

Coaxial

Voltage Controlled Oscillator

ZX95-4650+

Linear Tuning 4130 to 4650 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
- Point-to-point system



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-4650-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

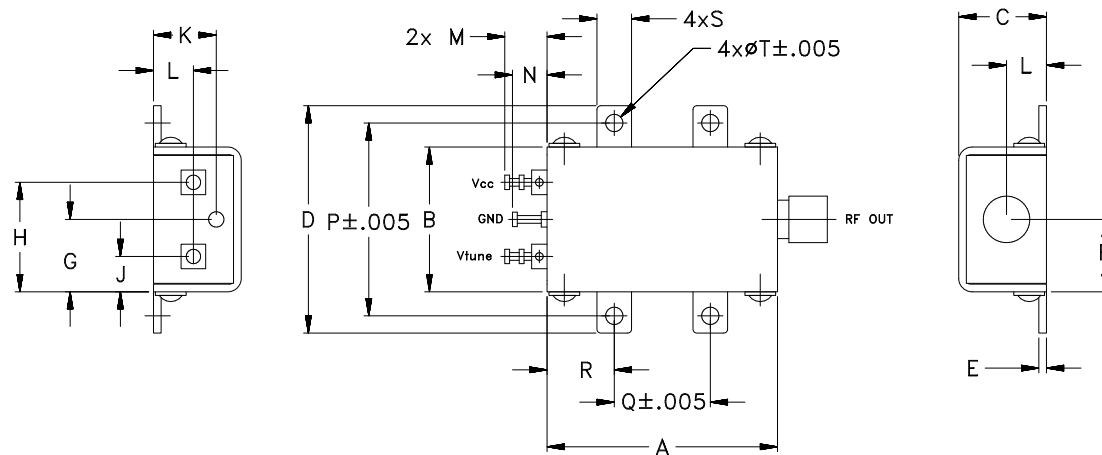
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)		HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
				Typ.				VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.	Typ.	Typ.	Max.	Typ.			Max.	Vcc (volts)
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.						Typ.	Typ.		
ZX95-4650+	4130	4650	0	-71	-96	-117	-137	0.25	15	45 - 60	12	85	-90	-25	-15	0.4	2	8	48	

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	8.5V
Absolute Max. Tuning Voltage (Vtune)	17.0V
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

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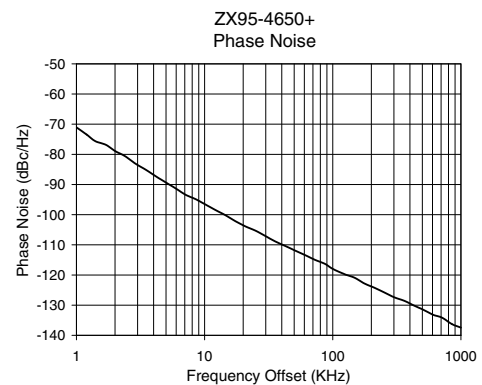
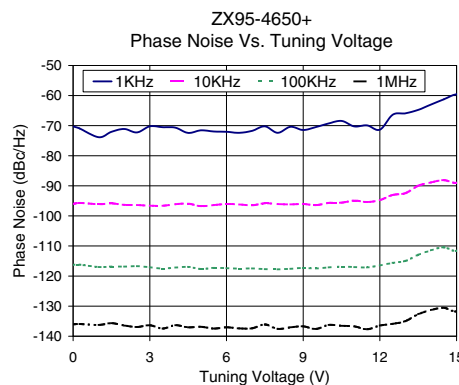
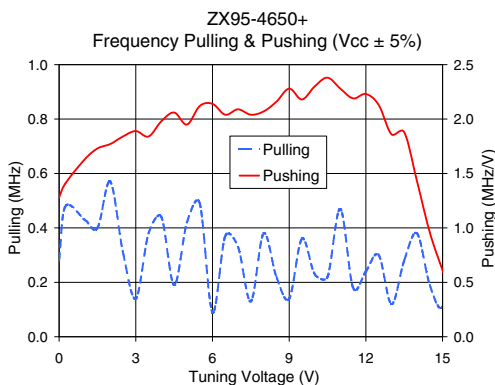
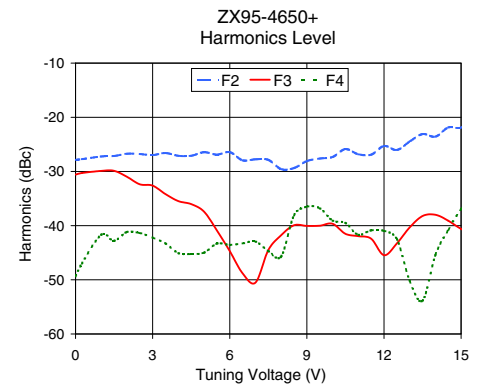
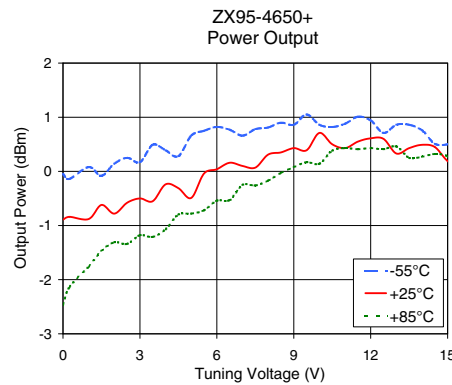
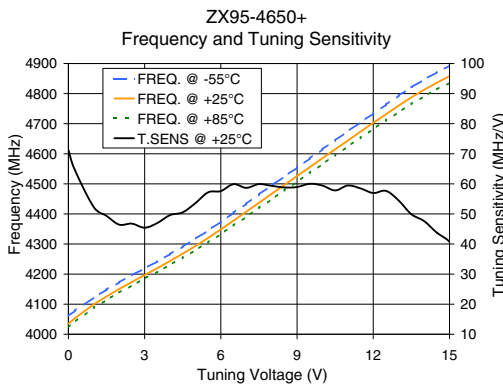
REV. OR
M125861
EDR-8959F2
ZX95-4650+
RAV
100214
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Performance Data & Curves*

