

Coaxial

Voltage Controlled Oscillator

ZX95-3150-S+

Linear Tuning 2650 to 3150 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 communication
- military & avionics



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3150-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	
				Typ.				VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Vcc						Current	
	Min.	Max.		Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.						Typ.	Typ.
ZX95-3150-S+	2650	3150	+6.2	-69	-95	-117	-137	0.5	12	64-75	16	100	-90	-22	-10	1.5	3.5	5	42

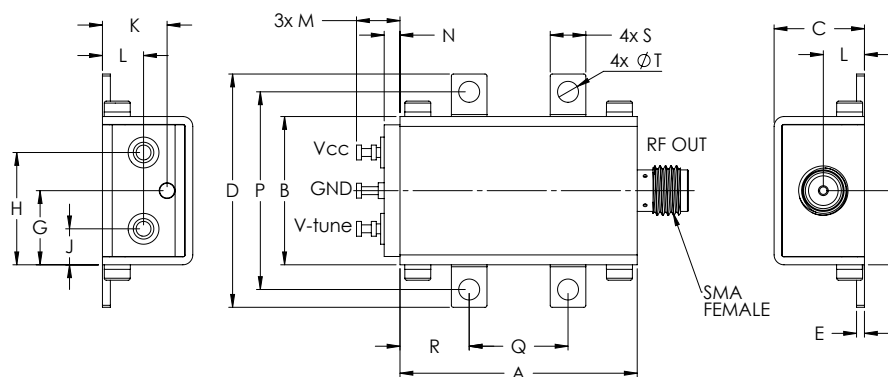
Maximum Ratings

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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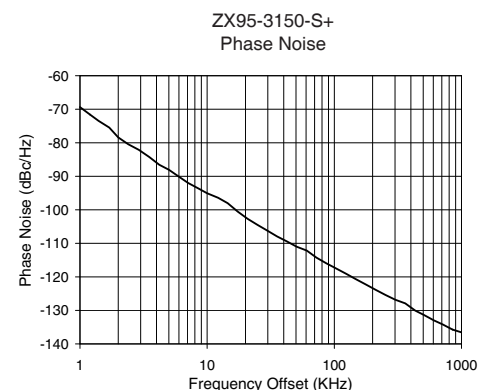
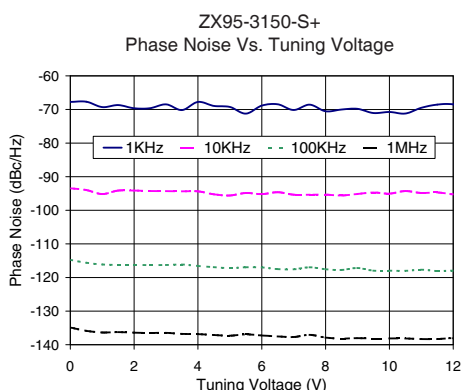
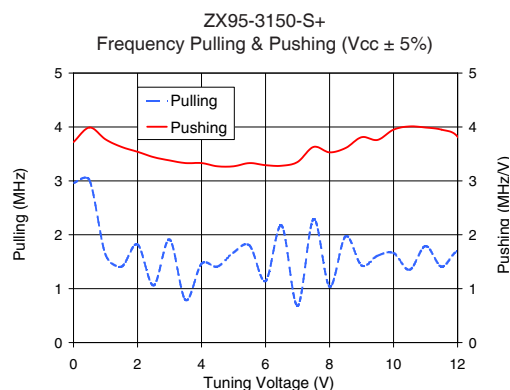
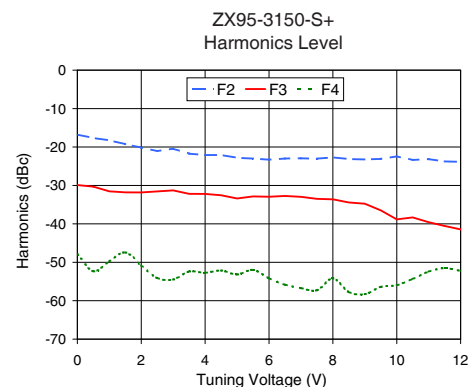
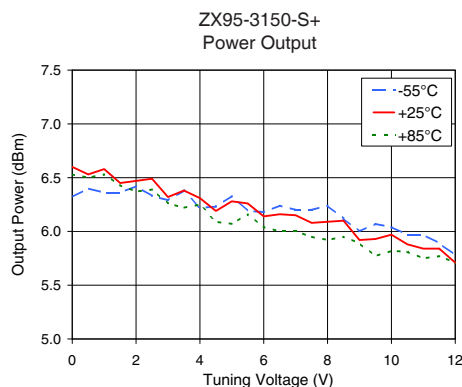
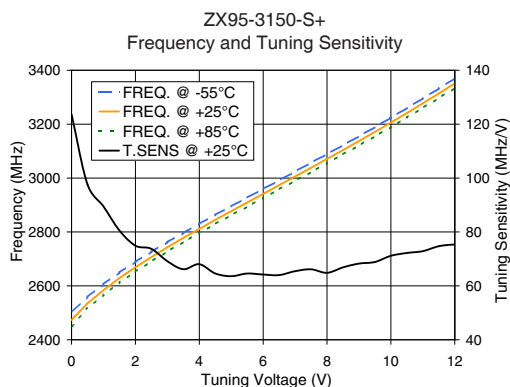
REV. B
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ZX95-3150-S+
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Performance Data & Curves*

