Coaxial

Voltage Controlled Oscillator ZX95-2400A+

Linear Tuning 2000 to 2400 MHz

Features

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

Applications

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

CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2400A-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 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
						Typ.		VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)						Vcc (volts)	Current (mA)
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.		Max.
ZX95-2400A+	2000	2400	+3.6	-73	-98	-118	-138	0.5	24	37	60	30	-90	-26	-10	0.6	4.5	5	40

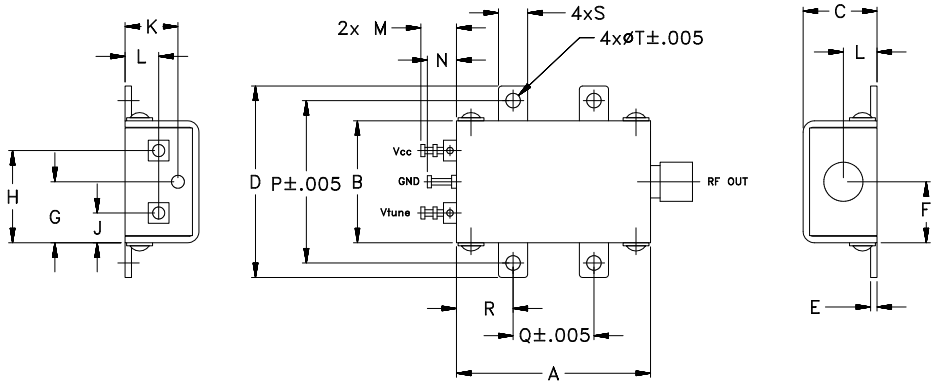
Maximum Ratings

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)	26V
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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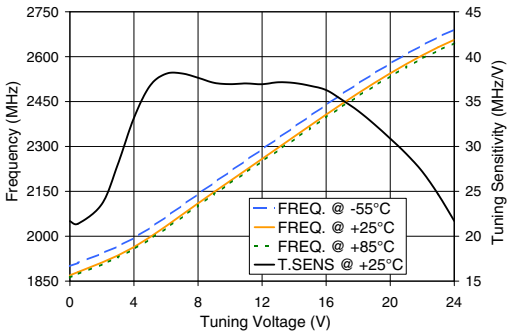
Performance Data & Curves*

ZX95-2400A+

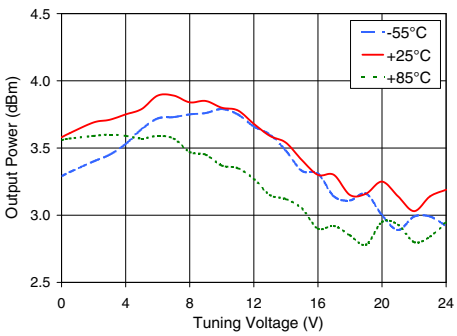
V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 2200 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	21.68	1900.1	1869.3	1862.4	3.29	3.58	3.56	34.41	-18.4	-36.5	-55.7	4.96	0.81	-74.5	-95.7	-115.5	-135.8	1.0	-72.72
0.50	21.39	1910.9	1880.2	1873.5	3.32	3.61	3.57	34.39	-18.8	-36.8	-55.5	4.95	1.03	-74.5	-95.5	-115.5	-135.7	2.0	-81.45
3.00	28.03	1966.3	1935.7	1929.1	3.45	3.71	3.60	34.34	-19.9	-38.8	-56.1	4.76	0.38	-73.0	-96.6	-115.8	-136.7	3.5	-87.18
5.00	36.75	2028.0	1996.9	1989.9	3.64	3.79	3.57	34.32	-21.4	-41.5	-54.9	4.59	0.35	-72.4	-96.4	-117.0	-136.9	6.0	-92.94
6.00	38.09	2064.8	2033.7	2026.5	3.72	3.89	3.59	34.33	-22.4	-43.6	-56.0	4.50	0.87	-73.6	-94.9	-117.3	-137.4	8.5	-96.00
7.00	38.13	2102.9	2071.8	2064.6	3.73	3.89	3.57	34.33	-23.6	-46.5	-59.5	4.37	0.42	-75.1	-97.7	-117.8	-137.9	10.0	-98.22
8.00	37.65	2141.2	2109.9	2102.6	3.75	3.84	3.47	34.34	-23.4	-47.8	-69.6	4.32	0.77	-76.7	-98.5	-118.1	-138.4	20.8	-105.02
9.00	37.09	2179.1	2147.5	2140.1	3.76	3.85	3.45	34.37	-26.7	-49.6	-65.9	4.29	0.38	-74.9	-98.4	-118.6	-138.8	35.5	-109.75
10.00	36.94	2216.4	2184.6	2177.0	3.79	3.80	3.37	34.40	-26.2	-52.6	-59.7	4.36	0.65	-73.8	-98.0	-118.7	-138.8	60.7	-114.56
11.00	37.02	2253.8	2221.6	2213.7	3.75	3.78	3.35	34.45	-27.3	-51.1	-51.6	4.42	0.40	-73.1	-98.9	-119.0	-138.9	86.7	-117.75
12.00	36.94	2290.5	2258.6	2250.4	3.66	3.68	3.27	34.52	-29.6	-51.2	-51.2	4.47	0.68	-74.4	-97.7	-119.1	-139.5	100.0	-119.01
13.00	37.15	2327.5	2295.5	2287.2	3.60	3.59	3.15	34.60	-30.0	-51.3	-44.6	4.56	0.39	-72.3	-98.2	-119.3	-139.6	148.1	-122.48
15.00	36.76	2402.0	2369.7	2360.9	3.33	3.41	3.05	34.82	-29.9	-48.2	-44.0	4.65	0.32	-74.0	-99.7	-119.9	-139.7	177.0	-123.87
16.00	36.28	2439.1	2406.5	2397.4	3.31	3.30	2.90	34.96	-30.2	-48.2	-46.0	4.73	0.56	-75.5	-100.4	-120.0	-140.4	211.6	-125.66
18.00	33.95	2510.6	2478.0	2468.3	3.11	3.15	2.85	35.36	-29.8	-46.7	-41.8	4.93	0.73	-73.6	-98.8	-120.9	-140.3	302.4	-128.54
19.00	32.48	2544.6	2511.9	2502.1	3.16	3.16	2.78	35.61	-30.0	-45.0	-39.2	5.07	0.49	-73.0	-99.2	-120.8	-140.9	361.5	-130.05
20.00	30.88	2577.2	2544.4	2534.5	3.00	3.25	2.95	35.90	-30.2	-45.6	-37.8	5.16	0.42	-74.0	-99.8	-121.0	-141.3	507.5	-132.95
21.00	29.18	2608.4	2575.3	2565.2	2.89	3.14	2.93	36.21	-30.0	-45.0	-36.8	5.16	0.60	-72.5	-99.8	-121.6	-141.8	606.7	-134.62
22.00	27.20	2638.0	2604.5	2594.0	2.99	3.03	2.80	36.53	-29.1	-44.5	-37.2	5.17	0.25	-73.5	-100.7	-120.9	-141.8	851.6	-137.49
24.00	21.69	2690.8	2656.3	2645.0	2.92	3.19	2.95	37.18	-30.1	-44.4	-38.7	4.76	0.39	-74.4	-99.8	-121.6	-141.8	1000.0	-138.62

