

# Voltage Controlled Oscillator

## ZX95-766+

5V Tuning for PLL IC's 730 to 766 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
SMA	ZX95-766-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.
ZX95-766+	730	766	+0.5	-91	-113	-134	-154	0.5	5	12-13	60	80	-90	-23	-15	0.5	0.1	5	18

### Maximum Ratings

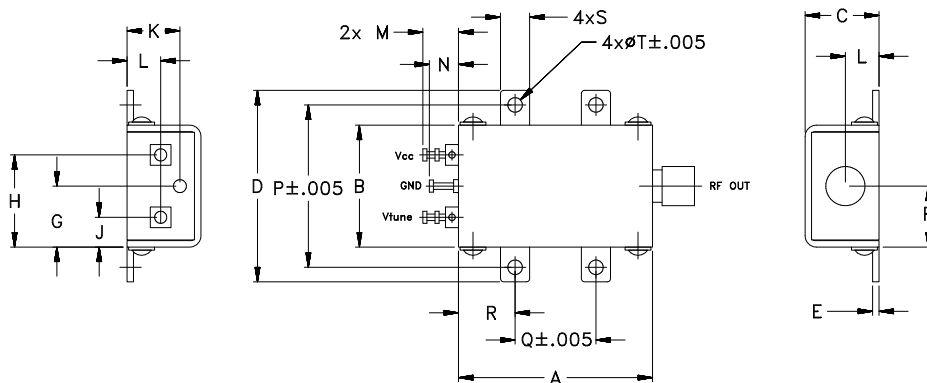
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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



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	.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

#### Notes

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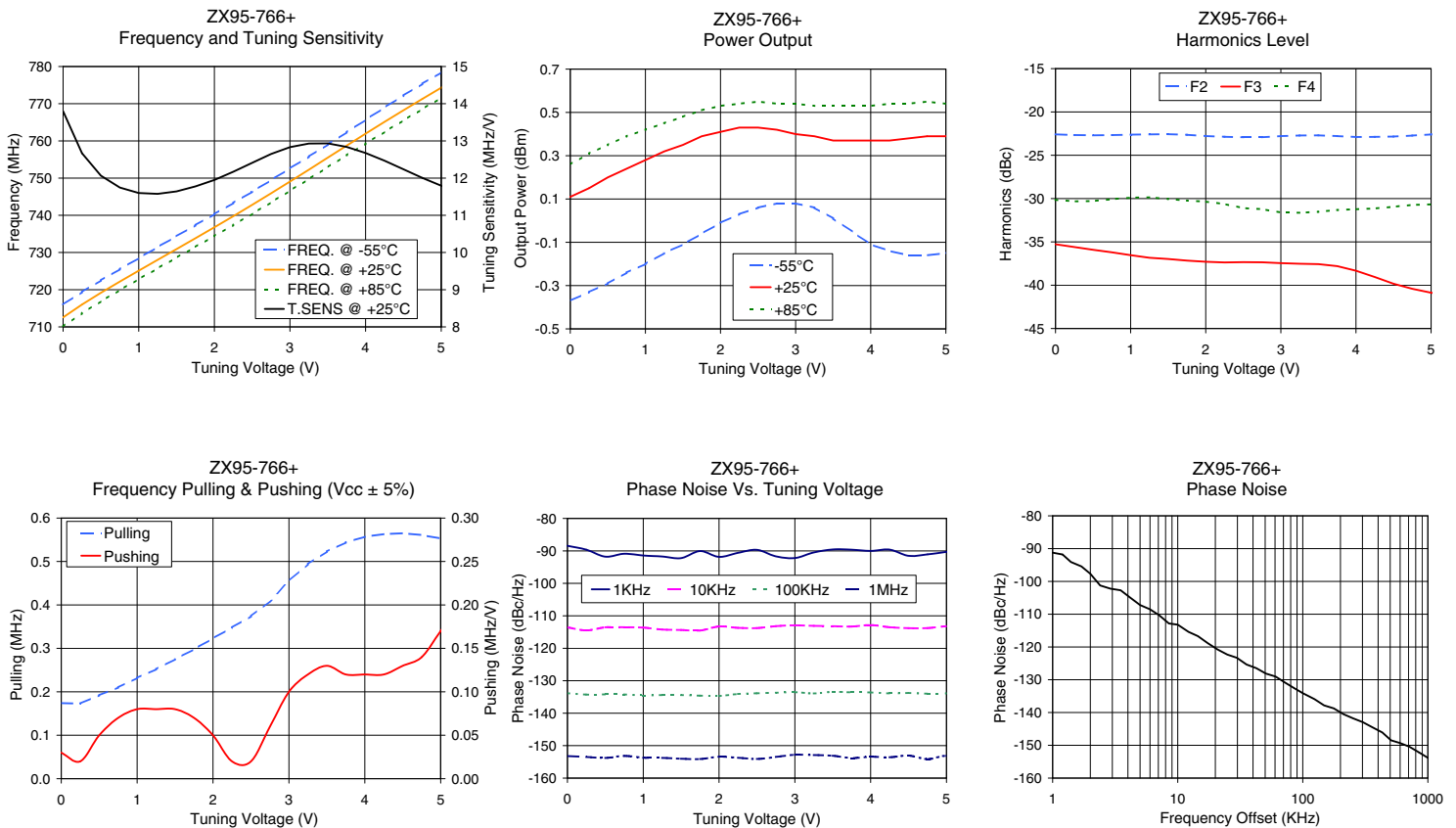


