

Coaxial

# Voltage Controlled Oscillator

## ZX95-3600+

Linear Tuning 2950 to 3600 MHz

### Features

- low phase noise
- low pushing
- low pulling
- protected by US patent 6,790,049

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- point-to-point radio



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-3600-S+	\$ 40.95 ea.	(1-9)

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

### Electrical Specifications

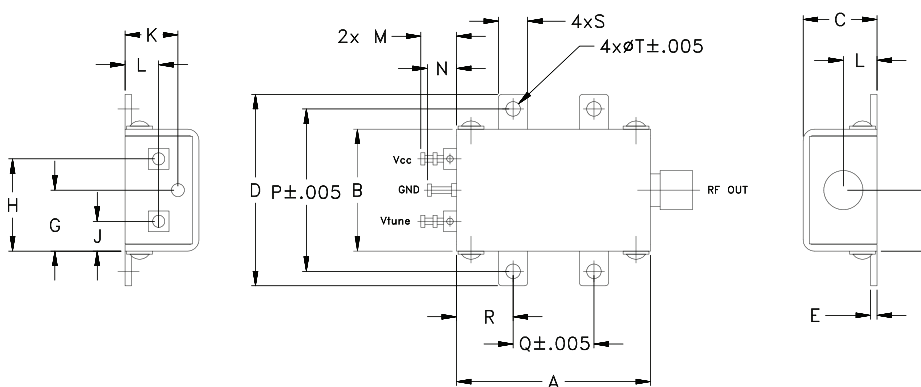
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-3600+	2950	3600	+3	-73	-98	-119	-139	0.5	24	23-46	40	100	-90	-33	-23	0.8	2	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)	26V
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



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).

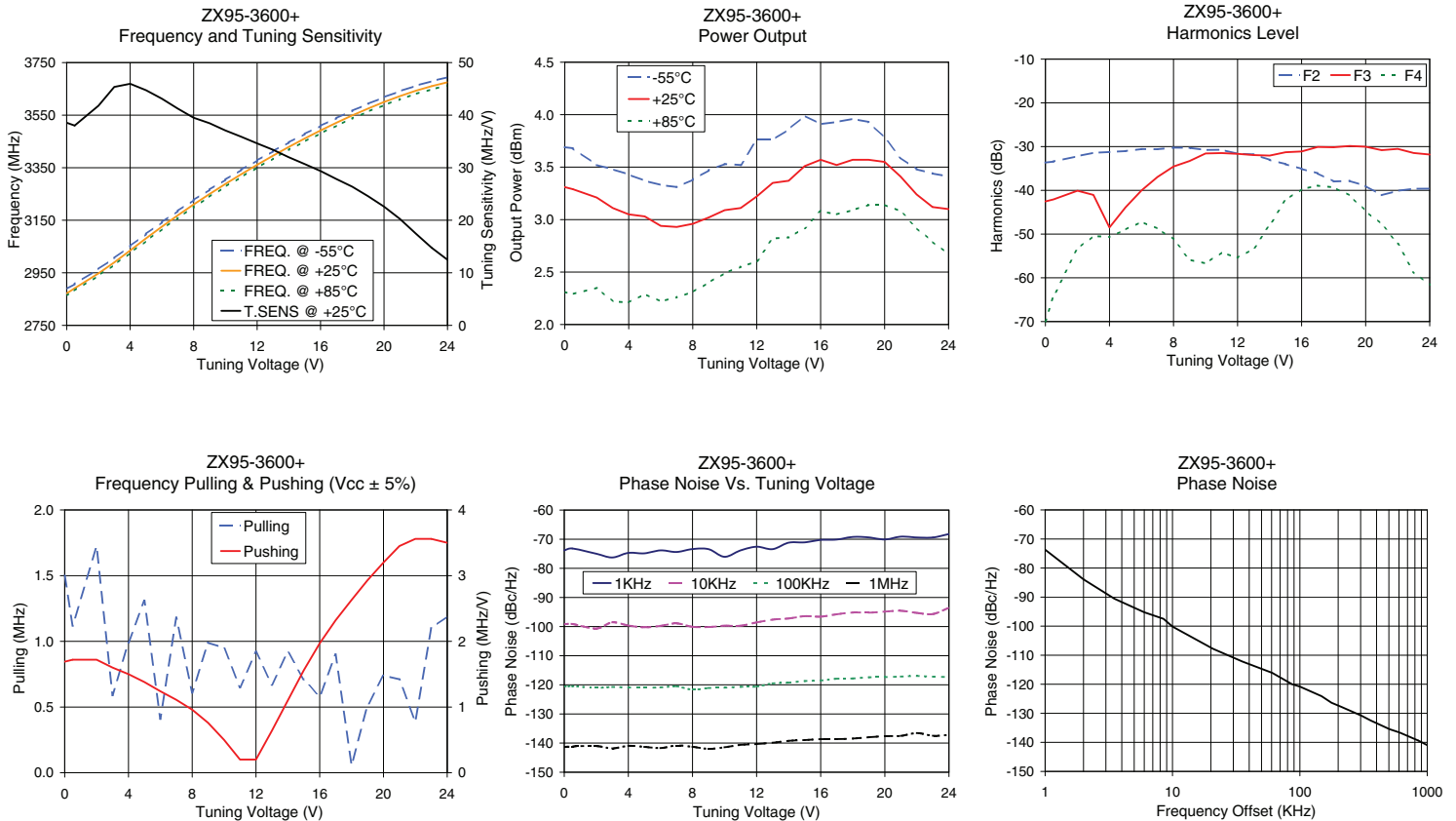
REV. OR  
M108616  
EDR-8184  
ZX95-3600+  
RAV  
120905  
Page 1 of 2

