

Coaxial

Voltage Controlled Oscillator

ZX95-900+

Linear Tuning 625 to 885 MHz

Features

- Low phase noise
- Low pulling
- Low pushing
- Protected by US patent 6,790,049



CASE STYLE: GB956

Applications

- R&D
- LAB
- Instrumentation
- Wireless communication
- Test equipment

| Connectors | Model | Price | Qty. |
|------------|-------------|-------------|-------|
| SMA | ZX95-900-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

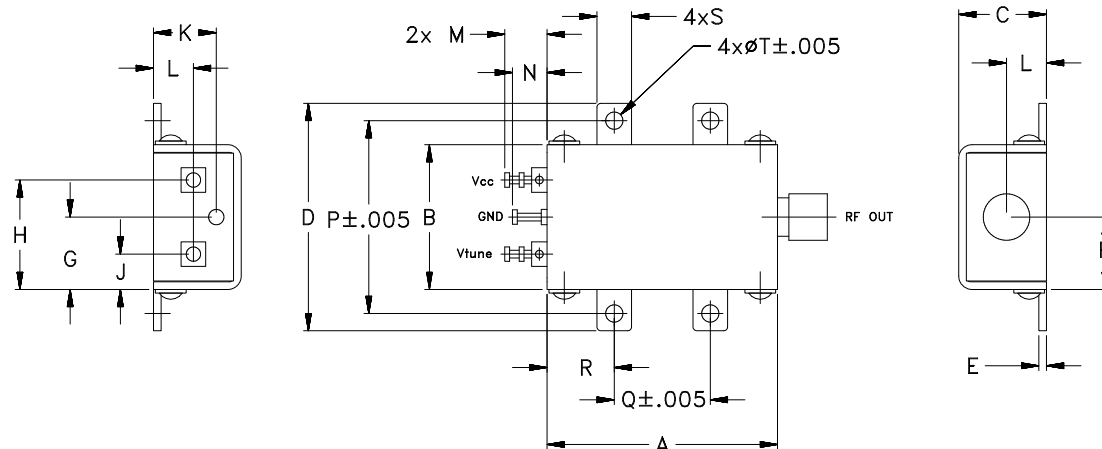
| MODEL NO. | FREQ. (MHz) | | POWER OUTPUT (dBm) | PHASE NOISE dBc/Hz SSB at offset frequencies, kHz | | | | TUNING | | | | | NON HARMONIC SPURIOUS (dBc) | HARMONICS (dBc) | | PULLING pk-pk @12 dB (MHz) | PUSHING (MHz/V) | DC OPERATING POWER | |
|-----------|-------------|------|--------------------|---|------|------|------|--------|-------------------|---------------------|---------------|---------------------------------|-----------------------------|-----------------|------|----------------------------|-----------------|--------------------|------|
| | Min. | Max. | | Typ. | 1 | 10 | 100 | 1000 | VOLTAGE RANGE (V) | SENSITIVITY (MHz/V) | PORT CAP (pF) | 3 dB MODULATION BANDWIDTH (MHz) | | Typ. | Typ. | | | Max. | Typ. |
| ZX95-900+ | 625 | 885 | +5.8 | -82 | -106 | -127 | -147 | 0.5 | 18 | 15 - 26 | 70 | 25 | -90 | -13 | - | 1.5 | 0.4 | 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) | 20V |
| 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 |

