

Coaxial

# Voltage Controlled Oscillator

## ZX95-2252C+

Linear Tuning 2103 to 2252 MHz

### Features

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



CASE STYLE: GB956

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- point-to-point radio

Connectors	Model	Price	Qty.
SMA	ZX95-2252C-S+	\$40.95 ea.	(1-9)

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

### Electrical Specifications

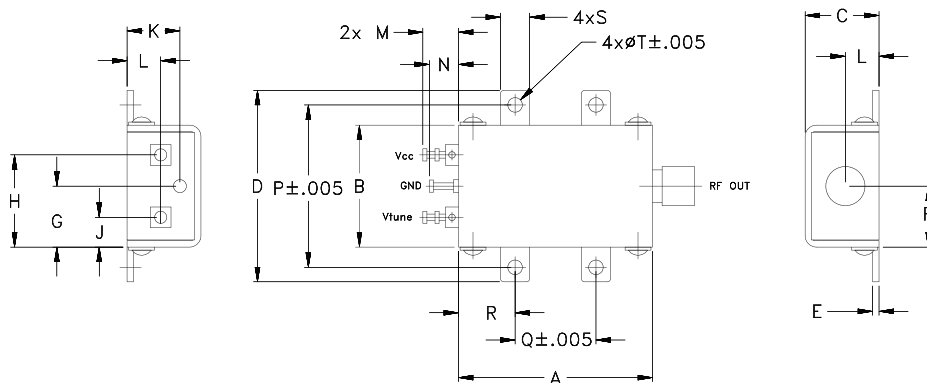
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies,kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER				
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.	Typ.	Vcc (volts)	Current (mA)
ZX95-2252C+	2103	2252	-1	-81	-108	-129	-149	1	12	28	20	120	-90	-17	-10	0.4	0.3	8	35			

### 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)	14V
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).

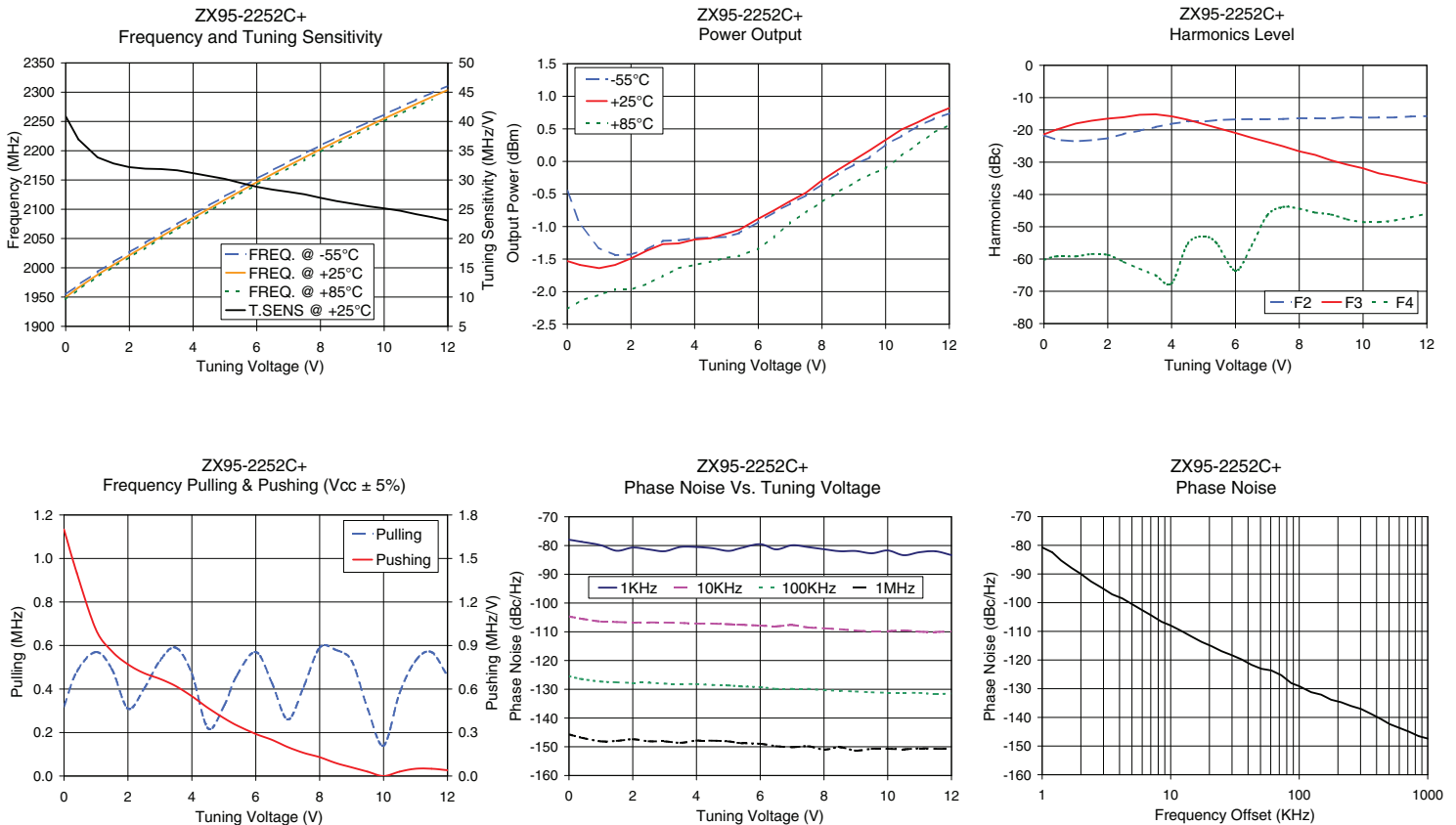
REV. OR  
M114715  
EDR-8925F2  
ZX95-2252C+  
RAV  
120904  
Page 1 of 2

