

2X Fundamental

Voltage Controlled Oscillator

ZX95-6740C-S+

Frequency Doubling 6640 to 6740 MHz

Features

- frequency based on multiplication of carrier frequency
- low phase noise
- low pushing
- low pulling
- 5V tuning voltage range
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- wireless broadband access



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-6740C-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 _r (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	F			Typ.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Max.		F0.5	F1.5	F2			V _{cc} (volts)	Current (mA)
	Min.	Max.		1	10	100	1000													
ZX95-6740C-S+	6640	6740	+1.5	-70	-96	-120	-140	0.5	5	84-90	13	340	-90	-22	-16	-13	1	3	5	36

Maximum Ratings

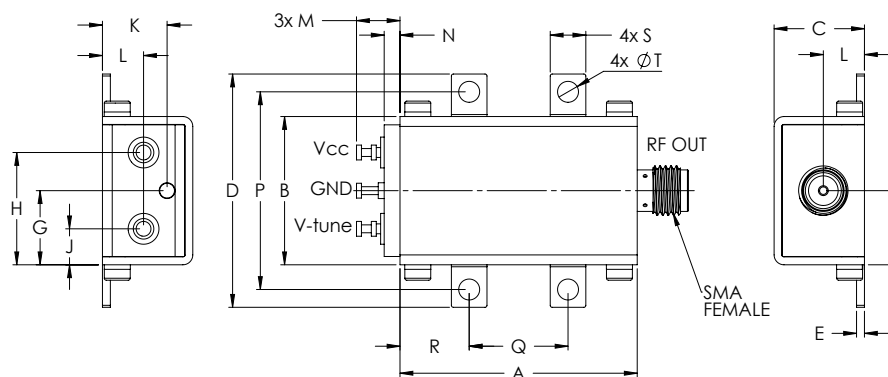
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	7.0V
All specifications	50 ohm system

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	19.05	11.68	29.97	1.02	9.65	9.65	14.48	4.57	8.38	5.33	5.59	2.03	25.40	12.70	8.89	4.57	2.69	35.0

Notes

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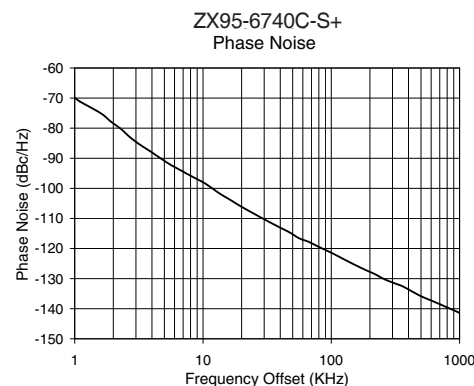
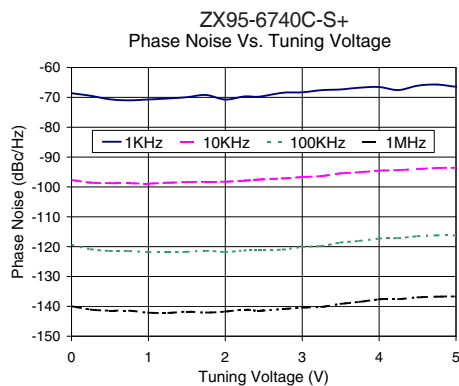
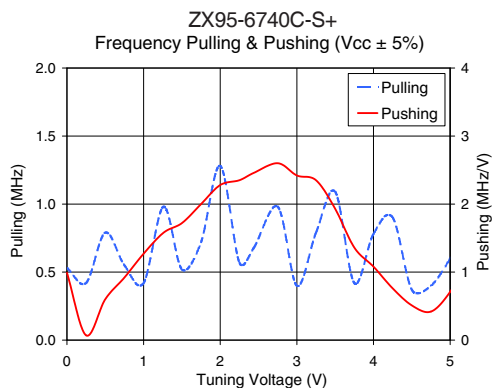
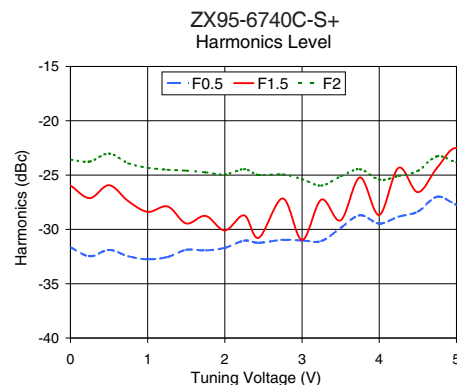
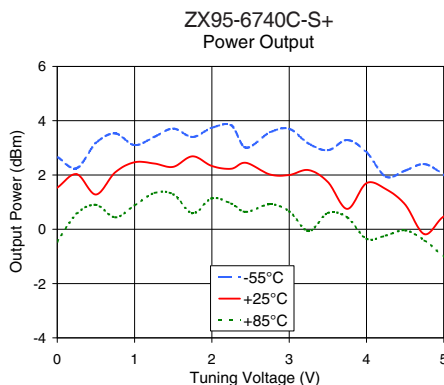
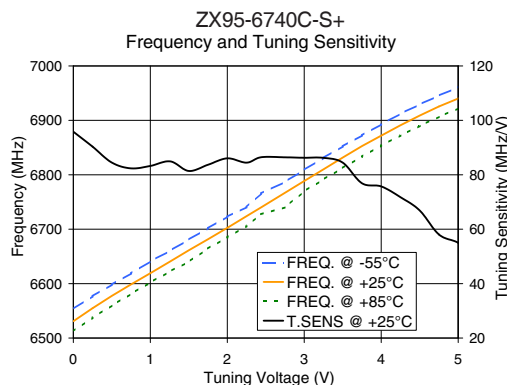
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Performance Data & Curves*

