

Coaxial

Voltage Controlled Oscillator

ZX95-2490C+

Linear Tuning 2020 to 2490 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
- wire-line broadband access

| Connectors | Model | Price | Qty. |
|------------|---------------|--------------|-------|
| SMA | ZX95-2490C-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

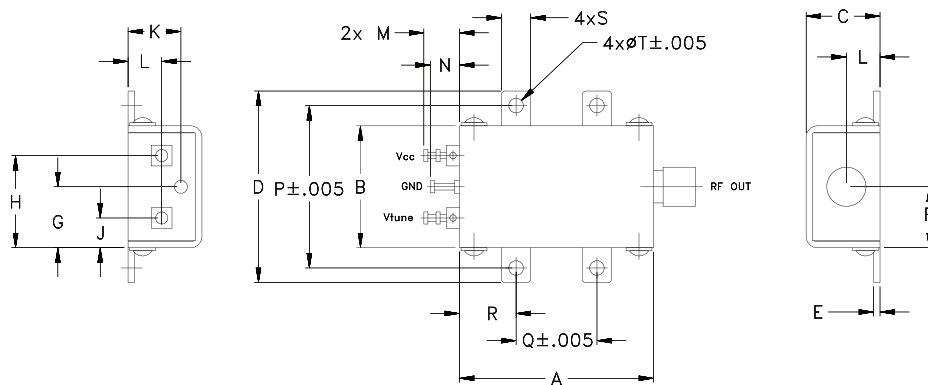
| MODEL NO. | FREQ. (MHz) | | POWER OUTPUT (dBm) | PHASE NOISE dBc/Hz SSB at offset frequencies, kHz | | | | TUNING | | | | | NON HARMONIC SPURIOUS (dBc) | HARMONICS (dBc) | | PULLING pk-pk @ 12 dB (MHz) | PUSHING (MHz/V) | DC OPERATING POWER | |
|-------------|-------------|------|--------------------|---|------|------|------|--------|-------------------|---------------------|---------------|---------------------------------|-----------------------------|-----------------|------|-----------------------------|-----------------|--------------------|------|
| | Min. | Max. | | Typ. | 1 | 10 | 100 | 1000 | VOLTAGE RANGE (V) | SENSITIVITY (MHz/V) | PORT CAP (pF) | 3 dB MODULATION BANDWIDTH (MHz) | | Typ. | Typ. | | | Typ. | Typ. |
| ZX95-2490C+ | 2020 | 2490 | +7.2 | -79 | -107 | -128 | -149 | 0.25 | 16 | 30-40 | 30 | 45 | -90 | -32 | -15 | 2.5 | 0.4 | 8 | 40 |

Maximum Ratings

| | |
|--------------------------------------|----------------|
| Operating Temperature | -55°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Absolute Max. Supply Voltage (Vcc) | 10V |
| Absolute Max. Tuning Voltage (Vtune) | 18V |
| 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

