

Coaxial

# Voltage Controlled Oscillator

## ZX95-3050CA+

Linear Tuning 2635 to 3050 MHz

### Features

- Linear tuning characteristics
- Low phase noise
- Low pushing
- Protected by US patent 6,790,049



CASE STYLE: GB956

### Applications

- R&D
- LAB
- Instrumentation
- Wireless communications
- Wire-line broadband access

Connectors	Model	Price	Qty.
SMA	ZX95-3050CA-S+	\$ 40.95 ea.	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

*The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.*

### Electrical Specifications

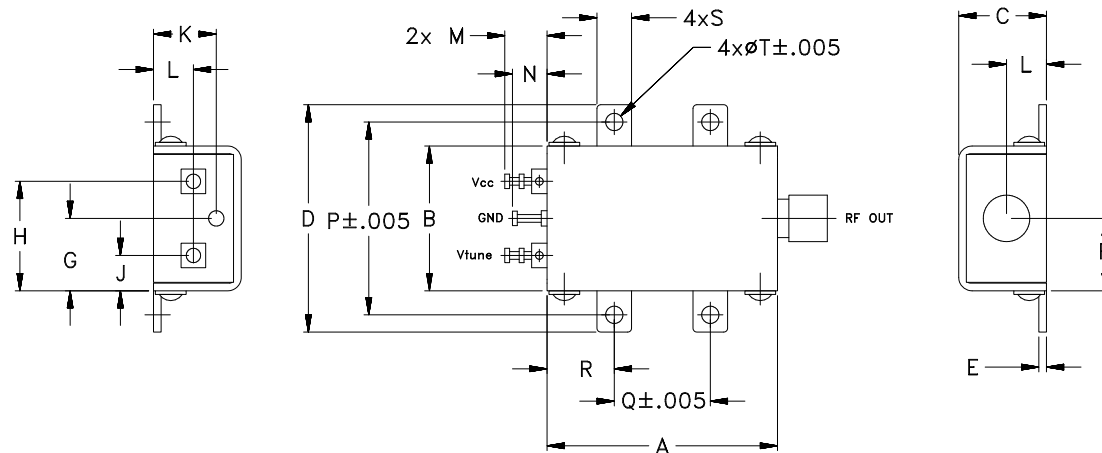
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Typ.	Typ.
ZX95-3050CA+	2635	3050	+6.5	-77	-104	-125	-145	0.5	16	35 - 47	18	100	-90	-22	-12	4.5	0.2	8	40

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	10V
Absolute Max. Tuning Voltage (Vtune)	18V
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	.45	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	GRAM
30.48	19.05	11.68	29.97	1.02	9.65	11.43	14.48	4.57	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0



For detailed performance specs & shopping online see web site

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**Notes:** 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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](http://www.minicircuits.com/MCLStore/terms.jsp).

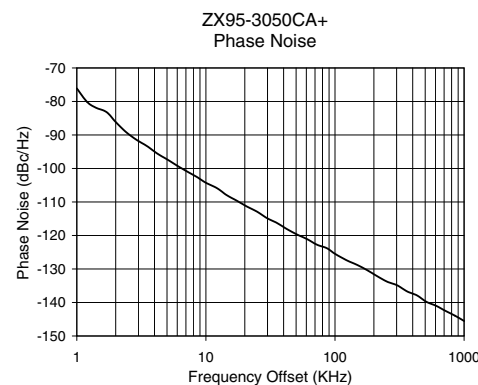
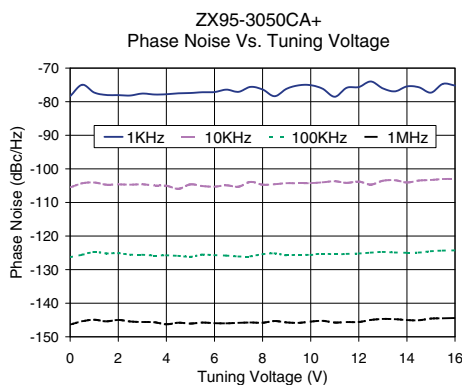
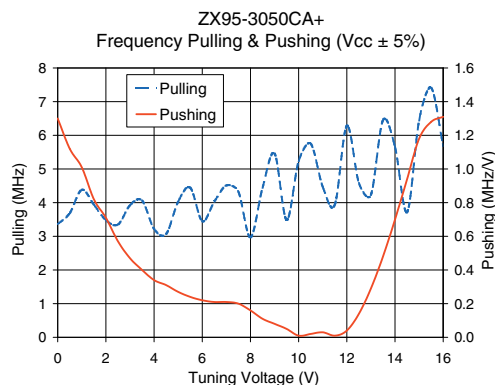
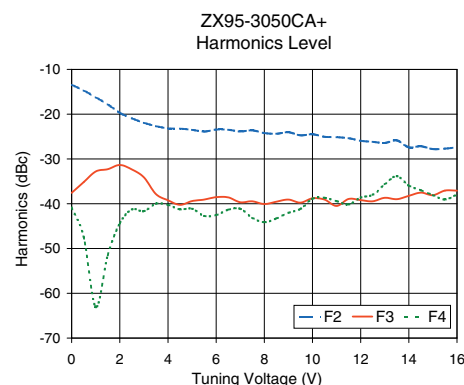
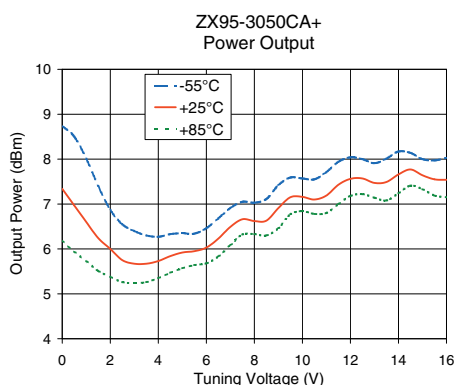
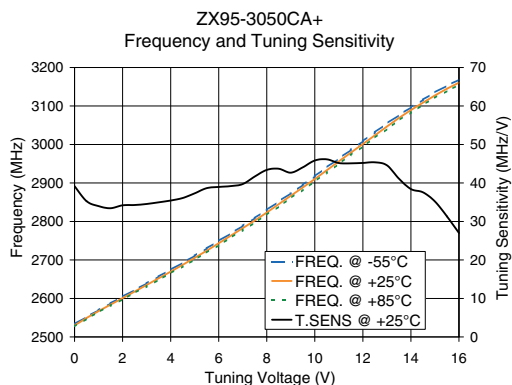
REV. OR  
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EDR-9253F2  
ZX95-3050CA+  
RAV  
090902  
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# Performance Data & Curves\*

