

Coaxial

# Voltage Controlled Oscillator

## ZX95-2500B+

5V Tuning for PLL IC's 2497 to 2510 MHz

### Features

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



CASE STYLE: GB956

### Applications

- LAB
- Instrumentation
- Wireless communications
- Personal & home communications

Connectors	Model	Price	Qty.
SMA	ZX95-2500B-S+	\$44.95 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

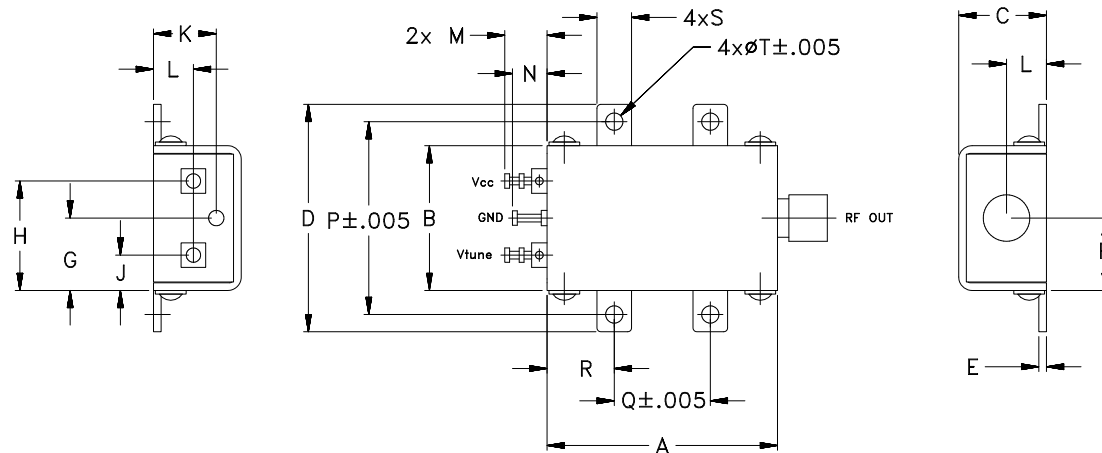
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB Br (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.
ZX95-2500B+	2497	2510	+6	-82	-103	-124	-144	0.5	4	18	30	30	-90	-25	-15	1.5	1	8	37

### 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)	6V
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

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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

**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).

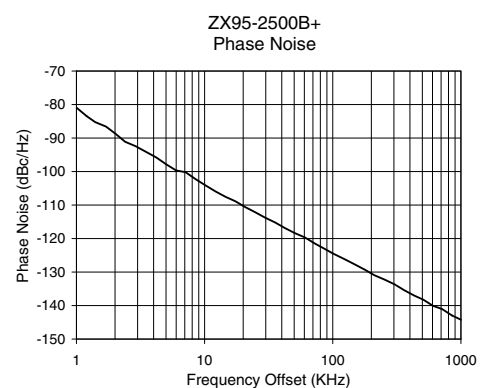
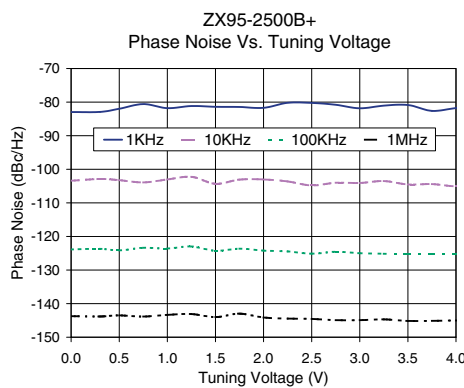
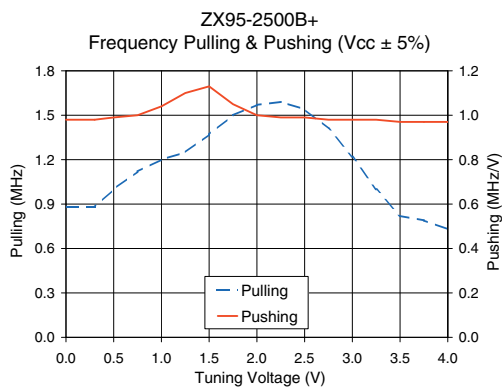
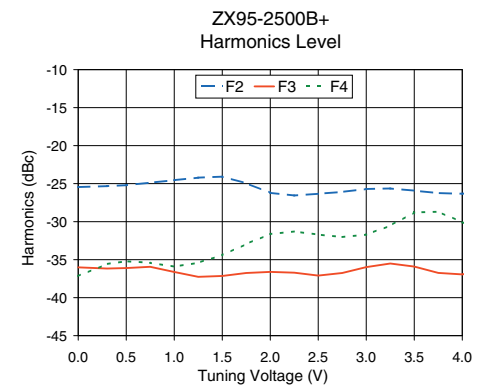
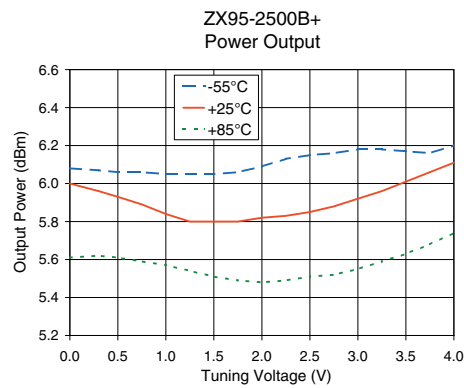
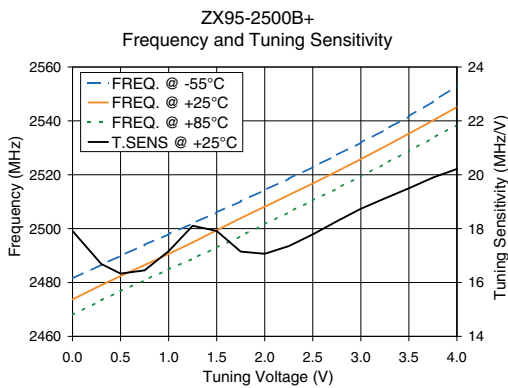
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EDR-8424/1F2  
ZX95-2500B+  
RAV  
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# Performance Data & Curves\*

