Coaxial

Voltage Controlled Oscillator

ZX95-765+
ZX95-765

Linear Tuning 485 to 765 MHz

Features

- excellent harmonic suppression
- linear tuning
- low pushing & pulling
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- test equipment

CASE STYLE: GB956

Connectors	Model
SMA	ZX95-765-S+
SMA	ZX95-765-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 Typ.				TUNING VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER Vcc (volts)	DC OPERATING POWER Current (mA)
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.		Max.
ZX95-765(+)	485	765	+8	-77	-98	-118	-138	1	16	28 - 33	280	0.6	-90	-35	-24	1	0.5	12	22

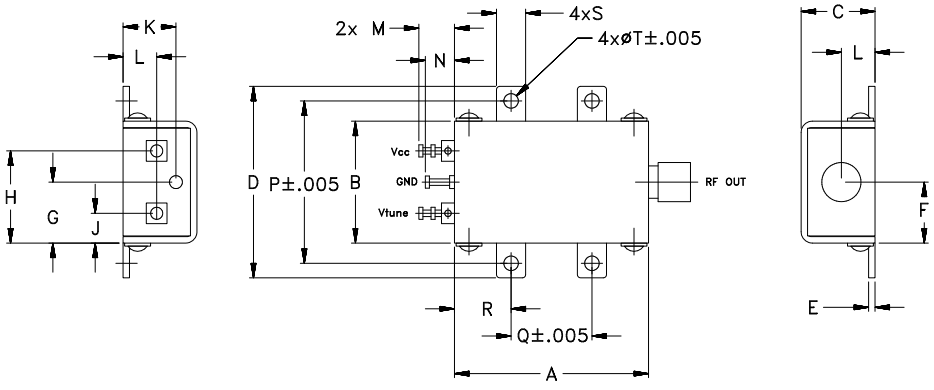
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	13V
Absolute Max. Tuning Voltage (Vtune)	18V
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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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.
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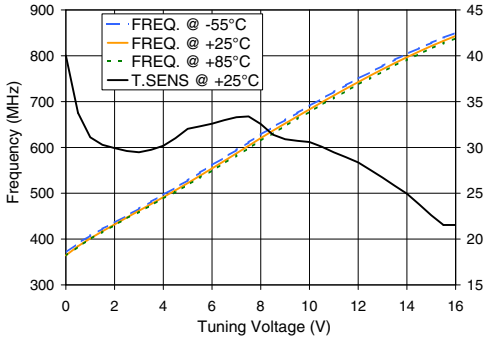
Performance Data & Curves*

ZX95-765+
ZX95-765

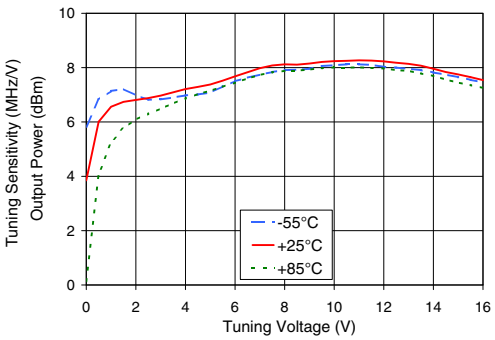
V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 620 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	40.03	370.5	364.5	363.4	5.82	3.85	0.14	16.33	-19.2	-38.2	-60.4	0.31	0.20	-75.9	-94.9	-115.2	-138.3	1.0	-79.34
0.50	33.76	390.9	384.5	383.3	6.83	6.01	4.07	16.41	-21.8	-42.6	-60.9	0.20	0.38	-75.0	-96.6	-117.7	-139.8	2.0	-82.66
1.00	31.10	407.7	401.4	400.0	7.14	6.56	5.25	16.43	-23.8	-44.2	-60.9	0.28	0.30	-75.2	-97.9	-118.3	-140.7	3.5	-90.73
2.00	29.93	435.9	432.1	430.5	6.98	6.81	6.09	16.44	-26.3	-46.9	-64.0	0.38	0.32	-75.2	-97.3	-117.7	-139.8	5.0	-94.31
3.00	29.47	466.4	461.8	459.5	6.83	6.97	6.49	16.45	-28.1	-49.3	-69.8	0.24	0.88	-75.8	-96.9	-117.9	-139.1	8.5	-97.39
4.00	30.18	496.8	491.4	488.3	6.98	7.21	6.86	16.46	-29.4	-51.3	-75.3	0.11	1.21	-77.6	-97.7	-118.0	-139.1	10.0	-97.33
5.00	32.03	528.2	522.0	518.1	7.08	7.38	7.15	16.48	-30.1	-53.7	-72.1	0.09	1.28	-76.3	-97.6	-117.9	-138.3	20.8	-104.58
6.00	32.59	561.4	554.2	549.6	7.50	7.68	7.45	16.50	-31.7	-55.6	-79.5	0.11	0.79	-74.6	-97.8	-117.9	-138.1	35.5	-108.73
7.00	33.29	594.4	587.0	581.9	7.74	7.98	7.73	16.53	-33.9	-60.2	-68.9	0.22	0.26	-77.0	-96.9	-117.8	-138.0	50.7	-112.27
8.00	32.55	628.1	620.3	614.7	7.91	8.12	7.88	16.56	-35.1	-58.1	-60.9	0.34	0.77	-75.2	-97.7	-117.8	-137.7	86.7	-116.83
8.50	31.39	644.5	636.6	631.0	7.92	8.11	7.89	16.57	-36.2	-56.4	-60.4	0.50	0.96	-75.3	-99.4	-118.8	-138.1	100.0	-118.16
9.00	30.89	659.9	652.3	646.9	7.96	8.15	7.93	16.59	-35.3	-55.4	-61.0	0.55	1.04	-75.7	-99.3	-118.9	-138.5	148.1	-121.37
9.50	30.72	675.2	667.7	662.4	8.06	8.21	7.98	16.58	-37.6	-57.0	-64.4	0.54	1.07	-76.6	-98.8	-118.7	-138.4	211.6	-124.31
10.00	30.59	690.7	683.1	677.7	8.09	8.24	8.01	16.58	-38.4	-57.8	-67.7	0.55	1.01	-77.1	-99.7	-119.0	-138.6	361.5	-128.94
11.00	29.47	721.0	713.4	708.1	8.12	8.27	8.01	16.58	-41.3	-56.1	-72.5	0.55	0.66	-80.5	-98.9	-118.8	-138.2	432.2	-130.6
12.00	28.36	750.2	742.6	737.3	8.03	8.23	7.97	16.56	-41.1	-54.5	-69.4	0.52	0.31	-80.4	-98.2	-119.4	-138.7	507.5	-131.86
13.00	26.70	778.0	770.6	765.3	7.96	8.14	7.88	16.55	-39.0	-52.4	-63.9	0.42	1.18	-77.2	-99.8	-119.5	-139.1	600.0	-133.24
14.00	24.95	804.2	796.8	791.6	7.82	7.96	7.69	16.53	-35.4	-51.5	-64.5	0.36	2.08	-76.5	-99.6	-119.6	-139.2	712.4	-134.65
15.00	22.60	828.3	821.2	816.0	7.65	7.75	7.45	16.51	-33.3	-51.7	-65.6	0.36	2.12	-78.6	-99.5	-120.6	-140.1	851.6	-136.25
16.00	21.54	850.2	843.3	838.3	7.46	7.54	7.25	16.49	-32.3	-50.3	-65.4	0.37	1.62	-77.3	-101.0	-121.2	-140.4	1000.0	-137.87

