

Voltage Controlled Oscillator

ZX95-3360+

Wide Band 2120 to 3360 MHz

Features

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

Applications

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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3360-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 Br (MHz)	PUSHING (MHz/V)	DC OPERATING POWER			
								VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)									Vcc (volts)	Current (mA)
											Typ.	Typ.									
ZX95-3360+	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.	Max.	Max.			
	2120	3360	+8.5	-68	-95	-116	-137	0.5	18	65-113	30	170	-90	-26	-12	3	1	12	45		

Maximum Ratings

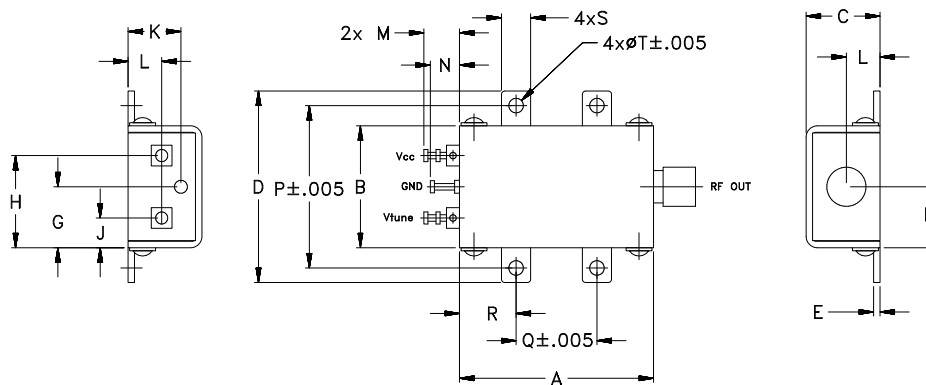
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	13V
Absolute Max. Tuning Voltage (Vtune)	20V
All specifications	50 ohm system

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

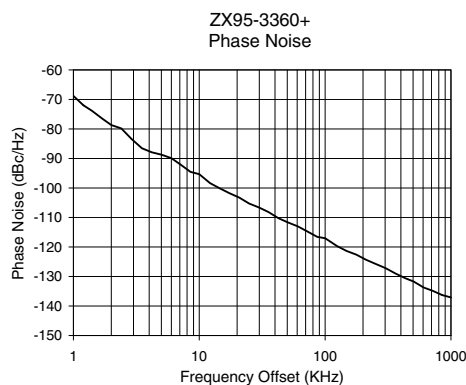
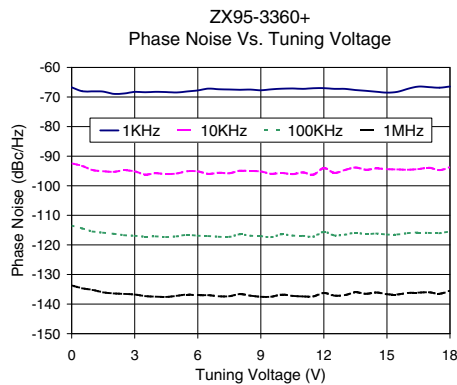
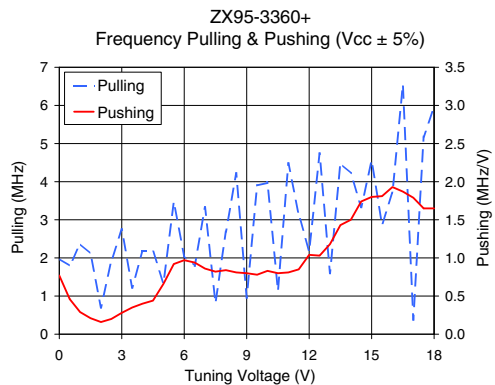
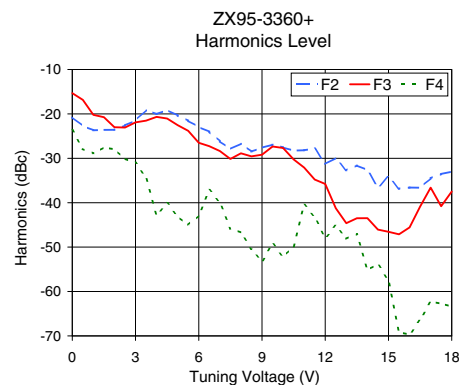
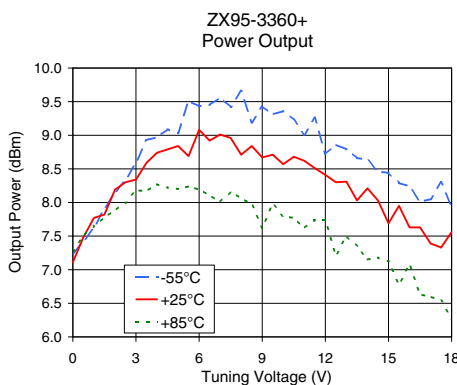
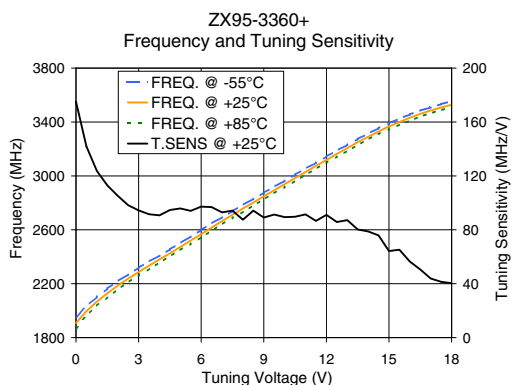


