

Voltage Controlled Oscillator

ZX95-755+

5V Tuning for PLL IC's 720 to 755 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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-755-S+

Applications

- r & d
- lab
- instrumentation
- PLL circuitry
- wireless microphones

+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.	Typ.			Typ.	Typ.
ZX95-755+	720	755	-0.5	-89	-113	-133	-147	0.5	5	12-13	46	80	-90	-23	-15	0.4	0.1	5	17

Maximum Ratings

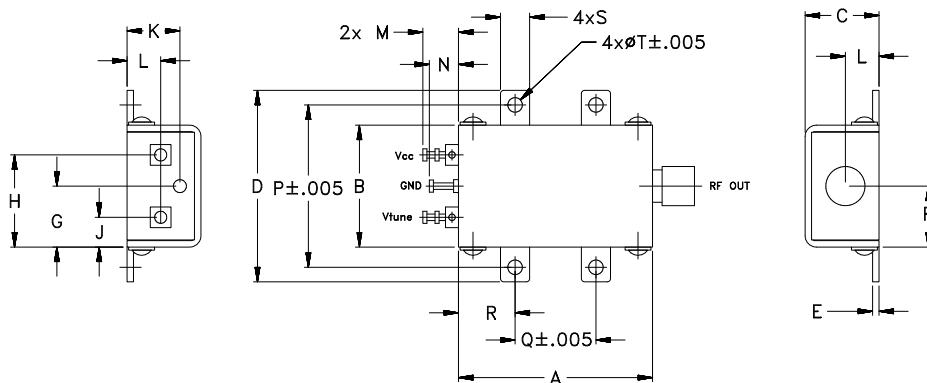
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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



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

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

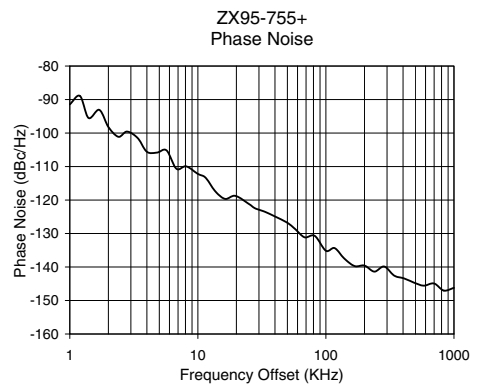
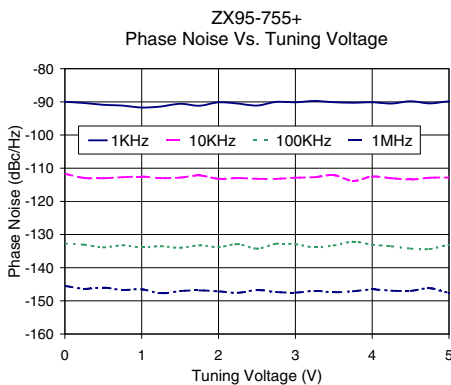
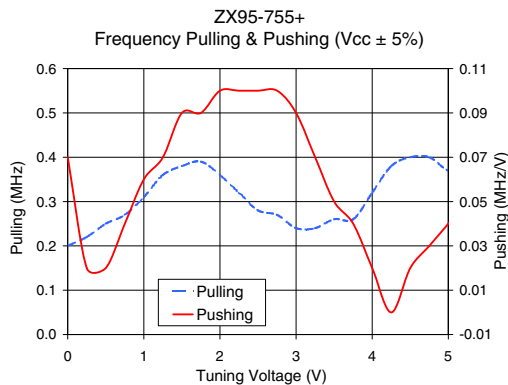
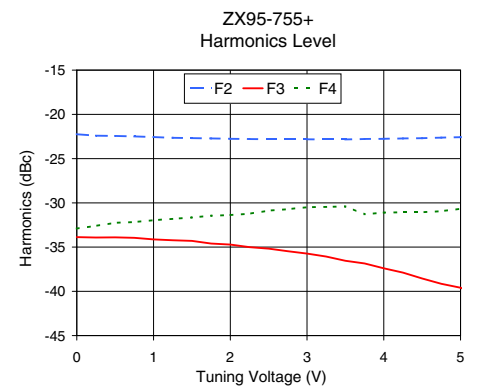
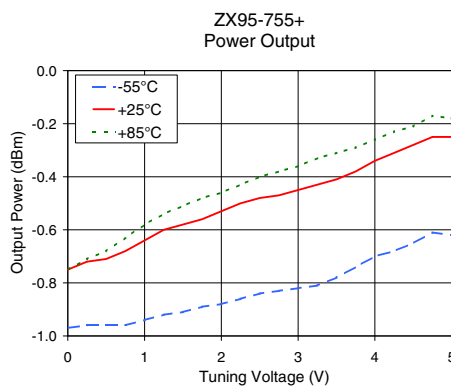
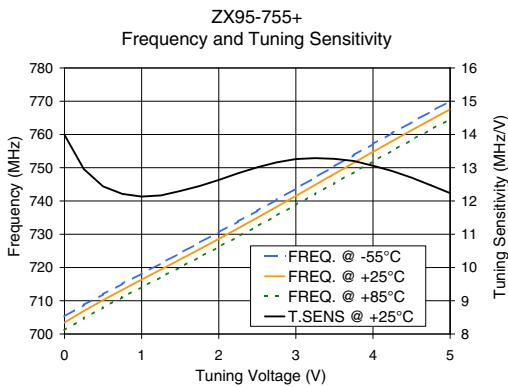


