

Coaxial

Voltage Controlled Oscillator

ZX95-2085+

5V Tuning for PLL IC's 2095 to 2115 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- cellular infrastructure Internal IRAD



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2085-S+

+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.
ZX95-2085+	2095	2115	+4	-81	-106	-126	-146	0.5	5	30	35	60	-90	-20	-10	3	0.3	5	35

Maximum Ratings

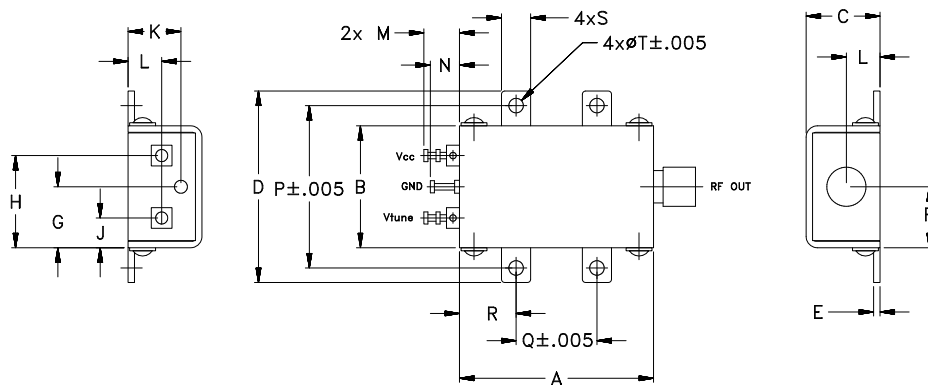
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.



NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminals. See Application Note AN-40-10.

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

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document 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



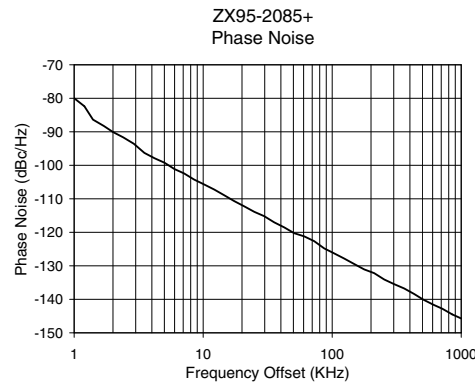
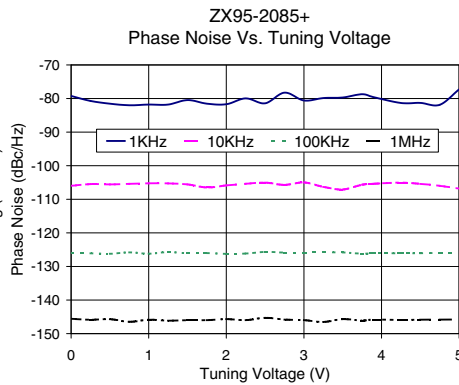
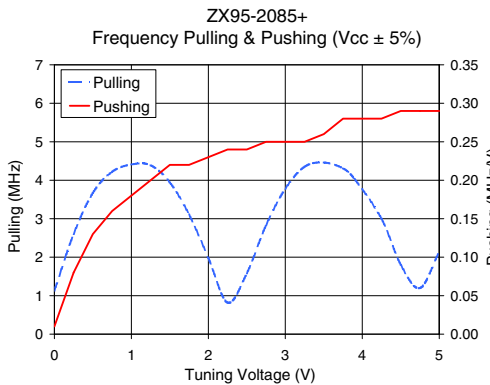
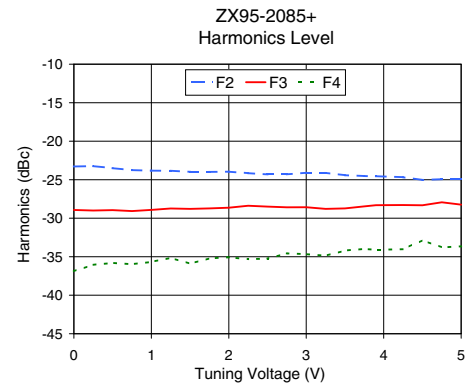
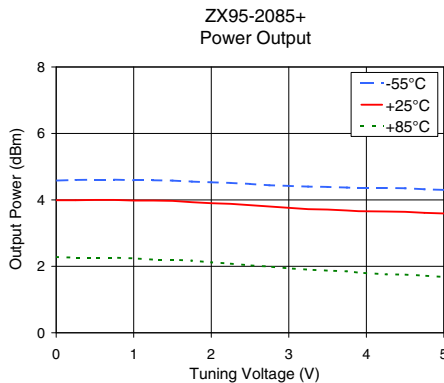
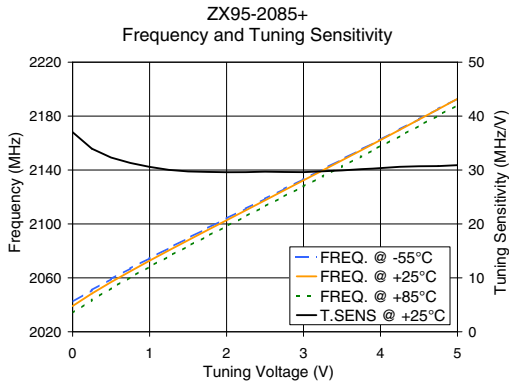
www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

