

Coaxial

Voltage Controlled Oscillator

ZX95-2405C+

Linear Tuning 2189 to 2405 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
- point-to-point radio
- services ancillary to programming / broadcasting



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2405C-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 dBc (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.
ZX95-2405C+	2189	2405	-0.3	-78	-106	-128	-147	1	11.5	40-43	20	120	-90	-25	-15	0.4	0.5	8	40

Maximum Ratings

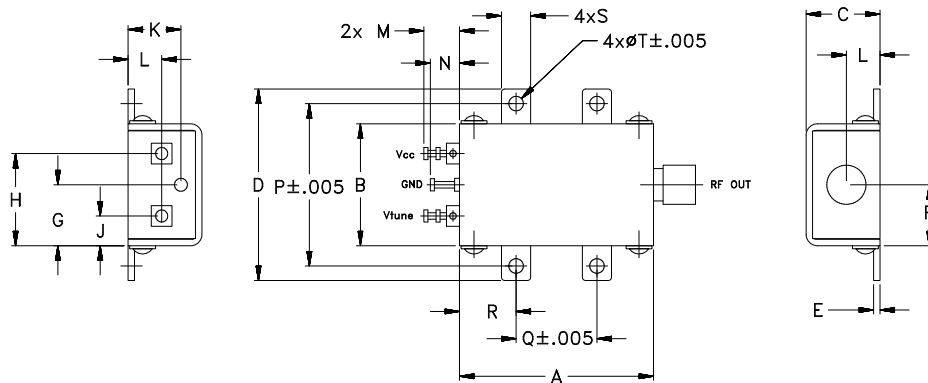
Operating Temperature -55°C to 85°C
 Storage Temperature -55°C to 100°C
 Absolute Max. Supply Voltage (Vcc) 10.0V
 Absolute Max. Tuning Voltage (Vtune) 13.5V
 All specifications 50 ohm system

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

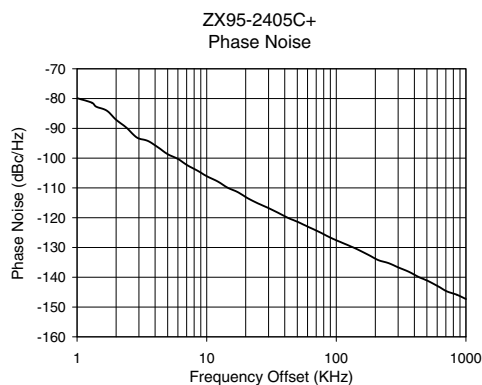
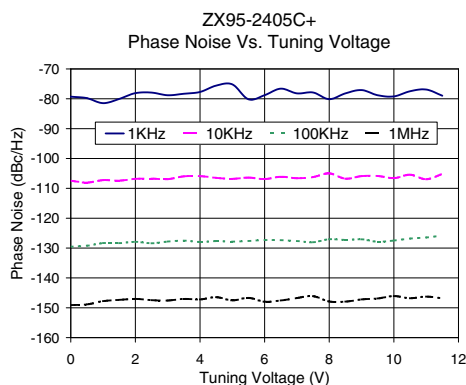
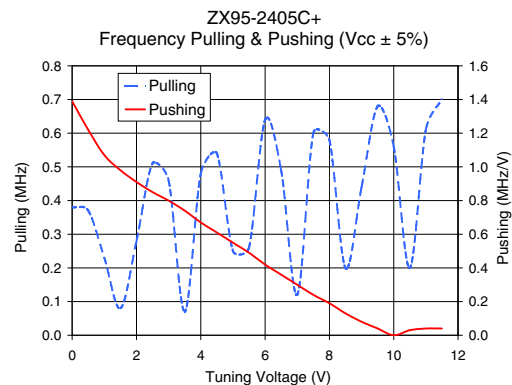
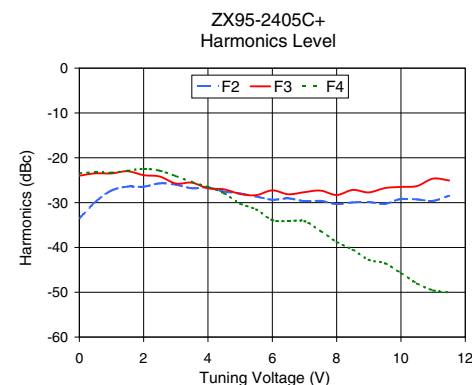
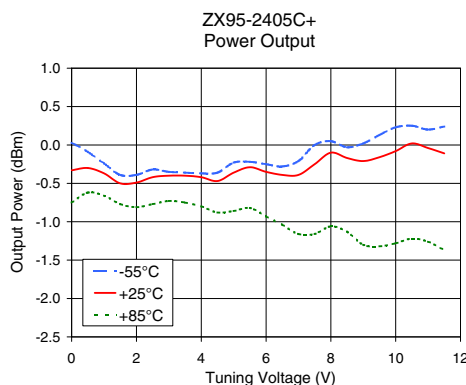
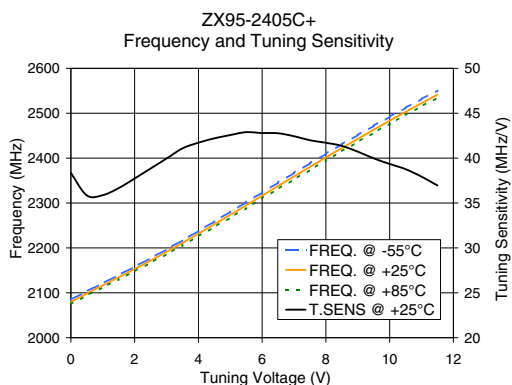
REV. A
 M152326
 EDR-8949F2
 ZX95-2405C+
 RAV
 150923
 Page 1 of 2

