

Coaxial

# Voltage Controlled Oscillator

## ZX95-1584+

Linear Tuning 1555 to 1575 MHz

### Features

- Linear tuning characteristics
- Low phase noise
- Low pushing
- Low pulling
- Protected by US patent 6,790,049



CASE STYLE: GB956

### Applications

- R&D
- LAB
- Instrumentation
- Wireless communications
- Radio link

Connectors	Model	Price	Qty.
SMA	ZX95-1584-S+	\$40.95 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

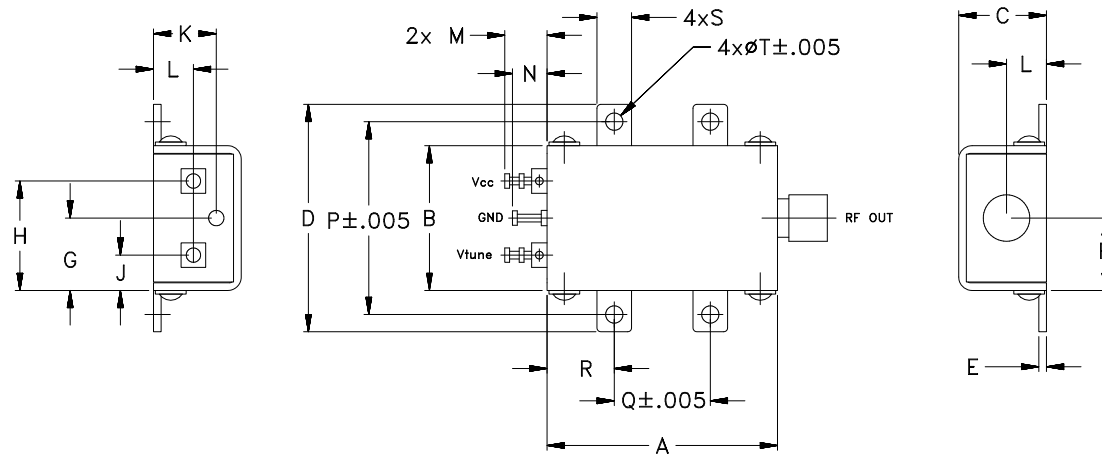
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB Br (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Max.			Vcc (volts)	Current (mA)	
				1	10	100	1000	Min.	Max.	Typ.	Typ.		Typ.	Typ.			Max.	Max.	
ZX95-1584+	1555	1575	+5	-89	-114	-134	-153	1	12	5	40	65	-90	-34	-20	0.7	0.1	5	35

### 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)	14V
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

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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](http://www.minicircuits.com/MCLStore/terms.jsp).

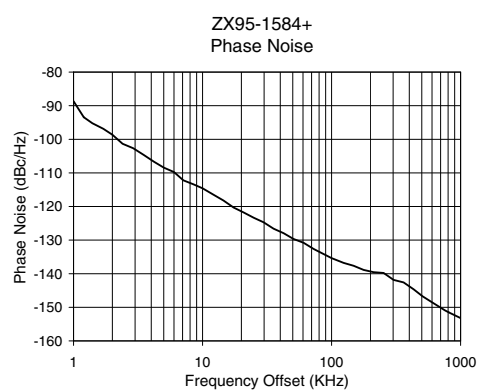
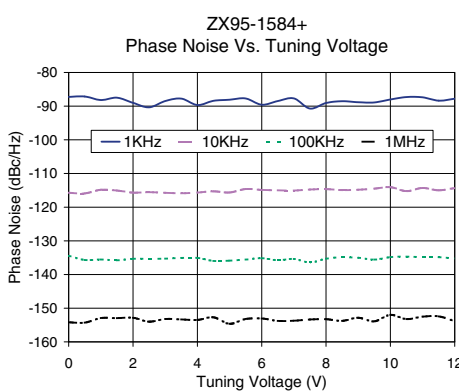
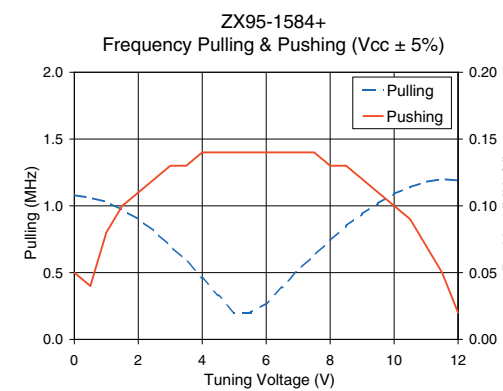
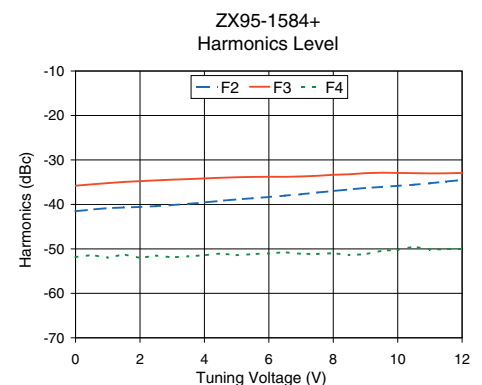
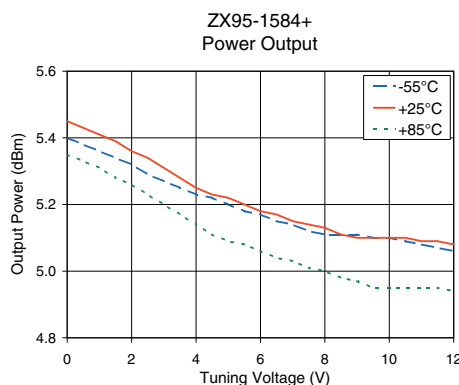
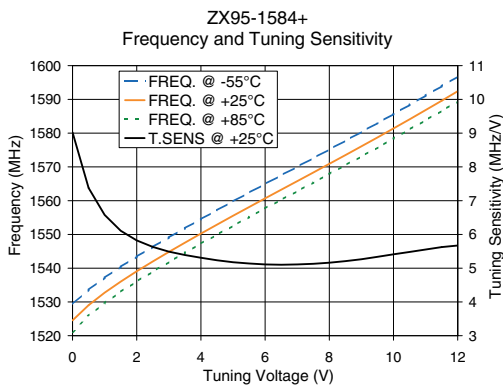
REV. OR  
M115158  
EDR-8760/1F2  
ZX95-1584+  
RAV  
090830  
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# Performance Data & Curves\*