# ZX95-3050CA+

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 2843 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	39.18	2533.5	2529.8	2527.1	8.74	7.34	6.19	33.02	-13.4	-37.6	-40.9	1.30	3.36	-78.4	-105.5	-126.3	-146.4	1.0	-76.10
0.50	35.27	2552.1	2549.4	2547.2	8.50	6.97	5.94	32.92	-14.7	-35.2	-47.4	1.12	3.69	-75.0	-104.3	-125.6	-145.4	2.0	-86.13
1.00	33.99	2569.8	2567.0	2564.6	8.01	6.60	5.73	32.82	-16.2	-32.8	-63.1	1.01	4.38	-77.3	-104.1	-124.7	-144.9	3.5	-93.33
2.00	34.20	2604.6	2600.8	2597.7	6.87	6.00	5.38	32.62	-19.7	-31.3	-44.4	0.71	3.48	-78.1	-104.6	-125.1	-145.0	6.0	-99.18
3.00	34.53	2639.2	2635.0	2631.2	6.40	5.67	5.24	32.46	-21.9	-34.1	-41.7	0.47	3.92	-77.6	-104.6	-125.6	-145.6	8.5	-102.51
4.00	35.44	2674.7	2669.7	2665.6	6.27	5.73	5.35	32.37	-23.2	-39.2	-40.3	0.34	3.22	-77.8	-105.0	-125.7	-146.3	10.0	-104.26
5.00	37.31	2711.0	2705.5	2700.9	6.35	5.92	5.57	32.31	-23.5	-39.4	-41.1	0.27	4.03	-77.4	-104.6	-126.2	-146.1	20.8	-111.38
5.50	38.66	2730.0	2724.2	2719.3	6.34	5.95	5.64	32.26	-23.9	-39.1	-42.7	0.24	4.44	-77.2	-105.1	-125.6	-145.8	35.5	-116.27
6.00	38.97	2749.5	2743.5	2738.4	6.46	6.03	5.68	32.22	-23.4	-38.5	-42.5	0.22	3.45	-77.1	-105.3	-125.7	-146.0	60.7	-121.08
7.00	39.72	2788.7	2782.6	2777.5	6.91	6.49	6.08	32.21	-23.9	-39.7	-41.1	0.21	4.51	-77.1	-105.3	-126.1	-145.9	86.7	-123.83
8.00	43.40	2830.0	2823.3	2817.5	7.03	6.62	6.33	32.14	-24.2	-40.1	-44.1	0.16	2.97	-76.4	-104.7	-125.4	-145.8	100.0	-125.47
9.00	42.69	2873.5	2866.8	2860.9	7.42	6.91	6.46	32.11	-24.0	-39.1	-42.0	0.08	5.46	-76.2	-104.3	-125.7	-145.7	148.1	-128.76
9.50	44.07	2895.0	2888.2	2882.2	7.59	7.15	6.77	32.10	-24.7	-39.8	-41.2	0.05	3.49	-75.1	-104.3	-125.5	-145.9	177.0	-130.32
10.00	45.84	2917.4	2910.2	2904.0	7.57	7.16	6.84	32.07	-24.5	-38.8	-38.9	0.01	5.23	-75.1	-104.3	-125.6	-145.5	211.6	-132.11
11.00	45.18	2963.5	2956.2	2949.8	7.71	7.19	6.80	32.03	-25.1	-40.5	-39.4	0.03	4.47	-78.5	-103.7	-125.5	-145.8	302.4	-134.86
12.00	45.20	3008.8	3001.3	2995.0	8.04	7.56	7.18	32.02	-26.0	-39.2	-38.6	0.04	6.28	-75.7	-103.8	-125.2	-145.6	361.5	-136.69
13.00	44.60	3054.5	3046.6	3040.2	7.91	7.47	7.14	31.97	-26.4	-38.7	-35.7	0.29	4.23	-76.0	-103.5	-124.7	-144.7	507.5	-139.75
14.00	38.41	3096.7	3089.5	3083.6	8.17	7.66	7.24	31.99	-27.4	-38.2	-36.0	0.70	5.65	-75.5	-104.1	-125.0	-145.0	606.7	-140.98
15.00	35.19	3135.4	3127.5	3121.3	8.00	7.64	7.33	31.94	-27.8	-38.1	-38.1	1.18	6.44	-77.3	-103.3	-124.5	-144.6	851.6	-143.96
16.00	27.02	3168.4	3160.7	3154.9	8.03	7.54	7.15	31.94	-27.4	-37.1	-38.0	1.31	5.68	-75.2	-103.0	-124.3	-144.4	1000.0	-145.52

\*at 25°C unless mentioned otherwise



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