

Coaxial

Voltage Controlled Oscillator

ZX95-3015+

Linear Tuning 2570 to 3015 MHz

Features

- high power, +9 dBm typ.
- low phase noise
- low pushing
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- CATV
- satellite systems



CASE STYLE: GB956

| Connectors | Model | Price | Qty. |
|------------|--------------|-------------|-------|
| SMA | ZX95-3015-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

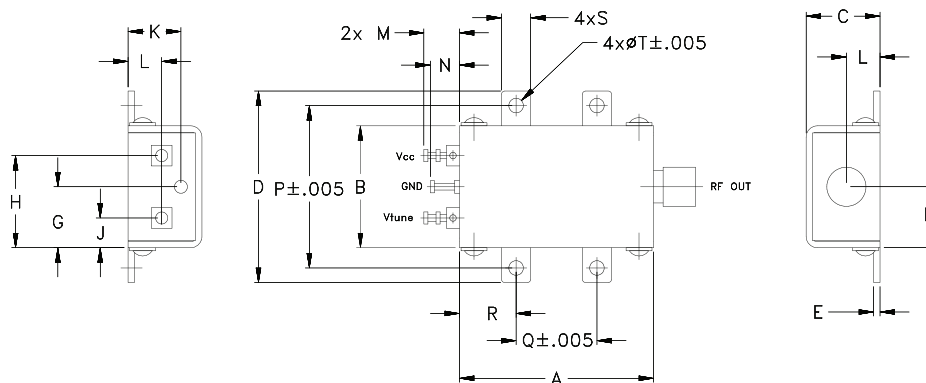
| MODEL NO. | FREQ. (MHz) | | POWER OUTPUT (dBm) | PHASE NOISE dBc/Hz SSB at offset frequencies, KHz | | | | TUNING | | | | | NON HARMONIC SPURIOUS (dBc) | HARMONICS (dBc) | | PULLING pk-pk @ 12 dB (MHz) | PUSHING (MHz/V) | DC OPERATING POWER | |
|------------|-------------|------|--------------------|---------------------------------------------------|-----|------|------|--------|-------------------|---------------------|---------------|---------------------------------|-----------------------------|-----------------|-----------|-----------------------------|-----------------|--------------------|--------------|
| | Min. | Max. | | Typ. | 1 | 10 | 100 | 1000 | VOLTAGE RANGE (V) | SENSITIVITY (MHz/V) | PORT CAP (pF) | 3 dB MODULATION BANDWIDTH (MHz) | | Typ. | Typ. Max. | | | Vcc (volts) | Current (mA) |
| ZX95-3015+ | 2570 | 3015 | +9 | -72 | -99 | -120 | -140 | 0.5 | 24 | 30-43 | 30 | 60 | -90 | -14 | - | 17 | 0.8 | 10 | 35 |

