

Coaxial

# Voltage Controlled Oscillator

ZX95-2705+

Wide Band 1950 to 2705 MHz

## Features

- linear tuning characteristics
- low pushing
- protected by US patent 6,790,049

## Applications

- r & d
- lab
- instrumentation
- wireless communications
- cable TV



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-2705-S+	\$49.95 ea.	(1-9)

**+RoHS Compliant**

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

## Electrical Specifications

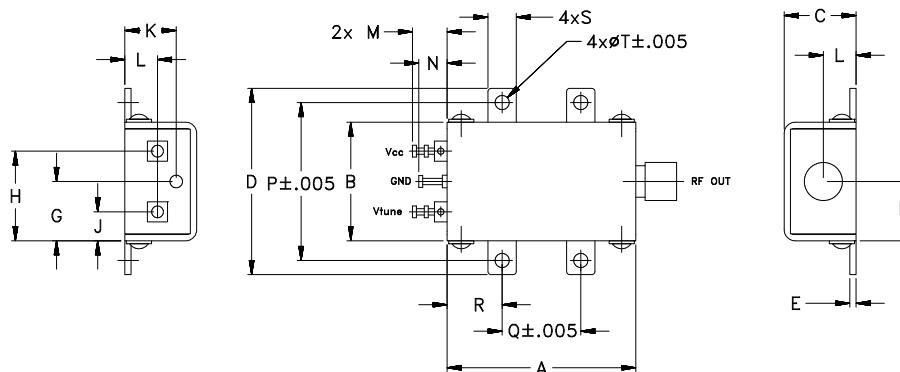
MODEL NO.	FREQ. (MHz)	POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz Typ.	TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)	PULLING pk-pk @ 12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
				VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)					Vcc	Current (mA)
	Min. Max.	Typ.	1 10 100 1000	Min. Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Max.
ZX95-2705+	1950 2705	+8.5	-64 -90 -112 -132	0.5 10	98-161	20	300	-90	-29	-15	18	3	8.5 30

## Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	9.5V
Absolute Max. Tuning Voltage (Vtune)	12V
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	.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

**Mini-Circuits®**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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)  
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

REV. A  
M141957  
EDR-10580MPF2  
ZX95-2705+  
RAV  
130604  
Page 1 of 2

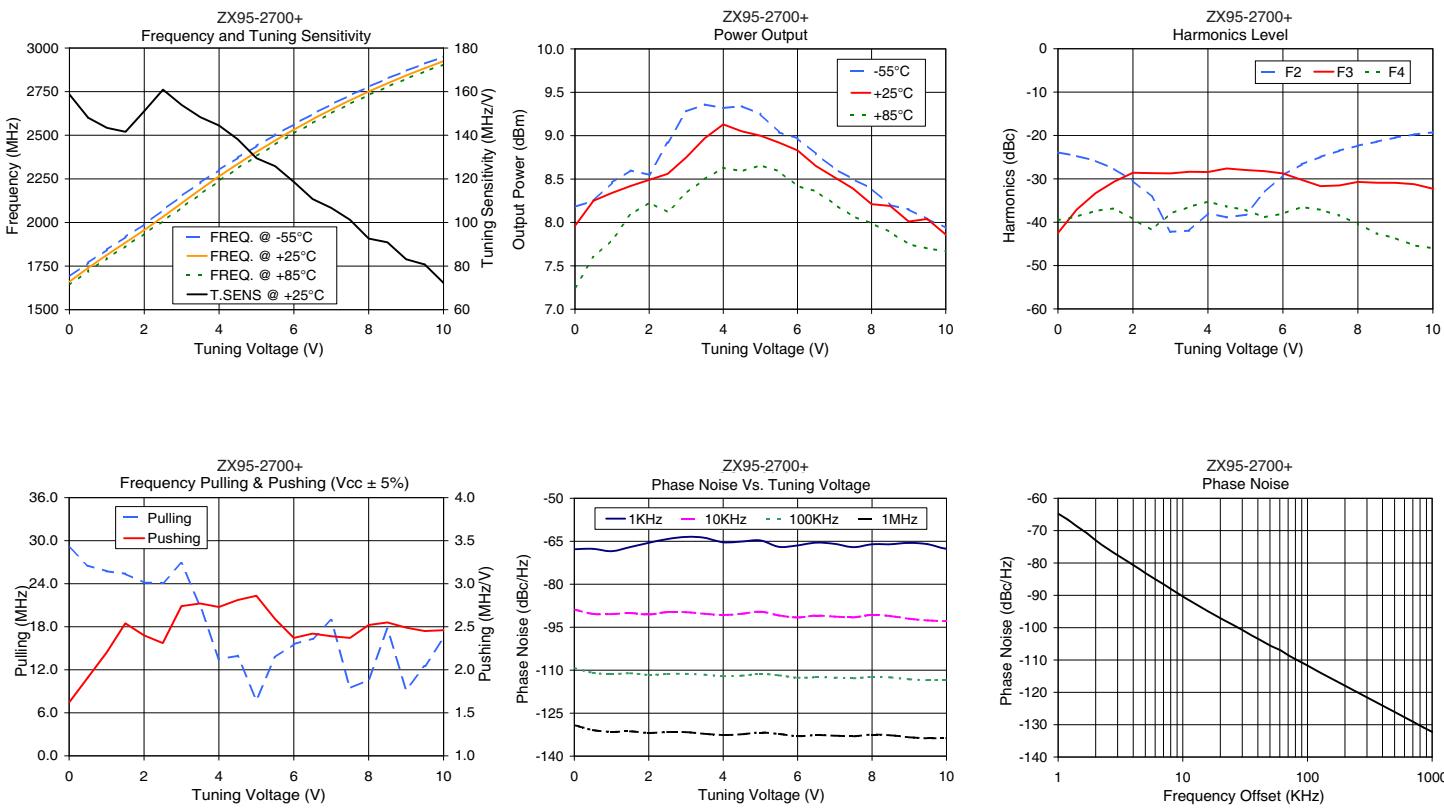
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established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

