

Coaxial

# Voltage Controlled Oscillator

## ZX95-2750-S+

Linear Tuning 2350 to 2750 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- video on demand system



Generic photo used for illustration purposes only  
CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2750-S+

**+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				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.			Max.	Typ.	Max.
ZX95-2750-S+	2350	2750	+5.5	-78	-105	-126	-146	0.5	14.5	32-42	20	120	-90	-22	-12	2	0.3	6	35

### Maximum Ratings

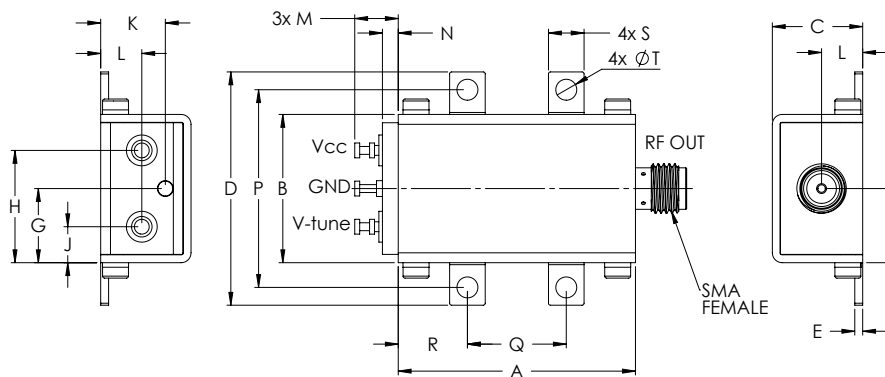
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	16V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.



NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminals. See Application Note [AN-40-10](#).

### 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	.08	1.00	.50	.35	.18	.106	grams
30.48	19.15	11.61	30.07	1.02	9.53	9.53	14.43	4.62	8.31	5.28	5.59	2.03	25.40	12.70	8.89	4.57	2.69	35.0

#### Notes

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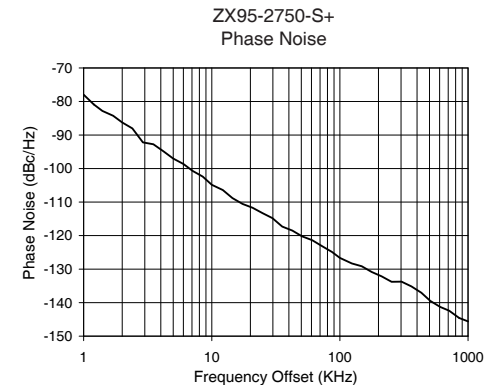
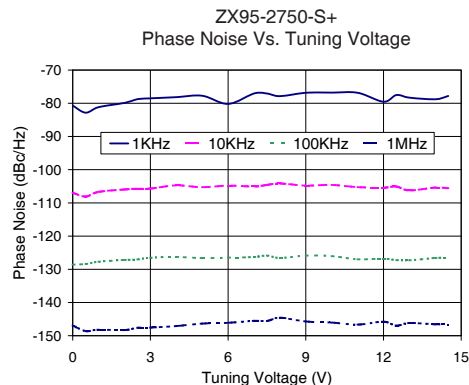
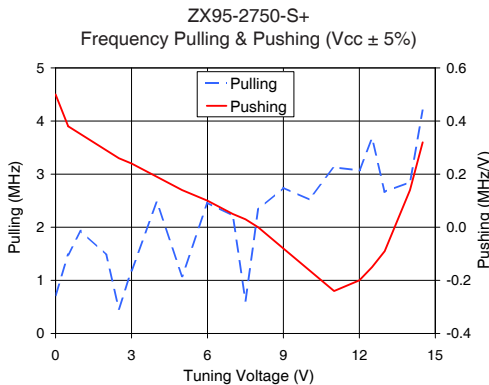
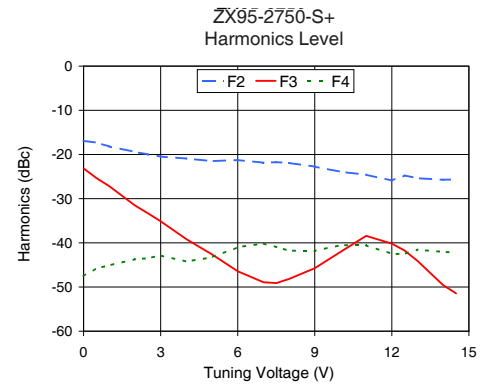
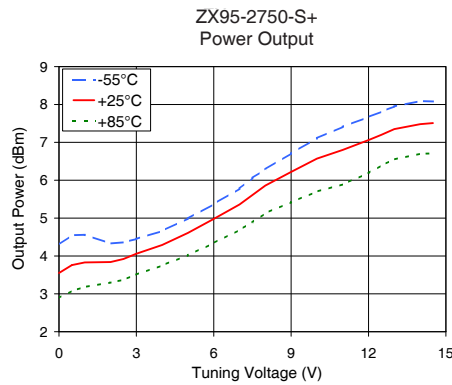
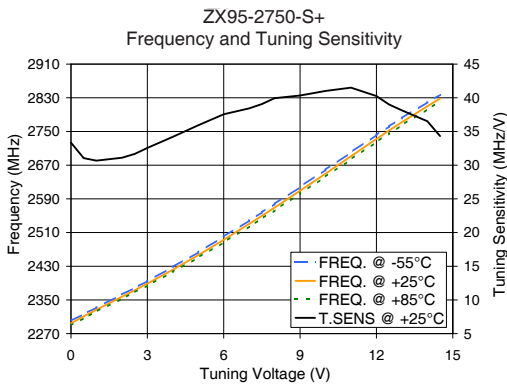


