

# Voltage Controlled Oscillator

ROS-ED9329/1

## 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    |                          |                         |                            |
| 0.5       | 14.46                   | 907.1              | 903.5 | 899.4 | 0.33                  | -0.61 | -0.39 | -29.3           | -30.0 | -31.4 | 0.42                     | 1                       | -86                        |
| 0.6       | 13.88                   | 909.2              | 905.6 | 901.5 | 0.31                  | -0.59 | -0.36 | -29.0           | -30.0 | -30.7 | 0.44                     | 10                      | -109                       |
| 0.8       | 13.49                   | 911.2              | 907.6 | 903.5 | 0.33                  | -0.64 | -0.42 | -29.3           | -30.1 | -30.4 | 0.44                     | 100                     | -129                       |
| 0.9       | 12.89                   | 913.1              | 909.6 | 905.5 | 0.31                  | -0.60 | -0.41 | -29.0           | -29.6 | -30.2 | 0.44                     | 1000                    | -145                       |
| 1.1       | 12.85                   | 915.1              | 911.5 | 907.4 | 0.41                  | -0.57 | -0.39 | -29.1           | -29.8 | -30.0 | 0.44                     |                         |                            |
| 1.2       | 12.69                   | 917.0              | 913.4 | 909.3 | 0.47                  | -0.60 | -0.43 | -29.0           | -29.5 | -29.5 | 0.46                     |                         |                            |
| 1.4       | 12.55                   | 918.9              | 915.3 | 911.2 | 0.45                  | -0.55 | -0.39 | -28.7           | -29.5 | -29.2 | 0.44                     |                         |                            |
| 1.5       | 12.40                   | 920.8              | 917.1 | 913.1 | 0.50                  | -0.51 | -0.42 | -29.1           | -29.1 | -28.8 | 0.46                     |                         |                            |
| 1.7       | 12.45                   | 922.6              | 919.0 | 914.9 | 0.52                  | -0.56 | -0.38 | -28.9           | -28.9 | -28.1 | 0.46                     |                         |                            |
| 1.8       | 12.34                   | 924.5              | 920.9 | 916.8 | 0.59                  | -0.51 | -0.34 | -28.9           | -29.0 | -27.8 | 0.46                     |                         |                            |
| 2.0       | 12.26                   | 926.4              | 922.7 | 918.6 | 0.65                  | -0.50 | -0.38 | -28.7           | -28.5 | -27.5 | 0.46                     |                         |                            |
| 2.1       | 12.26                   | 928.2              | 924.5 | 920.4 | 0.60                  | -0.46 | -0.34 | -28.8           | -28.3 | -27.0 | 0.46                     |                         |                            |
| 2.3       | 12.35                   | 930.1              | 926.4 | 922.2 | 0.69                  | -0.41 | -0.31 | -28.5           | -28.3 | -26.8 | 0.46                     |                         |                            |
| 2.4       | 12.29                   | 932.0              | 928.2 | 924.1 | 0.77                  | -0.43 | -0.31 | -28.6           | -28.3 | -26.6 | 0.46                     |                         |                            |
| 2.6       | 12.18                   | 933.8              | 930.1 | 925.9 | 0.77                  | -0.39 | -0.27 | -28.6           | -27.8 | -26.5 | 0.46                     |                         |                            |
| 2.7       | 12.27                   | 935.7              | 931.9 | 927.7 | 0.82                  | -0.34 | -0.29 | -28.5           | -28.0 | -26.5 | 0.46                     |                         |                            |
| 2.9       | 12.23                   | 937.5              | 933.7 | 929.5 | 0.84                  | -0.34 | -0.25 | -28.3           | -28.0 | -26.4 | 0.44                     |                         |                            |
| 3.0       | 12.37                   | 939.4              | 935.6 | 931.4 | 0.87                  | -0.31 | -0.21 | -28.2           | -27.8 | -26.4 | 0.44                     |                         |                            |
| 3.2       | 12.29                   | 941.2              | 937.4 | 933.2 | 0.92                  | -0.27 | -0.22 | -28.1           | -27.5 | -26.3 | 0.44                     |                         |                            |