Maximum Ratings

| | |
|--------------------------------------|----------------|
| Operating Temperature | -55°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Absolute Max. Supply Voltage (Vcc) | 12V |
| Absolute Max. Tuning Voltage (Vtune) | 26V |
| 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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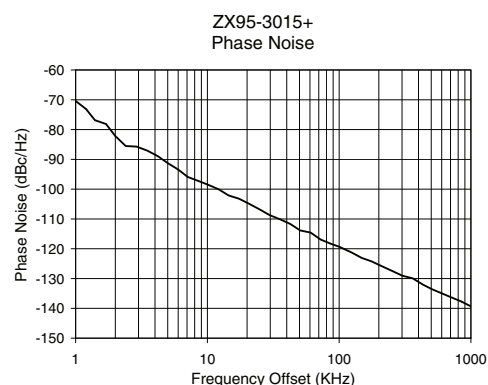
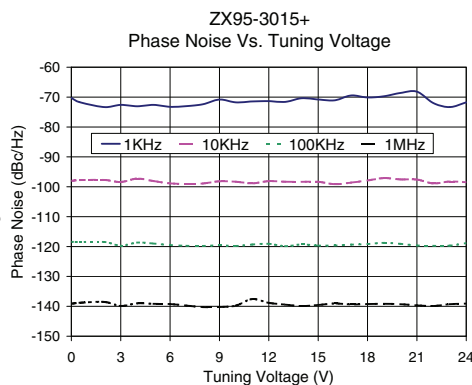
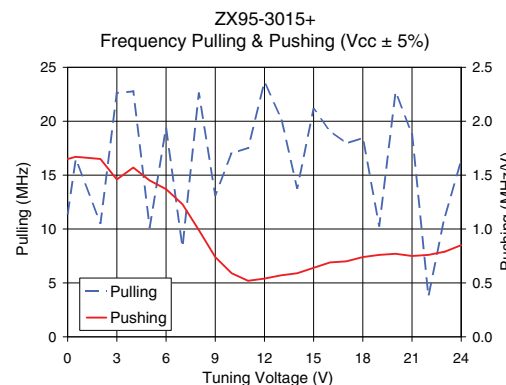
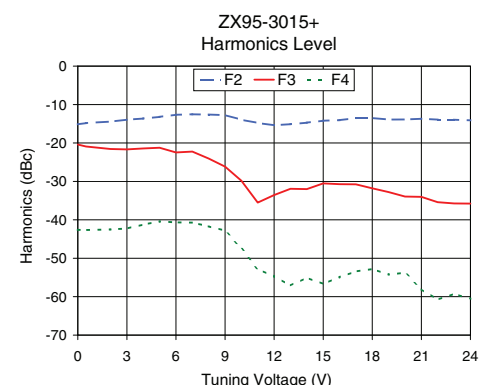
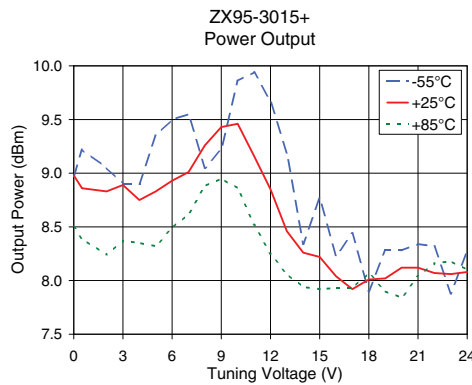
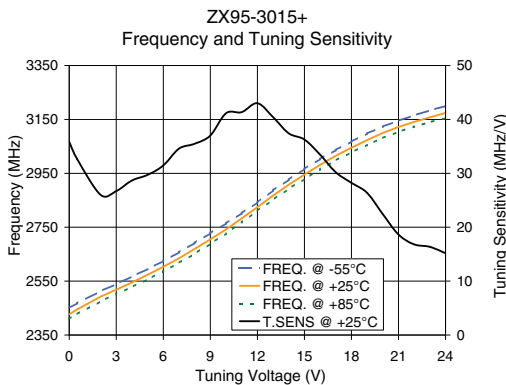
REV. OR
M108877
EDR-6434/1
ZX95-3015+
RAV
120905
Page 1 of 2