Performance Data & Curves*

ZX95-2405C+

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 2297 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	38.35	2084.5	2079.6	2074.8	0.03	-0.33	-0.75	32.30	-33.5	-24.0	-23.5	1.39	0.38	-79.3	-107.5	-129.5	-149.1	1.0	-79.87
0.50	35.85	2103.4	2098.8	2094.3	-0.09	-0.30	-0.62	32.19	-29.9	-23.5	-23.2	1.22	0.37	-79.8	-108.1	-129.2	-148.9	2.0	-87.13
1.00	35.87	2121.4	2116.7	2112.2	-0.24	-0.37	-0.66	32.02	-27.3	-23.5	-23.3	1.07	0.23	-81.5	-107.2	-128.3	-147.8	3.5	-94.18
2.00	37.73	2158.0	2153.0	2148.1	-0.39	-0.49	-0.81	31.73	-26.5	-23.9	-22.5	0.91	0.28	-78.1	-106.8	-127.9	-147.0	6.0	-100.26
2.50	38.84	2177.1	2171.9	2166.8	-0.32	-0.42	-0.77	31.61	-25.7	-24.2	-22.9	0.85	0.51	-77.9	-106.7	-128.4	-147.4	8.5	-104.22
3.00	39.96	2196.8	2191.3	2186.0	-0.35	-0.40	-0.73	31.50	-26.0	-25.8	-24.1	0.80	0.46	-78.8	-106.9	-127.8	-147.6	10.0	-106.06
4.00	41.72	2238.0	2231.8	2226.0	-0.37	-0.42	-0.80	31.32	-26.6	-26.8	-26.5	0.67	0.48	-77.7	-105.9	-128.0	-147.2	20.8	-113.51
4.50	42.21	2259.1	2252.7	2246.7	-0.36	-0.47	-0.88	31.25	-27.5	-27.0	-27.9	0.61	0.54	-75.6	-106.5	-127.7	-146.5	35.5	-118.34
5.00	42.57	2280.5	2273.8	2267.7	-0.23	-0.36	-0.86	31.19	-27.9	-28.1	-30.2	0.55	0.25	-75.2	-106.8	-127.9	-147.5	60.7	-123.08
5.50	42.89	2302.2	2295.1	2288.8	-0.22	-0.29	-0.82	31.15	-28.6	-28.3	-31.5	0.49	0.26	-80.2	-106.4	-127.7	-146.7	86.7	-126.34
6.00	42.80	2323.9	2316.5	2310.1	-0.25	-0.35	-0.93	31.10	-29.3	-27.3	-33.9	0.42	0.64	-78.8	-106.9	-127.3	-148.0	100.0	-127.60
6.50	42.78	2345.6	2337.9	2331.4	-0.28	-0.39	-1.04	31.07	-29.1	-28.1	-34.1	0.36	0.49	-76.6	-106.1	-127.4	-147.6	148.1	-130.79
7.00	42.44	2367.2	2359.3	2352.7	-0.21	-0.39	-1.16	31.05	-29.7	-27.7	-34.1	0.30	0.12	-78.2	-106.6	-127.7	-146.7	177.0	-132.50
7.50	41.99	2388.6	2380.5	2373.9	0.00	-0.25	-1.16	31.03	-29.6	-27.3	-36.3	0.24	0.60	-77.9	-106.2	-128.1	-146.1	211.6	-134.27
8.00	41.72	2409.8	2401.5	2394.8	0.05	-0.10	-1.06	31.01	-30.3	-28.3	-38.8	0.19	0.58	-80.1	-105.0	-127.0	-147.9	302.4	-136.74
9.00	40.72	2451.7	2443.0	2436.2	0.02	-0.21	-1.30	30.99	-29.9	-27.7	-42.8	0.08	0.44	-77.1	-105.9	-127.1	-147.2	361.5	-138.12
9.50	39.98	2472.2	2463.4	2456.6	0.13	-0.16	-1.32	30.99	-30.3	-26.8	-43.5	0.04	0.68	-78.8	-105.9	-127.9	-146.9	507.5	-141.19
10.00	39.35	2492.3	2483.4	2476.6	0.23	-0.08	-1.28	30.98	-29.2	-26.5	-45.7	0.00	0.56	-79.2	-106.6	-127.5	-146.1	606.7	-142.99
11.00	37.94	2531.5	2522.4	2515.6	0.20	-0.04	-1.26	30.97	-29.6	-24.6	-49.6	0.04	0.61	-76.9	-106.9	-126.5	-146.3	851.6	-145.86
11.50	36.96	2550.5	2541.4	2534.6	0.24	-0.11	-1.37	30.97	-28.5	-25.1	-50.0	0.04	0.70	-79.0	-105.2	-125.9	-146.8	1000.0	-147.32

*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