ZX95-6740C-S+

V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			I _{cc} (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 6690 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F0.5	F1.5	F2			1kHz	10kHz	100kHz	1MHz		
0.00	100.96	6550.4	6529.7	6510.1	0.62	-0.46	-1.90	28.33	-31.1	-21.0	-18.0	0.21	0.92	-71.2	-98.6	-121.1	-141.0	1.0	-71.55
0.25	93.24	6574.8	6554.9	6536.2	0.74	0.19	-1.52	28.58	-30.6	-23.7	-18.8	1.74	0.71	-70.0	-98.8	-122.0	-141.7	2.5	-81.91
0.50	90.23	6598.0	6578.3	6559.7	0.92	0.34	-0.98	28.78	-31.0	-21.4	-18.8	2.52	0.29	-70.7	-98.8	-122.2	-141.9	4.2	-89.08
0.75	86.93	6620.2	6600.8	6581.9	1.43	0.27	-0.68	28.99	-30.9	-24.8	-18.5	3.06	0.60	-72.6	-98.7	-121.9	-141.5	6.1	-93.00
1.00	86.29	6642.0	6622.5	6603.8	1.95	0.84	-1.04	29.16	-31.1	-24.0	-20.0	3.51	1.18	-71.3	-98.5	-122.1	-141.9	8.7	-96.10
1.25	87.09	6663.9	6644.1	6625.2	1.74	1.33	-0.44	29.31	-31.5	-25.8	-20.4	3.93	1.01	-71.2	-98.2	-122.2	-141.6	10.0	-97.56
1.50	87.25	6685.7	6665.9	6646.4	2.31	1.13	0.11	29.47	-30.7	-24.9	-20.3	4.32	0.75	-71.9	-97.4	-121.3	-141.1	24.0	-107.93
1.75	86.05	6707.3	6687.7	6667.7	2.69	1.60	0.26	29.67	-31.0	-26.1	-21.1	4.35	1.21	-71.6	-97.6	-121.4	-141.3	40.2	-112.96
2.00	87.21	6729.2	6709.2	6689.4	2.84	1.96	0.25	29.80	-30.7	-23.7	-21.4	4.51	1.78	-71.0	-97.0	-121.0	-140.9	66.3	-117.56
2.25	86.61	6751.1	6731.0	6710.7	3.26	1.92	0.73	29.91	-30.5	-26.9	-21.4	4.65	1.08	-70.0	-96.8	-120.5	-140.4	79.3	-119.20
2.50	86.38	6773.0	6752.7	6732.2	3.02	2.45	0.66	30.00	-30.6	-24.2	-22.4	4.64	0.81	-69.4	-95.7	-120.2	-140.2	100.0	-121.35
2.75	89.19	6795.5	6774.3	6753.6	3.36	2.41	1.05	30.03	-30.7	-27.3	-22.6	4.75	1.79	-70.1	-95.3	-119.8	-139.9	156.2	-125.33
3.00	84.15	6816.9	6796.6	6774.7	3.85	2.18	1.19	30.15	-29.9	-24.1	-21.8	4.58	1.77	-69.2	-95.0	-119.2	-139.2	183.5	-126.65
3.25	82.23	6838.1	6817.6	6796.2	3.91	2.91	0.76	30.23	-30.2	-25.5	-23.1	4.23	1.28	-68.5	-94.9	-118.9	-139.1	219.3	-128.18
3.50	82.05	6859.7	6838.2	6816.9	3.02	3.03	1.27	30.24	-30.2	-24.7	-23.1	4.19	1.84	-68.8	-94.5	-118.2	-138.4	307.9	-131.36
3.75	77.32	6879.3	6858.7	6836.4	4.14	2.31	1.59	30.29	-29.1	-24.3	-22.3	4.12	2.34	-66.7	-93.8	-117.4	-137.4	361.5	-132.41
4.00	70.16	6898.2	6878.0	6855.3	4.25	2.73	1.53	30.41	-29.2	-22.9	-23.0	3.37	1.91	-67.5	-94.3	-117.7	-137.7	507.5	-135.57
4.25	65.95	6916.1	6895.5	6873.7	3.89	3.19	0.84	30.33	-29.5	-24.5	-23.4	3.88	1.52	-66.0	-94.0	-117.5	-137.3	606.7	-137.29
4.50	61.46	6933.4	6912.0	6890.2	2.76	3.03	1.16	30.26	-29.2	-24.5	-23.8	4.57	1.70	-68.1	-93.8	-117.1	-137.5	851.6	-139.85
5.00	47.47	6962.2	6941.7	6917.4	3.74	1.61	1.43	30.26	-27.9	-19.3	-23.2	6.39	2.22	-65.3	-93.3	-117.3	-137.3	1000.0	-141.26

*at 25°C unless mentioned otherwise



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