Performance Data & Curves*

ZX95-3360+

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 2740 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	175.16	1951.8	1908.4	1869.1	7.24	7.11	7.27	40.41	-20.8	-15.3	-23.6	0.77	1.98	-66.7	-92.5	-113.5	-133.7	1.0	-68.81
0.50	141.87	2033.4	1996.0	1962.8	7.42	7.48	7.50	40.44	-22.7	-16.8	-27.9	0.46	1.79	-68.0	-93.3	-114.4	-134.7	2.0	-78.69
1.00	123.69	2102.1	2067.0	2036.4	7.62	7.77	7.65	40.45	-23.7	-20.2	-28.9	0.29	2.37	-68.1	-94.7	-115.5	-135.2	3.5	-86.55
2.00	105.26	2218.4	2185.3	2158.0	8.15	8.19	7.88	40.49	-23.6	-23.0	-28.0	0.16	0.70	-69.0	-95.3	-116.3	-136.4	6.0	-89.90
3.00	94.40	2318.2	2287.1	2261.5	8.59	8.34	8.18	40.48	-21.5	-21.9	-31.0	0.28	2.75	-70.2	-95.1	-116.9	-136.8	8.5	-94.53
4.00	90.75	2409.4	2380.0	2357.5	8.97	8.74	8.27	40.41	-20.1	-20.7	-42.8	0.40	2.18	-68.3	-95.8	-117.1	-137.5	10.0	-95.34
5.00	95.88	2501.5	2472.8	2449.9	9.03	8.84	8.20	40.31	-20.4	-22.5	-43.1	0.66	1.34	-68.5	-95.9	-117.1	-137.2	20.8	-103.27
6.00	97.21	2599.1	2567.7	2545.7	9.43	9.08	8.19	40.23	-23.0	-26.5	-42.9	0.97	2.05	-67.8	-95.1	-116.9	-137.1	35.5	-108.15
7.00	92.94	2693.8	2664.7	2641.6	9.56	9.01	8.01	40.17	-26.2	-28.4	-39.9	0.86	3.33	-67.4	-95.6	-117.2	-137.3	60.7	-113.00
8.50	94.21	2830.6	2802.1	2781.0	9.19	8.84	7.98	40.06	-28.5	-29.6	-50.4	0.81	4.22	-68.5	-95.1	-116.9	-137.1	86.7	-116.57
9.00	89.08	2874.6	2849.2	2826.8	9.43	8.67	7.62	40.05	-27.6	-29.2	-53.3	0.80	0.96	-66.7	-95.2	-117.1	-137.5	100.0	-117.04
10.00	89.42	2964.6	2939.4	2916.9	9.36	8.57	7.79	39.99	-27.6	-27.7	-52.2	0.83	3.97	-68.2	-95.7	-116.4	-136.8	148.1	-121.35
11.00	91.41	3054.7	3028.9	3008.0	9.01	8.62	7.62	39.97	-28.2	-32.1	-40.4	0.81	4.48	-68.3	-95.5	-117.0	-137.4	177.0	-122.58
12.00	91.10	3143.6	3117.9	3097.5	8.72	8.41	7.74	39.93	-31.3	-35.8	-48.0	1.04	2.18	-66.0	-94.1	-115.6	-136.3	211.6	-124.32
13.00	87.17	3230.5	3206.4	3186.0	8.79	8.31	7.50	39.94	-32.7	-44.6	-48.1	1.18	1.60	-66.3	-94.7	-116.6	-137.0	302.4	-127.15
14.00	78.83	3314.0	3290.1	3270.9	8.64	8.21	7.15	39.92	-32.7	-43.5	-55.1	1.50	4.22	-67.9	-94.6	-116.4	-136.5	361.5	-128.97
15.00	64.23	3389.8	3367.4	3346.5	8.44	7.69	7.12	39.91	-34.1	-46.6	-57.6	1.80	4.54	-68.5	-94.4	-116.5	-136.7	507.5	-131.73
16.00	56.42	3456.2	3432.1	3410.3	8.24	7.63	7.08	39.88	-36.6	-45.6	-69.7	1.93	3.71	-68.0	-94.6	-116.0	-136.2	606.7	-133.72
17.00	43.88	3509.0	3485.6	3465.8	8.05	7.39	6.60	39.87	-34.5	-36.6	-62.3	1.79	0.38	-66.7	-93.9	-115.9	-136.0	851.6	-136.29
18.00	40.38	3554.3	3528.3	3508.2	7.94	7.56	6.27	39.84	-33.0	-37.5	-63.4	1.65	5.95	-66.5	-93.8	-115.5	-135.5	1000.0	-137.09

*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 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