Performance Data & Curves*

ZX95-2085+

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 2105 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	37.01	2042.2	2039.1	2033.9	4.58	3.99	2.28	25.82	-23.3	-28.9	-36.9	0.01	1.13	-79.2	-106.0	-126.0	-145.6	1.0	-79.98
0.25	33.97	2050.9	2048.3	2043.6	4.60	3.99	2.26	25.81	-23.2	-29.0	-36.1	0.08	2.60	-80.7	-105.5	-126.1	-145.9	2.0	-90.08
0.50	32.31	2059.1	2056.8	2052.2	4.61	4.00	2.26	25.81	-23.5	-29.0	-35.8	0.13	3.67	-81.5	-105.6	-126.2	-145.7	3.5	-96.29
0.75	31.31	2067.0	2064.9	2060.4	4.61	4.00	2.26	25.81	-23.8	-29.1	-36.0	0.16	4.22	-82.0	-105.4	-125.8	-146.5	6.0	-101.14
1.00	30.58	2074.6	2072.7	2068.3	4.59	3.98	2.24	25.81	-23.8	-28.9	-35.7	0.18	4.41	-81.8	-105.3	-126.2	-145.8	8.5	-104.24
1.25	30.03	2082.1	2080.4	2075.9	4.59	3.98	2.20	25.81	-23.8	-28.7	-35.1	0.20	4.39	-81.8	-105.3	-125.7	-146.2	10.0	-105.56
1.50	29.74	2089.5	2087.9	2083.5	4.58	3.97	2.20	25.81	-24.0	-28.8	-35.9	0.22	3.94	-80.5	-105.6	-126.1	-146.0	20.8	-112.24
1.75	29.65	2096.8	2095.3	2090.9	4.55	3.93	2.17	25.81	-24.0	-28.7	-35.2	0.22	3.11	-81.6	-106.5	-126.0	-146.0	35.5	-117.02
2.00	29.59	2104.1	2102.7	2098.3	4.53	3.90	2.12	25.81	-24.0	-28.6	-35.1	0.23	1.98	-81.7	-105.9	-126.2	-145.7	60.7	-121.21
2.25	29.61	2111.4	2110.1	2105.7	4.51	3.88	2.08	25.81	-24.2	-28.4	-35.3	0.24	0.82	-80.0	-105.4	-126.2	-146.0	86.7	-124.80
2.50	29.69	2118.7	2117.5	2113.1	4.48	3.84	2.03	25.81	-24.3	-28.5	-35.3	0.24	1.58	-81.4	-105.0	-125.7	-145.3	100.0	-126.00
2.75	29.64	2126.0	2125.0	2120.5	4.44	3.80	1.99	25.81	-24.3	-28.6	-34.6	0.25	2.83	-78.3	-105.7	-125.9	-145.8	148.1	-129.46
3.00	29.60	2133.2	2132.4	2127.9	4.42	3.76	1.94	25.81	-24.1	-28.6	-34.7	0.25	3.78	-80.6	-105.0	-125.9	-146.0	211.6	-132.20
3.25	29.77	2140.6	2139.8	2135.3	4.40	3.72	1.90	25.81	-24.1	-28.8	-34.9	0.25	4.35	-79.9	-106.3	-125.8	-146.5	302.4	-135.47
3.50	29.93	2147.9	2147.2	2142.7	4.39	3.71	1.87	25.81	-24.4	-28.7	-34.2	0.26	4.46	-79.7	-107.1	-125.8	-145.7	361.5	-136.75
3.75	30.15	2155.3	2154.7	2150.1	4.37	3.68	1.85	25.81	-24.5	-28.5	-34.0	0.28	4.31	-78.7	-105.7	-126.2	-146.1	432.2	-138.41
3.90	30.27	2159.7	2159.2	2154.6	4.36	3.66	1.81	25.81	-24.6	-28.3	-34.1	0.28	4.03	-79.6	-105.4	-126.1	-145.8	507.5	-140.07
4.25	30.60	2170.2	2169.8	2165.2	4.36	3.65	1.76	25.80	-24.7	-28.3	-34.0	0.28	3.00	-81.3	-105.0	-126.1	-145.9	606.7	-141.59
4.50	30.70	2177.8	2177.5	2172.8	4.35	3.64	1.75	25.81	-25.0	-28.3	-32.9	0.29	1.80	-81.3	-105.4	-126.1	-145.9	851.6	-144.51
5.00	30.90	2192.9	2192.8	2188.1	4.30	3.59	1.68	25.81	-24.9	-28.2	-33.7	0.29	2.14	-77.3	-106.8	-126.0	-145.8	1000.0	-145.71

*at 25°C unless mentioned otherwise



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document 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

