

Coaxial

Voltage Controlled Oscillator

ZX95-520+

5V Tuning for PLL IC's 485 to 520 MHz

Features

- Linear tuning characteristics
- Low phase noise
- Low pushing
- Low pulling
- 0.5-5V tuning voltage range
- Protected by US patent 6,790,049

Applications

- R&D
- LAB
- Instrumentation
- PLL circuitry
- Wireless microphones



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-520-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

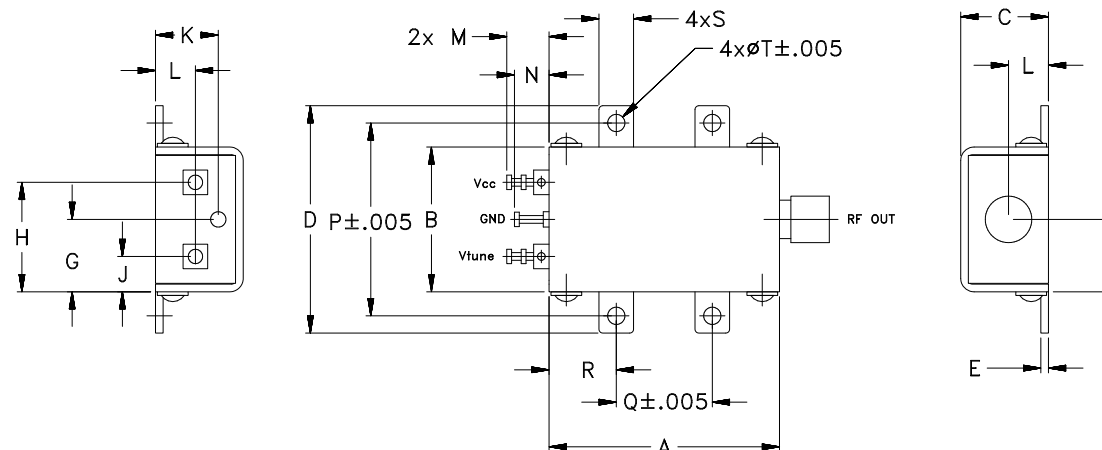
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER			
				dBc/Hz SSB at offset frequencies, KHz				VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.		Typ.	Typ.			Typ.	Typ.	Vcc (volts)	Current (mA)
				Typ.	1	10	100														
ZX95-520+	485	520	-0.2	-90	-115	-135	-154	0.5	5	12	70	70	-90	-22	-14	0.2	0.1	5	17		

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

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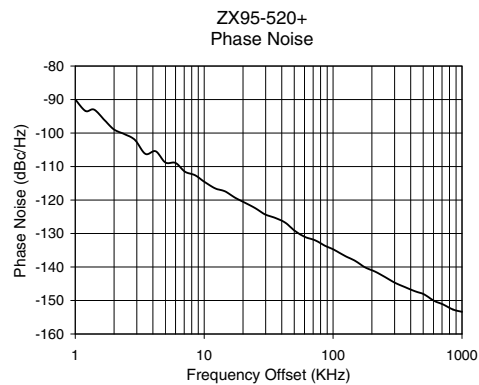
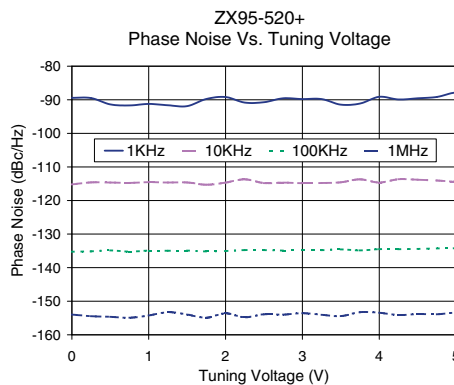
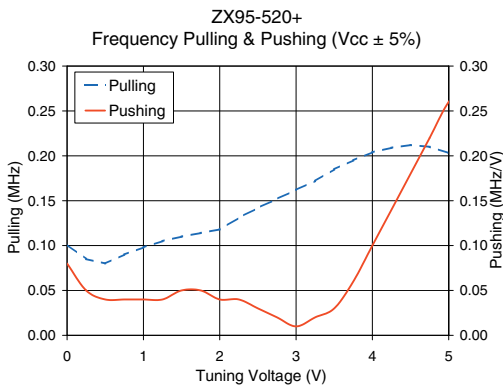
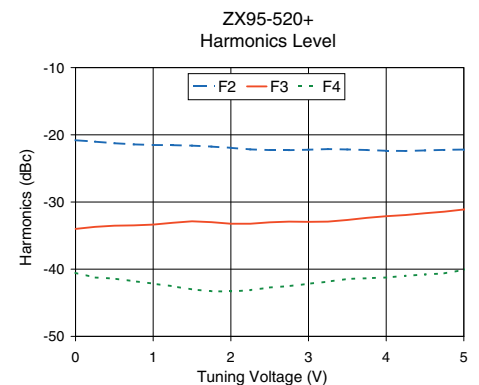
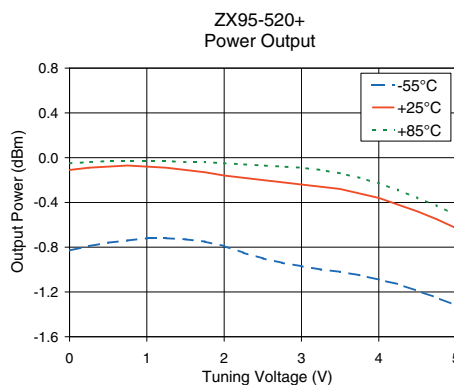
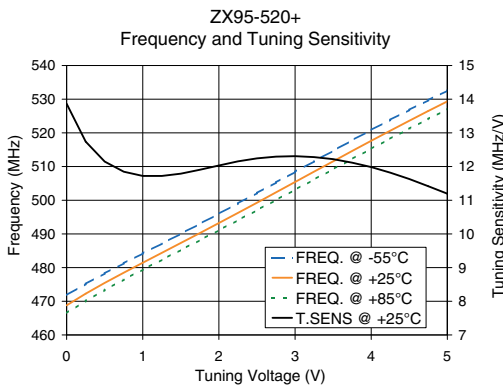
REV. OR
 M108877
 EDR-7747/6
 ZX95-520+
 RAV
 090906
 Page 1 of 2