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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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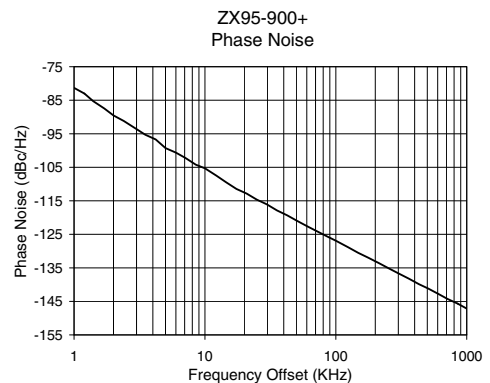
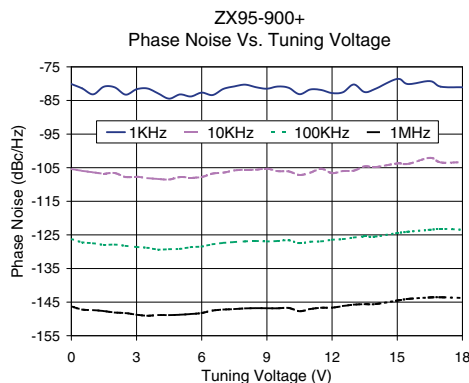
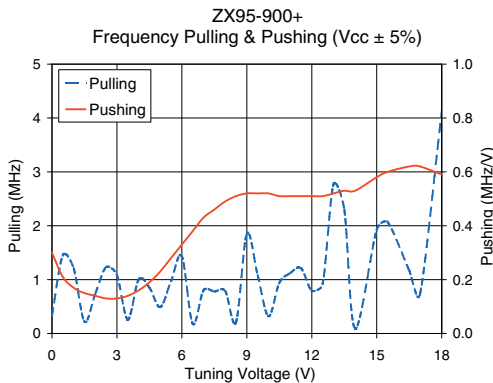
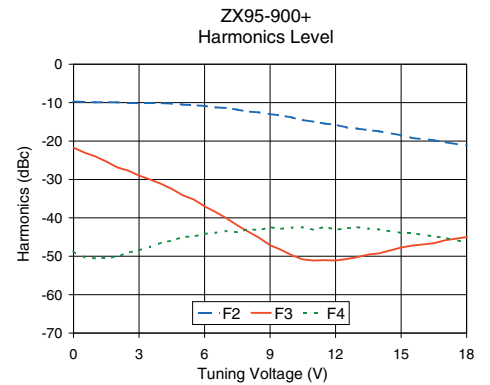
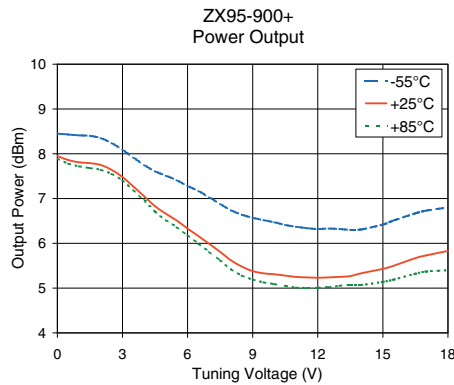
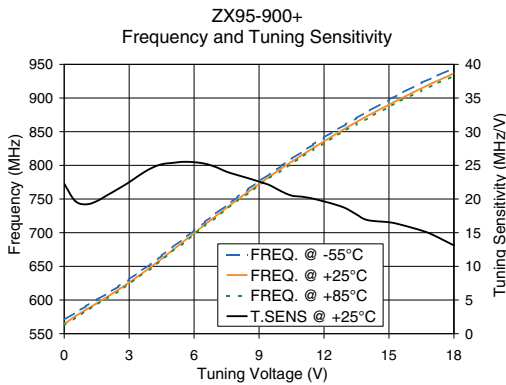
REV. OR
M119372
EDR-9058F2
ZX95-900+
RAV
090907
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Performance Data & Curves*

