

Coaxial

Voltage Controlled Oscillator ZX95-3900A-S+

Linear Tuning 3650 to 3900 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- radio link



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3900A-S+

+RoHS Compliant

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

Electrical Specifications

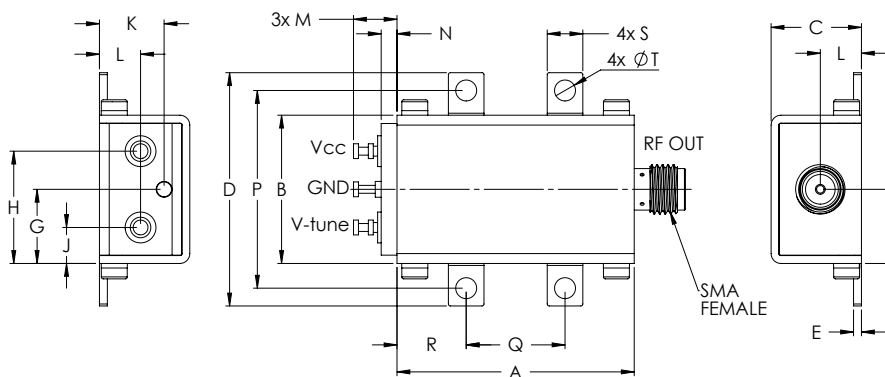
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies,kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
								VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)								
	Typ.	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.	Vcc (volts)
ZX95-3900A-S+	3650	3900	+4.5	-72	-96	-118	-138	0.5	12	34-40	20	100	-90	-20	-12	2	4	5	40

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)	14V
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	.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

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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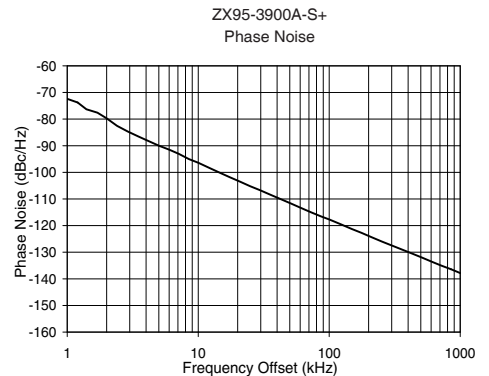
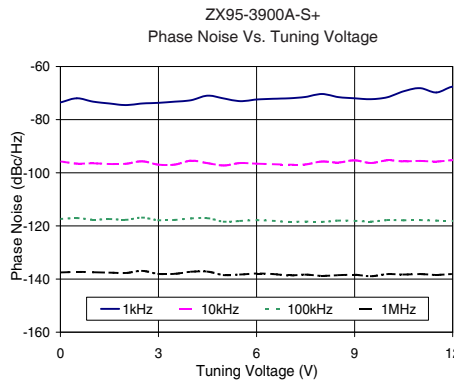
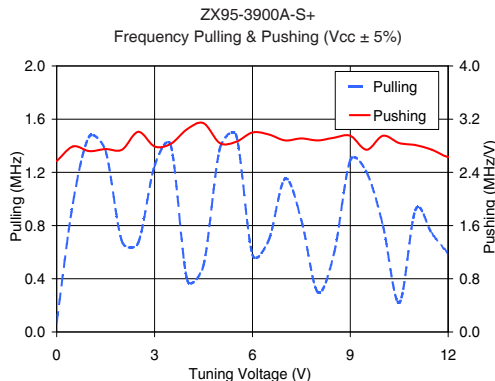
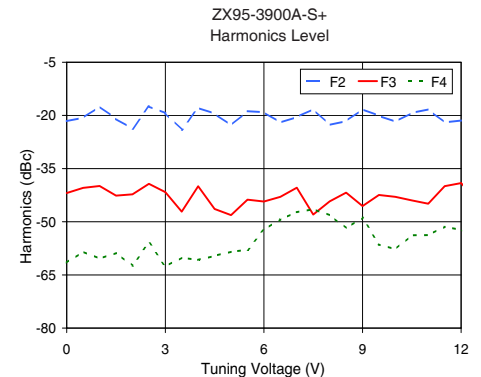
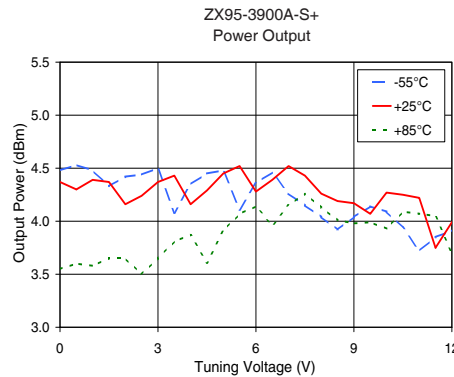
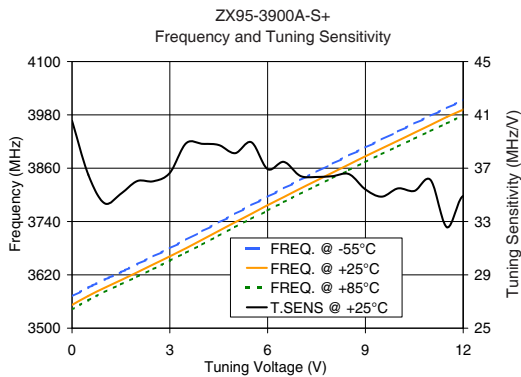
REV. B
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EDR-11343
ZX95-3900A-S+
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Performance Data & Curves*

