

Coaxial

Voltage Controlled Oscillator

ZX95-498+

5V Tuning for PLL IC's 449 to 499 MHz

Features

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

Applications

- R&D
- LAB
- Instrumentation
- Wireless broadband access
- GSM



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-498-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

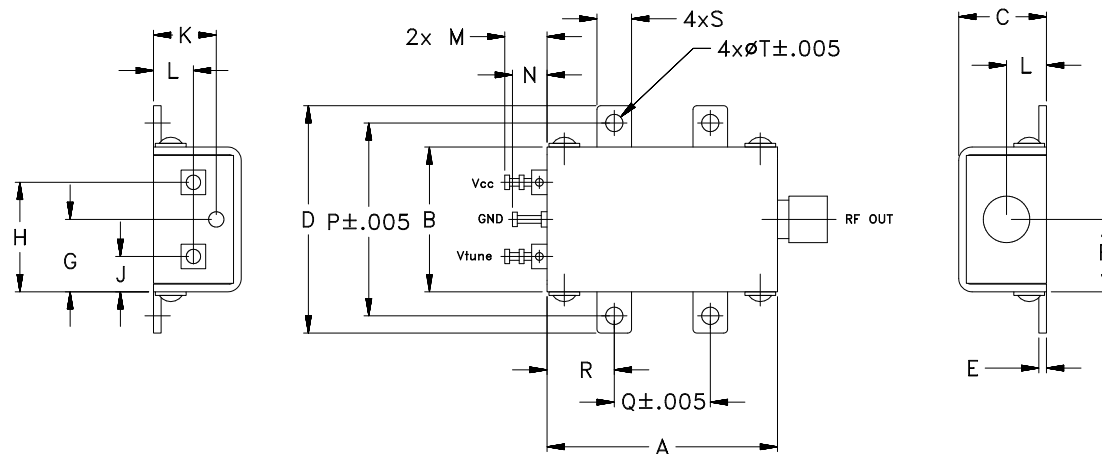
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER					
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Typ.	Vcc (volts)	Current (mA)
									Min.	Max.													
ZX95-498+	449	499	+5	-91	-118	-138	-158	0.25	5	13	100	22	-90	-20	-10	0.5	0.3	5	22				

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
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

Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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For detailed performance specs & shopping online see web site

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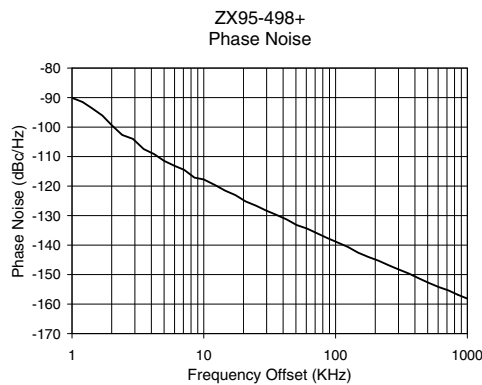
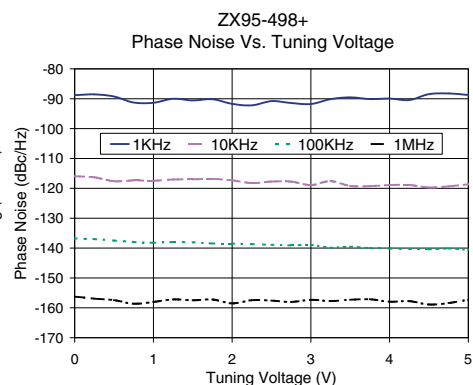
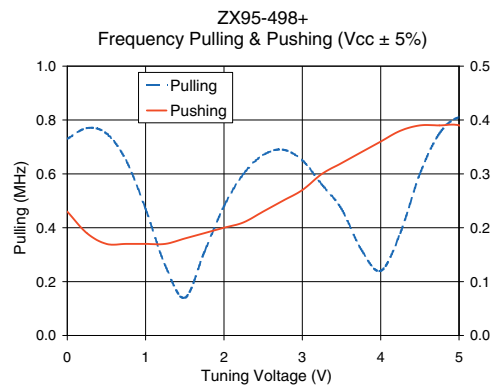
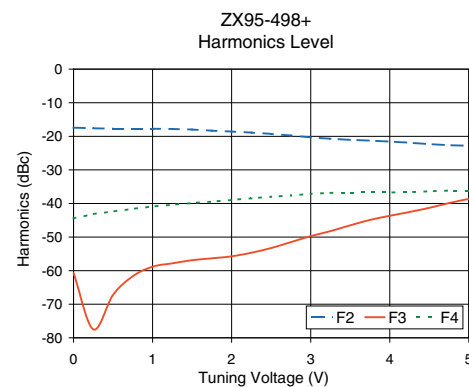
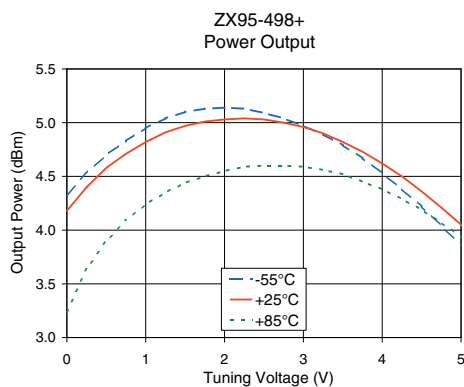
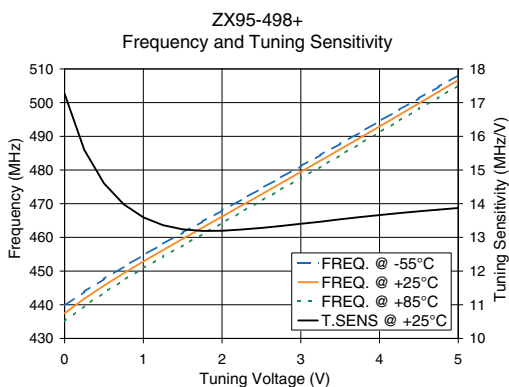
REV. OR
M111586
EDR-8485F2
ZX95-498+
RAV
090906
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Performance Data & Curves*

