

Coaxial

Voltage Controlled Oscillator

ZX95-4940+

5V Tuning for PLL IC's 4940 to 5040 MHz

Features

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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-4940-S+

Applications

- r & d
- lab
- instrumentation
- wireless communications
- wire-line broadband access cable system

+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.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.	Max.	Vcc (volts)	Current (mA)
				1	10	100	1000	Min.	Max.	Typ.	Typ.		Typ.	Typ.			Typ.	Typ.	Typ.	Max.	Max.
ZX95-4940+	4940	5040	+0.7	-69	-94	-115	-135	0.5	4.5	71-80	7	260	-90	-24	-15	1	5.5	5	33		

Maximum Ratings

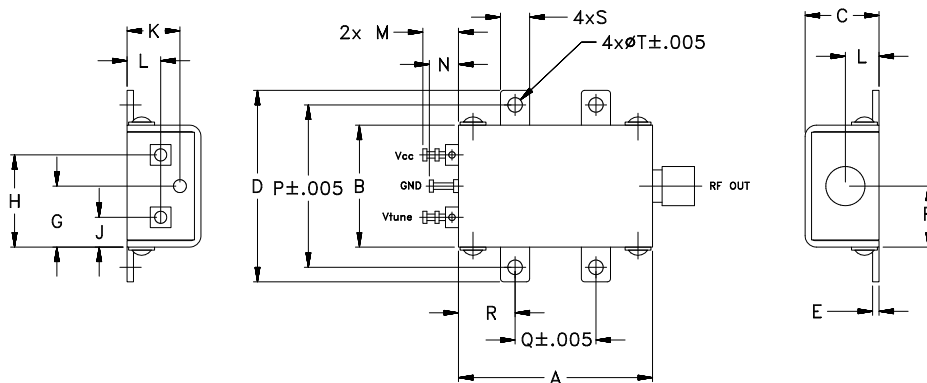
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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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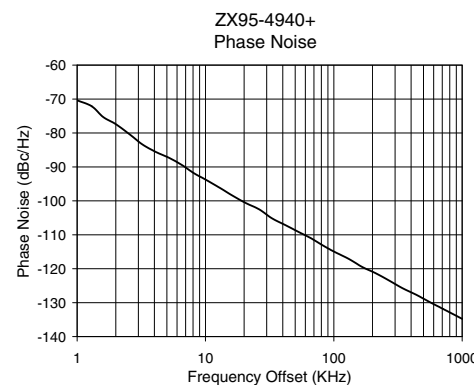
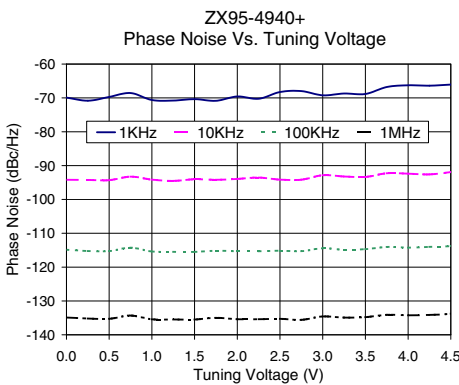
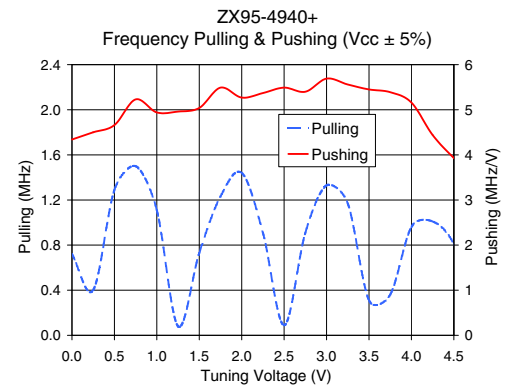
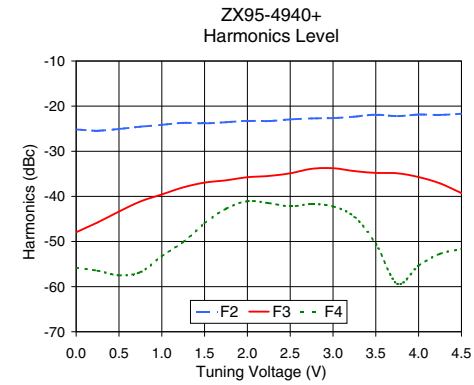
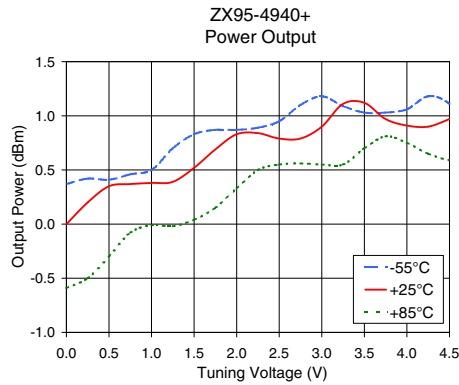
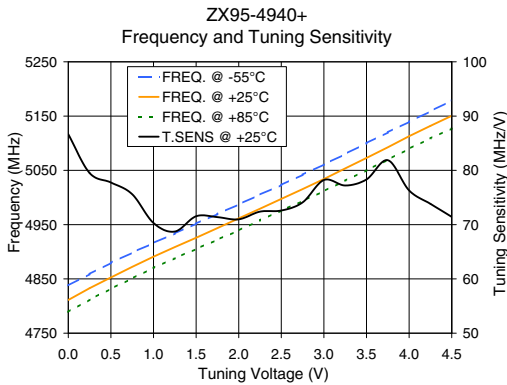
REV. A
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ZX95-4940+
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Page 1 of 2