# Performance Data & Curves\*

# ZX95-3600+

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 3275 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	38.56	2888.6	2871.8	2863.1	3.69	3.31	2.31	34.59	-33.7	-42.5	-70.0	1.69	1.50	-73.8	-99.2	-120.5	-141.4	1.0	-73.69
0.50	38.02	2907.5	2891.1	2882.6	3.68	3.29	2.29	34.60	-33.4	-42.1	-64.2	1.72	1.12	-73.2	-99.1	-120.5	-141.1	2.0	-83.91
2.00	41.79	2964.4	2947.9	2939.3	3.52	3.21	2.35	34.66	-32.2	-40.1	-53.3	1.72	1.72	-75.0	-100.6	-121.0	-141.0	3.5	-90.56
3.00	45.37	3005.9	2989.7	2980.8	3.48	3.11	2.22	34.73	-31.4	-41.1	-50.4	1.60	0.59	-76.3	-98.5	-120.7	-141.8	6.0	-95.22
4.00	45.96	3051.7	3035.0	3025.4	3.43	3.05	2.21	34.78	-31.2	-48.5	-50.7	1.50	0.99	-74.7	-99.6	-120.9	-141.0	8.5	-97.49
5.00	44.74	3097.8	3081.0	3071.0	3.37	3.03	2.29	34.85	-31.0	-43.9	-49.0	1.38	1.31	-74.9	-100.3	-121.0	-141.3	10.0	-100.14
6.00	43.13	3142.5	3125.7	3115.9	3.33	2.94	2.22	34.95	-30.6	-40.0	-47.2	1.24	0.41	-73.9	-99.8	-120.9	-141.7	20.8	-107.81
7.00	41.25	3185.5	3168.9	3158.7	3.31	2.93	2.26	35.04	-30.6	-36.9	-48.7	1.11	1.18	-74.4	-98.9	-120.5	-140.8	35.5	-112.22
8.00	39.50	3226.7	3210.1	3199.8	3.38	2.96	2.31	35.13	-30.2	-34.6	-51.2	0.96	0.61	-73.4	-100.1	-121.7	-141.3	60.7	-116.08
9.00	38.47	3266.4	3249.6	3239.3	3.47	3.02	2.40	35.23	-30.3	-33.3	-55.9	0.76	0.99	-73.4	-100.2	-121.1	-142.0	86.7	-119.96
10.00	37.08	3304.5	3288.1	3277.5	3.53	3.09	2.49	35.33	-30.8	-31.6	-56.7	0.50	0.95	-76.0	-99.7	-121.0	-141.5	100.0	-120.81
11.00	35.90	3342.0	3325.2	3314.3	3.52	3.11	2.55	35.41	-30.7	-31.5	-54.2	0.20	0.65	-73.8	-99.7	-120.7	-140.6	148.1	-124.11
12.00	34.63	3377.7	3361.1	3350.3	3.76	3.22	2.60	35.50	-31.6	-31.7	-55.4	0.20	0.92	-72.6	-98.6	-120.6	-140.3	177.0	-126.36
13.00	33.42	3412.7	3395.7	3384.6	3.76	3.35	2.82	35.55	-31.8	-31.9	-53.4	0.64	0.67	-73.4	-97.6	-119.5	-139.9	211.6	-127.77
14.00	31.99	3446.0	3429.1	3418.1	3.86	3.37	2.83	35.59	-33.0	-32.1	-48.0	1.10	0.92	-71.2	-97.2	-119.3	-139.2	302.4	-130.75
16.00	29.37	3509.1	3491.8	3480.5	3.91	3.57	3.08	35.58	-35.1	-31.1	-39.7	1.97	0.58	-70.3	-96.6	-118.5	-138.6	361.5	-132.52
18.00	26.39	3566.6	3549.0	3537.3	3.96	3.57	3.09	35.46	-38.0	-30.2	-39.3	2.63	0.06	-69.2	-95.2	-117.8	-138.4	507.5	-135.47
20.00	22.60	3618.0	3600.0	3588.2	3.78	3.55	3.14	35.26	-39.0	-30.0	-44.7	3.20	0.74	-70.1	-94.9	-117.3	-137.6	606.7	-136.62
22.00	17.47	3661.4	3642.8	3630.5	3.48	3.24	2.92	35.06	-40.1	-30.5	-52.2	3.56	0.39	-69.4	-95.3	-117.0	-136.6	851.6	-139.39
24.00	12.48	3694.3	3675.1	3662.7	3.41	3.10	2.67	34.88	-39.6	-31.8	-61.6	3.50	1.19	-68.2	-93.6	-117.3	-137.2	1000.0	-140.95

\*at 25°C unless mentioned otherwise



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)

IF/RF MICROWAVE COMPONENTS

**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).