ZX95-900+

| 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 755 MHz (dBc/Hz) |
|--------|-------------------|-----------------|-------|-------|--------------------|-------|-------|----------|-----------------|-------|-------|--------------------|------------------|---------------------------------|--------|--------|--------|-------------------|---------------------------------|
| | | -55°C | +25°C | +85°C | -55°C | +25°C | +85°C | | F2 | F3 | F4 | | | 1kHz | 10kHz | 100kHz | 1MHz | | |
| 0.00 | 22.27 | 570.5 | 564.5 | 562.0 | 8.45 | 7.95 | 7.89 | 28.31 | -9.7 | -21.7 | -48.8 | 0.30 | 0.33 | -80.1 | -105.4 | -126.2 | -146.3 | 1.0 | -81.32 |
| 0.50 | 19.73 | 581.2 | 575.6 | 573.5 | 8.43 | 7.86 | 7.78 | 28.37 | -9.8 | -23.0 | -50.3 | 0.21 | 1.45 | -81.4 | -105.9 | -127.2 | -147.2 | 2.0 | -89.54 |
| 1.00 | 19.21 | 590.8 | 585.5 | 583.6 | 8.41 | 7.81 | 7.72 | 28.43 | -9.9 | -24.0 | -50.5 | 0.17 | 1.21 | -83.2 | -106.4 | -127.5 | -147.4 | 3.5 | -95.29 |
| 2.00 | 20.60 | 610.0 | 604.9 | 602.9 | 8.35 | 7.75 | 7.64 | 28.51 | -9.9 | -26.9 | -50.1 | 0.14 | 0.74 | -81.1 | -106.6 | -127.9 | -148.1 | 6.0 | -100.63 |
| 3.00 | 22.49 | 630.9 | 626.0 | 623.9 | 8.09 | 7.48 | 7.40 | 28.59 | -10.1 | -29.0 | -48.5 | 0.13 | 1.08 | -81.7 | -107.7 | -128.6 | -148.8 | 8.5 | -104.21 |
| 4.00 | 24.55 | 653.9 | 649.0 | 647.1 | 7.75 | 7.05 | 6.96 | 28.65 | -10.1 | -31.1 | -46.5 | 0.16 | 1.00 | -82.9 | -108.4 | -129.4 | -148.8 | 10.0 | -105.30 |
| 5.00 | 25.37 | 678.3 | 673.9 | 671.9 | 7.51 | 6.66 | 6.52 | 28.68 | -10.5 | -34.1 | -45.0 | 0.23 | 0.49 | -83.2 | -107.8 | -129.2 | -148.8 | 20.8 | -112.83 |
| 6.00 | 25.47 | 703.4 | 699.3 | 697.4 | 7.28 | 6.33 | 6.18 | 28.68 | -10.9 | -37.0 | -44.2 | 0.33 | 1.43 | -82.7 | -107.8 | -128.5 | -148.3 | 35.5 | -117.86 |
| 7.00 | 24.75 | 728.3 | 724.7 | 722.6 | 7.03 | 5.99 | 5.81 | 28.66 | -11.4 | -40.1 | -43.4 | 0.43 | 0.80 | -81.5 | -106.5 | -127.4 | -147.2 | 60.7 | -122.63 |
| 8.00 | 23.56 | 752.8 | 749.1 | 747.0 | 6.74 | 5.62 | 5.42 | 28.63 | -12.3 | -43.6 | -42.9 | 0.49 | 0.79 | -80.3 | -105.6 | -126.9 | -146.9 | 86.7 | -125.72 |
| 9.00 | 22.59 | 776.3 | 772.4 | 770.3 | 6.57 | 5.38 | 5.19 | 28.58 | -13.0 | -47.1 | -42.4 | 0.52 | 1.85 | -81.5 | -105.3 | -126.9 | -146.8 | 100.0 | -126.91 |
| 10.00 | 21.19 | 798.7 | 794.7 | 792.0 | 6.47 | 5.31 | 5.09 | 28.53 | -13.9 | -49.7 | -42.6 | 0.52 | 0.32 | -81.2 | -106.1 | -126.6 | -146.7 | 148.1 | -130.52 |
| 11.00 | 20.34 | 820.5 | 815.6 | 812.9 | 6.37 | 5.25 | 5.01 | 28.47 | -15.0 | -51.1 | -43.1 | 0.51 | 1.12 | -81.7 | -106.5 | -127.0 | -147.1 | 177.0 | -131.99 |
| 12.00 | 19.64 | 841.5 | 835.8 | 833.1 | 6.32 | 5.23 | 5.01 | 28.41 | -15.8 | -51.1 | -43.1 | 0.51 | 0.79 | -82.8 | -106.6 | -126.4 | -146.7 | 211.6 | -133.51 |
| 13.00 | 18.62 | 860.9 | 855.2 | 852.1 | 6.32 | 5.25 | 5.05 | 28.36 | -16.8 | -50.2 | -42.4 | 0.52 | 2.77 | -80.3 | -105.9 | -125.8 | -145.8 | 302.4 | -136.68 |
| 14.00 | 16.87 | 879.5 | 873.4 | 869.7 | 6.31 | 5.33 | 5.07 | 28.31 | -17.5 | -49.2 | -43.0 | 0.53 | 0.09 | -81.5 | -104.8 | -125.5 | -145.6 | 361.5 | -138.22 |
| 15.00 | 16.55 | 897.5 | 890.1 | 886.8 | 6.42 | 5.43 | 5.14 | 28.25 | -18.5 | -47.7 | -43.9 | 0.58 | 1.93 | -78.6 | -103.8 | -124.5 | -144.6 | 507.5 | -141.17 |
| 15.50 | 16.22 | 906.1 | 898.4 | 895.1 | 6.51 | 5.50 | 5.19 | 28.22 | -19.2 | -47.2 | -44.0 | 0.60 | 2.07 | -80.1 | -103.9 | -124.1 | -144.0 | 606.7 | -142.77 |
| 17.00 | 14.72 | 930.0 | 922.1 | 918.7 | 6.73 | 5.73 | 5.37 | 28.18 | -20.3 | -45.9 | -45.2 | 0.62 | 0.73 | -80.9 | -103.4 | -123.2 | -143.6 | 851.6 | -145.65 |
| 18.00 | 13.11 | 944.3 | 936.4 | 932.8 | 6.80 | 5.83 | 5.40 | 28.17 | -21.2 | -45.0 | -46.4 | 0.59 | 4.11 | -81.1 | -103.4 | -123.5 | -143.8 | 1000.0 | -147.14 |

*at 25°C unless mentioned otherwise



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