

Voltage Controlled Oscillator

ZX95-4781+

Linear Tuning 4540 to 4781 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- industrial microwave & RF
- fixed satellite



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-4781-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)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Typ.	Max.
ROS-4781+	4540	4781	+5	-69	-95	-116	-137	0.5	12	27-40	10	125	-90	-23	-14	1.1	1.5	5	50

Maximum Ratings

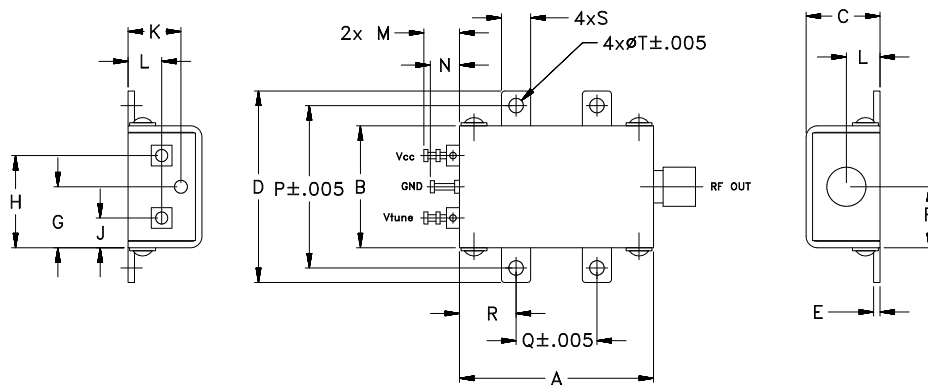
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	14V
All specifications	50 ohm system

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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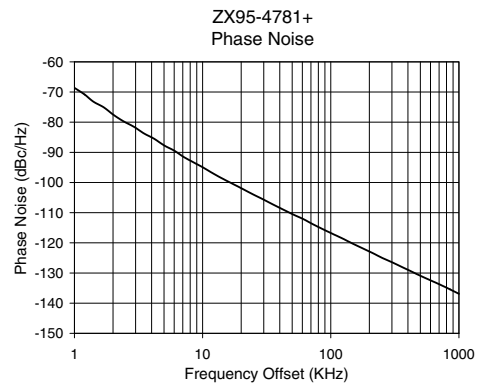
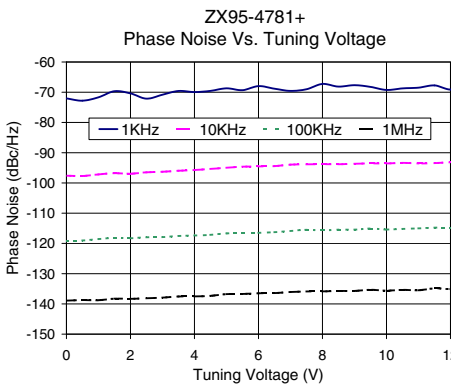
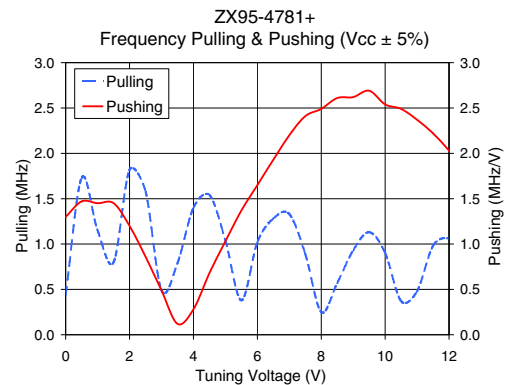
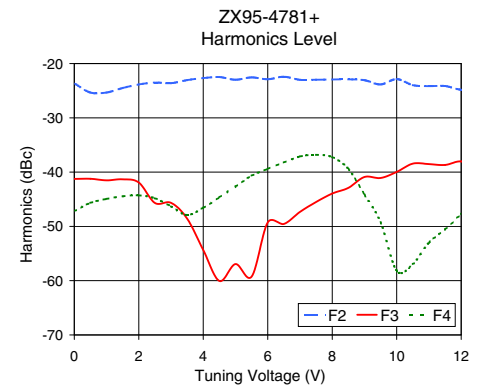
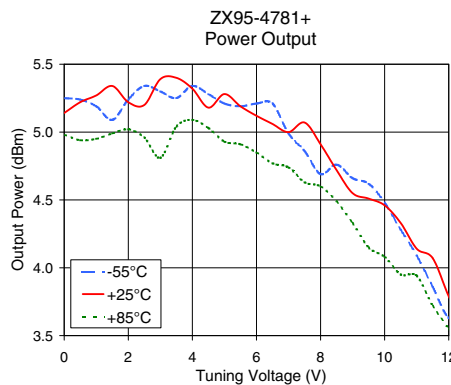
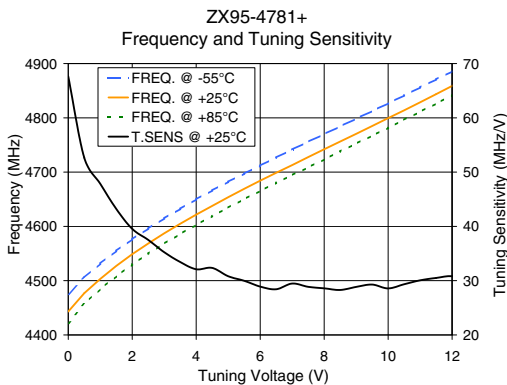