# ZX95-2500B+

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 2503 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	17.91	2481.4	2473.7	2467.9	6.08	6.00	5.61	31.27	-25.5	-36.0	-37.2	0.98	0.88	-83.0	-103.4	-123.9	-143.7	1.0	-80.92
0.30	16.69	2486.6	2479.0	2473.4	6.07	5.96	5.62	31.27	-25.3	-36.2	-35.6	0.98	0.88	-82.9	-102.9	-123.7	-143.8	2.0	-88.59
0.50	16.33	2489.9	2482.4	2476.8	6.06	5.93	5.61	31.27	-25.2	-36.1	-35.2	0.99	1.00	-82.0	-103.2	-124.2	-143.5	3.5	-94.16
0.75	16.45	2493.9	2486.5	2480.9	6.06	5.89	5.59	31.28	-24.9	-35.9	-35.4	1.00	1.12	-80.6	-103.9	-123.4	-143.9	6.0	-99.68
1.00	17.16	2497.9	2490.6	2484.9	6.05	5.84	5.57	31.28	-24.5	-36.6	-35.9	1.04	1.20	-81.8	-103.0	-123.6	-143.4	8.5	-102.25
1.25	18.11	2501.9	2494.9	2488.9	6.05	5.80	5.54	31.28	-24.2	-37.3	-35.4	1.10	1.25	-81.2	-102.2	-123.0	-143.1	10.0	-103.96
1.50	17.91	2506.0	2499.4	2493.0	6.05	5.80	5.51	31.28	-24.1	-37.2	-34.4	1.13	1.37	-81.4	-104.3	-124.3	-144.0	20.8	-110.63
1.75	17.15	2510.1	2503.9	2497.2	6.06	5.80	5.49	31.31	-24.9	-36.8	-32.9	1.05	1.50	-81.4	-103.1	-123.6	-143.0	35.5	-115.20
2.00	17.06	2514.3	2508.2	2501.6	6.09	5.82	5.48	31.34	-26.2	-36.6	-31.6	1.00	1.57	-81.7	-103.0	-124.2	-144.1	60.7	-119.67
2.25	17.35	2518.5	2512.4	2506.1	6.13	5.83	5.49	31.37	-26.6	-36.7	-31.3	0.99	1.59	-80.2	-103.6	-124.5	-144.5	86.7	-123.09
2.50	17.78	2522.8	2516.8	2510.5	6.15	5.85	5.51	31.39	-26.3	-37.1	-31.7	0.99	1.54	-80.2	-104.8	-125.1	-144.6	100.0	-124.42
2.75	18.27	2527.3	2521.2	2514.9	6.16	5.88	5.52	31.42	-26.1	-36.8	-32.0	0.98	1.41	-80.8	-104.0	-124.6	-144.9	148.1	-127.70
3.00	18.74	2531.9	2525.8	2519.4	6.18	5.92	5.55	31.44	-25.7	-36.0	-31.7	0.98	1.22	-81.8	-104.1	-125.0	-144.9	211.6	-130.95
3.25	19.12	2536.7	2530.5	2524.1	6.18	5.96	5.59	31.45	-25.6	-35.5	-30.5	0.98	1.00	-81.1	-103.5	-125.2	-144.7	361.5	-135.42
3.50	19.50	2541.7	2535.3	2528.8	6.17	6.01	5.63	31.47	-25.9	-35.9	-28.8	0.97	0.82	-80.9	-104.5	-125.2	-145.2	507.5	-138.22
3.75	19.90	2547.2	2540.1	2533.7	6.16	6.06	5.68	31.49	-26.2	-36.7	-28.7	0.97	0.79	-82.6	-104.4	-125.2	-145.1	606.7	-140.09
4.00	20.22	2553.0	2545.1	2538.6	6.20	6.11	5.74	31.51	-26.3	-36.9	-30.1	0.97	0.73	-81.8	-105.1	-125.2	-145.0	1000.0	-144.22

\*at 25°C unless mentioned otherwise



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