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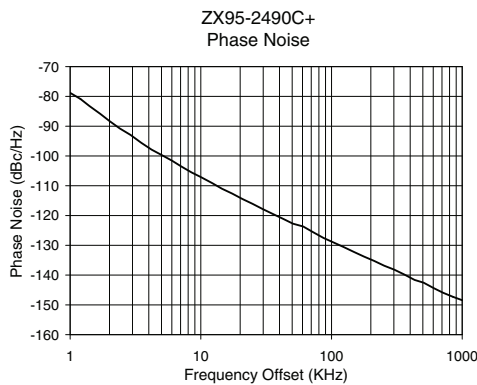
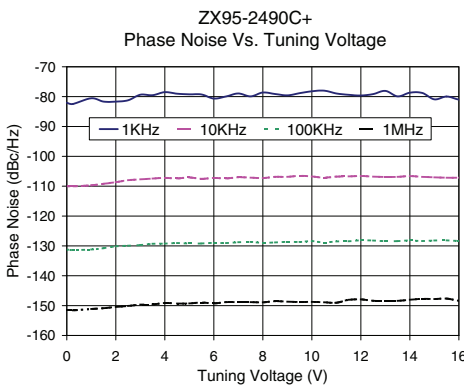
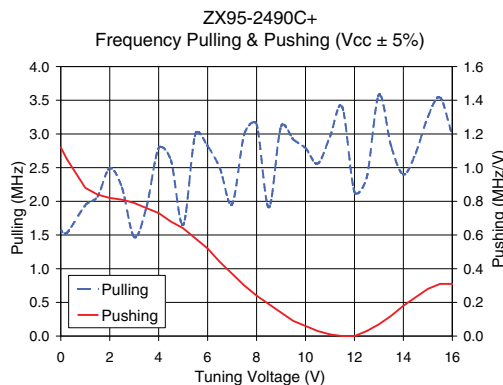
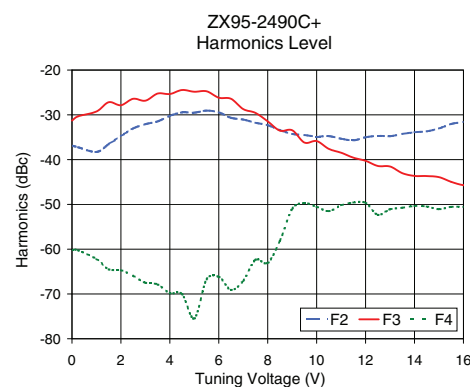
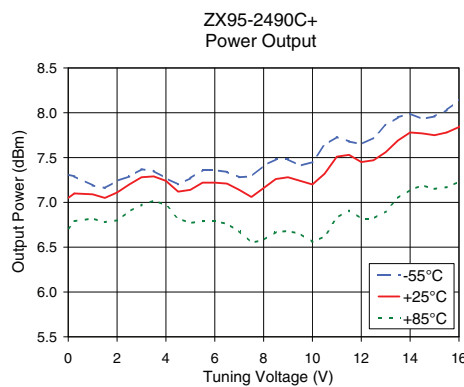
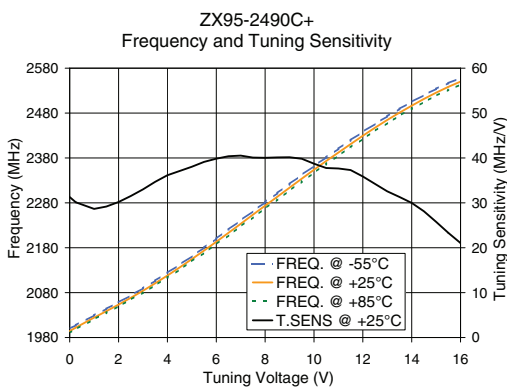
REV. OR
M120336
EDR-8270/7F2
ZX95-2490C+
RAV
120904
Page 1 of 2