ZX95-498+

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 474 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	17.26	439.7	437.5	435.1	4.33	4.18	3.24	14.06	-17.4	-60.7	-44.5	0.23	0.73	-88.8	-115.9	-136.8	-156.3	1.0	-90.08
0.50	14.60	447.7	445.7	443.6	4.70	4.58	3.90	14.40	-17.7	-67.2	-42.4	0.17	0.75	-89.2	-117.6	-137.5	-157.4	2.0	-99.36
0.75	13.98	451.3	449.3	447.3	4.83	4.71	4.09	14.54	-17.7	-61.7	-41.6	0.17	0.65	-91.3	-117.4	-138.0	-158.6	3.5	-107.45
1.00	13.59	454.7	452.8	450.9	4.95	4.82	4.24	14.66	-17.7	-58.8	-40.9	0.17	0.47	-91.4	-117.4	-138.2	-158.0	6.0	-113.15
1.25	13.36	458.1	456.2	454.3	5.04	4.91	4.35	14.77	-17.8	-57.8	-40.4	0.17	0.26	-90.0	-117.0	-138.0	-157.2	8.5	-117.13
1.50	13.24	461.4	459.6	457.6	5.10	4.97	4.44	14.87	-18.0	-56.9	-39.9	0.18	0.14	-90.6	-117.0	-138.1	-157.5	10.0	-117.74
1.75	13.19	464.7	462.9	461.0	5.13	5.01	4.50	14.95	-18.3	-56.3	-39.5	0.19	0.31	-90.2	-116.9	-138.5	-157.2	20.8	-125.20
2.00	13.20	468.0	466.2	464.3	5.14	5.03	4.55	15.02	-18.6	-55.7	-39.0	0.20	0.48	-91.7	-117.3	-138.5	-158.5	35.5	-129.74
2.25	13.23	471.2	469.5	467.6	5.13	5.04	4.59	15.08	-18.9	-54.7	-38.5	0.21	0.60	-92.2	-118.2	-138.7	-157.5	60.7	-134.40
2.50	13.28	474.5	472.8	470.9	5.09	5.03	4.60	15.12	-19.3	-53.3	-38.0	0.23	0.67	-90.8	-117.7	-138.9	-157.6	86.7	-137.62
2.75	13.34	477.8	476.1	474.2	5.04	5.00	4.60	15.15	-19.8	-51.5	-37.6	0.25	0.69	-91.4	-117.8	-139.1	-158.0	100.0	-138.82
3.00	13.40	481.1	479.4	477.6	4.97	4.96	4.59	15.17	-20.3	-49.7	-37.1	0.27	0.65	-91.8	-118.9	-138.9	-157.3	148.1	-142.54
3.25	13.47	484.5	482.8	481.0	4.89	4.90	4.56	15.18	-20.7	-48.2	-36.8	0.30	0.56	-90.1	-117.6	-139.9	-157.7	177.0	-144.01
3.50	13.54	487.8	486.2	484.4	4.79	4.82	4.52	15.19	-21.1	-46.5	-36.7	0.32	0.47	-89.5	-119.2	-139.5	-157.3	211.6	-145.27
3.75	13.60	491.1	489.5	487.8	4.67	4.73	4.45	15.18	-21.3	-44.9	-36.7	0.34	0.32	-90.1	-119.3	-140.0	-157.1	302.4	-148.29
4.00	13.66	494.5	492.9	491.2	4.53	4.62	4.38	15.17	-21.6	-43.7	-36.7	0.36	0.24	-89.9	-118.9	-140.2	-158.0	361.5	-149.66
4.25	13.72	497.9	496.3	494.7	4.38	4.50	4.29	15.14	-21.9	-42.5	-36.6	0.38	0.38	-90.4	-118.9	-140.3	-157.8	507.5	-152.76
4.50	13.77	501.3	499.8	498.1	4.22	4.36	4.19	15.11	-22.3	-41.3	-36.4	0.39	0.60	-88.5	-119.7	-140.4	-158.9	606.7	-154.22
4.75	13.82	504.7	503.2	501.6	4.04	4.21	4.07	15.07	-22.7	-39.9	-36.1	0.39	0.75	-88.2	-119.3	-140.2	-158.4	851.6	-156.86
5.00	13.87	508.2	506.7	505.1	3.86	4.05	3.94	15.03	-22.8	-38.7	-36.2	0.39	0.81	-88.7	-118.6	-140.5	-157.3	1000.0	-158.13

*at 25°C unless mentioned otherwise



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