

Voltage Controlled Oscillator

ZX95-5150A+

Frequency Doubling 5020 to 5145 MHz

Features

- frequency based on multiplication of carrier frequency
- low phase noise
- low pushing & pulling
- 5V tuning voltage range
- protected by US patent 6,790,049



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communications
- point-to-point radio

Connectors	Model	Price	Qty.
SMA	ZX95-5150A-S+	\$ 54.95 ea.	(1-9)

+RoHS Compliant
 The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

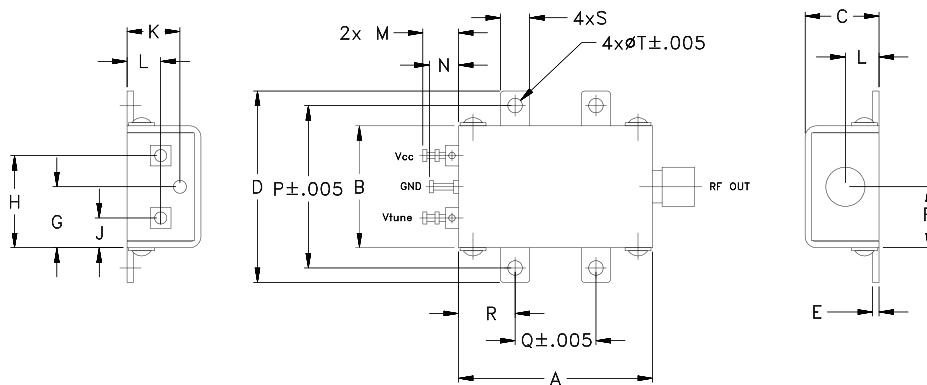
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc) Max.			PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	F	2X(1/2F)		1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		F0.5	F1.5	F2			Vcc (volts)	Current (mA)	
	Min.	Max.	Typ.	Typ.				Min.	Max.	Typ.	Typ.	Typ.				Typ.	Typ.	Max.		
ZX95-5150A+	5020	5145	+3.5	-73	-103	-126	-146	0.5	5	75-90	17	120	-90	-23	-15	-15	1.5	2.5	5	32

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.

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



For detailed performance specs & shopping online see web site

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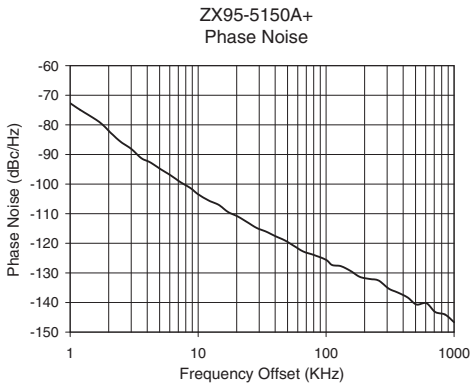
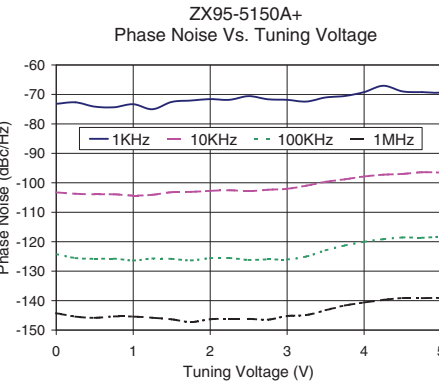
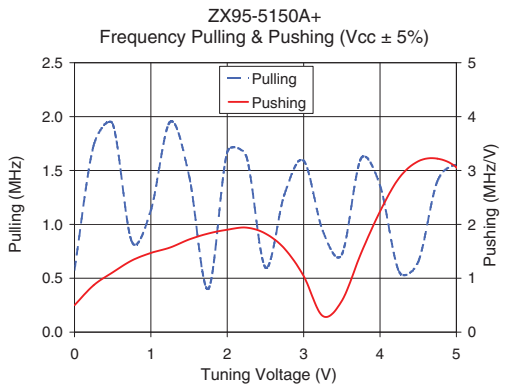
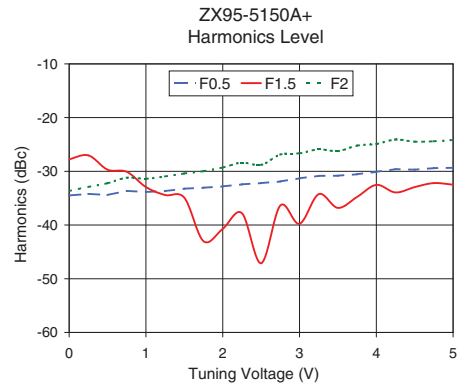
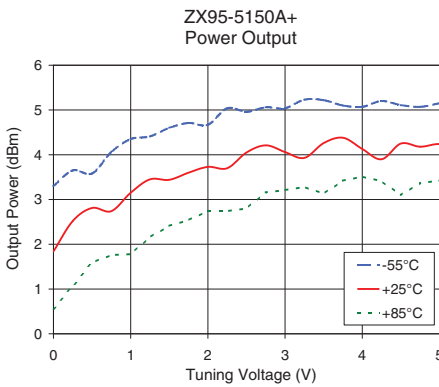
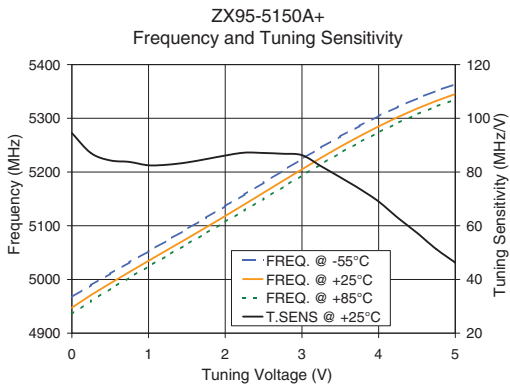
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Performance Data & Curves*