# Performance Data & Curves\*

# ZX95-766+

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 744 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	13.80	716.0	712.6	710.1	-0.37	0.11	0.26	12.82	-22.6	-35.3	-30.1	0.03	0.17	-88.4	-113.5	-133.8	-153.2	1.0	-91.24
0.50	12.07	722.5	719.2	716.9	-0.29	0.20	0.35	12.88	-22.7	-35.9	-30.3	0.05	0.19	-91.8	-113.5	-134.2	-153.8	2.0	-97.68
0.75	11.75	725.5	722.2	719.9	-0.24	0.24	0.39	12.91	-22.7	-36.2	-30.1	0.07	0.21	-90.9	-113.5	-134.2	-153.2	3.5	-102.70
1.00	11.60	728.5	725.1	722.8	-0.20	0.28	0.42	12.93	-22.6	-36.5	-29.9	0.08	0.23	-91.4	-113.7	-134.5	-153.7	6.0	-108.51
1.25	11.58	731.4	728.0	725.7	-0.15	0.32	0.45	12.96	-22.6	-36.8	-29.9	0.08	0.25	-91.7	-114.2	-134.4	-153.8	8.5	-112.82
1.50	11.64	734.4	730.9	728.6	-0.11	0.35	0.48	12.98	-22.6	-37.0	-30.0	0.08	0.28	-92.2	-114.4	-134.4	-154.0	10.0	-113.20
1.75	11.78	737.3	733.8	731.5	-0.06	0.39	0.51	13.01	-22.6	-37.2	-30.2	0.07	0.30	-90.1	-114.5	-134.6	-154.1	20.8	-120.76
2.00	11.95	740.3	736.8	734.4	-0.01	0.41	0.53	13.03	-22.8	-37.3	-30.4	0.05	0.32	-91.9	-113.3	-134.7	-153.4	35.5	-125.35
2.25	12.17	743.3	739.8	737.4	0.03	0.43	0.54	13.05	-22.9	-37.4	-30.6	0.02	0.35	-90.6	-113.7	-134.1	-153.7	60.7	-129.03
2.50	12.41	746.4	742.8	740.4	0.06	0.43	0.55	13.06	-22.9	-37.3	-31.1	0.02	0.37	-89.7	-113.8	-133.9	-154.1	86.7	-132.72
2.75	12.65	749.5	745.9	743.5	0.08	0.42	0.54	13.08	-22.9	-37.4	-31.2	0.06	0.41	-91.7	-113.2	-133.7	-153.5	100.0	-134.10
3.00	12.83	752.6	749.1	746.6	0.08	0.40	0.54	13.09	-22.8	-37.5	-31.6	0.10	0.46	-92.2	-112.9	-133.5	-152.8	148.1	-137.83
3.25	12.93	755.8	752.3	749.8	0.06	0.39	0.53	13.11	-22.7	-37.5	-31.6	0.12	0.49	-90.5	-113.1	-133.9	-152.9	177.0	-138.73
3.50	12.93	759.0	755.5	752.9	0.01	0.37	0.53	13.13	-22.7	-37.6	-31.5	0.13	0.52	-89.6	-113.2	-133.4	-153.1	211.6	-140.50
3.75	12.84	762.3	758.7	756.1	-0.05	0.37	0.53	13.15	-22.8	-37.8	-31.3	0.12	0.54	-89.6	-113.3	-133.6	-153.8	302.4	-142.96
4.00	12.68	765.7	762.0	759.3	-0.11	0.37	0.53	13.17	-22.9	-38.3	-31.2	0.12	0.56	-90.0	-112.9	-133.6	-153.4	361.5	-144.55
4.25	12.47	769.0	765.1	762.4	-0.14	0.37	0.54	13.20	-22.9	-39.1	-31.1	0.12	0.56	-89.6	-113.5	-133.9	-153.6	507.5	-148.88
4.50	12.24	772.2	768.2	765.5	-0.16	0.38	0.54	13.23	-22.8	-39.8	-31.0	0.13	0.57	-91.5	-113.8	-133.8	-153.1	600.0	-149.33
4.75	12.01	775.4	771.3	768.6	-0.16	0.39	0.55	13.25	-22.7	-40.4	-30.7	0.14	0.56	-91.1	-113.8	-134.0	-154.2	851.6	-152.19
5.00	11.79	778.4	774.3	771.6	-0.15	0.39	0.54	13.27	-22.6	-40.9	-30.7	0.17	0.55	-90.3	-113.2	-133.9	-153.1	1000.0	-153.81

\*at 25°C unless mentioned otherwise



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