

Coaxial

Voltage Controlled Oscillator

ZX95-2952A-S+

5V Tuning for PLL ICs 2748 to 2952 MHz

Features

- high power output, +5.5 dBm typ
- 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	ZX95-2952A-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 _r (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
								VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)								
	Min.	Max.		Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.		Typ.	Typ.			Max.	Typ.
ZX95-2952A-S+	2748	2952	+5.5	-71	-99	-120	-140	0.5	4.5	65-97	28	40	-90	-21	-15	1.5	1	5	35

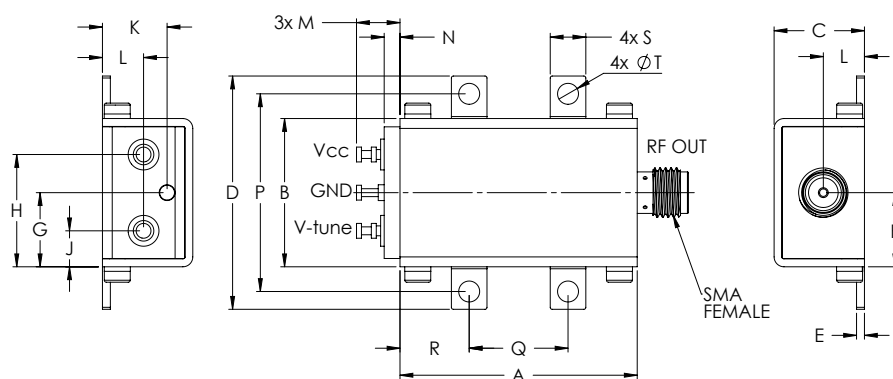
Maximum Ratings

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



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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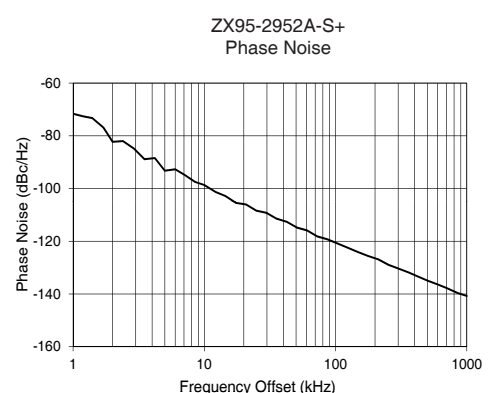
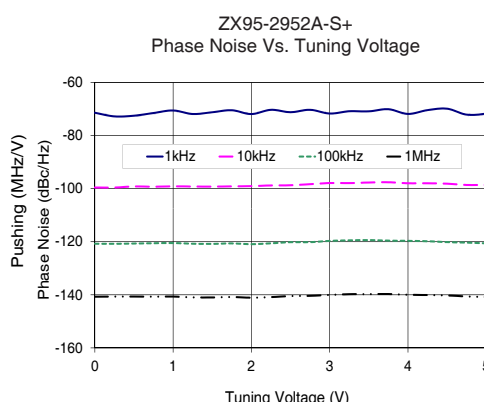
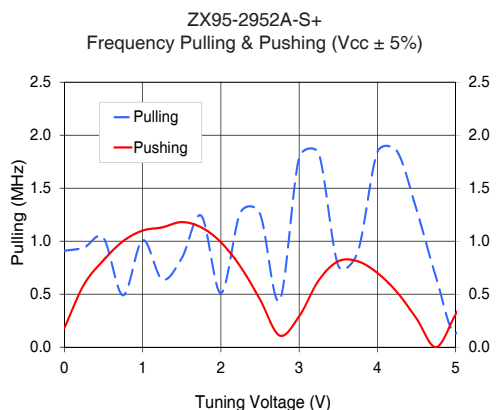
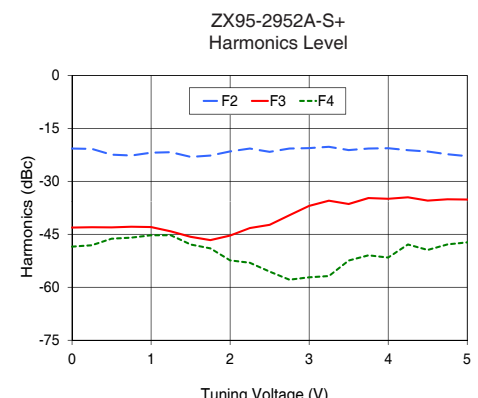
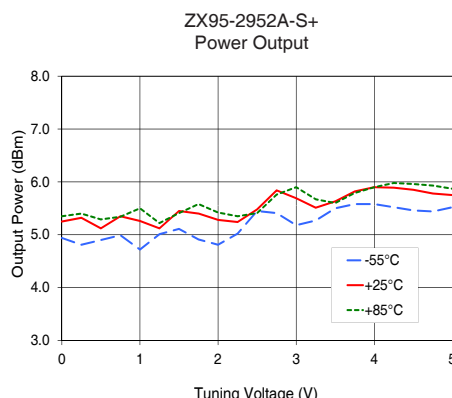
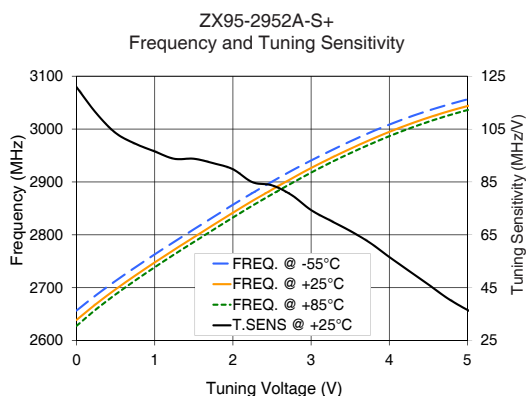
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Performance Data & Curves*

