

Coaxial

# Voltage Controlled Oscillator

## ZX95-924+

5V Tuning for PLL IC's 907 to 924 MHz

### Features

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



CASE STYLE: GB956

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- GMS

Connectors	Model	Price	Qty.
SMA	ZX95-924-S+	\$44.95 ea.	(1-9)

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

### Electrical Specifications

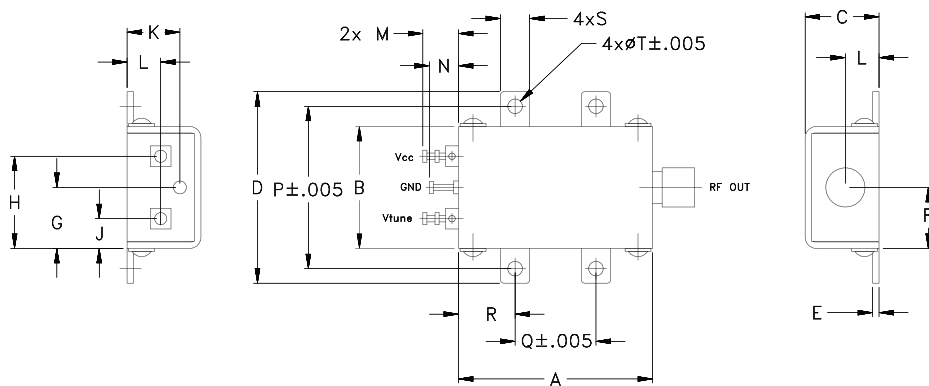
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-924+	907	924	+0.8	-90	-114	-134	-154	0.5	4.5	12	40	155	-90	-30	-20	0.1	0.3	5	25

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7.0V
Absolute Max. Tuning Voltage (Vtune)	6.5V
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	.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



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine  Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

**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).

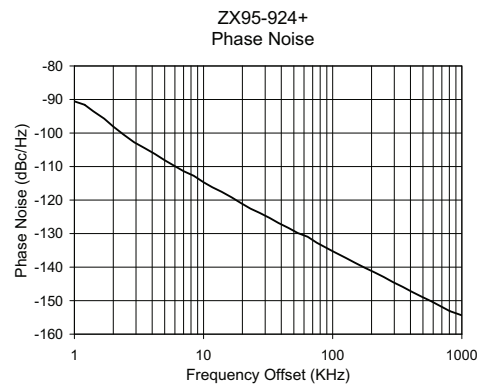
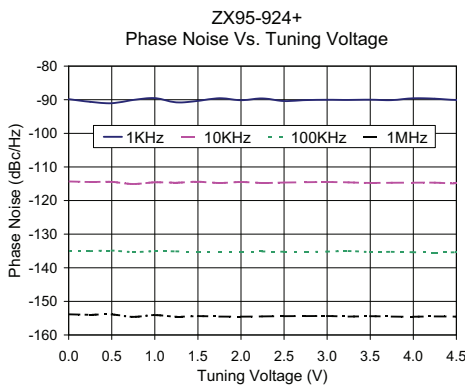
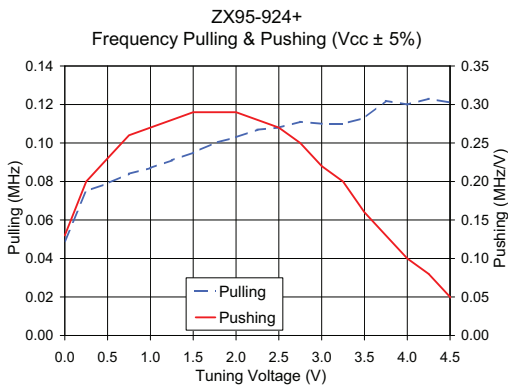
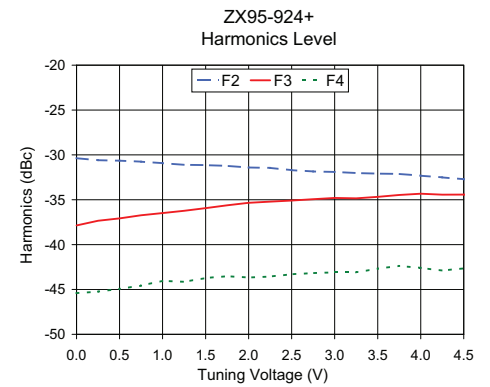
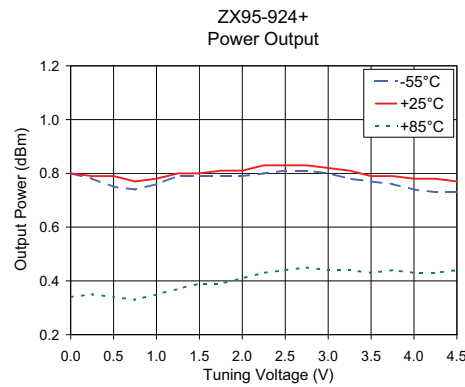
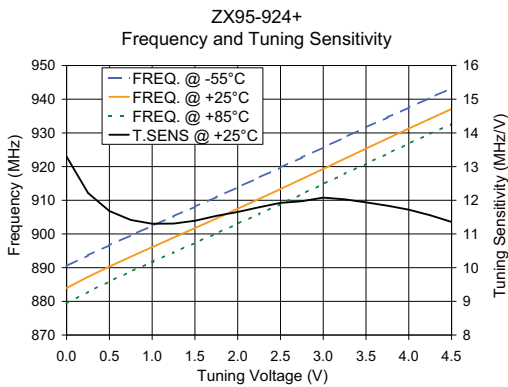
REV. OR  
M118620  
EDR-7159/2F2  
ZX95-924+  
RAV  
120902  
Page 1 of 2

