

Coaxial

# Voltage Controlled Oscillator

## ZX95-1285+

5V Tuning for PLL IC's 1115 to 1285 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
- GSM



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-1285-S+	\$ 44.95 ea.	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

*The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.*

### Electrical Specifications

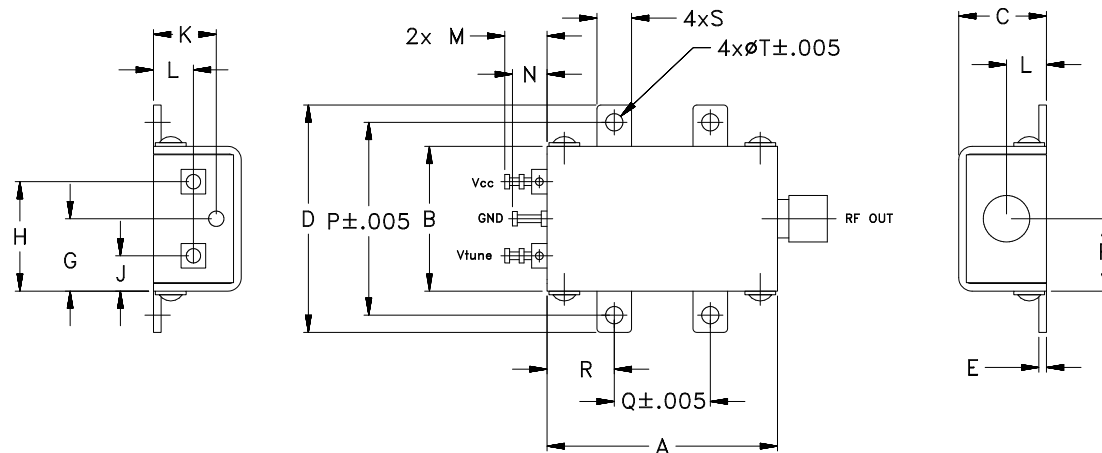
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Typ.	Max.
ZX95-1285+	1115	1285	+0.6	-76	-105	-127	-147	0.5	5	48 - 58	83	25	-90	-24	-15	0.5	1	5	40

### 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.

### 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	.45	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	GRAM
30.48	19.05	11.68	29.97	1.02	9.65	11.43	14.48	4.57	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

**Notes:** 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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](http://www.minicircuits.com/MCLStore/terms.jsp).

REV. OR  
M122533  
EDR-9514F2  
ZX95-1285+  
RAV  
090830  
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# Performance Data & Curves\*

# ZX95-1285+

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 1200 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	65.90	1057.7	1051.2	1049.3	0.43	0.46	0.06	32.23	-23.7	-23.5	-49.5	0.59	0.50	-75.0	-106.2	-128.0	-148.4	1.0	-77.29
0.50	56.75	1087.8	1081.8	1078.9	0.43	0.38	0.10	32.22	-24.4	-23.3	-52.5	0.37	0.35	-77.9	-106.4	-127.8	-147.3	2.0	-86.83
0.75	56.10	1102.0	1096.0	1093.2	0.44	0.40	0.14	32.26	-24.7	-23.1	-49.3	0.33	0.50	-79.8	-107.5	-128.7	-148.2	3.5	-94.93
1.00	55.04	1115.7	1110.0	1107.1	0.54	0.43	0.18	32.33	-25.4	-23.4	-45.3	0.31	0.52	-77.8	-107.6	-129.4	-148.7	6.0	-101.29
1.25	56.07	1130.2	1123.8	1120.3	0.48	0.43	0.24	32.31	-25.4	-22.8	-47.5	0.34	0.44	-76.1	-107.6	-128.7	-148.0	8.5	-104.96
1.50	55.69	1143.9	1137.8	1134.4	0.55	0.44	0.24	32.40	-25.5	-23.2	-41.4	0.37	0.15	-77.2	-107.3	-129.2	-148.9	10.0	-106.58
1.75	57.78	1158.8	1151.7	1147.8	0.48	0.42	0.27	32.37	-25.7	-22.4	-41.6	0.44	0.43	-78.2	-107.0	-128.4	-148.6	20.8	-113.81
2.00	56.87	1173.1	1166.2	1162.4	0.56	0.43	0.23	32.43	-26.1	-23.4	-37.1	0.48	0.62	-78.2	-106.9	-128.9	-148.9	35.5	-118.80
2.25	57.33	1187.8	1180.4	1176.3	0.60	0.47	0.29	32.43	-25.6	-22.7	-37.7	0.57	0.66	-78.3	-107.1	-128.6	-148.7	60.7	-123.05
2.50	56.83	1202.4	1194.7	1190.5	0.68	0.51	0.32	32.46	-25.6	-23.2	-35.4	0.67	0.34	-78.2	-106.6	-128.3	-148.5	85.2	-126.47
2.75	58.37	1216.9	1208.9	1204.6	0.79	0.60	0.37	32.49	-25.8	-24.0	-34.1	0.78	0.34	-77.7	-106.2	-128.1	-148.0	100.0	-128.01
3.00	55.89	1231.7	1223.5	1218.8	0.90	0.64	0.43	32.49	-25.7	-23.9	-32.3	0.92	0.61	-76.3	-105.4	-127.3	-147.7	142.9	-131.12
3.25	56.23	1245.9	1237.5	1233.0	1.04	0.79	0.52	32.51	-25.4	-25.0	-32.2	1.03	0.73	-78.2	-104.9	-127.2	-147.2	167.8	-132.58
3.50	55.95	1260.6	1251.5	1246.6	1.05	0.82	0.58	32.52	-26.2	-24.2	-32.2	1.30	0.66	-76.7	-105.3	-127.2	-147.2	200.6	-134.10
3.75	51.72	1274.1	1265.5	1261.0	1.13	0.85	0.56	32.55	-25.4	-25.0	-30.6	1.27	0.24	-76.5	-104.1	-126.5	-146.3	281.6	-137.07
4.00	52.62	1287.3	1278.5	1273.8	1.30	0.92	0.60	32.53	-25.9	-24.2	-30.7	1.43	0.58	-76.5	-103.3	-125.6	-145.8	330.7	-138.41
4.25	51.83	1301.3	1291.6	1286.4	1.34	1.00	0.68	32.57	-26.3	-25.3	-31.1	1.82	1.10	-74.9	-103.6	-125.7	-145.8	464.2	-141.48
4.50	46.51	1313.5	1304.6	1300.1	1.52	1.09	0.69	32.57	-25.6	-25.8	-30.2	1.57	0.95	-75.7	-102.8	-125.2	-145.2	554.9	-142.99
4.75	48.10	1325.7	1316.2	1311.5	1.67	1.25	0.83	32.57	-26.9	-24.6	-30.8	1.74	0.73	-75.1	-102.1	-124.3	-144.6	914.6	-147.27
5.00	43.75	1337.5	1328.2	1323.4	1.74	1.33	0.90	32.62	-27.0	-25.9	-31.3	1.89	0.55	-74.6	-101.4	-123.6	-143.9	1000.0	-148.17

\*at 25°C unless mentioned otherwise

