

Coaxial

Voltage Controlled Oscillator

ZX95-3100+

Linear Tuning 2300 to 3100 MHz

Features

- high power output, +9 dBm typ.
- linear tuning characteristics
- low phase noise
- low pushing
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- wireless communications
- satellite systems
- defense communications & radar



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3100-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		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Typ.	Max.
ZX95-3100+	2300	3100	+9	-66	-92	-113	-133	0.5	11	92-124	20	160	-90	-20	-10	5	4	10	46

Maximum Ratings

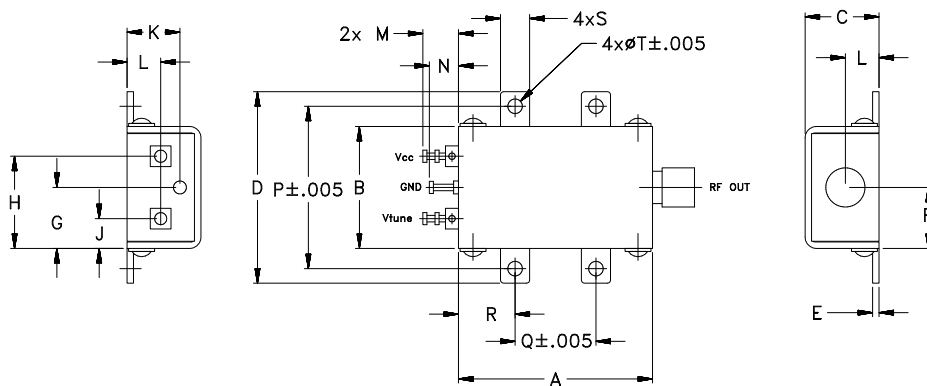
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	12V
Absolute Max. Tuning Voltage (Vtune)	13V
All specifications	50 ohm system

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

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

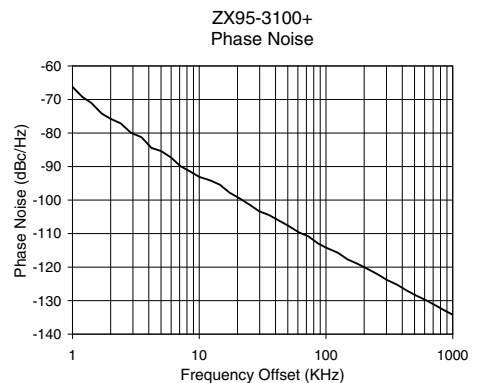
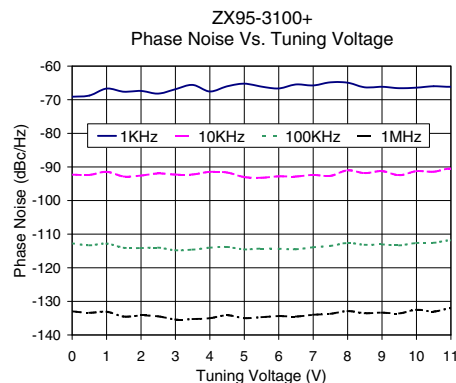
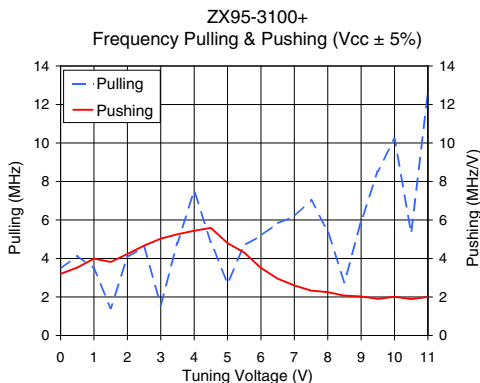
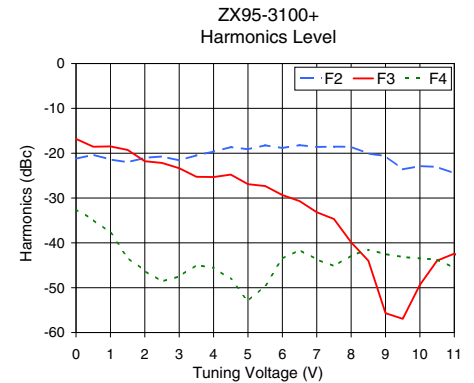
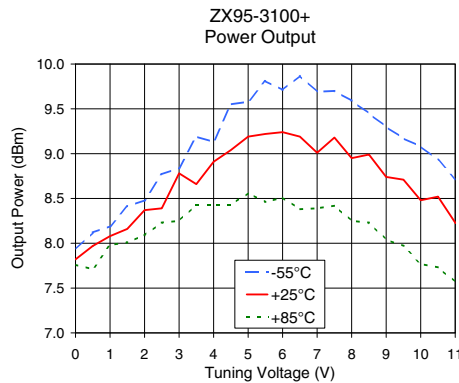
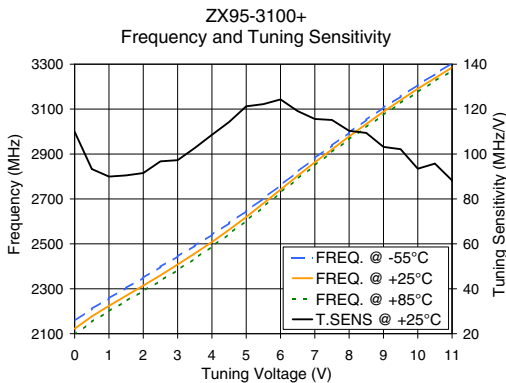
REV. A
M152326
EDR-8367
ZX95-3100+
RAV
151016
Page 1 of 2

