

Coaxial

# Voltage Controlled Oscillator

ZX95-1062+

Linear Tuning 1045 to 1063 MHz

## Features

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

## Applications

- r & d
- lab
- instrumentation
- wireless communications
- line for receiver
- wireless microphone



CASE STYLE: GB956

| Connectors | Model        | Price       | Qty.  |
|------------|--------------|-------------|-------|
| SMA        | ZX95-1062-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

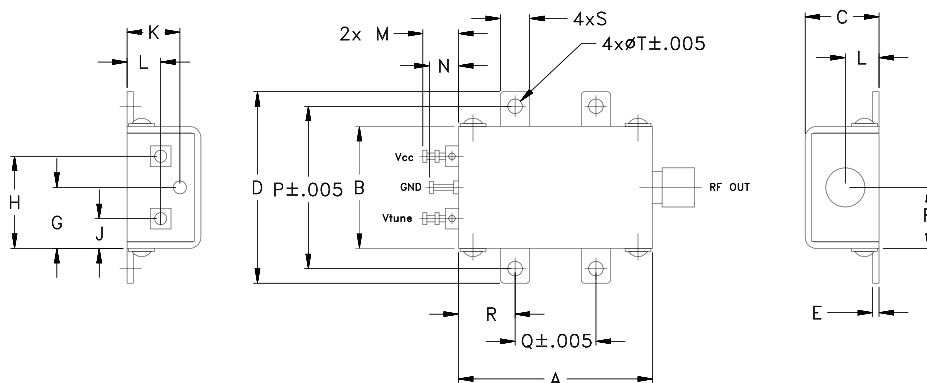
| MODEL NO.  | FREQ. (MHz) |      | POWER OUTPUT (dBm) | PHASE NOISE<br>dBc/Hz SSB at offset frequencies,kHz<br><br>Typ. |      |      |      | TUNING            |                       |               |                                 |      | NON HARMONIC SPURIOUS (dBc) | HARMONICS (dBc) |      | PULLING<br>pk-pk @12 dB R (MHz) | PUSHING (MHz/V) | DC OPERATING POWER<br><br>Vcc Current (volts) (mA) |    |
|------------|-------------|------|--------------------|-----------------------------------------------------------------|------|------|------|-------------------|-----------------------|---------------|---------------------------------|------|-----------------------------|-----------------|------|---------------------------------|-----------------|----------------------------------------------------|----|
|            |             |      |                    |                                                                 |      |      |      | VOLTAGE RANGE (V) | SENSI- TIVITY (MHz/V) | PORT CAP (pF) | 3 dB MODULATION BANDWIDTH (MHz) |      |                             |                 |      |                                 |                 |                                                    |    |
|            | Min.        | Max. | Typ.               | 1                                                               | 10   | 100  | 1000 | Min.              | Max.                  | Typ.          | Typ.                            | Typ. | Typ.                        | Typ.            | Max. | Typ.                            | Typ.            | Max.                                               |    |
| ZX95-1062+ | 1045        | 1063 | +0.5               | -91                                                             | -114 | -134 | -154 | 0.5               | 14                    | 4.5           | 34                              | 70   | -90                         | -20             | -10  | 0.4                             | 0.05            | 5                                                  | 40 |