## Performance Data & Curves\*

## ZX95-2750-S+

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 2550 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	33.34	2300.3	2294.4	2289.6	4.30	3.55	2.89	27.90	-16.9	-23.2	-47.5	0.50	0.72	-80.7	-107.0	-128.6	-146.9	1.0	-77.97
0.50	31.05	2316.4	2311.1	2306.7	4.55	3.76	3.08	27.91	-17.3	-25.3	-45.7	0.38	1.49	-82.8	-108.1	-128.4	-148.6	2.0	-86.26
1.00	30.67	2331.8	2326.6	2322.3	4.56	3.83	3.18	27.86	-18.2	-27.2	-45.1	0.35	1.93	-81.2	-106.7	-127.7	-148.2	3.5	-92.76
2.00	31.10	2362.9	2357.3	2352.8	4.33	3.84	3.30	27.72	-19.4	-31.5	-43.7	0.29	1.48	-79.9	-106.0	-127.2	-148.3	6.0	-98.62
3.00	32.56	2394.8	2388.7	2383.9	4.45	4.06	3.51	27.61	-20.5	-35.1	-42.9	0.24	1.18	-78.5	-105.7	-126.5	-147.5	8.5	-102.41
4.00	34.21	2428.2	2421.7	2416.5	4.66	4.29	3.75	27.51	-20.9	-39.2	-44.2	0.19	2.47	-78.2	-104.7	-126.3	-147.1	10.0	-104.85
5.00	35.93	2463.4	2456.3	2450.8	4.99	4.61	4.02	27.43	-21.5	-42.6	-43.3	0.14	1.08	-77.7	-105.3	-126.6	-146.3	20.8	-111.70
6.00	37.56	2500.3	2492.7	2486.7	5.37	4.98	4.34	27.34	-21.3	-46.4	-41.0	0.10	2.46	-80.2	-104.8	-126.5	-146.1	35.5	-117.31
7.00	38.43	2538.6	2530.5	2524.2	5.78	5.36	4.69	27.29	-21.9	-48.9	-40.2	0.05	2.22	-77.0	-105.1	-126.3	-145.5	60.7	-121.36
7.50	39.08	2558.1	2549.7	2543.2	6.06	5.61	4.89	27.26	-21.7	-49.1	-41.0	0.03	0.62	-77.1	-104.6	-125.9	-145.6	86.7	-124.88
8.00	39.95	2578.0	2569.3	2562.6	6.29	5.86	5.13	27.22	-21.9	-48.2	-41.8	0.00	2.33	-77.8	-104.1	-126.6	-144.6	100.0	-126.65
9.00	40.34	2618.4	2609.4	2602.4	6.71	6.22	5.42	27.16	-22.7	-45.7	-41.8	-0.08	2.75	-76.8	-104.8	-125.9	-145.7	148.1	-129.16
10.00	41.02	2659.2	2649.8	2642.8	7.11	6.57	5.70	27.09	-23.9	-42.1	-40.5	-0.16	2.52	-76.8	-104.6	-126.0	-146.1	177.0	-130.85
11.00	41.50	2700.6	2691.1	2684.0	7.41	6.80	5.89	27.01	-24.6	-38.4	-40.6	-0.24	3.13	-76.8	-105.3	-127.0	-146.7	211.6	-132.16
12.00	40.26	2742.0	2732.4	2725.3	7.67	7.06	6.19	26.99	-25.9	-40.2	-42.5	-0.20	3.07	-79.5	-105.4	-126.8	-145.8	302.4	-133.75
12.50	39.00	2762.3	2752.5	2745.3	7.81	7.20	6.39	27.00	-24.7	-41.8	-42.5	-0.15	3.67	-77.5	-105.1	-127.2	-147.0	361.5	-135.17
13.00	38.14	2781.7	2772.0	2764.9	7.95	7.35	6.55	26.99	-25.4	-44.1	-41.5	-0.09	2.67	-78.3	-106.3	-127.3	-146.2	507.5	-139.49
14.00	36.52	2819.6	2810.0	2802.9	8.09	7.48	6.70	26.93	-25.7	-49.6	-42.1	0.14	2.85	-78.8	-105.4	-126.6	-146.6	712.4	-142.41
14.50	34.32	2837.6	2828.2	2821.3	8.08	7.51	6.71	26.91	-25.6	-51.4	-42.2	0.32	4.20	-77.8	-105.6	-126.5	-146.6	1000.0	-145.60

\*at 25°C unless mentioned otherwise



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