# Performance Data & Curves\*

# ZX95-924+

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 916 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	13.30	890.5	883.9	879.4	0.80	0.80	0.34	18.53	-30.4	-37.9	-45.4	0.13	0.05	-89.8	-114.3	-135.0	-153.9	1.0	-90.55
0.25	12.22	893.7	887.3	882.8	0.78	0.79	0.35	18.57	-30.6	-37.3	-45.2	0.20	0.08	-90.6	-114.5	-135.1	-154.0	2.0	-98.08
0.50	11.68	896.7	890.3	885.9	0.75	0.79	0.34	18.61	-30.6	-37.1	-44.9	0.23	0.08	-91.1	-114.5	-134.9	-153.9	3.5	-104.50
0.75	11.42	899.6	893.2	888.8	0.74	0.77	0.33	18.65	-30.8	-36.7	-44.6	0.26	0.08	-90.1	-115.1	-135.3	-154.6	6.0	-109.89
1.00	11.30	902.4	896.1	891.7	0.76	0.78	0.35	18.68	-30.9	-36.5	-44.0	0.27	0.09	-89.5	-114.6	-135.1	-154.1	8.4	-112.76
1.25	11.31	905.3	898.9	894.5	0.79	0.80	0.37	18.72	-31.1	-36.2	-44.2	0.28	0.09	-90.8	-114.7	-135.1	-154.6	10.0	-114.70
1.50	11.39	908.1	901.7	897.3	0.79	0.80	0.39	18.75	-31.1	-35.9	-43.7	0.29	0.10	-90.3	-114.4	-135.2	-154.4	19.4	-120.86
1.75	11.54	910.9	904.6	900.2	0.79	0.81	0.39	18.78	-31.2	-35.6	-43.5	0.29	0.10	-89.6	-114.8	-135.2	-154.5	32.5	-125.34
2.00	11.65	913.8	907.5	903.0	0.79	0.81	0.41	18.81	-31.4	-35.3	-43.7	0.29	0.10	-90.1	-114.5	-135.2	-154.5	53.5	-129.81
2.25	11.79	916.8	910.4	905.9	0.80	0.83	0.43	18.84	-31.5	-35.2	-43.6	0.28	0.11	-89.6	-114.8	-135.2	-154.5	75.2	-132.73
2.50	11.92	919.7	913.3	908.9	0.81	0.83	0.44	18.87	-31.7	-35.1	-43.3	0.27	0.11	-90.4	-114.6	-135.2	-154.4	100.0	-135.25
2.75	11.97	922.7	916.3	911.8	0.81	0.83	0.45	18.90	-31.9	-34.9	-43.2	0.25	0.11	-90.1	-114.5	-135.3	-154.4	148.1	-138.65
3.00	12.08	925.7	919.3	914.8	0.80	0.82	0.44	18.92	-31.9	-34.8	-43.1	0.22	0.11	-90.0	-114.5	-135.2	-154.4	177.0	-140.18
3.25	12.03	928.7	922.3	917.8	0.78	0.81	0.44	18.95	-32.0	-34.8	-43.1	0.20	0.11	-90.1	-114.6	-135.0	-154.5	248.5	-142.95
3.50	11.94	931.6	925.3	920.8	0.77	0.79	0.43	18.98	-32.1	-34.7	-42.7	0.16	0.11	-90.0	-114.8	-135.3	-154.4	348.8	-145.91
3.75	11.84	934.6	928.3	923.8	0.76	0.79	0.44	19.01	-32.1	-34.5	-42.4	0.13	0.12	-90.1	-114.7	-135.3	-154.5	409.6	-147.36
4.00	11.72	937.5	931.3	926.8	0.74	0.78	0.43	19.04	-32.3	-34.3	-42.6	0.10	0.12	-89.6	-114.7	-135.4	-154.6	575.0	-150.13
4.25	11.56	940.4	934.2	929.8	0.73	0.78	0.43	19.07	-32.5	-34.4	-42.9	0.08	0.12	-89.7	-114.7	-135.5	-154.5	807.2	-153.13
4.50	11.36	943.3	937.1	932.7	0.73	0.77	0.44	19.09	-32.7	-34.4	-42.7	0.05	0.12	-90.1	-114.9	-135.4	-154.5	1000.0	-154.39

\*at 25°C unless mentioned otherwise



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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-Circuit's 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).