

Voltage Controlled Oscillator

ZX95-3360R-S+

50Ω 2120 to 3360 MHz

The Big Deal:

- Wide Band
- Low Phase Noise
- High Power Output
- Robust design and construction
- Rigid unibody construction



CASE STYLE: GB956

Product Overview:

The ZX95-3360R-S+ is a Voltage Controlled Oscillator, designed to operate from 2120 to 3360 MHz for satellite & radar applications. The ZX95-3360R-S+ is built using Mini-Circuits proven unibody construction (size of 1.20" x .75" x .46") which integrates the RF connectors with the case body to shield against unwanted signals and noise.

Key Features

Feature	Advantages
Wide Band: from 2120 to 3360 MHz	The model's wide bandwidth makes it suitable for a wide variety of applications, such as: CATV, military, test equipment etc...
Low Phase Noise: -93 dBc/Hz typ at 10 kHz offset	Low phase noise improves system EVM (Error Vector Magnitude).
High Power Output, +9 dBm typ.	Reduces amplification requirements and improves immunity to external noise sources.
Good Pushing, 1.5 MHz/V typ.	Provides increased immunity against noisy DC lines and improves output frequency stability vs. variations in supply voltage.

Coaxial

Voltage Controlled Oscillator

ZX95-3360R-S+

Wide Band 2120 to 3360 MHz

Features

- low phase noise, -93 dBc/Hz typ. @ 10kHz offset
- high power output, +9 dBm typ.
- low pushing, 1.5 MHz/V typ.
- protected by US patent 6,790,049



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3360R-S+

Applications

- wireless communications
- satellite systems & radar
- military
- R&D & test equipment

+RoHS Compliant
 The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

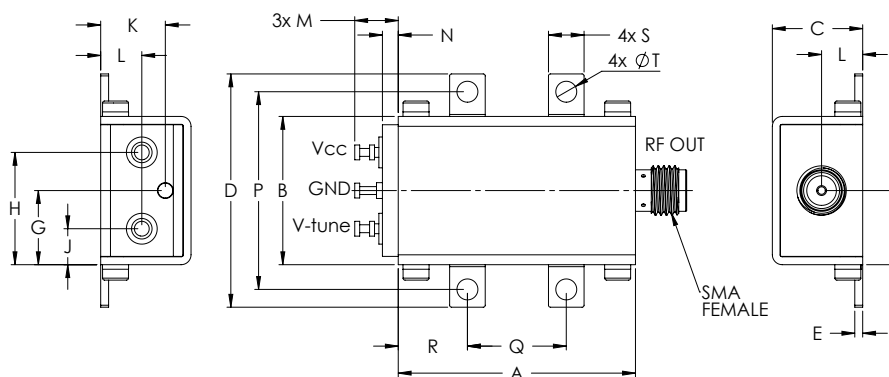
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER			
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Max.
	Typ.																			
ZX95-3360R-S+	2120	3360	+9	-64	-93	-116	-136	0.5	18	77-123	25	170	-90	-20	-12	9	1.5	12	45	

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)	20V
All specifications	50 ohm system