## Maximum Ratings

|                                      |                |
|--------------------------------------|----------------|
| Operating Temperature                | -55°C to 85°C  |
| Storage Temperature                  | -55°C to 100°C |
| Absolute Max. Supply Voltage (Vcc)   | 5.8V           |
| Absolute Max. Tuning Voltage (Vtune) | 16.0V          |
| 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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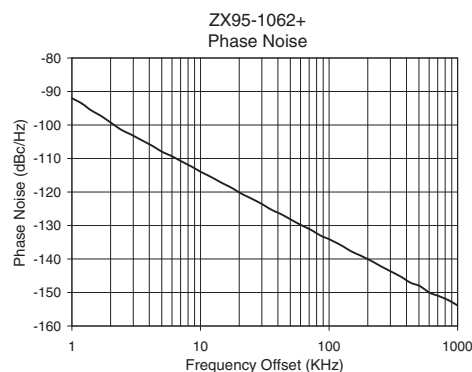
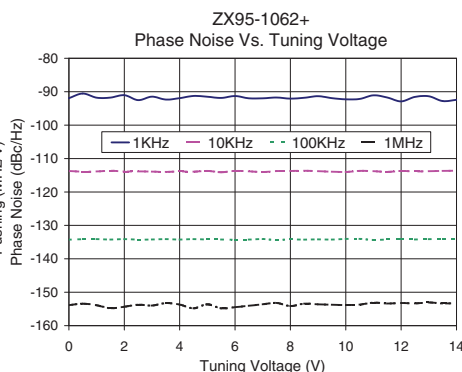
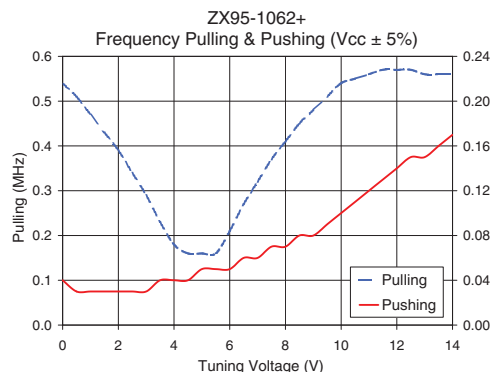
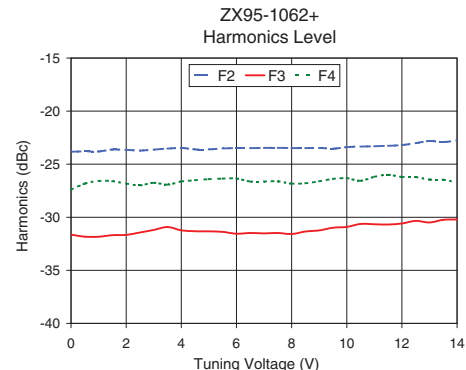
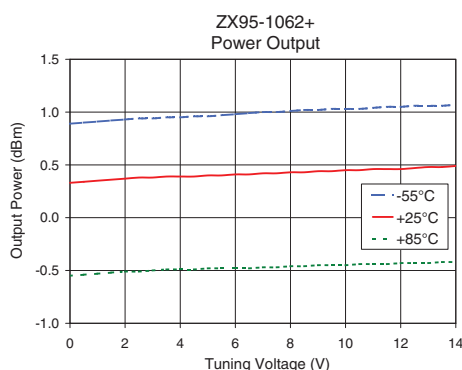
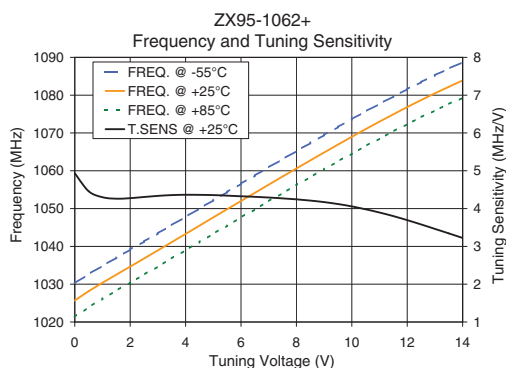
REV. OR  
M125166  
EDR-9993F2  
ZX95-1062+  
RAV  
120902  
Page 1 of 2

