

Voltage Controlled Oscillator

ZX95-870+

5V Tuning for PLL IC's 840 to 870 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	ZX95-870-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.

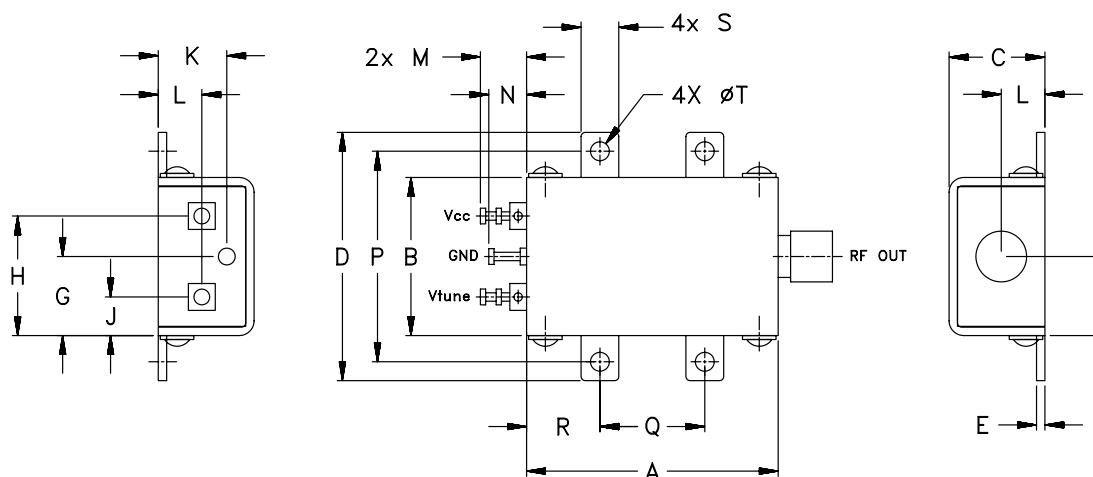
Electrical Specifications

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 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-870+	840	870	+1	-89	-111	-132	-151	0.5	5	11 - 12	50	90	-90	-19	-12	1.1	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

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	.09	grams
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	2.29	35.0



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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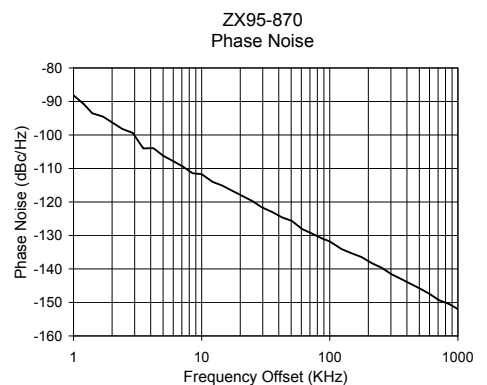
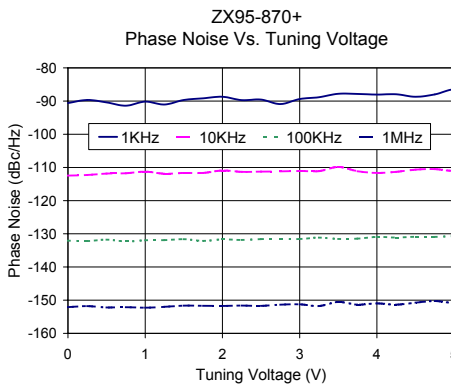
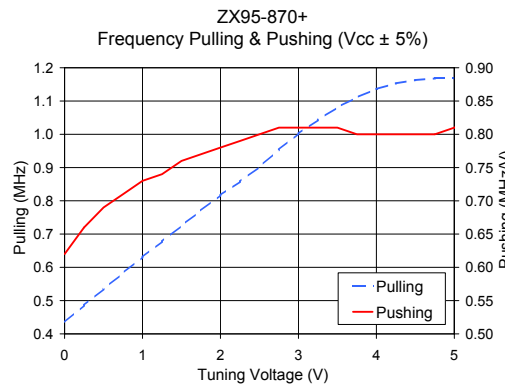
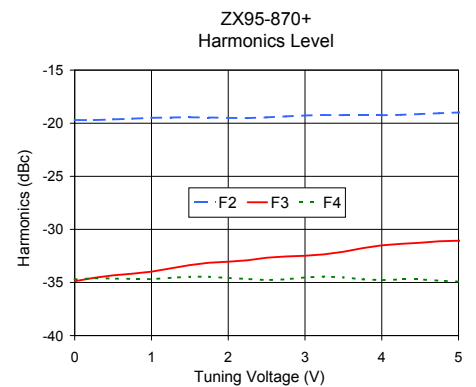
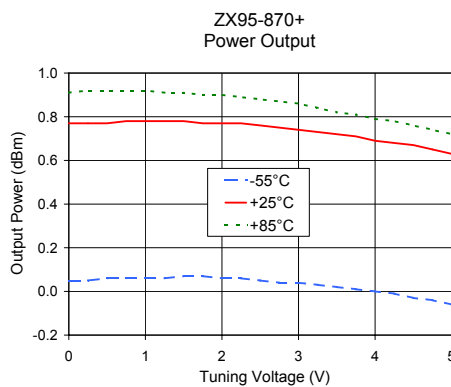
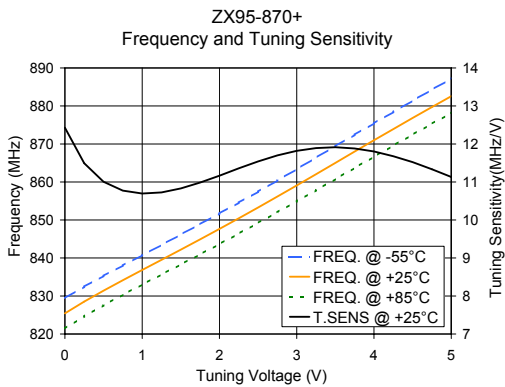
RF/IF MICROWAVE COMPONENTS

