

Coaxial

Voltage Controlled Oscillator

ZX95-3860+

Linear Tuning 3570 to 3860 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
- military & avionics



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3860-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)		PORT TIVITY (MHz/V)	CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Max.	Vcc (volts)	Current (mA)
									Min.	Max.													
ZX95-3860+	3570	3860	+2.0	-70	-95	-116	-136	0.5	14	49-53	12	115	-90	-20	-10	1.2	1.6	7	45				

Maximum Ratings

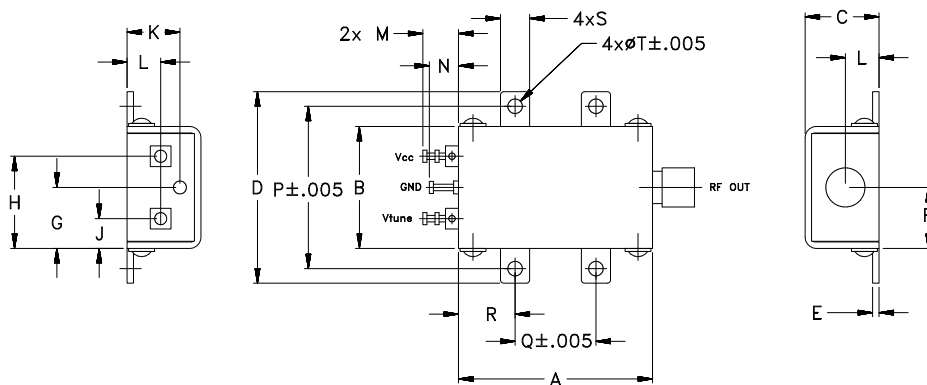
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	9V
Absolute Max. Tuning Voltage (Vtune)	16V
All specifications	50 ohm system

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

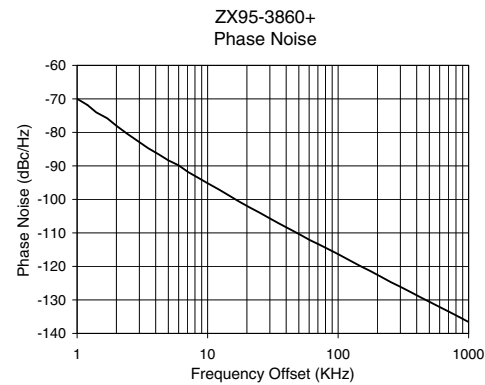
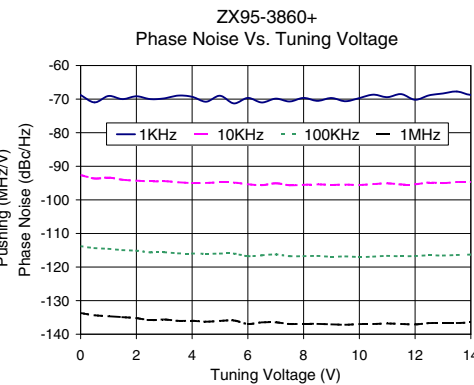
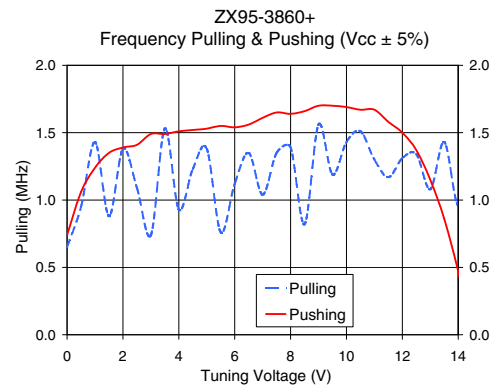
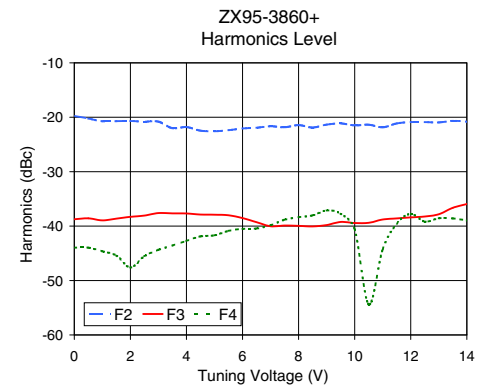
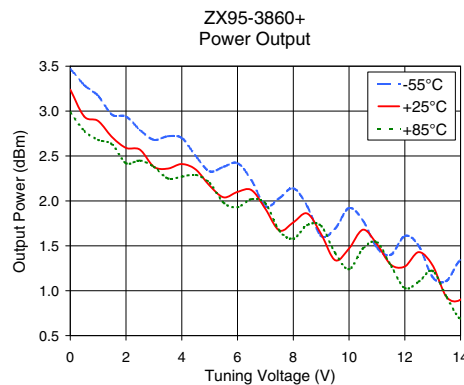
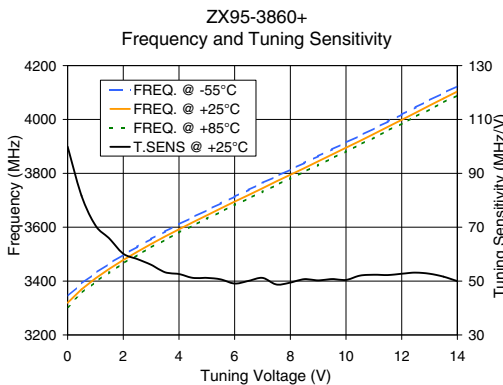
REV. A
M152326
EDR-9357F2
ZX95-3860+
RAV
150923
Page 1 of 2