*at 25°C unless mentioned otherwise

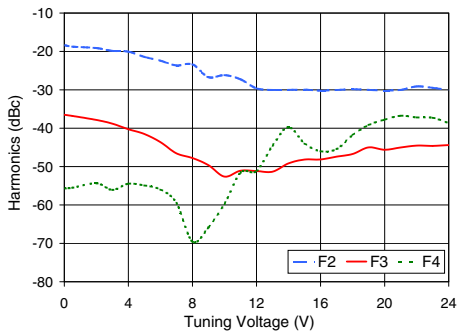
ZX95-2400A+
Frequency and Tuning Sensitivity



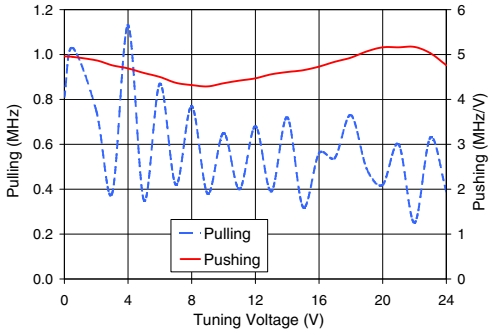
ZX95-2400A+
Power Output



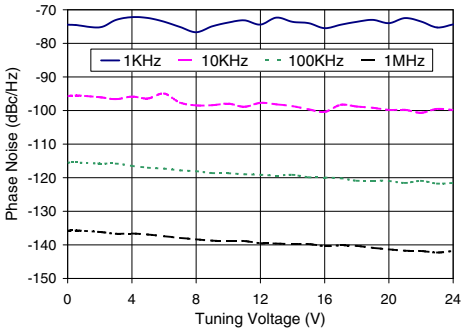
ZX95-2400A+
Harmonics Level



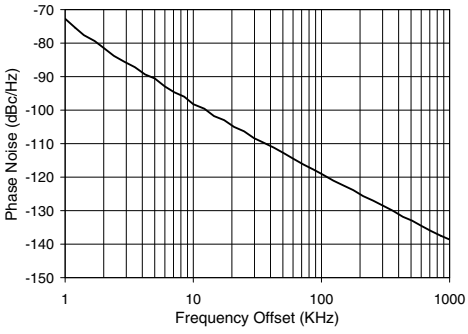
ZX95-2400A+
Frequency Pulling & Pushing (Vcc ± 5%)



ZX95-2400A+
Phase Noise Vs. Tuning Voltage



ZX95-2400A+
Phase Noise



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