

Coaxial Voltage Controlled Oscillator

ZX95-1900V+ ZX95-1900V

Linear Tuning 1450 to 1900 MHz

Features

- Low phase noise
- Low pushing
- Protected by US patent 6,790,049



CASE STYLE: GB956

Applications

- R&D
- Lab
- Instrumentation
- Test equipment

Connectors	Model	Price.	Qty.
SMA	ZX95-1900V-S+	\$42.95 ea.	(1-9)
SMA	ZX95-1900V-S	\$42.95 ea.	(1-9)

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

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

Electrical Specifications

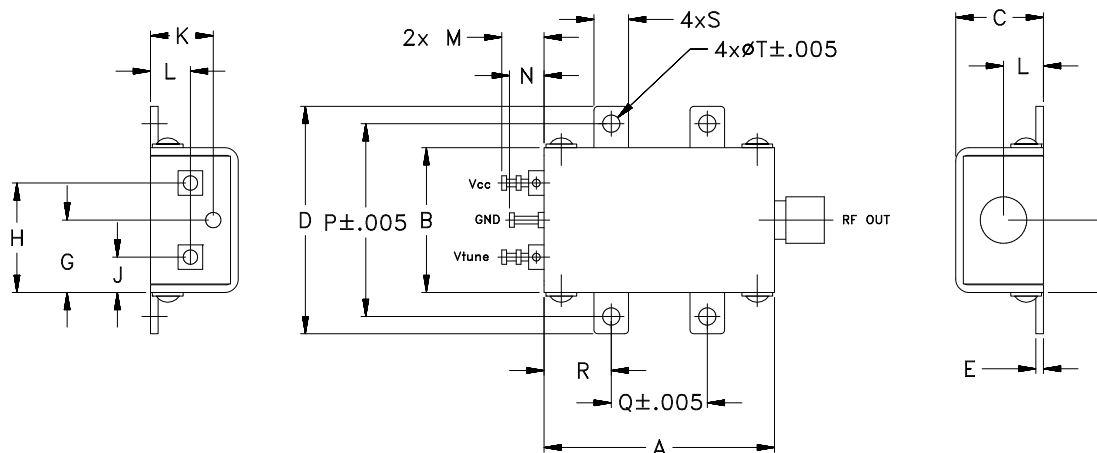
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.		Typ.	Typ.			Typ.	Vcc	Current
				1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.		Typ.	Max.			Typ.	Max.	(volts)
ZX95-1900V(+)	1450	1900	+8	-79	-104	-125	-145	0.5	20	25 - 41	140	70	-90	-20	-10	10	1	5	25	

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)	22V
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

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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.

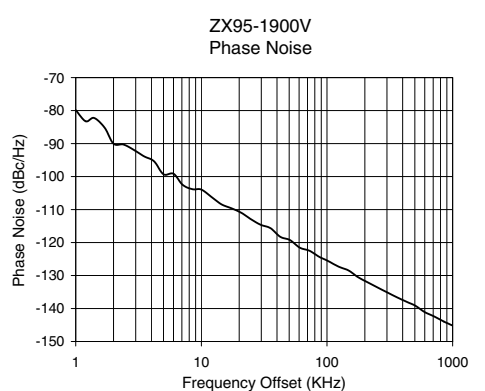
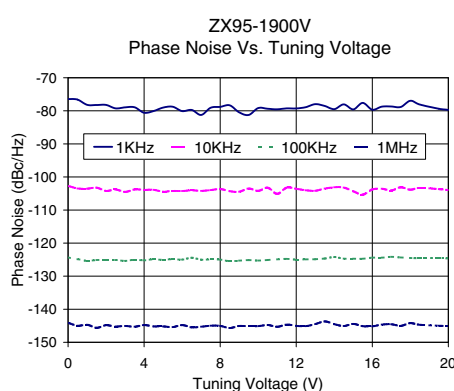
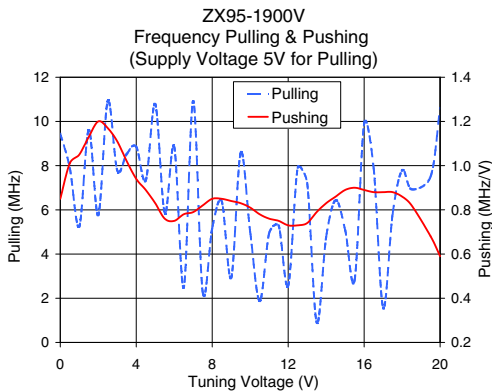
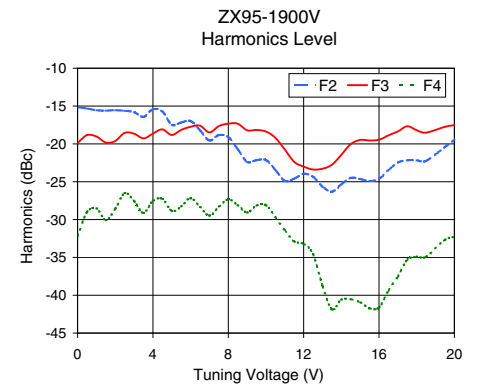
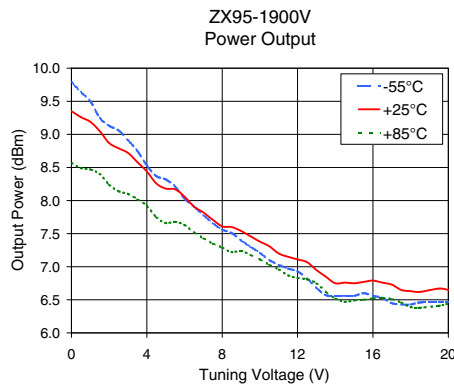
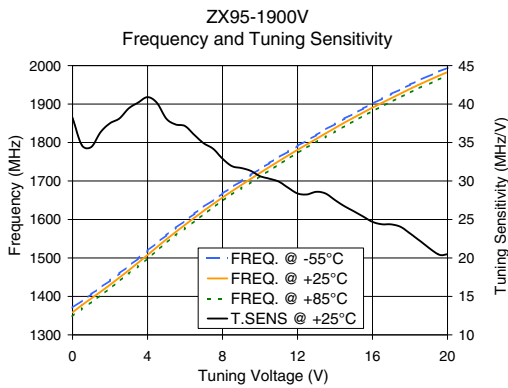
REV. A
M98898
EDR-7306/7
ZX95-1900V
RAV/URJ
090903
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Performance Data & Curves*