Performance Data & Curves*

ZX95-755+

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 734 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	13.99	705.3	703.4	701.1	-0.97	-0.75	-0.75	11.99	-22.2	-33.9	-32.9	0.07	0.20	-90.0	-111.7	-132.7	-145.5	1.0	-91.45
0.50	12.44	711.9	710.2	708.0	-0.96	-0.71	-0.68	12.03	-22.4	-33.9	-32.3	0.02	0.25	-90.9	-113.0	-133.9	-146.0	2.0	-98.19
0.75	12.21	715.1	713.3	711.1	-0.96	-0.68	-0.63	12.06	-22.5	-34.0	-32.2	0.04	0.27	-91.1	-112.7	-133.3	-146.7	3.4	-101.55
1.00	12.13	718.2	716.3	714.1	-0.94	-0.64	-0.58	12.08	-22.6	-34.1	-32.0	0.06	0.31	-91.7	-112.5	-133.9	-146.5	5.7	-105.19
1.25	12.17	721.2	719.4	717.1	-0.92	-0.60	-0.54	12.10	-22.7	-34.2	-31.8	0.07	0.36	-91.4	-113.0	-133.5	-147.7	8.1	-109.95
1.50	12.30	724.3	722.4	720.1	-0.91	-0.58	-0.51	12.13	-22.7	-34.3	-31.7	0.09	0.38	-90.6	-112.8	-134.0	-147.0	10.0	-112.21
1.75	12.45	727.4	725.5	723.1	-0.89	-0.56	-0.48	12.15	-22.7	-34.6	-31.5	0.09	0.39	-91.2	-112.2	-133.3	-146.9	19.6	-118.76
2.00	12.63	730.6	728.6	726.2	-0.88	-0.53	-0.46	12.18	-22.8	-34.7	-31.4	0.10	0.36	-90.2	-113.2	-133.9	-147.1	33.3	-123.48
2.25	12.83	733.8	731.8	729.3	-0.86	-0.50	-0.43	12.21	-22.8	-35.0	-31.2	0.10	0.32	-90.5	-113.0	-132.9	-147.6	57.2	-128.60
2.50	13.01	737.1	735.0	732.4	-0.84	-0.48	-0.40	12.23	-22.8	-35.2	-30.9	0.10	0.28	-91.1	-113.2	-134.2	-146.8	81.8	-130.68
2.75	13.16	740.4	738.2	735.6	-0.83	-0.47	-0.38	12.26	-22.8	-35.5	-30.7	0.10	0.27	-90.0	-113.2	-132.8	-147.3	100.0	-135.15
3.00	13.26	743.7	741.5	738.8	-0.82	-0.45	-0.36	12.28	-22.8	-35.7	-30.5	0.09	0.24	-90.1	-112.9	-132.9	-147.5	139.3	-137.47
3.25	13.29	747.1	744.8	742.1	-0.81	-0.43	-0.33	12.31	-22.8	-36.1	-30.5	0.07	0.24	-89.7	-112.7	-133.9	-147.0	167.3	-139.72
3.50	13.27	750.4	748.2	745.4	-0.78	-0.41	-0.31	12.34	-22.8	-36.6	-30.4	0.05	0.26	-90.1	-112.1	-133.3	-147.4	200.0	-139.57
3.75	13.20	753.8	751.5	748.7	-0.74	-0.38	-0.29	12.37	-22.8	-36.9	-31.3	0.04	0.26	-90.3	-113.8	-132.2	-147.1	284.8	-139.86
4.00	13.06	757.1	754.8	751.9	-0.70	-0.34	-0.26	12.39	-22.8	-37.4	-31.1	0.02	0.32	-90.1	-112.5	-133.1	-146.6	342.1	-142.58
4.25	12.90	760.4	758.0	755.1	-0.68	-0.31	-0.23	12.41	-22.7	-37.9	-31.1	0.00	0.38	-90.5	-113.0	-133.5	-146.9	500.0	-144.82
4.50	12.70	763.7	761.3	758.3	-0.65	-0.28	-0.21	12.44	-22.7	-38.6	-31.1	0.02	0.40	-89.8	-113.4	-134.3	-147.0	582.3	-145.56
4.75	12.47	766.9	764.4	761.5	-0.61	-0.25	-0.17	12.46	-22.6	-39.2	-30.9	0.03	0.40	-90.5	-112.9	-134.4	-146.2	832.6	-147.04
5.00	12.24	770.0	767.6	764.6	-0.62	-0.25	-0.18	12.49	-22.6	-39.6	-30.7	0.04	0.37	-89.9	-112.9	-133.2	-147.5	1000.0	-146.21

*at 25°C unless mentioned otherwise



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