# Performance Data & Curves\*

# ZX95-2252C+

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 2142 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	40.87	1954.3	1949.8	1946.2	-0.45	-1.53	-2.27	27.19	-21.7	-21.4	-60.2	1.70	0.32	-78.0	-104.7	-125.4	-145.7	1.0	-80.74
0.40	36.93	1970.8	1966.1	1962.7	-0.97	-1.59	-2.14	27.14	-23.1	-19.9	-59.2	1.40	0.48	-78.7	-105.5	-126.5	-146.9	2.0	-89.97
1.00	33.86	1993.0	1988.2	1984.8	-1.33	-1.64	-2.05	27.06	-23.5	-18.0	-59.2	1.01	0.57	-79.9	-106.5	-127.3	-148.1	3.5	-97.09
2.00	32.19	2026.6	2021.5	2018.0	-1.43	-1.49	-1.97	26.96	-22.6	-16.5	-58.7	0.77	0.31	-80.7	-106.8	-127.8	-147.4	6.0	-102.62
3.00	31.86	2058.9	2053.6	2050.0	-1.22	-1.27	-1.76	26.88	-20.2	-15.3	-63.0	0.67	0.53	-82.0	-106.8	-128.0	-148.1	8.5	-106.65
4.00	31.17	2090.9	2085.3	2081.4	-1.18	-1.20	-1.59	26.80	-18.1	-15.8	-67.5	0.55	0.47	-80.5	-107.1	-128.2	-147.9	10.0	-107.97
4.50	30.67	2106.6	2100.9	2096.9	-1.17	-1.18	-1.54	26.77	-17.5	-16.8	-55.3	0.47	0.22	-81.0	-107.2	-128.5	-147.9	20.8	-115.17
5.00	30.19	2122.1	2116.3	2112.1	-1.16	-1.11	-1.48	26.76	-17.5	-18.2	-53.0	0.40	0.32	-81.9	-107.4	-128.7	-148.1	35.5	-119.74
5.40	29.63	2134.3	2128.3	2124.1	-1.10	-1.05	-1.45	26.74	-17.0	-19.3	-55.0	0.35	0.46	-80.9	-107.6	-129.0	-148.7	60.7	-123.65
6.00	28.83	2152.2	2146.1	2141.9	-0.93	-0.88	-1.34	26.74	-16.8	-21.0	-63.6	0.29	0.57	-79.5	-107.9	-129.3	-149.0	86.7	-128.05
6.50	28.36	2166.7	2160.5	2156.3	-0.78	-0.75	-1.16	26.75	-16.7	-22.4	-55.9	0.25	0.43	-81.4	-108.1	-129.9	-149.8	100.0	-129.11
7.00	27.97	2181.0	2174.7	2170.4	-0.65	-0.61	-0.94	26.75	-16.7	-23.8	-46.5	0.20	0.26	-79.9	-107.7	-129.8	-150.1	148.1	-132.08
7.50	27.55	2195.1	2188.7	2184.3	-0.52	-0.48	-0.78	26.75	-16.6	-25.1	-43.9	0.16	0.41	-80.6	-108.5	-129.9	-149.8	177.0	-133.83
8.00	26.96	2209.0	2202.5	2198.0	-0.35	-0.29	-0.62	26.76	-16.4	-26.6	-44.4	0.13	0.59	-81.3	-108.8	-130.3	-151.0	211.6	-134.70
8.50	26.40	2222.6	2215.9	2211.5	-0.19	-0.13	-0.47	26.76	-16.4	-27.8	-45.6	0.09	0.58	-82.0	-109.1	-130.5	-150.2	302.4	-137.05
9.00	25.95	2235.9	2229.1	2224.7	-0.05	0.02	-0.33	26.78	-16.5	-29.4	-46.2	0.06	0.53	-81.9	-109.6	-130.8	-151.3	361.5	-138.77
9.50	25.50	2248.9	2242.1	2237.7	0.06	0.17	-0.20	26.79	-16.1	-30.8	-47.7	0.03	0.31	-82.7	-109.8	-131.1	-150.7	507.5	-142.37
10.00	25.15	2261.8	2254.9	2250.5	0.26	0.33	-0.11	26.79	-16.2	-31.9	-48.6	0.00	0.14	-81.7	-109.8	-131.2	-150.7	606.7	-143.74
11.00	24.16	2286.9	2279.8	2275.4	0.54	0.60	0.26	26.80	-16.1	-34.4	-48.0	0.05	0.53	-82.3	-110.0	-131.3	-150.6	851.6	-146.57
12.00	23.08	2310.9	2303.7	2299.4	0.74	0.82	0.56	26.82	-15.8	-36.5	-46.0	0.04	0.46	-83.3	-109.9	-131.5	-150.8	1000.0	-147.37

\*at 25°C unless mentioned otherwise



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