ZX95-3900A-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 3775 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	40.56	3571.7	3552.4	3542.1	4.48	4.37	3.55	30.06	-21.6	-41.9	-61.5	2.57	0.07	-73.53	-95.7	-117.4	-137.5	1.0	-72.40
0.50	36.51	3591.4	3572.7	3562.9	4.53	4.30	3.60	30.06	-20.7	-40.4	-58.5	2.79	0.97	-71.95	-96.6	-117.1	-137.3	2.0	-79.71
1.00	34.37	3609.2	3590.9	3581.3	4.48	4.39	3.58	30.07	-17.5	-39.9	-60.4	2.72	1.47	-73.23	-96.4	-117.7	-137.4	3.5	-86.55
1.50	35.09	3626.2	3608.1	3598.5	4.33	4.37	3.65	30.07	-21.0	-42.6	-58.8	2.75	1.36	-73.91	-96.7	-117.4	-137.6	6.0	-91.47
2.00	36.03	3644.2	3625.7	3615.6	4.42	4.16	3.65	30.09	-23.8	-42.3	-62.4	2.74	0.68	-74.51	-96.6	-117.7	-137.7	8.5	-95.01
2.50	36.02	3661.8	3643.7	3633.2	4.44	4.24	3.50	30.08	-17.5	-39.3	-55.8	3.01	0.67	-73.93	-95.7	-116.9	-136.9	10.0	-96.38
3.00	36.65	3679.8	3661.7	3651.8	4.50	4.37	3.65	30.14	-19.4	-41.6	-62.6	2.79	1.25	-73.69	-97.0	-117.9	-138.1	20.8	-103.46
4.00	38.83	3718.3	3699.4	3688.2	4.35	4.16	3.87	30.18	-17.9	-40.0	-60.8	3.05	0.39	-72.67	-95.5	-117.2	-137.2	35.5	-108.40
5.00	38.12	3757.1	3738.2	3727.3	4.48	4.45	3.91	30.30	-22.8	-48.1	-58.5	2.84	1.38	-72.02	-97.2	-118.4	-138.5	60.7	-113.34
5.50	38.95	3776.8	3757.3	3745.9	4.11	4.52	4.07	30.34	-18.8	-43.8	-57.9	2.86	1.48	-73.03	-96.3	-118.1	-138.3	86.7	-116.55
6.00	36.93	3795.7	3776.8	3764.7	4.36	4.28	4.14	30.40	-19.1	-44.3	-52.3	3.00	0.58	-72.40	-96.6	-117.8	-137.9	100.0	-117.68
7.00	36.43	3833.3	3814.0	3802.0	4.26	4.52	4.15	30.52	-20.4	-40.4	-47.3	2.88	1.15	-71.97	-96.9	-118.5	-138.6	148.1	-121.25
8.00	36.40	3870.3	3850.4	3838.0	4.04	4.26	4.13	30.62	-22.7	-44.3	-48.1	2.88	0.30	-70.33	-95.8	-118.5	-138.8	177.0	-122.75
9.00	35.41	3906.5	3886.8	3873.7	4.04	4.17	3.98	30.76	-18.3	-45.6	-48.9	2.95	1.29	-71.95	-95.3	-118.1	-138.4	211.6	-124.39
9.50	34.86	3924.6	3904.5	3891.6	4.14	4.07	3.99	30.86	-20.1	-42.4	-56.4	2.74	1.20	-72.28	-96.3	-118.4	-138.9	302.4	-127.54
10.00	35.49	3942.5	3922.0	3908.9	4.09	4.27	3.93	30.87	-21.8	-43.0	-57.8	2.95	0.80	-71.56	-95.3	-117.8	-138.2	361.5	-129.04
10.50	35.29	3960.5	3939.7	3926.1	3.94	4.25	4.09	30.93	-19.3	-44.0	-53.8	2.84	0.22	-69.31	-95.7	-117.9	-138.3	507.5	-131.96
11.00	36.11	3978.2	3957.4	3943.5	3.72	4.22	4.07	30.99	-18.3	-44.9	-53.8	2.81	0.92	-68.16	-95.5	-117.8	-138.1	606.7	-133.56
11.50	32.57	3995.4	3975.4	3960.8	3.85	3.75	4.05	31.10	-22.0	-40.0	-51.4	2.74	0.74	-69.78	-95.8	-118.0	-138.5	851.6	-136.41
12.00	34.90	4013.2	3991.7	3978.5	3.91	3.99	3.70	31.14	-21.4	-39.1	-52.3	2.63	0.59	-67.57	-95.2	-118.1	-138.1	1000.0	-137.84

*at 25°C unless mentioned otherwise



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