ZX95-4650+

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 4390 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	71.31	4060.9	4035.0	4023.3	-0.05	-0.89	-2.47	39.18	-27.9	-30.6	-49.4	1.28	0.28	-70.3	-96.0	-116.3	-136.1	1.0	-71.04
0.25	64.70	4077.8	4052.8	4040.9	-0.14	-0.84	-2.14	39.23	-27.7	-30.3	-47.0	1.41	0.48	-70.9	-95.7	-116.2	-135.9	2.0	-78.90
1.00	52.23	4122.7	4099.7	4088.3	0.08	-0.88	-1.76	39.36	-27.2	-29.9	-41.7	1.63	0.43	-73.8	-96.1	-117.0	-136.3	3.5	-85.18
2.00	46.44	4172.6	4150.5	4138.7	0.14	-0.78	-1.31	39.50	-26.7	-31.0	-41.2	1.77	0.57	-71.1	-96.3	-116.9	-136.4	6.0	-91.39
2.50	46.79	4196.2	4173.7	4162.0	0.25	-0.58	-1.34	39.55	-26.8	-32.4	-41.4	1.84	0.31	-72.3	-96.4	-116.7	-136.9	8.5	-94.85
3.00	45.41	4218.9	4197.1	4185.0	0.17	-0.50	-1.18	39.61	-27.0	-32.6	-42.2	1.89	0.14	-70.2	-96.6	-117.1	-136.4	10.0	-96.47
4.00	49.62	4266.4	4243.3	4230.5	0.39	-0.24	-1.07	39.71	-27.1	-35.5	-45.1	1.98	0.44	-70.7	-96.1	-117.2	-136.3	20.8	-103.88
5.00	53.60	4317.0	4293.4	4280.0	0.66	-0.49	-0.78	39.85	-26.4	-37.4	-45.0	1.95	0.42	-71.6	-96.8	-117.7	-136.8	35.5	-108.84
6.00	57.61	4373.9	4348.8	4333.3	0.82	0.04	-0.54	39.94	-26.4	-44.7	-43.5	2.14	0.09	-72.1	-96.1	-117.4	-137.0	60.7	-113.39
7.00	58.68	4433.9	4407.5	4390.5	0.66	0.10	-0.25	40.05	-27.8	-50.5	-42.9	2.09	0.33	-71.7	-96.5	-117.5	-137.4	86.7	-116.29
7.50	59.93	4464.5	4436.9	4419.9	0.78	0.07	-0.26	40.12	-27.9	-44.5	-44.7	2.04	0.13	-70.2	-95.8	-117.7	-136.1	100.0	-117.96
8.00	59.34	4494.8	4466.8	4448.6	0.81	0.31	-0.17	40.17	-29.6	-41.8	-45.7	2.07	0.38	-72.4	-96.1	-117.8	-137.6	148.1	-120.93
9.00	58.96	4554.2	4525.9	4507.2	0.86	0.43	0.08	40.31	-28.1	-40.0	-36.5	2.28	0.14	-71.5	-96.1	-117.3	-136.7	177.0	-122.83
10.00	59.43	4615.1	4585.4	4565.6	0.86	0.71	0.14	40.48	-27.3	-39.7	-39.1	2.30	0.23	-69.3	-95.7	-117.1	-136.3	211.6	-124.22
11.00	59.46	4674.8	4644.0	4624.6	0.88	0.43	0.43	40.71	-26.8	-41.9	-41.7	2.28	0.47	-70.2	-94.9	-117.0	-136.7	302.4	-127.41
11.50	58.50	4704.8	4673.8	4653.3	1.01	0.55	0.41	40.85	-26.9	-42.4	-40.9	2.19	0.18	-69.9	-95.4	-117.1	-137.7	361.5	-128.55
12.00	56.96	4734.0	4703.0	4682.5	0.94	0.61	0.43	41.01	-25.3	-45.5	-41.0	2.23	0.24	-71.3	-94.8	-116.5	-136.5	507.5	-131.50
13.00	54.47	4793.4	4760.3	4738.3	0.86	0.33	0.46	41.35	-24.5	-40.3	-50.2	1.86	0.12	-65.9	-92.5	-115.0	-135.0	606.7	-133.18
14.00	47.64	4846.8	4812.5	4790.8	0.76	0.49	0.27	41.69	-23.6	-38.0	-45.4	1.43	0.38	-63.0	-88.9	-111.5	-131.3	851.6	-136.29
15.00	40.77	4892.4	4858.2	4835.8	0.50	0.19	0.28	41.95	-21.9	-40.6	-37.0	0.61	0.11	-59.6	-89.0	-111.6	-131.8	1000.0	-137.44

*at 25°C unless mentioned otherwise



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