

# Voltage Controlled Oscillator

ZX95-1023+

## Typical Performance Data

| V<br>TUNE | TUNE<br>SENS<br>(MHz/V) | FREQUENCY<br>(MHz) |        |        | POWER OUTPUT<br>(dBm) |       |       | HARMONICS (dBc) |       |       | FREQ.<br>PUSH<br>(MHz/V) | FREQ<br>OFFSET<br>(KHz) | PHASE<br>NOISE<br>(dBc/Hz) |
|-----------|-------------------------|--------------------|--------|--------|-----------------------|-------|-------|-----------------|-------|-------|--------------------------|-------------------------|----------------------------|
|           |                         | -55°C              | +25°C  | +85°C  | -55°C                 | +25°C | +85°C | F2              | F3    | F4    |                          |                         |                            |
| 0.00      | 38.22                   | 901.2              | 895.3  | 890.7  | 5.72                  | 6.33  | 6.19  | -39.1           | -26.5 | -47.6 | 1.19                     | 1                       | -81                        |
| 0.20      | 35.39                   | 908.6              | 902.9  | 898.6  | 5.81                  | 6.41  | 6.28  | -38.4           | -26.8 | -48.2 | 0.93                     | 10                      | -110                       |
| 0.50      | 32.78                   | 918.9              | 913.5  | 909.4  | 5.89                  | 6.50  | 6.39  | -37.1           | -26.6 | -48.9 | 0.69                     | 100                     | -131                       |
| 0.75      | 31.75                   | 927.0              | 921.7  | 917.6  | 5.93                  | 6.54  | 6.44  | -36.9           | -26.3 | -49.5 | 0.58                     | 1000                    | -150                       |
| 1.00      | 31.23                   | 934.9              | 929.6  | 925.5  | 5.97                  | 6.58  | 6.47  | -36.9           | -26.3 | -49.4 | 0.49                     |                         |                            |
| 1.25      | 31.00                   | 942.8              | 937.4  | 933.3  | 6.00                  | 6.62  | 6.52  | -37.4           | -26.3 | -50.0 | 0.43                     |                         |                            |
| 1.50      | 30.96                   | 950.5              | 945.2  | 941.0  | 6.02                  | 6.65  | 6.56  | -38.0           | -26.3 | -50.6 | 0.37                     |                         |                            |
| 1.75      | 31.09                   | 958.3              | 952.9  | 948.7  | 6.05                  | 6.67  | 6.59  | -38.7           | -26.0 | -50.3 | 0.34                     |                         |                            |
| 2.00      | 31.23                   | 966.1              | 960.7  | 956.4  | 6.07                  | 6.69  | 6.62  | -40.1           | -25.9 | -50.7 | 0.31                     |                         |                            |
| 2.25      | 31.40                   | 974.0              | 968.5  | 964.2  | 6.08                  | 6.71  | 6.65  | -41.2           | -26.0 | -50.7 | 0.31                     |                         |                            |
| 2.50      | 31.52                   | 981.9              | 976.4  | 972.0  | 6.07                  | 6.72  | 6.67  | -41.9           | -26.2 | -50.5 | 0.32                     |                         |                            |
| 2.75      | 31.58                   | 989.8              | 984.2  | 979.8  | 6.04                  | 6.70  | 6.67  | -41.6           | -26.4 | -50.7 | 0.34                     |                         |                            |
| 3.00      | 31.56                   | 997.8              | 992.1  | 987.6  | 6.02                  | 6.69  | 6.67  | -39.9           | -26.4 | -51.3 | 0.39                     |                         |                            |
| 3.25      | 31.80                   | 1005.7             | 1000.0 | 995.5  | 5.97                  | 6.67  | 6.66  | -38.2           | -26.9 | -51.1 | 0.46                     |                         |                            |
| 3.50      | 32.40                   | 1013.6             | 1008.0 | 1003.4 | 5.93                  | 6.62  | 6.64  | -36.3           | -27.3 | -49.8 | 0.58                     |                         |                            |
| 3.75      | 32.67                   | 1021.7             | 1016.1 | 1011.5 | 5.92                  | 6.59  | 6.59  | -35.2           | -26.3 | -49.4 | 0.69                     |                         |                            |
| 4.00      | 32.00                   | 1029.9             | 1024.3 | 1019.6 | 5.91                  | 6.56  | 6.54  | -34.9           | -24.8 | -49.0 | 0.71                     |                         |                            |
| 4.25      | 31.27                   | 1037.8             | 1032.3 | 1027.6 | 5.87                  | 6.52  | 6.50  | -34.7           | -24.2 | -48.2 | 0.69                     |                         |                            |
| 4.50      | 30.69                   | 1045.6             | 1040.1 | 1035.5 | 5.83                  | 6.48  | 6.46  | -34.8           | -24.0 | -48.3 | 0.70                     |                         |                            |
| 4.80      | 30.04                   | 1054.8             | 1049.3 | 1044.7 | 5.79                  | 6.44  | 6.41  | -34.4           | -23.8 | -48.5 | 0.69                     |                         |                            |
| 5.00      | 29.64                   | 1060.8             | 1055.3 | 1050.7 | 5.77                  | 6.42  | 6.38  | -34.0           | -23.5 | -47.8 | 0.69                     |                         |                            |
| 5.25      | 29.13                   | 1068.2             | 1062.7 | 1058.1 | 5.72                  | 6.38  | 6.35  | -33.3           | -23.5 | -47.7 | 0.69                     |                         |                            |
| 5.50      | 28.57                   | 1075.5             | 1070.0 | 1065.4 | 5.68                  | 6.34  | 6.31  | -32.4           | -23.3 | -47.5 | 0.67                     |                         |                            |
| 5.75      | 27.99                   | 1082.7             | 1077.1 | 1072.5 | 5.66                  | 6.30  | 6.26  | -31.8           | -23.3 | -47.2 | 0.64                     |                         |                            |
| 6.00      | 27.41                   | 1089.7             | 1084.1 | 1079.5 | 5.64                  | 6.29  | 6.23  | -31.2           | -23.7 | -46.4 | 0.62                     |                         |                            |
| 6.25      | 26.89                   | 1096.6             | 1091.0 | 1086.4 | 5.61                  | 6.27  | 6.20  | -30.6           | -23.5 | -46.7 | 0.58                     |                         |                            |
| 6.50      | 26.43                   | 1103.4             | 1097.7 | 1093.1 | 5.59                  | 6.23  | 6.17  | -30.3           | -23.2 | -46.6 | 0.54                     |                         |                            |
| 6.75      | 25.77                   | 1110.0             | 1104.3 | 1099.7 | 5.57                  | 6.21  | 6.12  | -29.8           | -23.2 | -46.4 | 0.50                     |                         |                            |
| 7.00      | 25.77                   | 1116.5             | 1110.7 | 1106.1 | 5.56                  | 6.19  | 6.09  | -29.3           | -23.6 | -45.5 | 0.46                     |                         |                            |