ZX95-2952A-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 2850 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	120.90	2656.8	2638.9	2627.7	4.94	5.25	5.35	25.11	-20.7	-43.1	-48.5	0.18	0.91	-71.42	-99.6	-120.8	-140.7	1.0	-71.64
0.25	111.09	2686.0	2669.1	2659.1	4.81	5.32	5.40	25.10	-20.8	-43.0	-48.1	0.59	0.94	-72.79	-99.6	-120.8	-140.7	2.0	-82.26
0.50	103.54	2712.9	2696.9	2687.3	4.90	5.12	5.29	25.13	-22.5	-43.1	-46.3	0.82	1.03	-72.53	-99.2	-120.7	-140.7	3.5	-88.88
0.75	99.48	2738.4	2722.8	2713.6	4.99	5.35	5.34	25.12	-22.7	-42.9	-45.9	1.00	0.49	-71.52	-99.3	-120.6	-140.7	6.0	-92.69
1.00	96.54	2763.1	2747.7	2738.7	4.72	5.26	5.50	25.14	-21.9	-43.0	-45.3	1.10	1.01	-70.56	-99.1	-120.5	-140.7	8.5	-97.48
1.25	93.76	2786.9	2771.8	2762.9	5.01	5.12	5.22	25.19	-21.8	-44.2	-45.3	1.13	0.64	-71.89	-99.2	-120.8	-141.0	10.0	-98.67
1.50	93.77	2810.4	2795.2	2786.3	5.11	5.45	5.41	25.16	-23.1	-45.7	-47.9	1.18	0.84	-71.23	-99.2	-120.8	-141.0	20.8	-106.05
1.75	92.08	2833.7	2818.7	2809.6	4.91	5.40	5.58	25.16	-22.7	-46.6	-49.0	1.13	1.24	-70.48	-99.2	-120.6	-140.9	35.5	-111.42
2.00	89.82	2856.9	2841.7	2832.6	4.81	5.28	5.42	25.23	-21.5	-45.4	-52.4	0.99	0.51	-71.91	-99.0	-120.9	-141.1	60.7	-115.88
2.25	84.91	2879.1	2864.2	2855.1	5.02	5.24	5.35	25.32	-20.7	-43.2	-53.1	0.76	1.27	-70.31	-98.8	-120.6	-140.9	86.7	-119.25
2.50	83.72	2900.6	2885.4	2876.6	5.45	5.48	5.41	25.39	-21.7	-42.3	-55.6	0.45	1.26	-71.21	-98.7	-120.2	-140.5	100.0	-120.53
2.75	80.07	2921.2	2906.3	2897.4	5.41	5.84	5.76	25.39	-20.7	-39.6	-57.9	0.11	0.44	-70.31	-98.3	-120.2	-140.4	148.1	-124.07
3.00	74.38	2940.6	2926.3	2917.6	5.18	5.69	5.90	25.47	-20.6	-37.0	-57.2	0.29	1.79	-71.71	-97.9	-119.7	-140.1	177.0	-125.59
3.25	70.35	2959.1	2944.9	2936.6	5.27	5.51	5.67	25.58	-20.2	-35.5	-56.8	0.63	1.83	-70.85	-97.9	-119.5	-139.8	211.6	-126.86
3.50	66.49	2976.7	2962.5	2954.3	5.50	5.63	5.60	25.63	-21.2	-36.4	-52.4	0.81	0.77	-70.89	-97.7	-119.4	-139.8	361.5	-131.84
3.75	62.07	2993.3	2979.1	2970.9	5.58	5.82	5.79	25.65	-20.7	-34.7	-51.0	0.81	0.90	-70.08	-97.6	-119.6	-139.7	507.5	-135.03
4.00	56.63	3008.5	2994.7	2986.5	5.58	5.90	5.90	25.66	-20.6	-35.0	-51.6	0.70	1.84	-71.86	-98.0	-119.7	-140.0	606.7	-136.45
4.25	51.40	3022.4	3008.8	3000.7	5.52	5.89	5.98	25.67	-21.2	-34.5	-47.9	0.52	1.85	-70.43	-98.0	-119.8	-140.1	851.6	-139.63
4.50	46.23	3034.9	3021.7	3013.7	5.46	5.85	5.96	25.69	-21.6	-35.5	-49.4	0.27	1.30	-69.89	-98.1	-120.2	-140.3	1000.0	-140.74

*at 25°C unless mentioned otherwise



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