Performance Data & Curves*

ZX95-3015+

| 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 2793 MHz (dBc/Hz) |
|--------|-------------------|-----------------|--------|--------|--------------------|-------|-------|----------|-----------------|-------|-------|--------------------|------------------|---------------------------------|-------|--------|--------|-------------------|----------------------------------|
| | | -55°C | +25°C | +85°C | -55°C | +25°C | +85°C | | F2 | F3 | F4 | | | 1kHz | 10kHz | 100kHz | 1MHz | | |
| 0.00 | 35.84 | 2450.6 | 2426.9 | 2409.9 | 8.97 | 8.98 | 8.50 | 29.76 | -15.1 | -20.4 | -42.6 | 1.65 | 11.43 | -70.3 | -98.0 | -118.4 | -139.1 | 1.0 | -70.41 |
| 0.50 | 32.69 | 2467.9 | 2444.8 | 2427.5 | 9.22 | 8.86 | 8.39 | 29.75 | -14.8 | -20.9 | -42.7 | 1.67 | 16.44 | -71.7 | -97.8 | -118.5 | -138.8 | 2.0 | -82.16 |
| 2.00 | 26.01 | 2512.9 | 2492.3 | 2475.2 | 9.05 | 8.83 | 8.24 | 29.74 | -14.4 | -21.6 | -42.5 | 1.65 | 10.56 | -73.3 | -97.7 | -118.5 | -138.5 | 3.5 | -87.08 |
| 3.00 | 26.70 | 2539.1 | 2518.3 | 2502.7 | 8.90 | 8.89 | 8.37 | 29.76 | -14.0 | -21.7 | -42.3 | 1.46 | 22.61 | -72.6 | -98.4 | -119.7 | -139.9 | 6.0 | -93.41 |
| 4.00 | 28.67 | 2566.9 | 2545.0 | 2527.9 | 8.90 | 8.75 | 8.35 | 29.73 | -13.6 | -21.4 | -41.2 | 1.57 | 22.77 | -73.1 | -97.3 | -118.7 | -139.0 | 8.5 | -97.22 |
| 5.00 | 29.72 | 2595.0 | 2573.7 | 2556.5 | 9.35 | 8.83 | 8.32 | 29.73 | -13.2 | -21.3 | -40.4 | 1.45 | 10.19 | -72.6 | -98.1 | -119.0 | -139.2 | 10.0 | -98.42 |
| 6.00 | 31.47 | 2624.7 | 2603.4 | 2586.4 | 9.50 | 8.93 | 8.49 | 29.73 | -12.7 | -22.5 | -40.7 | 1.37 | 19.36 | -73.3 | -98.9 | -119.5 | -139.2 | 20.8 | -104.95 |
| 8.00 | 35.48 | 2692.0 | 2669.4 | 2651.7 | 9.05 | 9.26 | 8.88 | 29.74 | -12.6 | -24.1 | -41.7 | 0.99 | 22.57 | -72.4 | -98.9 | -119.8 | -140.3 | 35.5 | -110.09 |
| 10.00 | 41.15 | 2764.5 | 2741.9 | 2726.8 | 9.86 | 9.46 | 8.86 | 29.75 | -14.0 | -29.8 | -47.5 | 0.59 | 17.01 | -71.8 | -98.3 | -119.8 | -139.8 | 60.7 | -114.57 |
| 12.00 | 43.01 | 2842.1 | 2824.4 | 2811.0 | 9.67 | 8.85 | 8.25 | 29.73 | -15.4 | -33.6 | -54.7 | 0.54 | 23.60 | -71.4 | -98.1 | -119.1 | -138.8 | 86.7 | -118.34 |
| 13.00 | 40.43 | 2886.6 | 2867.5 | 2852.1 | 9.19 | 8.46 | 8.06 | 29.71 | -15.1 | -31.9 | -57.1 | 0.57 | 20.38 | -71.6 | -98.3 | -119.9 | -139.4 | 100.0 | -119.32 |
| 14.00 | 37.42 | 2926.7 | 2907.9 | 2893.0 | 8.34 | 8.26 | 7.94 | 29.73 | -14.7 | -32.0 | -55.1 | 0.59 | 13.81 | -70.4 | -98.4 | -119.3 | -139.9 | 148.1 | -123.05 |
| 16.00 | 33.45 | 3003.4 | 2981.6 | 2964.7 | 8.23 | 8.04 | 7.93 | 29.72 | -14.1 | -30.7 | -54.9 | 0.69 | 19.13 | -71.1 | -99.1 | -119.7 | -139.1 | 177.0 | -124.26 |
| 18.00 | 28.23 | 3067.6 | 3045.2 | 3028.0 | 7.90 | 8.01 | 8.07 | 29.74 | -13.5 | -31.8 | -52.8 | 0.74 | 18.46 | -70.1 | -97.9 | -119.2 | -139.2 | 211.6 | -125.89 |
| 19.00 | 26.37 | 3097.5 | 3073.5 | 3055.7 | 8.28 | 8.02 | 7.90 | 29.73 | -13.9 | -32.8 | -54.2 | 0.76 | 10.31 | -69.7 | -97.1 | -118.8 | -139.2 | 302.4 | -129.05 |
| 20.00 | 22.42 | 3123.4 | 3099.8 | 3081.2 | 8.28 | 8.12 | 7.84 | 29.75 | -13.9 | -33.9 | -53.8 | 0.77 | 22.68 | -68.6 | -97.5 | -119.1 | -139.3 | 361.5 | -129.93 |
| 21.00 | 18.64 | 3145.1 | 3122.3 | 3103.9 | 8.34 | 8.12 | 8.04 | 29.77 | -13.7 | -34.0 | -58.1 | 0.75 | 18.85 | -68.2 | -97.6 | -119.6 | -139.7 | 507.5 | -133.59 |
| 22.00 | 16.81 | 3164.9 | 3140.9 | 3123.3 | 8.32 | 8.07 | 8.16 | 29.79 | -13.9 | -35.4 | -60.8 | 0.76 | 3.81 | -72.0 | -98.9 | -119.7 | -139.9 | 606.7 | -135.04 |
| 23.00 | 16.37 | 3183.7 | 3157.7 | 3139.7 | 7.88 | 8.06 | 8.18 | 29.79 | -14.0 | -35.7 | -59.3 | 0.79 | 11.18 | -73.3 | -98.2 | -119.7 | -139.3 | 851.6 | -137.77 |
| 24.00 | 15.19 | 3199.8 | 3174.1 | 3154.5 | 8.27 | 8.08 | 8.10 | 29.78 | -14.1 | -35.8 | -60.5 | 0.85 | 16.32 | -71.8 | -98.5 | -118.8 | -139.1 | 1000.0 | -139.34 |

*at 25°C unless mentioned otherwise



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