# ZX95-1584+

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 1564 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	9.02	1529.3	1524.5	1521.1	5.40	5.45	5.35	27.29	-41.5	-35.8	-51.9	0.05	1.08	-87.3	-115.7	-134.5	-154.2	1.0	-88.67
0.50	7.38	1533.6	1529.1	1525.9	5.38	5.43	5.33	27.31	-41.2	-35.5	-51.4	0.04	1.06	-87.1	-115.9	-135.7	-154.3	2.0	-98.64
1.00	6.58	1537.2	1532.7	1529.7	5.36	5.41	5.31	27.32	-40.8	-35.2	-52.0	0.08	1.03	-88.2	-114.8	-135.5	-152.9	3.5	-104.66
1.50	6.11	1540.4	1536.0	1533.0	5.34	5.39	5.28	27.33	-40.7	-35.0	-51.2	0.10	0.97	-87.5	-115.1	-135.8	-153.0	6.0	-109.76
2.00	5.82	1543.4	1539.1	1536.1	5.32	5.36	5.26	27.34	-40.6	-34.8	-52.1	0.11	0.90	-89.0	-115.7	-135.3	-152.8	8.5	-113.40
2.50	5.63	1546.3	1542.0	1539.0	5.29	5.34	5.23	27.34	-40.4	-34.6	-51.5	0.12	0.81	-90.3	-115.5	-135.3	-154.0	10.0	-114.58
3.00	5.49	1549.1	1544.8	1541.8	5.27	5.31	5.20	27.34	-40.1	-34.4	-51.9	0.13	0.70	-88.5	-115.7	-135.3	-153.2	20.8	-121.77
4.00	5.31	1554.5	1550.3	1547.3	5.23	5.25	5.14	27.33	-39.6	-34.2	-51.4	0.14	0.46	-89.7	-115.7	-135.1	-153.5	35.5	-126.60
5.00	5.18	1559.8	1555.5	1552.5	5.20	5.22	5.09	27.33	-38.9	-33.9	-51.4	0.14	0.20	-88.1	-115.7	-135.9	-154.6	60.7	-130.80
6.00	5.11	1564.9	1560.7	1557.7	5.17	5.18	5.06	27.31	-38.3	-33.8	-51.0	0.14	0.27	-89.6	-114.9	-135.1	-153.1	86.7	-134.16
6.50	5.10	1567.5	1563.2	1560.3	5.15	5.17	5.04	27.31	-38.0	-33.8	-50.8	0.14	0.39	-88.5	-115.0	-135.8	-153.8	100.0	-135.36
7.00	5.11	1570.0	1565.8	1562.8	5.14	5.15	5.03	27.31	-37.7	-33.7	-51.1	0.14	0.52	-87.7	-115.1	-135.4	-153.7	148.1	-137.63
7.50	5.13	1572.6	1568.3	1565.4	5.12	5.14	5.01	27.31	-37.3	-33.6	-51.1	0.14	0.63	-90.7	-114.8	-136.4	-153.3	177.0	-138.87
8.00	5.16	1575.2	1570.9	1567.9	5.11	5.13	5.00	27.31	-37.0	-33.3	-51.0	0.13	0.74	-89.1	-114.7	-135.3	-153.3	211.6	-139.55
9.00	5.26	1580.4	1576.1	1573.1	5.11	5.10	4.97	27.30	-36.3	-33.0	-51.2	0.12	0.94	-88.8	-114.8	-135.0	-152.9	302.4	-141.84
10.00	5.41	1585.7	1581.4	1578.4	5.10	5.10	4.95	27.31	-35.8	-32.9	-50.2	0.10	1.09	-88.0	-114.1	-134.9	-152.0	361.5	-142.58
10.50	5.48	1588.4	1584.1	1581.1	5.09	5.10	4.95	27.30	-35.6	-33.0	-49.5	0.09	1.14	-87.3	-115.3	-134.7	-153.2	507.5	-146.74
11.00	5.55	1591.1	1586.8	1583.8	5.08	5.09	4.95	27.30	-35.2	-33.0	-50.1	0.07	1.18	-87.4	-114.3	-134.8	-152.5	606.7	-148.62
11.50	5.62	1593.9	1589.6	1586.6	5.07	5.09	4.95	27.30	-34.9	-33.0	-50.1	0.05	1.20	-88.4	-115.0	-134.8	-152.4	810.0	-151.51
12.00	5.67	1596.8	1592.4	1589.4	5.06	5.08	4.94	27.30	-34.5	-32.9	-50.1	0.02	1.19	-87.8	-114.4	-135.2	-153.8	1000.0	-153.21

\*at 25°C unless mentioned otherwise



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