# Performance Data & Curves\*

# ZX95-1062+

| V<br>TUNE | TUNE<br>SENS<br>(MHz/V) | FREQUENCY<br>(MHz) |        |        | POWER OUTPUT<br>(dBm) |       |       | Icc<br>(mA) | HARMONICS (dBc) |       |       | FREQ.<br>PUSH<br>(MHz/V) | FREQ.<br>PULL<br>(MHz) | PHASE NOISE (dBc/Hz)<br>at offsets |        |        |        | FREQ<br>OFFSET<br>(KHz) | PHASE<br>NOISE at<br>1054 MHz<br>(dBc/Hz) |
|-----------|-------------------------|--------------------|--------|--------|-----------------------|-------|-------|-------------|-----------------|-------|-------|--------------------------|------------------------|------------------------------------|--------|--------|--------|-------------------------|-------------------------------------------|
|           |                         | -55°C              | +25°C  | +85°C  | -55°C                 | +25°C | +85°C |             | F2              | F3    | F4    |                          |                        | 1kHz                               | 10kHz  | 100kHz | 1MHz   |                         |                                           |
| 0.00      | 4.93                    | 1030.3             | 1025.7 | 1021.4 | 0.89                  | 0.33  | -0.55 | 32.95       | -23.8           | -31.6 | -27.4 | 0.04                     | 0.54                   | -91.9                              | -113.7 | -134.3 | -153.9 | 1.0                     | -92.00                                    |
| 0.50      | 4.46                    | 1032.7             | 1028.2 | 1023.9 | 0.90                  | 0.34  | -0.54 | 32.95       | -23.8           | -31.8 | -26.8 | 0.03                     | 0.51                   | -90.6                              | -113.9 | -134.1 | -153.4 | 2.0                     | -99.26                                    |
| 1.00      | 4.30                    | 1034.9             | 1030.4 | 1026.2 | 0.91                  | 0.35  | -0.53 | 32.94       | -23.8           | -31.8 | -26.6 | 0.03                     | 0.47                   | -91.8                              | -113.9 | -134.1 | -153.9 | 3.5                     | -104.57                                   |
| 2.50      | 4.31                    | 1041.3             | 1036.8 | 1032.5 | 0.94                  | 0.38  | -0.51 | 32.93       | -23.7           | -31.4 | -27.0 | 0.03                     | 0.34                   | -92.5                              | -113.8 | -134.3 | -153.7 | 6.0                     | -109.34                                   |
| 3.00      | 4.34                    | 1043.5             | 1039.0 | 1034.7 | 0.94                  | 0.38  | -0.50 | 32.92       | -23.6           | -31.2 | -26.8 | 0.03                     | 0.29                   | -91.5                              | -113.9 | -134.2 | -154.0 | 8.5                     | -112.40                                   |
| 3.50      | 4.36                    | 1045.6             | 1041.1 | 1036.8 | 0.95                  | 0.39  | -0.49 | 32.93       | -23.5           | -30.9 | -26.9 | 0.04                     | 0.23                   | -92.4                              | -114.0 | -134.1 | -153.3 | 10.0                    | -113.91                                   |
| 4.00      | 4.37                    | 1047.8             | 1043.3 | 1039.0 | 0.95                  | 0.39  | -0.49 | 32.92       | -23.5           | -31.2 | -26.6 | 0.04                     | 0.18                   | -91.9                              | -113.9 | -134.3 | -153.7 | 20.8                    | -120.47                                   |
| 4.50      | 4.36                    | 1050.0             | 1045.5 | 1041.2 | 0.96                  | 0.39  | -0.49 | 32.92       | -23.6           | -31.3 | -26.5 | 0.04                     | 0.16                   | -91.3                              | -113.9 | -134.1 | -154.8 | 35.5                    | -125.27                                   |
| 5.50      | 4.34                    | 1054.4             | 1049.8 | 1045.5 | 0.97                  | 0.40  | -0.48 | 32.92       | -23.5           | -31.4 | -26.4 | 0.05                     | 0.16                   | -91.9                              | -114.1 | -134.2 | -154.8 | 60.7                    | -129.87                                   |
| 6.00      | 4.33                    | 1056.6             | 1052.0 | 1047.7 | 0.98                  | 0.41  | -0.48 | 32.91       | -23.5           | -31.6 | -26.4 | 0.05                     | 0.21                   | -91.3                              | -113.7 | -134.3 | -154.5 | 86.7                    | -133.09                                   |
| 6.50      | 4.31                    | 1058.7             | 1054.2 | 1049.8 | 0.99                  | 0.41  | -0.48 | 32.91       | -23.5           | -31.5 | -26.6 | 0.06                     | 0.27                   | -92.0                              | -113.8 | -134.2 | -154.1 | 100.0                   | -134.10                                   |
| 7.00      | 4.29                    | 1060.9             | 1056.3 | 1052.0 | 1.00                  | 0.42  | -0.47 | 32.91       | -23.5           | -31.5 | -26.6 | 0.06                     | 0.32                   | -92.0                              | -114.1 | -134.1 | -153.6 | 148.1                   | -137.67                                   |
| 7.50      | 4.27                    | 1063.1             | 1058.5 | 1054.1 | 1.00                  | 0.42  | -0.47 | 32.90       | -23.5           | -31.5 | -26.6 | 0.07                     | 0.37                   | -91.7                              | -113.7 | -134.4 | -153.2 | 177.0                   | -139.03                                   |
| 8.50      | 4.21                    | 1067.3             | 1062.7 | 1058.3 | 1.02                  | 0.43  | -0.46 | 32.90       | -23.5           | -31.3 | -26.8 | 0.08                     | 0.45                   | -91.8                              | -113.7 | -134.3 | -153.4 | 211.6                   | -140.51                                   |
| 9.50      | 4.12                    | 1071.6             | 1066.9 | 1062.5 | 1.03                  | 0.44  | -0.45 | 32.89       | -23.5           | -31.0 | -26.4 | 0.09                     | 0.51                   | -91.9                              | -113.9 | -134.3 | -153.7 | 302.4                   | -143.72                                   |
| 10.00     | 4.06                    | 1073.6             | 1069.0 | 1064.5 | 1.03                  | 0.45  | -0.45 | 32.89       | -23.4           | -30.9 | -26.3 | 0.10                     | 0.54                   | -92.3                              | -114.0 | -134.1 | -153.8 | 361.5                   | -145.26                                   |
| 11.00     | 3.90                    | 1077.7             | 1073.0 | 1068.5 | 1.04                  | 0.46  | -0.44 | 32.88       | -23.3           | -30.7 | -26.2 | 0.12                     | 0.56                   | -91.1                              | -113.8 | -134.4 | -153.1 | 507.5                   | -148.06                                   |
| 12.00     | 3.69                    | 1081.6             | 1076.9 | 1072.3 | 1.05                  | 0.46  | -0.43 | 32.88       | -23.2           | -30.6 | -26.2 | 0.14                     | 0.57                   | -92.9                              | -113.7 | -134.2 | -153.2 | 606.7                   | -150.09                                   |
| 13.50     | 3.34                    | 1087.0             | 1082.2 | 1077.7 | 1.06                  | 0.48  | -0.42 | 32.88       | -22.9           | -30.2 | -26.5 | 0.16                     | 0.56                   | -92.8                              | -113.7 | -134.0 | -153.4 | 851.6                   | -152.34                                   |
| 14.00     | 3.22                    | 1088.7             | 1083.9 | 1079.3 | 1.07                  | 0.49  | -0.42 | 32.87       | -22.8           | -30.2 | -26.7 | 0.17                     | 0.56                   | -92.4                              | -113.7 | -134.0 | -153.3 | 1000.0                  | -153.88                                   |

\*at 25°C unless mentioned otherwise



ISO 9001 ISO 14001 AS 9100 CERTIFIED

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