ZX95-1900V+ ZX95-1900V

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 1675 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	38.22	1370.6	1358.3	1348.3	9.79	9.35	8.57	20.70	-15.2	-19.9	-32.2	0.85	9.45	-76.4	-102.7	-124.3	-144.1	1.0	-79.84
0.50	34.65	1388.9	1377.4	1368.1	9.64	9.26	8.49	20.68	-15.3	-18.8	-29.0	1.01	7.90	-76.6	-103.5	-124.9	-145.0	2.0	-90.02
1.00	34.43	1405.7	1394.7	1385.7	9.50	9.19	8.47	20.64	-15.6	-19.0	-28.5	1.05	5.24	-78.2	-103.5	-125.4	-144.7	3.5	-93.87
2.00	37.51	1441.3	1430.1	1420.9	9.13	8.87	8.24	20.51	-15.6	-19.6	-28.6	1.20	5.76	-78.2	-104.2	-125.2	-144.8	6.0	-99.15
3.00	39.45	1479.0	1467.9	1459.0	8.91	8.72	8.10	20.49	-15.8	-18.7	-27.6	1.11	7.79	-78.9	-104.5	-125.4	-145.0	8.5	-103.83
4.00	40.90	1518.9	1507.7	1498.7	8.53	8.44	7.92	20.37	-15.4	-18.6	-27.6	0.94	8.85	-80.6	-103.9	-125.2	-144.8	10.0	-103.94
5.00	38.11	1559.1	1548.3	1539.3	8.32	8.18	7.66	20.36	-17.5	-18.8	-28.9	0.83	10.79	-79.0	-104.4	-125.1	-145.2	20.8	-110.99
6.00	37.15	1596.8	1586.0	1577.2	8.03	8.06	7.63	20.28	-17.0	-17.7	-27.2	0.75	8.85	-80.1	-104.3	-125.0	-144.8	35.5	-115.65
7.00	34.90	1633.0	1622.6	1613.8	7.78	7.82	7.43	20.24	-19.5	-18.5	-29.5	0.79	10.91	-81.3	-104.2	-125.0	-145.3	60.7	-121.57
8.00	32.90	1667.5	1657.1	1648.4	7.56	7.61	7.29	20.23	-19.1	-17.3	-27.3	0.85	5.16	-78.8	-103.6	-125.0	-145.0	86.7	-124.34
9.00	31.69	1699.9	1689.5	1680.9	7.40	7.54	7.24	20.21	-22.4	-18.2	-29.1	0.84	2.92	-80.5	-104.5	-125.3	-145.1	100.0	-125.42
11.00	29.92	1761.9	1751.5	1742.9	7.03	7.20	6.96	20.12	-24.9	-20.8	-31.4	0.76	4.95	-79.5	-105.1	-124.9	-145.3	148.1	-128.45
12.00	28.38	1791.0	1781.0	1772.6	6.93	7.11	6.83	20.13	-24.0	-23.0	-33.2	0.73	2.57	-79.3	-103.6	-125.0	-145.0	211.6	-132.10
13.00	28.60	1819.5	1809.3	1800.8	6.68	6.95	6.75	20.07	-25.6	-23.3	-38.8	0.74	7.22	-78.0	-104.2	-124.9	-144.5	361.5	-136.63
14.00	27.51	1848.3	1837.8	1828.9	6.56	6.75	6.52	20.05	-25.4	-21.4	-40.6	0.83	4.77	-79.5	-103.1	-124.2	-144.5	432.2	-137.99
15.00	26.07	1875.4	1865.0	1856.0	6.56	6.75	6.49	20.08	-24.7	-19.5	-40.9	0.89	5.09	-79.6	-104.3	-124.7	-144.4	507.5	-139.21
16.00	24.69	1901.2	1890.7	1881.7	6.56	6.79	6.52	20.09	-24.6	-19.5	-41.6	0.89	9.89	-79.7	-103.8	-124.4	-145.2	600.0	-141.09
17.00	24.36	1926.1	1915.2	1906.1	6.45	6.73	6.51	20.05	-22.5	-18.4	-37.5	0.88	1.57	-78.7	-104.1	-124.2	-144.5	712.4	-142.39
18.00	23.19	1950.5	1939.4	1929.9	6.43	6.63	6.39	20.04	-22.2	-18.2	-34.9	0.86	7.79	-77.0	-103.9	-124.5	-144.2	851.6	-143.97
20.00	20.47	1994.2	1983.0	1973.4	6.47	6.65	6.44	20.08	-19.5	-17.5	-32.3	0.59	10.61	-79.7	-104.0	-124.7	-145.1	1000.0	-145.17

*at 25°C unless mentioned otherwise



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