Performance Data & Curves*

ZX95-520+

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 500 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	13.86	471.8	468.8	466.5	-0.83	-0.11	-0.05	12.27	-20.8	-34.0	-40.6	0.08	0.10	-89.4	-115.2	-135.3	-154.0	1.0	-90.01
0.50	12.15	478.3	475.4	473.4	-0.76	-0.08	-0.03	12.29	-21.3	-33.5	-41.4	0.04	0.08	-91.4	-114.7	-134.9	-154.6	2.0	-98.96
0.75	11.85	481.3	478.5	476.4	-0.74	-0.07	-0.03	12.31	-21.4	-33.5	-41.8	0.04	0.09	-91.7	-114.8	-135.2	-154.9	3.5	-106.24
1.00	11.72	484.2	481.4	479.4	-0.72	-0.08	-0.03	12.32	-21.5	-33.4	-42.2	0.04	0.10	-91.2	-114.5	-134.9	-154.3	6.0	-108.93
1.25	11.72	487.1	484.4	482.3	-0.72	-0.09	-0.03	12.32	-21.5	-33.1	-42.5	0.04	0.11	-91.6	-114.7	-135.0	-153.3	8.5	-112.60
1.50	11.79	490.0	487.3	485.2	-0.73	-0.11	-0.04	12.33	-21.6	-32.9	-43.0	0.05	0.11	-91.9	-114.6	-134.9	-154.0	10.0	-114.54
1.75	11.90	493.0	490.3	488.2	-0.75	-0.13	-0.04	12.34	-21.8	-33.0	-43.3	0.05	0.11	-89.8	-115.3	-135.2	-154.9	20.8	-120.86
2.00	12.03	496.0	493.2	491.1	-0.79	-0.16	-0.05	12.35	-21.9	-33.2	-43.3	0.04	0.12	-89.2	-114.7	-135.1	-153.6	35.5	-125.33
2.25	12.15	499.0	496.2	494.1	-0.85	-0.18	-0.06	12.36	-22.2	-33.2	-43.1	0.04	0.13	-90.8	-113.7	-134.8	-154.8	60.7	-131.05
2.50	12.24	502.1	499.3	497.1	-0.90	-0.20	-0.07	12.38	-22.3	-33.0	-42.7	0.03	0.14	-90.7	-114.8	-134.8	-153.9	86.7	-133.67
2.75	12.30	505.3	502.3	500.1	-0.94	-0.22	-0.08	12.39	-22.3	-32.9	-42.5	0.02	0.15	-89.6	-114.7	-134.9	-154.0	100.0	-134.70
3.00	12.31	508.4	505.4	503.1	-0.97	-0.24	-0.09	12.40	-22.2	-33.0	-42.2	0.01	0.16	-89.8	-114.9	-134.9	-153.6	148.1	-138.16
3.25	12.28	511.6	508.5	506.1	-1.00	-0.26	-0.11	12.41	-22.1	-32.9	-41.9	0.02	0.17	-89.8	-114.8	-134.8	-154.0	177.0	-140.10
3.50	12.22	514.7	511.6	509.2	-1.02	-0.28	-0.14	12.41	-22.2	-32.7	-41.5	0.03	0.19	-91.5	-114.6	-134.6	-154.4	211.6	-141.36
3.75	12.11	517.8	514.6	512.2	-1.05	-0.32	-0.18	12.42	-22.3	-32.4	-41.4	0.06	0.20	-91.1	-113.7	-134.9	-153.3	302.4	-144.72
4.00	11.98	520.8	517.6	515.3	-1.09	-0.36	-0.23	12.42	-22.4	-32.1	-41.2	0.10	0.20	-89.1	-114.6	-134.5	-153.4	361.5	-146.01
4.25	11.82	523.9	520.6	518.3	-1.13	-0.42	-0.29	12.42	-22.4	-31.9	-41.0	0.14	0.21	-89.9	-113.7	-134.5	-154.1	507.5	-148.15
4.50	11.63	526.8	523.6	521.2	-1.19	-0.48	-0.36	12.42	-22.3	-31.7	-40.8	0.18	0.21	-89.6	-113.8	-134.4	-153.8	606.7	-150.09
4.75	11.42	529.7	526.5	524.1	-1.25	-0.55	-0.43	12.42	-22.2	-31.4	-40.6	0.22	0.21	-89.2	-114.1	-134.3	-153.9	851.6	-152.70
5.00	11.19	532.5	529.4	527.0	-1.32	-0.63	-0.51	12.42	-22.2	-31.1	-40.1	0.26	0.20	-87.9	-114.3	-134.2	-153.4	1000.0	-153.37

*at 25°C unless mentioned otherwise



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