Performance Data & Curves*

ZX95-2490C+

| 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 2255 MHz (dBc/Hz) |
|--------|-------------------|-----------------|--------|--------|--------------------|-------|-------|----------|-----------------|-------|-------|--------------------|------------------|---------------------------------|--------|--------|--------|-------------------|----------------------------------|
| | | -55°C | +25°C | +85°C | -55°C | +25°C | +85°C | | F2 | F3 | F4 | | | 1kHz | 10kHz | 100kHz | 1MHz | | |
| 0.00 | 31.29 | 1999.8 | 1994.3 | 1990.3 | 7.31 | 7.05 | 6.71 | 32.93 | -36.9 | -31.3 | -60.1 | 1.12 | 1.57 | -82.1 | -110.0 | -131.2 | -151.6 | 1.0 | -78.81 |
| 0.25 | 30.12 | 2007.4 | 2002.2 | 1998.3 | 7.29 | 7.10 | 6.79 | 32.90 | -37.2 | -30.3 | -60.3 | 1.05 | 1.53 | -82.5 | -110.0 | -131.4 | -151.6 | 2.0 | -88.29 |
| 1.00 | 28.65 | 2029.5 | 2024.5 | 2020.7 | 7.19 | 7.09 | 6.82 | 32.75 | -38.3 | -29.3 | -62.2 | 0.88 | 1.94 | -80.6 | -109.7 | -131.2 | -151.1 | 3.5 | -95.57 |
| 2.00 | 30.19 | 2058.5 | 2053.4 | 2049.5 | 7.24 | 7.11 | 6.80 | 32.53 | -34.8 | -27.9 | -64.7 | 0.82 | 2.49 | -81.7 | -108.7 | -130.1 | -150.5 | 6.0 | -101.55 |
| 3.00 | 33.01 | 2089.8 | 2084.2 | 2080.1 | 7.37 | 7.28 | 6.97 | 32.30 | -32.1 | -26.8 | -67.5 | 0.79 | 1.47 | -79.4 | -107.7 | -129.7 | -149.7 | 8.5 | -105.54 |
| 4.00 | 36.15 | 2124.2 | 2118.1 | 2113.5 | 7.27 | 7.24 | 6.97 | 32.07 | -30.2 | -25.4 | -69.8 | 0.73 | 2.79 | -78.5 | -107.2 | -129.3 | -149.1 | 10.0 | -107.09 |
| 5.00 | 38.04 | 2161.1 | 2154.7 | 2149.8 | 7.27 | 7.14 | 6.77 | 31.91 | -29.5 | -24.8 | -75.5 | 0.64 | 1.65 | -79.2 | -107.1 | -129.2 | -149.3 | 20.8 | -114.46 |
| 6.00 | 39.84 | 2200.3 | 2193.3 | 2187.9 | 7.36 | 7.22 | 6.79 | 31.78 | -29.4 | -26.2 | -66.2 | 0.52 | 2.82 | -80.6 | -107.2 | -129.0 | -149.3 | 35.5 | -119.46 |
| 7.00 | 40.53 | 2240.9 | 2233.4 | 2227.6 | 7.28 | 7.14 | 6.68 | 31.67 | -31.1 | -28.7 | -67.0 | 0.37 | 1.96 | -79.0 | -107.0 | -128.8 | -148.8 | 60.7 | -123.68 |
| 7.50 | 40.09 | 2261.3 | 2253.7 | 2247.7 | 7.29 | 7.06 | 6.55 | 31.65 | -31.8 | -29.6 | -62.4 | 0.30 | 3.00 | -79.9 | -107.1 | -128.7 | -148.8 | 86.7 | -127.52 |
| 8.00 | 40.03 | 2281.5 | 2273.7 | 2267.6 | 7.41 | 7.16 | 6.58 | 31.63 | -32.3 | -31.5 | -63.1 | 0.24 | 3.14 | -78.6 | -107.3 | -129.0 | -148.9 | 100.0 | -128.74 |
| 9.00 | 40.15 | 2322.0 | 2313.8 | 2307.3 | 7.48 | 7.28 | 6.68 | 31.59 | -34.3 | -33.5 | -51.0 | 0.14 | 3.11 | -79.6 | -106.9 | -128.6 | -148.7 | 148.1 | -132.19 |
| 10.00 | 38.72 | 2362.2 | 2353.8 | 2347.1 | 7.45 | 7.20 | 6.56 | 31.58 | -34.9 | -35.9 | -50.5 | 0.06 | 2.79 | -78.2 | -106.7 | -128.4 | -148.8 | 177.0 | -133.78 |
| 11.00 | 37.66 | 2400.6 | 2392.0 | 2385.3 | 7.73 | 7.51 | 6.83 | 31.58 | -35.3 | -38.5 | -50.2 | 0.01 | 2.96 | -78.9 | -106.8 | -128.5 | -149.0 | 211.6 | -135.22 |
| 12.00 | 35.88 | 2438.2 | 2429.5 | 2422.4 | 7.65 | 7.45 | 6.82 | 31.57 | -35.0 | -40.3 | -49.7 | 0.00 | 2.14 | -79.6 | -106.6 | -128.1 | -147.9 | 302.4 | -138.17 |
| 13.00 | 32.57 | 2473.0 | 2464.5 | 2457.7 | 7.86 | 7.56 | 6.90 | 31.61 | -34.8 | -41.5 | -51.1 | 0.07 | 3.58 | -78.1 | -106.9 | -128.4 | -148.4 | 361.5 | -139.84 |
| 13.50 | 31.31 | 2489.3 | 2480.8 | 2474.0 | 7.95 | 7.69 | 7.05 | 31.61 | -34.3 | -43.0 | -50.8 | 0.12 | 2.82 | -79.9 | -106.9 | -128.4 | -148.4 | 507.5 | -142.57 |
| 14.00 | 29.98 | 2505.1 | 2496.5 | 2489.5 | 7.99 | 7.78 | 7.14 | 31.60 | -33.9 | -43.6 | -50.4 | 0.18 | 2.40 | -78.7 | -106.6 | -128.2 | -148.1 | 606.7 | -144.40 |
| 15.00 | 25.77 | 2534.0 | 2525.5 | 2518.6 | 7.96 | 7.75 | 7.15 | 31.61 | -33.0 | -43.9 | -51.1 | 0.28 | 3.25 | -80.9 | -107.0 | -128.2 | -147.8 | 851.6 | -147.31 |
| 16.00 | 21.04 | 2558.2 | 2550.1 | 2543.3 | 8.14 | 7.84 | 7.23 | 31.63 | -31.6 | -45.7 | -50.5 | 0.31 | 2.99 | -81.0 | -107.2 | -128.4 | -148.4 | 1000.0 | -148.44 |

*at 25°C unless mentioned otherwise



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