Coaxial

Voltage Controlled Oscillator

ZX95-988+

5V Tuning for PLL IC's 941 to 988 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- cellular infrastructure

CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-988-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

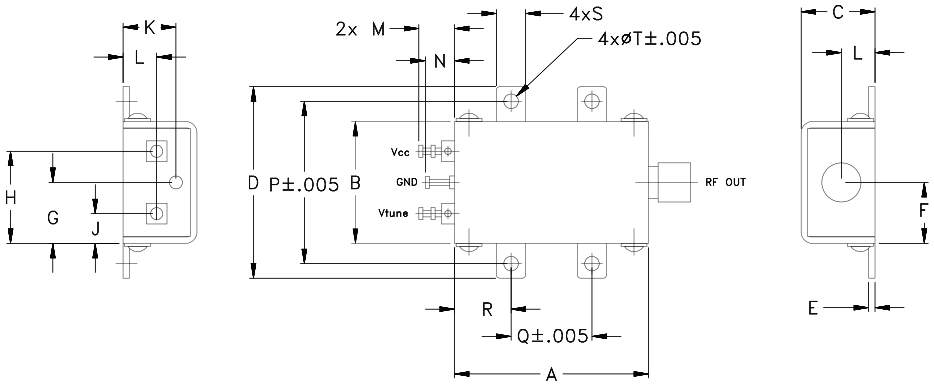
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies,kHz Typ.				TUNING VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
																		Vcc (volts)	Current (mA)
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.		Max.
ZX95-988+	941	988	+0.5	-85	-111	-132	-152	0.5	4.5	23-29	44	40	-90	-21	-13	0.8	0.2	5	20

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**	**.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