ZX95-5150A+

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 5083 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F0.5	F1.5	F2			1KHz	10KHz	100KHz	1MHz		
0.00	94.51	4967.1	4947.4	4935.5	3.30	1.84	0.56	22.64	-34.5	-27.8	-33.7	0.50	0.58	-73.2	-103.2	-124.2	-144.3	1.0	-72.66
0.25	87.04	4989.5	4971.0	4960.1	3.65	2.52	1.07	22.96	-34.2	-27.0	-32.9	0.87	1.73	-72.7	-103.7	-125.5	-145.4	2.5	-85.82
0.50	84.31	5010.8	4992.8	4982.4	3.58	2.81	1.59	23.25	-34.4	-29.7	-32.2	1.11	1.93	-74.1	-103.9	-125.8	-145.8	4.2	-92.61
0.75	83.76	5031.9	5013.8	5003.5	4.06	2.74	1.76	23.46	-33.6	-30.1	-31.2	1.33	0.84	-74.4	-103.9	-125.8	-145.4	7.3	-99.40
1.00	82.51	5052.5	5034.8	5024.3	4.35	3.15	1.78	23.67	-33.8	-32.9	-31.4	1.47	1.13	-73.3	-104.3	-126.4	-145.4	10.0	-103.44
1.25	82.75	5073.1	5055.4	5045.1	4.41	3.45	2.16	23.89	-33.7	-34.4	-31.0	1.57	1.95	-75.0	-104.1	-125.7	-145.8	12.2	-105.61
1.50	83.55	5093.9	5076.1	5065.6	4.60	3.44	2.41	24.10	-33.2	-34.9	-30.4	1.72	1.45	-72.6	-103.2	-125.8	-146.4	24.0	-112.79
1.75	84.82	5114.9	5097.0	5086.3	4.71	3.60	2.54	24.31	-33.1	-43.0	-30.0	1.83	0.40	-72.1	-103.1	-126.3	-147.3	40.2	-117.61
2.00	86.12	5136.5	5118.2	5107.3	4.67	3.73	2.74	24.53	-32.8	-40.7	-29.3	1.90	1.67	-71.6	-102.7	-125.6	-146.3	66.3	-122.78
2.25	87.21	5158.2	5139.7	5128.6	5.04	3.70	2.74	24.72	-32.4	-37.8	-28.4	1.94	1.63	-71.8	-102.5	-125.5	-146.1	100.0	-125.59
2.50	87.10	5180.2	5161.5	5150.2	4.96	4.05	2.80	24.94	-32.2	-47.1	-28.8	1.83	0.60	-70.6	-102.8	-126.2	-146.2	111.3	-127.33
2.75	86.80	5202.4	5183.3	5171.9	5.06	4.21	3.16	25.15	-31.9	-36.4	-26.9	1.55	1.28	-71.7	-102.4	-126.0	-146.5	156.2	-129.40
3.00	86.27	5224.4	5205.0	5193.5	5.04	4.06	3.21	25.33	-31.3	-39.8	-26.6	1.04	1.59	-71.8	-102.1	-126.0	-145.2	183.5	-131.33
3.25	82.15	5245.8	5226.6	5214.8	5.23	3.93	3.28	25.49	-30.9	-34.3	-25.9	0.30	0.94	-72.4	-101.0	-125.0	-144.9	219.3	-132.04
3.50	78.03	5266.4	5247.1	5235.6	5.22	4.26	3.13	25.67	-30.8	-36.8	-26.2	0.58	0.72	-71.0	-99.7	-122.9	-143.3	307.9	-135.28
3.75	73.76	5285.9	5266.6	5255.4	5.10	4.38	3.42	25.81	-30.6	-34.8	-25.2	1.46	1.61	-70.5	-98.8	-121.3	-141.7	361.5	-136.58
4.00	69.02	5304.3	5285.1	5273.9	5.07	4.13	3.51	25.92	-30.1	-32.5	-24.9	2.24	1.36	-69.2	-97.9	-120.0	-140.7	507.5	-140.66
4.25	62.97	5321.3	5302.3	5291.3	5.20	3.90	3.41	26.00	-29.6	-33.9	-24.1	2.86	0.56	-67.1	-97.2	-119.1	-139.7	606.7	-140.21
4.50	57.37	5336.9	5318.1	5307.3	5.11	4.25	3.10	26.10	-29.7	-32.9	-24.5	3.17	0.65	-69.0	-97.0	-118.6	-139.1	851.6	-144.09
5.00	46.24	5363.7	5345.2	5335.2	5.15	4.24	3.42	26.22	-29.4	-32.5	-24.1	3.06	1.55	-69.4	-96.6	-118.4	-139.1	1000.0	-146.66

*at 25°C unless mentioned otherwise



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