Performance Data & Curves*

ZX95-3100+

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 2700 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	109.88	2156.8	2122.4	2096.3	7.93	7.82	7.76	40.87	-21.2	-16.8	-32.5	3.20	3.46	-70.4	-92.3	-112.8	-133.0	1.0	-66.22
0.50	93.31	2210.3	2177.3	2153.1	8.12	7.97	7.71	40.96	-20.3	-18.6	-34.9	3.53	4.15	-69.1	-92.4	-113.3	-133.4	2.0	-75.77
1.00	89.96	2257.7	2224.0	2200.3	8.19	8.08	7.98	41.01	-21.4	-18.5	-37.7	3.99	3.47	-67.9	-91.5	-112.8	-133.1	3.5	-81.24
1.50	90.48	2303.8	2269.0	2245.8	8.41	8.16	8.01	41.11	-22.0	-19.3	-43.3	3.82	1.42	-68.9	-92.8	-114.0	-134.5	6.0	-87.32
2.00	91.53	2348.9	2314.2	2290.4	8.48	8.37	8.09	41.16	-21.0	-21.8	-46.2	4.23	4.07	-67.4	-92.6	-114.1	-134.2	8.5	-91.50
2.50	96.73	2397.6	2360.0	2335.5	8.77	8.39	8.23	41.24	-20.7	-22.2	-48.6	4.67	4.60	-66.8	-91.9	-114.0	-134.5	10.0	-93.07
3.00	97.28	2444.1	2408.4	2383.9	8.84	8.78	8.25	41.30	-21.6	-23.3	-47.5	5.03	1.60	-65.7	-92.3	-114.8	-135.4	20.8	-99.49
3.50	102.67	2491.8	2457.0	2434.0	9.19	8.66	8.43	41.32	-20.5	-25.3	-44.9	5.26	4.82	-63.8	-92.3	-114.6	-135.3	35.5	-104.47
4.00	108.55	2540.5	2508.3	2487.8	9.13	8.91	8.43	41.21	-19.6	-25.3	-45.6	5.44	7.50	-64.5	-91.5	-114.0	-135.0	60.7	-109.58
4.50	114.23	2592.5	2562.6	2543.8	9.55	9.04	8.43	41.15	-18.6	-24.8	-48.1	5.59	4.85	-66.0	-91.7	-113.8	-134.1	86.7	-112.96
5.00	121.25	2646.3	2619.7	2602.8	9.58	9.19	8.56	41.06	-19.1	-26.9	-53.0	4.80	2.72	-64.9	-93.0	-114.5	-135.0	100.0	-114.18
5.50	122.23	2702.3	2680.3	2664.8	9.81	9.22	8.46	40.98	-18.2	-27.3	-49.5	4.31	4.68	-66.2	-93.2	-114.3	-134.7	148.1	-117.71
6.00	124.30	2761.3	2741.5	2728.2	9.71	9.24	8.51	40.88	-18.9	-29.3	-43.5	3.51	5.19	-66.1	-92.8	-114.4	-134.4	177.0	-118.98
6.50	119.11	2821.5	2803.6	2790.3	9.87	9.19	8.38	40.81	-18.2	-30.7	-41.6	2.95	5.83	-66.8	-92.9	-114.5	-134.5	211.6	-120.51
7.00	115.62	2881.6	2863.2	2849.1	9.69	9.01	8.39	40.73	-18.6	-33.2	-43.7	2.60	6.18	-66.4	-92.4	-113.9	-134.0	302.4	-123.83
7.50	115.16	2938.1	2921.0	2909.1	9.70	9.18	8.42	40.65	-18.5	-34.7	-45.2	2.33	7.04	-67.8	-92.7	-113.5	-133.7	361.5	-125.19
8.00	110.32	2995.4	2978.6	2965.1	9.59	8.95	8.25	40.57	-18.6	-39.9	-42.8	2.25	5.41	-67.8	-91.0	-112.6	-132.9	507.5	-128.37
9.00	103.18	3106.7	3088.4	3074.3	9.30	8.74	8.04	40.48	-20.6	-55.7	-42.5	2.03	5.92	-65.5	-91.3	-113.1	-133.4	606.7	-129.74
10.00	93.46	3207.9	3191.1	3176.3	9.08	8.48	7.77	40.36	-22.9	-49.4	-43.5	2.01	10.22	-63.9	-91.3	-112.6	-132.5	851.6	-132.83
11.00	88.23	3305.4	3285.7	3271.1	8.72	8.23	7.57	40.24	-24.5	-42.4	-45.6	2.00	12.59	-66.6	-90.5	-111.8	-132.1	1000.0	-134.19

*at 25°C unless mentioned otherwise



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