REV. OR
M121306
EDR-9498F2
ZX95-988+
RAV
120902

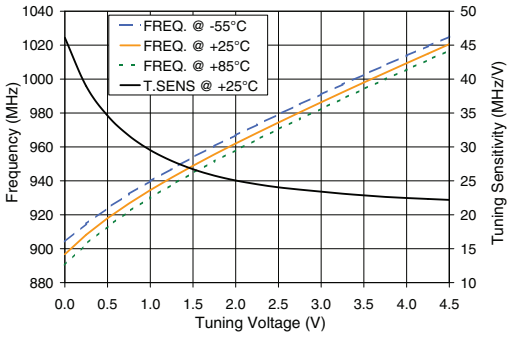
Performance Data & Curves*

ZX95-988+

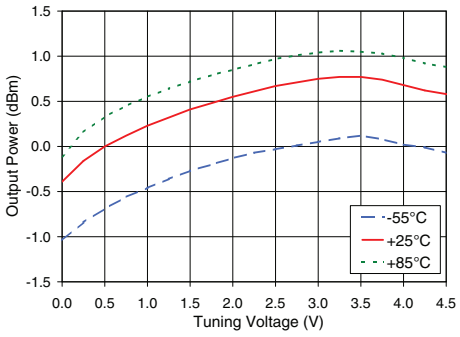
V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 965 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	46.10	904.1	896.7	890.4	-1.04	-0.39	-0.11	13.24	-28.3	-23.5	-45.0	1.65	1.45	-78.9	-105.9	-127.8	-147.8	1.0	-85.70
0.25	38.95	914.7	908.2	902.8	-0.84	-0.16	0.16	13.33	-26.2	-24.3	-43.5	1.10	1.33	-81.0	-107.4	-129.5	-148.8	2.0	-93.59
0.50	34.60	923.9	918.0	913.0	-0.69	0.00	0.33	13.40	-24.8	-24.6	-42.7	0.79	1.28	-82.0	-108.4	-130.4	-149.8	3.5	-101.25
0.75	31.66	932.2	926.6	922.0	-0.56	0.12	0.45	13.46	-24.0	-24.5	-41.5	0.59	1.22	-83.3	-109.6	-130.7	-151.0	6.0	-105.75
1.00	29.52	939.9	934.5	930.1	-0.46	0.23	0.55	13.51	-23.4	-24.8	-41.5	0.44	1.14	-84.4	-109.9	-131.2	-151.6	8.5	-109.59
1.25	27.94	947.1	941.9	937.7	-0.36	0.32	0.64	13.57	-22.9	-25.2	-40.9	0.33	1.03	-84.2	-110.2	-131.9	-151.7	10.0	-110.86
1.50	26.71	953.9	948.9	944.8	-0.27	0.41	0.72	13.61	-22.3	-25.6	-40.8	0.24	0.91	-83.8	-110.8	-132.1	-151.6	20.8	-118.28
1.75	25.77	960.5	955.6	951.5	-0.20	0.48	0.79	13.65	-22.0	-25.8	-40.1	0.16	0.75	-83.8	-111.0	-132.3	-152.8	35.5	-123.55
2.00	25.05	966.9	962.0	958.0	-0.13	0.55	0.85	13.69	-21.8	-25.9	-40.3	0.10	0.58	-84.2	-110.7	-132.6	-152.5	60.7	-127.31
2.25	24.49	973.1	968.3	964.3	-0.07	0.61	0.91	13.71	-21.2	-26.4	-40.2	0.04	0.39	-85.8	-111.0	-133.0	-153.0	86.7	-131.06
2.50	24.04	979.2	974.4	970.5	-0.03	0.67	0.97	13.74	-20.7	-27.0	-40.2	0.01	0.25	-84.9	-111.3	-133.0	-152.4	100.0	-132.35
2.75	23.71	985.1	980.4	976.5	0.01	0.71	1.01	13.76	-20.4	-27.6	-39.9	0.07	0.30	-86.8	-111.5	-132.9	-152.9	148.1	-135.92
3.00	23.41	991.0	986.3	982.5	0.05	0.75	1.04	13.77	-20.1	-28.1	-40.5	0.13	0.52	-85.5	-111.3	-132.9	-152.9	211.6	-139.17
3.25	23.11	996.8	992.2	988.3	0.09	0.77	1.06	13.79	-20.0	-28.8	-41.3	0.20	0.71	-85.7	-111.7	-133.1	-152.8	361.5	-143.65
3.50	22.86	1002.6	998.0	994.2	0.12	0.77	1.05	13.81	-20.3	-29.2	-41.2	0.28	0.87	-85.3	-111.8	-132.8	-152.8	432.2	-144.67
3.75	22.63	1008.2	1003.7	999.9	0.08	0.74	1.03	13.82	-20.3	-29.5	-41.0	0.36	0.99	-85.8	-111.7	-131.3	-154.1	507.5	-146.66
4.00	22.46	1013.8	1009.3	1005.6	0.02	0.68	0.98	13.82	-20.2	-29.2	-40.5	0.43	1.07	-86.3	-111.8	-133.4	-153.3	606.7	-148.04
4.25	22.33	1019.4	1015.0	1011.2	-0.01	0.62	0.92	13.83	-20.1	-28.9	-40.7	0.49	1.12	-86.5	-111.8	-133.5	-153.0	851.6	-151.02
4.50	22.20	1025.0	1020.5	1016.8	-0.07	0.58	0.88	13.84	-20.0	-28.8	-40.9	0.56	1.13	-86.2	-111.5	-133.3	-153.6	1000.0	-152.25

*at 25°C unless mentioned otherwise

ZX95-988+
Frequency and Tuning Sensitivity



ZX95-988+
Power Output



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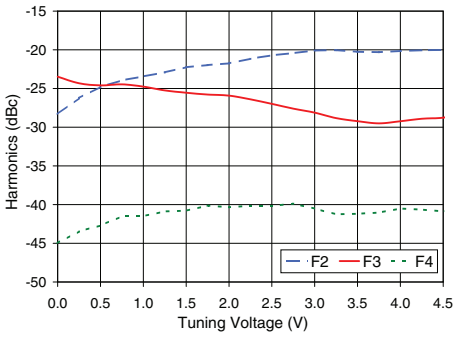
Harmonics Level



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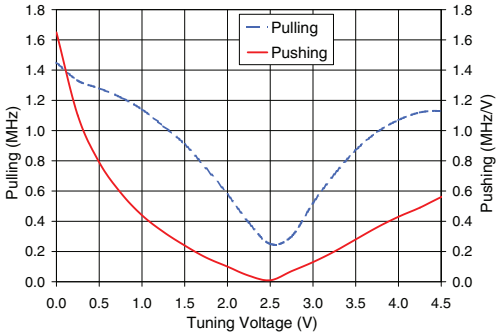
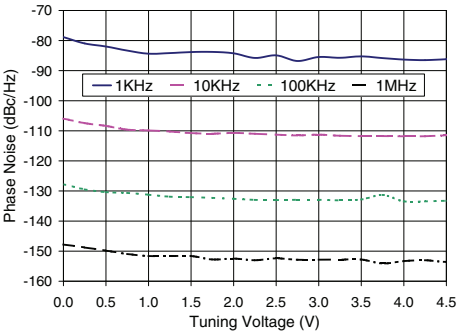
Frequency Pulling & Pushing (Vcc ± 5%)



ZX95-988+
Phase Noise Vs. Tuning Voltage



ZX95-988+
Phase Noise