Performance Data & Curves*

ZX95-4781+

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 4656 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	67.63	4475.2	4443.1	4421.8	5.25	5.14	4.98	43.60	-23.7	-41.3	-47.2	1.30	0.44	-72.0	-97.6	-119.0	-138.9	1.0	-68.63
0.50	52.65	4505.5	4476.9	4457.3	5.24	5.22	4.94	43.88	-25.3	-41.2	-45.7	1.47	1.73	-72.8	-97.7	-119.0	-138.7	2.0	-77.44
1.00	47.85	4531.6	4503.2	4484.8	5.19	5.27	4.95	44.03	-25.3	-41.5	-44.9	1.45	1.15	-71.7	-97.2	-118.6	-138.8	3.5	-83.78
1.50	43.24	4554.9	4527.1	4508.1	5.09	5.34	4.99	44.11	-24.5	-41.3	-44.5	1.45	0.80	-69.7	-96.8	-118.2	-138.3	6.0	-89.41
2.00	39.55	4576.4	4548.7	4529.9	5.24	5.22	5.02	44.24	-23.8	-41.9	-44.3	1.20	1.82	-70.4	-96.9	-118.3	-138.3	8.5	-93.33
2.50	37.51	4596.1	4568.5	4549.8	5.34	5.20	4.96	44.31	-23.5	-45.7	-44.8	0.86	1.58	-72.1	-96.5	-118.0	-138.1	10.0	-94.92
3.00	35.25	4614.9	4587.3	4568.3	5.30	5.39	4.81	44.41	-23.6	-45.7	-46.3	0.49	0.49	-70.8	-96.3	-117.9	-137.9	20.8	-102.25
4.00	32.11	4649.9	4621.6	4602.7	5.34	5.32	5.09	44.46	-22.7	-54.3	-46.6	0.28	1.40	-69.9	-95.7	-117.4	-137.5	35.5	-107.31
4.50	32.35	4666.2	4637.7	4619.0	5.28	5.18	5.03	44.42	-22.5	-60.1	-44.7	0.68	1.54	-69.6	-95.4	-117.2	-137.3	60.7	-112.07
5.00	30.81	4682.1	4653.8	4634.6	5.21	5.28	4.93	44.39	-23.0	-57.0	-42.6	1.03	1.04	-68.7	-95.0	-116.7	-136.8	86.7	-115.47
5.50	29.97	4697.1	4669.2	4650.1	5.19	5.19	4.91	44.39	-22.6	-59.2	-40.7	1.37	0.38	-69.3	-94.6	-116.6	-136.7	100.0	-116.73
6.00	28.90	4711.8	4684.2	4665.4	5.21	5.12	4.85	44.37	-22.9	-49.3	-39.4	1.65	1.02	-68.0	-94.6	-116.5	-136.5	148.1	-120.24
7.00	29.47	4741.5	4712.9	4694.6	4.99	5.00	4.74	44.19	-23.0	-47.3	-37.1	2.20	1.33	-69.6	-93.9	-115.9	-136.1	177.0	-121.80
8.00	28.59	4769.8	4742.0	4723.3	4.69	4.91	4.60	43.98	-22.9	-43.9	-37.2	2.49	0.25	-67.3	-93.8	-115.7	-135.9	211.6	-123.35
8.50	28.29	4784.2	4756.3	4738.1	4.76	4.72	4.49	43.87	-22.9	-42.9	-39.4	2.61	0.57	-68.1	-93.8	-115.4	-135.7	302.4	-126.48
9.00	28.85	4798.4	4770.5	4752.5	4.66	4.55	4.33	43.76	-23.1	-40.9	-44.2	2.62	0.93	-67.7	-93.7	-115.4	-135.7	361.5	-128.08
9.50	29.28	4812.4	4784.9	4766.9	4.62	4.51	4.15	43.64	-23.8	-41.1	-49.2	2.69	1.13	-68.2	-93.5	-115.1	-135.3	507.5	-131.04
10.00	28.57	4826.6	4799.5	4781.4	4.48	4.46	4.08	43.53	-22.9	-40.0	-58.2	2.54	0.90	-69.3	-93.6	-115.4	-135.6	606.7	-132.52
11.00	30.07	4856.0	4828.5	4811.1	4.09	4.14	3.94	43.23	-24.2	-38.5	-53.0	2.37	0.48	-68.5	-93.6	-115.0	-135.5	851.6	-135.42
12.00	30.82	4885.5	4858.8	4841.3	3.63	3.79	3.55	42.95	-24.8	-38.0	-47.7	2.03	1.06	-69.1	-93.2	-114.8	-135.1	1000.0	-136.91

*at 25°C unless mentioned otherwise



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