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

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

Performance Data & Curves*

ZX95-3360R-S+

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 2740 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	166.23	1958.5	1925.7	1899.2	10.09	9.89	9.52	39.92	-12.8	-14.5	-29.1	1.67	0.75	-64.33	-91.6	-112.8	-132.6	1.0	-67.20
0.50	137.16	2035.4	2008.8	1988.4	10.27	9.97	9.37	39.80	-15.0	-17.2	-34.0	1.47	2.27	-66.59	-94.2	-116.4	-136.4	2.5	-77.05
1.00	126.07	2102.1	2077.4	2059.5	10.35	9.69	9.27	39.75	-14.7	-54.2	-37.4	1.40	2.20	-66.33	-94.5	-116.6	-136.6	4.2	-82.00
2.00	114.51	2223.1	2200.9	2184.6	10.33	9.71	9.27	39.67	-22.2	-25.5	-42.6	1.48	3.88	-65.36	-93.8	-116.6	-136.9	7.1	-88.44
3.00	108.03	2334.2	2313.9	2297.7	10.35	9.57	9.04	39.51	-27.3	-28.6	-36.7	1.47	1.26	-67.03	-95.0	-117.3	-137.6	8.3	-90.51
4.00	107.16	2441.3	2422.8	2407.4	10.25	9.56	8.89	39.36	-28.6	-28.6	-48.8	1.59	4.82	-67.08	-94.9	-117.5	-137.7	10.0	-92.87
5.00	98.05	2544.5	2527.4	2515.2	10.32	9.72	9.19	39.19	-21.0	-25.6	-45.1	1.31	3.43	-67.42	-94.8	-117.1	-137.3	23.1	-101.61
6.00	105.74	2649.4	2630.0	2617.5	10.01	9.49	9.06	39.08	-18.9	-31.1	-50.2	1.52	3.04	-68.22	-92.5	-114.9	-135.2	38.7	-106.50
7.03	103.26	2758.8	2739.6	2726.1	9.92	9.23	8.76	39.09	-20.3	-36.3	-48.0	1.68	3.63	-67.20	-92.9	-115.1	-135.5	63.8	-111.13
8.50	98.23	2909.6	2891.1	2877.6	9.80	9.13	8.54	39.07	-17.1	-34.2	-47.4	1.56	1.81	-68.14	-94.0	-116.3	-137.0	89.6	-113.94
9.00	105.87	2961.4	2940.3	2927.5	9.49	9.20	8.68	39.05	-17.3	-36.7	-49.1	1.70	7.52	-66.04	-92.5	-115.6	-136.2	100.0	-115.14
10.00	104.82	3064.7	3041.0	3027.6	9.16	8.99	8.66	39.03	-17.1	-33.1	-48.7	1.71	6.78	-64.52	-91.8	-115.2	-135.7	150.3	-118.91
11.00	99.57	3163.7	3142.0	3128.3	9.10	8.70	8.31	39.00	-15.6	-37.1	-50.1	1.30	6.18	-63.92	-91.9	-115.3	-136.2	176.4	-119.94
12.00	96.72	3260.8	3239.3	3226.5	8.82	8.37	7.83	39.03	-15.2	-41.7	-47.1	0.80	6.21	-62.80	-90.7	-114.9	-136.0	210.9	-122.03
13.00	82.64	3351.4	3330.5	3317.8	8.56	8.07	7.42	39.06	-15.7	-40.8	-46.5	0.32	7.58	-62.07	-90.2	-115.8	-136.9	296.0	-124.93
14.00	60.52	3430.5	3410.3	3397.3	8.24	7.63	7.14	39.08	-15.2	-44.1	-46.2	0.06	4.07	-61.48	-92.4	-116.8	-137.4	347.5	-126.04
15.00	54.89	3494.5	3471.2	3457.4	7.93	7.60	7.18	39.13	-15.1	-42.3	-49.4	0.38	5.54	-64.34	-91.9	-114.2	-134.7	487.8	-128.87
16.00	38.98	3542.0	3521.3	3508.0	7.87	7.34	6.92	39.13	-15.4	-56.8	-54.7	0.64	7.37	-67.48	-94.8	-116.5	-137.0	583.0	-130.45
17.00	34.95	3582.3	3558.5	3545.5	7.67	7.37	6.89	39.15	-17.1	-39.2	-54.8	1.12	8.28	-65.96	-93.3	-114.7	-135.0	960.8	-134.96
18.00	30.46	3614.4	3591.8	3578.0	7.56	7.19	6.80	39.16	-16.1	-44.2	-55.9	1.31	10.90	-66.66	-93.2	-114.6	-134.9	1000.0	-135.45

*at 25°C unless mentioned otherwise