*at 25°C unless mentioned otherwise

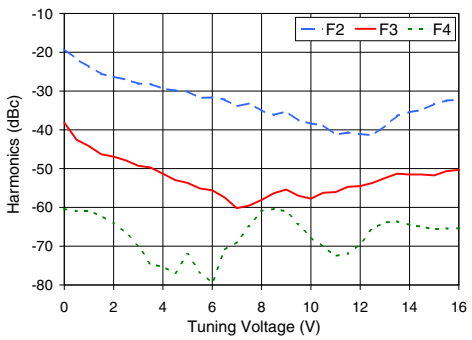
ZX95-765
Frequency and Tuning Sensitivity



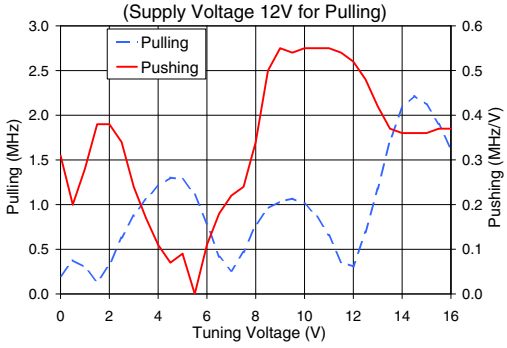
ZX95-765
Power Output



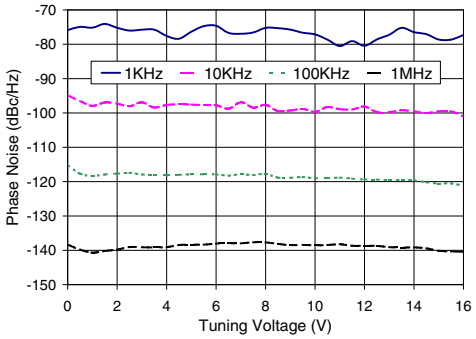
ZX95-765
Harmonics Level



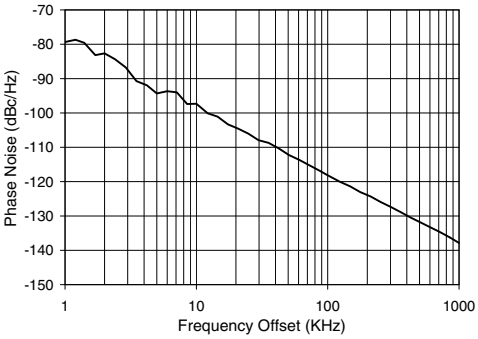
ZX95-765
Frequency Pulling & Pushing
(Supply Voltage 12V for Pulling)



ZX95-765
Phase Noise Vs. Tuning Voltage



ZX95-765
Phase Noise



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