Performance Data & Curves*

ZX95-870+

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 843 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1KHz	10KHz	100KHz	1MHz		
0.00	12.43	829.4	825.4	821.5	0.05	0.77	0.91	12.07	-19.7	-34.9	-34.7	0.62	0.44	-90.6	-112.5	-132.1	-152.1	1.0	-88.16
0.50	11.01	835.3	831.4	827.6	0.06	0.77	0.92	12.10	-19.6	-34.3	-34.6	0.69	0.54	-90.4	-111.9	-131.8	-152.2	2.0	-96.25
0.75	10.77	838.0	834.2	830.3	0.06	0.78	0.92	12.11	-19.6	-34.2	-34.7	0.71	0.58	-91.4	-111.8	-132.3	-152.1	3.5	-104.01
1.00	10.70	840.7	836.8	833.0	0.06	0.78	0.92	12.12	-19.5	-34.0	-34.7	0.73	0.63	-90.2	-111.3	-132.0	-152.3	6.0	-107.81
1.25	10.73	843.4	839.5	835.7	0.06	0.78	0.91	12.13	-19.5	-33.7	-34.6	0.74	0.68	-91.0	-111.9	-131.9	-152.0	8.5	-111.43
1.50	10.83	846.2	842.2	838.3	0.07	0.78	0.91	12.14	-19.4	-33.4	-34.5	0.76	0.73	-89.7	-111.7	-131.6	-151.7	10.0	-111.71
1.75	10.99	848.9	844.9	841.0	0.07	0.77	0.90	12.14	-19.5	-33.1	-34.5	0.77	0.77	-89.2	-111.7	-132.1	-151.7	20.8	-118.22
2.00	11.17	851.7	847.7	843.7	0.06	0.77	0.90	12.15	-19.5	-33.0	-34.6	0.78	0.82	-88.7	-110.9	-131.7	-151.7	35.5	-123.00
2.25	11.36	854.6	850.4	846.4	0.06	0.77	0.89	12.16	-19.5	-32.9	-34.7	0.79	0.86	-89.7	-111.3	-131.9	-151.6	60.7	-128.08
2.50	11.54	857.5	853.3	849.2	0.05	0.76	0.88	12.17	-19.5	-32.7	-34.8	0.80	0.90	-89.6	-111.3	-131.6	-151.7	86.7	-130.88
2.75	11.70	860.4	856.2	852.0	0.04	0.75	0.87	12.18	-19.4	-32.6	-34.7	0.81	0.95	-90.9	-111.2	-131.5	-151.4	100.0	-131.78
3.00	11.82	863.4	859.1	854.9	0.04	0.74	0.86	12.18	-19.3	-32.5	-34.5	0.81	1.00	-89.4	-111.1	-131.6	-151.2	148.1	-135.34
3.25	11.89	866.4	862.1	857.8	0.03	0.73	0.84	12.19	-19.2	-32.4	-34.4	0.81	1.04	-88.9	-111.1	-131.2	-151.8	177.0	-136.45
3.50	11.91	869.4	865.0	860.8	0.02	0.72	0.82	12.19	-19.2	-32.1	-34.5	0.81	1.08	-87.8	-109.9	-131.5	-150.5	211.6	-138.22
3.75	11.88	872.4	868.0	863.7	0.01	0.71	0.81	12.20	-19.2	-31.8	-34.7	0.80	1.11	-87.9	-111.2	-131.5	-151.3	302.4	-141.55
4.00	11.80	875.4	871.0	866.7	0.00	0.69	0.79	12.21	-19.3	-31.5	-34.8	0.80	1.14	-88.1	-111.7	-130.9	-151.0	361.5	-143.03
4.25	11.68	878.4	873.9	869.6	-0.01	0.68	0.78	12.21	-19.2	-31.4	-34.7	0.80	1.15	-88.0	-111.3	-131.1	-151.4	507.5	-145.89
4.50	11.52	881.4	876.8	872.5	-0.03	0.67	0.76	12.21	-19.1	-31.3	-34.7	0.80	1.16	-88.7	-110.7	-130.9	-150.8	600.0	-147.46
4.75	11.33	884.3	879.7	875.3	-0.04	0.65	0.74	12.21	-19.1	-31.1	-34.8	0.80	1.17	-88.0	-110.5	-130.9	-150.3	851.6	-150.47
5.00	11.13	887.2	882.6	878.1	-0.06	0.63	0.72	12.21	-19.0	-31.1	-34.9	0.81	1.17	-86.5	-111.0	-130.7	-150.8	1000.0	-152.00

*at 25°C unless mentioned otherwise



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