Performance Data & Curves*

ZX95-3860+

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 3715 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	99.90	3343.4	3319.4	3303.7	3.47	3.24	2.99	32.67	-19.7	-38.7	-44.0	0.74	0.65	-68.8	-92.6	-113.8	-133.7	1.0	-69.97
0.50	81.69	3390.7	3369.4	3355.6	3.29	2.94	2.78	32.66	-20.2	-38.6	-44.0	1.06	0.95	-71.0	-93.6	-114.4	-134.4	2.0	-78.03
1.00	70.64	3429.9	3410.2	3397.0	3.17	2.89	2.68	32.65	-20.7	-38.9	-44.6	1.24	1.43	-69.1	-93.4	-114.6	-134.6	3.5	-84.71
2.00	60.17	3497.4	3478.4	3465.8	2.94	2.59	2.42	32.65	-20.7	-38.3	-47.6	1.39	1.38	-69.2	-94.3	-115.1	-135.2	6.0	-89.84
3.00	56.05	3556.5	3537.6	3525.1	2.68	2.38	2.38	32.66	-20.8	-37.6	-44.4	1.49	0.74	-69.8	-94.4	-115.6	-135.6	8.5	-93.58
3.50	53.25	3584.0	3565.6	3553.2	2.72	2.36	2.25	32.68	-22.0	-37.7	-43.6	1.49	1.53	-69.0	-94.8	-115.9	-136.0	10.0	-95.17
4.00	52.60	3610.9	3592.2	3580.0	2.70	2.41	2.27	32.70	-21.8	-37.7	-42.7	1.51	0.93	-69.3	-95.0	-116.0	-136.0	20.8	-102.31
5.00	51.18	3662.9	3644.1	3631.5	2.33	2.17	2.20	32.71	-22.6	-37.9	-41.7	1.53	1.38	-69.0	-94.8	-116.0	-136.0	35.5	-107.26
6.00	49.08	3713.5	3695.0	3682.4	2.42	2.10	1.93	32.76	-22.1	-38.5	-40.5	1.54	1.12	-69.7	-95.3	-116.8	-137.0	60.7	-112.14
6.50	50.09	3738.6	3719.6	3706.8	2.23	2.12	2.02	32.78	-21.9	-39.3	-40.4	1.56	1.35	-71.0	-95.7	-116.5	-136.5	86.7	-115.10
7.00	51.19	3764.3	3744.6	3731.4	1.94	1.91	1.97	32.78	-21.7	-40.0	-39.8	1.61	1.04	-69.9	-95.1	-116.3	-136.5	100.0	-116.33
7.50	48.75	3788.8	3770.2	3756.6	2.03	1.67	1.67	32.83	-21.8	-39.9	-38.8	1.65	1.35	-70.7	-95.6	-116.8	-137.0	148.1	-119.91
8.00	49.42	3813.6	3794.6	3781.4	2.14	1.76	1.58	32.86	-21.4	-40.0	-38.4	1.64	1.39	-69.7	-95.5	-116.8	-136.9	177.0	-121.40
9.00	50.25	3863.8	3844.6	3830.9	1.61	1.63	1.72	32.91	-21.4	-39.8	-37.1	1.70	1.56	-69.7	-95.5	-116.9	-137.1	211.6	-123.03
10.00	50.43	3914.1	3895.1	3881.4	1.92	1.47	1.24	32.99	-21.5	-39.4	-40.6	1.69	1.43	-69.7	-95.6	-117.0	-137.0	302.4	-126.15
11.00	52.36	3966.1	3946.3	3932.1	1.48	1.52	1.54	33.04	-21.8	-38.8	-44.3	1.67	1.30	-69.4	-95.1	-116.7	-136.8	361.5	-127.71
11.50	52.23	3992.0	3972.5	3958.6	1.40	1.29	1.28	33.09	-21.1	-38.6	-39.5	1.58	1.17	-68.5	-95.4	-116.8	-137.0	507.5	-130.67
12.00	52.73	4018.3	3998.6	3984.5	1.61	1.27	1.03	33.12	-20.9	-38.4	-37.8	1.50	1.31	-70.2	-95.4	-116.7	-137.1	606.7	-132.22
13.00	52.73	4071.6	4051.6	4037.2	1.15	1.28	1.22	33.17	-20.9	-37.8	-38.6	1.15	1.08	-68.3	-95.0	-116.6	-136.7	851.6	-135.14
14.00	49.98	4123.8	4103.8	4089.2	1.34	0.90	0.69	33.21	-20.8	-36.0	-39.0	0.47	0.96	-68.7	-94.7	-116.3	-136.5	1000.0	-136.60

*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-Circuits' 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