ZX95-3150-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 2900 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	123.60	2501.7	2473.4	2450.5	6.32	6.60	6.53	35.95	-16.8	-29.9	-47.8	3.72	2.96	-67.8	-93.5	-114.8	-134.9	1.0	-69.36
0.50	97.65	2558.8	2535.2	2515.8	6.40	6.53	6.50	35.84	-17.7	-30.3	-52.3	3.99	3.01	-67.7	-94.0	-115.6	-135.9	2.0	-78.40
1.00	89.48	2606.6	2584.1	2566.6	6.36	6.58	6.53	35.71	-18.3	-31.5	-49.7	3.77	1.63	-69.3	-95.2	-116.1	-136.4	3.5	-84.23
2.00	74.91	2688.9	2669.1	2652.9	6.42	6.47	6.37	35.59	-20.2	-31.8	-50.8	3.54	1.82	-69.7	-94.1	-116.3	-136.4	6.0	-90.13
3.00	69.14	2762.3	2743.4	2727.6	6.29	6.32	6.26	35.50	-20.4	-31.3	-54.5	3.38	1.91	-68.5	-94.3	-116.3	-136.5	8.5	-93.60
3.50	66.19	2796.2	2778.0	2762.7	6.38	6.38	6.22	35.51	-21.7	-32.2	-52.4	3.33	0.79	-70.2	-94.4	-116.1	-136.8	10.0	-95.05
4.00	68.03	2830.2	2811.1	2795.9	6.22	6.31	6.25	35.44	-22.1	-32.2	-52.7	3.33	1.46	-67.8	-94.4	-116.6	-136.9	20.8	-102.68
4.50	64.59	2863.2	2845.1	2829.7	6.23	6.19	6.09	35.45	-22.1	-32.6	-52.2	3.27	1.41	-69.0	-95.2	-116.9	-137.1	35.5	-107.95
5.00	63.60	2895.1	2877.4	2862.3	6.33	6.28	6.07	35.46	-22.8	-33.4	-53.2	3.27	1.67	-69.2	-95.6	-117.2	-137.3	60.7	-112.15
5.50	64.58	2927.3	2909.2	2893.9	6.19	6.26	6.16	35.42	-23.0	-32.9	-52.0	3.33	1.80	-71.2	-94.9	-117.0	-136.9	86.7	-115.97
6.00	64.21	2959.6	2941.5	2926.0	6.18	6.14	6.04	35.43	-23.3	-32.9	-54.2	3.29	1.14	-68.9	-95.2	-117.0	-137.2	100.0	-117.22
6.50	63.98	2991.5	2973.6	2958.2	6.24	6.16	6.00	35.45	-23.0	-32.7	-55.8	3.28	2.17	-68.5	-94.6	-117.5	-137.5	148.1	-120.70
7.00	65.46	3023.9	3005.6	2989.9	6.20	6.15	6.00	35.44	-22.9	-33.0	-56.7	3.35	0.68	-70.2	-95.4	-117.6	-137.7	177.0	-122.26
7.50	66.14	3057.1	3038.3	3022.1	6.20	6.08	5.95	35.44	-23.0	-33.5	-57.3	3.63	2.29	-68.6	-95.4	-117.0	-137.1	211.6	-123.87
8.00	64.83	3089.4	3071.4	3055.5	6.24	6.09	5.92	35.51	-22.7	-33.6	-54.2	3.53	1.04	-70.5	-95.3	-117.6	-137.9	302.4	-126.84
8.50	66.87	3121.8	3103.8	3088.1	6.12	6.10	5.95	35.54	-23.1	-34.4	-57.8	3.61	1.97	-70.0	-95.6	-117.8	-138.2	361.5	-127.91
9.00	68.29	3155.8	3137.2	3120.9	6.00	5.92	5.89	35.55	-23.2	-34.8	-58.3	3.81	1.43	-69.8	-95.2	-117.2	-138.1	507.5	-131.39
10.00	71.15	3224.5	3205.8	3189.5	6.04	5.97	5.82	35.66	-22.4	-38.8	-56.0	3.95	1.66	-70.7	-95.0	-118.0	-138.1	606.7	-132.98
11.00	72.88	3296.1	3277.5	3260.8	5.97	5.84	5.75	35.81	-23.1	-39.6	-52.4	3.99	1.79	-69.5	-94.9	-117.7	-138.3	851.6	-135.73
12.00	75.35	3370.3	3351.3	3334.2	5.78	5.71	5.71	35.94	-23.8	-41.4	-52.2	3.82	1.69	-68.5	-95.2	-118.0	-138.1	1000.0	-136.56

*at 25°C unless mentioned otherwise



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