Performance Data & Curves*

ZX95-4940+

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 4990 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	86.65	4837.8	4811.1	4789.2	0.37	0.00	-0.59	26.14	-25.2	-47.9	-55.8	4.34	0.72	-69.9	-94.2	-114.9	-134.9	1.0	-70.38
0.25	79.52	4859.0	4832.8	4811.8	0.42	0.20	-0.50	26.19	-25.4	-45.8	-56.5	4.50	0.40	-70.8	-94.2	-115.2	-135.2	2.0	-77.39
0.50	77.76	4879.6	4852.7	4831.8	0.41	0.35	-0.30	26.23	-25.1	-43.4	-57.5	4.66	1.29	-69.7	-94.3	-115.3	-135.3	4.1	-85.59
0.75	75.60	4898.3	4872.1	4850.8	0.46	0.37	-0.08	26.26	-24.6	-41.1	-56.8	5.23	1.50	-68.6	-93.3	-114.3	-134.3	6.5	-89.36
1.00	70.30	4916.1	4891.0	4870.3	0.50	0.38	-0.01	26.33	-24.1	-39.6	-53.3	4.94	1.11	-70.6	-94.1	-115.4	-135.4	8.2	-91.94
1.25	68.72	4933.7	4908.6	4888.0	0.70	0.39	-0.02	26.38	-23.7	-38.0	-50.1	4.96	0.08	-70.8	-94.5	-115.5	-135.5	10.0	-93.72
1.50	71.55	4951.9	4925.8	4905.2	0.83	0.52	0.04	26.41	-23.8	-36.9	-46.0	5.04	0.73	-70.4	-94.0	-115.5	-135.5	20.7	-100.69
1.75	71.39	4969.6	4943.7	4922.2	0.87	0.69	0.15	26.44	-23.6	-36.4	-42.8	5.49	1.23	-70.9	-94.2	-115.2	-135.0	41.6	-107.10
2.00	70.98	4987.2	4961.5	4939.3	0.87	0.83	0.33	26.48	-23.3	-35.8	-41.1	5.27	1.44	-69.6	-94.0	-115.3	-135.4	66.1	-110.98
2.25	72.40	5005.2	4979.3	4958.1	0.89	0.84	0.50	26.52	-23.3	-35.5	-41.5	5.37	0.91	-70.3	-93.6	-115.3	-135.4	83.4	-113.27
2.50	72.60	5023.0	4997.4	4975.9	0.95	0.79	0.55	26.57	-23.0	-34.9	-42.2	5.49	0.09	-68.3	-94.2	-115.2	-135.3	100.0	-114.93
2.75	74.11	5042.0	5015.5	4993.7	1.10	0.79	0.56	26.60	-22.7	-33.9	-41.7	5.40	0.91	-68.0	-94.2	-115.3	-135.6	132.6	-117.23
3.00	78.22	5060.9	5034.0	5011.8	1.18	0.90	0.55	26.61	-22.7	-33.8	-42.2	5.69	1.33	-69.2	-92.9	-114.4	-134.6	210.9	-121.30
3.25	77.21	5079.9	5053.6	5030.9	1.09	1.11	0.55	26.64	-22.3	-34.4	-44.5	5.56	1.17	-68.7	-93.2	-114.9	-134.9	270.7	-123.52
3.50	78.33	5100.1	5072.9	5050.2	1.03	1.12	0.70	26.66	-21.9	-34.8	-50.5	5.45	0.31	-68.8	-93.4	-114.7	-134.8	341.4	-125.70
3.75	81.87	5120.1	5092.5	5069.6	1.03	0.97	0.81	26.67	-22.2	-34.9	-59.4	5.39	0.36	-66.8	-92.3	-114.1	-134.1	438.3	-127.66
4.00	76.30	5139.5	5112.9	5089.8	1.06	0.91	0.75	26.68	-21.9	-35.7	-55.3	5.16	0.96	-66.3	-92.4	-114.3	-134.3	552.7	-129.74
4.25	73.82	5158.8	5132.0	5108.9	1.18	0.90	0.65	26.68	-21.9	-37.1	-52.7	4.44	1.01	-66.4	-92.6	-114.0	-134.1	709.5	-131.85
4.50	71.43	5178.6	5150.5	5127.1	1.11	0.97	0.59	26.65	-21.7	-39.3	-51.7	3.93	0.81	-66.1	-91.9	-113.8	-133.8	1000.0	-134.78

*at 25°C unless mentioned otherwise



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