6	-44.6	-47.6	0.06	0.86	-90.1	-114.9	-135.6	-156.1	60.7	-129.66
5.50	12.69	1196.6	1188.3	1182.9	5.30	5.37	5.27	23.31	-28.0	-44.6	-47.4	0.05	0.97	-88.1	-114.5	-135.3	-155.6	85.2	-133.79
6.00	12.57	1202.9	1194.7	1189.3	5.31	5.36	5.27	23.35	-28.6	-44.1	-48.4	0.05	0.98	-88.5	-114.5	-135.4	-155.4	100.0	-134.80
6.50	12.46	1209.1	1201.0	1195.6	5.31	5.36	5.25	23.39	-29.1	-43.7	-48.4	0.04	0.92	-88.3	-114.0	-135.1	-154.1	142.9	-138.15
7.00	12.36	1215.3	1207.2	1201.8	5.31	5.35	5.25	23.43	-29.4	-43.7	-48.4	0.03	0.79	-89.3	-114.1	-135.3	-155.2	167.8	-139.45
8.00	12.09	1227.5	1219.5	1214.1	5.32	5.34	5.23	23.51	-30.1	-43.5	-48.6	0.00	0.34	-88.2	-114.3	-135.2	-155.2	200.6	-140.91
8.50	11.94	1233.6	1225.5	1220.2	5.33	5.33	5.22	23.54	-30.2	-43.2	-49.5	0.02	0.08	-88.3	-113.8	-135.1	-154.7	281.6	-143.87
9.00	11.78	1239.5	1231.5	1226.2	5.33	5.33	5.22	23.58	-30.4	-42.7	-49.6	0.04	0.27	-89.0	-114.3	-135.0	-155.5	330.7	-145.35
9.50	11.60	1245.4	1237.4	1232.1	5.32	5.33	5.22	23.63	-30.7	-42.6	-49.4	0.08	0.52	-87.9	-113.9	-135.2	-155.5	464.2	-148.26
10.00	11.38	1251.2	1243.2	1237.9	5.30	5.31	5.21	23.68	-31.0	-42.5	-49.8	0.12	0.71	-89.1	-113.6	-135.2	-155.3	554.9	-149.59
11.00	10.82	1262.3	1254.4	1249.2	5.31	5.28	5.17	23.77	-31.9	-42.1	-50.3	0.21	0.98	-88.7	-114.1	-134.7	-155.0	914.6	-153.72
12.00	10.16	1273.0	1265.1	1259.8	5.31	5.28	5.17	23.86	-32.5	-41.7	-50.5	0.29	1.00	-89.1	-114.4	-135.1	-154.9	1000.0	-154.06

*at 25°C unless mentioned otherwise

ZX95-1240-S+
Frequency and Tuning SensitivityZX95-1240-S+
Power OutputZX95-1240-S+
Harmonics LevelZX95-1240-S+
Frequency Pulling & Pushing (Vcc ± 5%)ZX95-1240-S+
Phase Noise Vs. Tuning VoltageZX95-1240-S+
Phase Noise

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