| 3.3       | 12.20                   | 943.0              | 939.3 | 935.0 | 0.91                  | -0.29 | -0.19 | -27.8           | -27.4 | -26.3 | 0.41                     |                         |                            |
| 3.5       | 12.30                   | 944.9              | 941.1 | 936.8 | 0.94                  | -0.25 | -0.17 | -27.5           | -27.6 | -26.4 | 0.38                     |                         |                            |
| 3.6       | 12.28                   | 946.7              | 943.0 | 938.7 | 0.96                  | -0.27 | -0.18 | -27.5           | -27.3 | -26.4 | 0.36                     |                         |                            |
| 3.8       | 12.13                   | 948.5              | 944.8 | 940.5 | 0.99                  | -0.27 | -0.16 | -27.3           | -27.3 | -26.3 | 0.31                     |                         |                            |
| 3.9       | 12.14                   | 950.3              | 946.6 | 942.3 | 0.97                  | -0.25 | -0.15 | -26.8           | -27.4 | -26.4 | 0.29                     |                         |                            |
| 4.1       | 12.13                   | 952.1              | 948.4 | 944.2 | 0.96                  | -0.27 | -0.16 | -26.7           | -27.1 | -26.3 | 0.22                     |                         |                            |
| 4.2       | 12.10                   | 953.9              | 950.2 | 946.0 | 1.04                  | -0.27 | -0.17 | -26.3           | -27.2 | -26.3 | 0.15                     |                         |                            |
| 4.4       | 12.14                   | 955.7              | 952.0 | 947.8 | 0.94                  | -0.28 | -0.19 | -26.3           | -27.1 | -26.5 | 0.10                     |                         |                            |
| 4.5       | 12.14                   | 957.5              | 953.9 | 949.6 | 0.94                  | -0.30 | -0.19 | -26.2           | -26.9 | -26.7 | 0.00                     |                         |                            |
| 4.7       | 12.17                   | 959.3              | 955.7 | 951.5 | 1.19                  | -0.32 | -0.20 | -26.0           | -26.9 | -26.9 | 0.07                     |                         |                            |
| 4.8       | 12.24                   | 961.1              | 957.5 | 953.3 | 1.09                  | -0.34 | -0.22 | -25.8           | -27.0 | -26.9 | 0.17                     |                         |                            |
| 5.0       | 12.13                   | 963.0              | 959.4 | 955.1 | 0.95                  | -0.34 | -0.22 | -25.4           | -27.0 | -27.2 | 0.24                     |                         |                            |
| 5.1       | 12.13                   | 964.8              | 961.2 | 957.0 | 0.96                  | -0.36 | -0.25 | -25.3           | -26.8 | -27.6 | 0.31                     |                         |                            |
| 5.3       | 12.08                   | 966.6              | 963.0 | 958.8 | 0.91                  | -0.35 | -0.25 | -25.0           | -26.8 | -27.8 | 0.38                     |                         |                            |
| 5.4       | 11.92                   | 968.4              | 964.8 | 960.6 | 0.91                  | -0.35 | -0.26 | -24.9           | -27.0 | -28.3 | 0.41                     |                         |                            |
| 5.6       | 11.81                   | 970.2              | 966.5 | 962.3 | 0.94                  | -0.36 | -0.26 | -24.6           | -26.6 | -28.6 | 0.46                     |                         |                            |
| 5.7       | 11.71                   | 972.0              | 968.3 | 964.1 | 0.96                  | -0.35 | -0.25 | -24.5           | -27.0 | -28.5 | 0.50                     |                         |                            |
| 5.9       | 11.57                   | 973.7              | 970.0 | 965.8 | 1.00                  | -0.36 | -0.24 | -24.2           | -26.8 | -29.1 | 0.50                     |                         |                            |
| 6.0       | 11.17                   | 975.4              | 971.7 | 967.5 | 1.00                  | -0.34 | -0.23 | -24.1           | -26.8 | -29.0 | 0.53                     |                         |                            |