## Performance Data & Curves\*

**ZX95-2705+**

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 2325 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	158.73	1690.1	1660.5	1641.5	8.18	7.96	7.25	22.32	-23.9	-42.5	-39.5	1.62	29.07	-67.78	-88.8	-109.2	-129.2	1.0	-64.74
0.50	148.04	1768.9	1739.8	1721.1	8.25	8.25	7.60	22.44	-24.7	-37.1	-38.7	1.91	26.53	-67.64	-90.3	-110.9	-130.9	2.0	-72.99
1.00	143.39	1843.7	1813.9	1794.4	8.46	8.34	7.80	22.56	-25.9	-33.3	-37.4	2.20	25.74	-68.48	-90.4	-111.4	-131.5	3.5	-79.15
2.00	151.07	1989.5	1956.4	1935.3	8.55	8.49	8.23	22.82	-30.5	-28.6	-39.3	2.40	24.14	-65.52	-90.6	-111.6	-131.9	6.0	-85.00
2.50	160.90	2071.6	2031.9	2008.5	8.92	8.56	8.12	22.96	-34.1	-28.7	-41.8	2.31	24.11	-64.30	-89.7	-111.3	-131.6	8.5	-88.66
3.00	153.86	2152.2	2112.3	2085.6	9.28	8.75	8.34	23.15	-42.2	-28.8	-38.0	2.74	26.86	-63.43	-89.8	-111.3	-131.6	10.0	-90.34
3.50	148.29	2228.6	2189.3	2162.3	9.36	8.97	8.50	23.33	-42.0	-28.4	-36.5	2.77	20.92	-63.81	-90.3	-111.6	-132.2	20.8	-97.42
4.00	144.46	2301.4	2263.4	2238.3	9.32	9.13	8.63	23.48	-37.9	-28.4	-35.2	2.73	13.47	-65.36	-90.7	-112.1	-132.6	35.5	-102.35
4.50	138.12	2371.0	2335.6	2311.0	9.34	9.05	8.59	23.56	-38.9	-27.6	-36.4	2.81	13.95	-65.09	-90.3	-111.9	-132.4	60.7	-106.97
5.00	129.46	2438.6	2404.7	2380.1	9.25	9.00	8.66	23.59	-38.3	-28.0	-37.1	2.86	7.80	-64.71	-89.6	-111.3	-131.8	86.7	-110.45
5.50	125.84	2502.6	2469.4	2447.1	9.04	8.92	8.59	23.62	-33.2	-28.2	-38.9	2.59	13.76	-66.96	-90.9	-111.8	-132.3	100.0	-111.71
6.00	118.61	2562.8	2532.4	2510.9	8.97	8.83	8.42	23.66	-29.2	-28.8	-38.0	2.37	15.57	-66.45	-91.6	-112.6	-133.0	123.9	-113.71
6.50	110.74	2621.3	2591.7	2569.8	8.79	8.65	8.36	23.63	-26.7	-30.2	-36.5	2.42	16.33	-65.49	-91.0	-112.5	-132.7	177.0	-116.86
7.00	106.65	2676.7	2647.0	2626.5	8.62	8.52	8.21	23.62	-25.0	-31.7	-37.1	2.39	18.92	-65.92	-91.3	-112.6	-132.9	211.6	-118.48
7.50	101.22	2728.6	2700.4	2680.3	8.50	8.39	8.07	23.62	-23.5	-31.5	-38.4	2.37	9.44	-67.06	-91.6	-112.8	-133.1	302.4	-121.60
8.00	92.63	2778.0	2751.0	2730.3	8.39	8.21	7.99	23.60	-22.4	-30.7	-40.4	2.52	10.60	-66.07	-90.7	-112.3	-132.5	361.5	-123.19
8.50	90.89	2825.4	2797.3	2778.1	8.20	8.19	7.89	23.57	-21.5	-30.9	-42.6	2.55	17.71	-66.04	-91.2	-112.5	-132.7	507.5	-126.20
9.00	83.14	2869.1	2842.7	2823.6	8.15	8.01	7.75	23.57	-20.5	-30.9	-43.7	2.49	9.25	-65.58	-92.1	-113.2	-133.4	606.7	-127.80
9.50	80.72	2910.8	2884.3	2866.0	8.04	8.04	7.70	23.54	-19.8	-31.2	-45.4	2.45	12.52	-66.04	-92.6	-113.5	-133.8	712.4	-129.22
10.00	72.28	2949.4	2924.7	2905.8	7.94	7.86	7.67	23.52	-19.3	-32.3	-46.0	2.46	16.37	-67.62	-92.9	-113.4	-133.7	1000.0	-132.23

\*at 25°C unless mentioned otherwise



**Mini-Circuits®**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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)

IF/RF MICROWAVE COMPONENTS

For detailed performance specs  
& shopping online see web site

**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).