

# Voltage Controlled Oscillator

ROS-EDR5308/1

## 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    |                          |                         |                            |
| 0.3       | 33.40                   | 1588.2             | 1581.4 | 1577.6 | 1.79                  | 0.36  | -0.48 | -19.7           | -39.6 | -44.9 | -0.28                    | 1                       | -81                        |
| 0.5       | 30.97                   | 1595.8             | 1589.1 | 1585.5 | 1.81                  | 0.37  | -0.65 | -19.9           | -39.6 | -46.3 | -0.26                    | 10                      | -105                       |
| 0.8       | 29.77                   | 1603.2             | 1596.6 | 1592.9 | 1.79                  | 0.38  | -0.73 | -20.0           | -39.3 | -47.1 | -0.25                    | 100                     | -124                       |
| 1.0       | 29.40                   | 1610.6             | 1603.9 | 1600.1 | 1.76                  | 0.33  | -0.75 | -20.1           | -39.6 | -45.3 | -0.25                    | 1000                    | -145                       |
| 1.3       | 29.14                   | 1617.9             | 1611.2 | 1607.3 | 1.73                  | 0.18  | -0.78 | -20.1           | -40.1 | -44.9 | -0.23                    |                         |                            |
| 1.5       | 29.03                   | 1625.4             | 1618.5 | 1614.5 | 1.72                  | 0.09  | -0.79 | -20.4           | -40.8 | -45.6 | -0.20                    |                         |                            |
| 1.8       | 29.40                   | 1632.9             | 1625.8 | 1621.8 | 1.72                  | 0.06  | -0.80 | -20.7           | -40.8 | -46.1 | -0.20                    |                         |                            |
| 2.0       | 29.95                   | 1640.7             | 1633.3 | 1629.2 | 1.59                  | 0.07  | -0.79 | -21.1           | -41.2 | -45.0 | -0.20                    |                         |                            |
| 2.3       | 30.60                   | 1648.4             | 1641.0 | 1636.9 | 1.56                  | 0.09  | -0.82 | -21.7           | -42.0 | -44.9 | -0.20                    |                         |                            |
| 2.5       | 31.32                   | 1656.4             | 1648.8 | 1644.6 | 1.58                  | 0.11  | -0.96 | -22.4           | -42.7 | -45.6 | -0.21                    |                         |                            |
| 2.8       | 32.17                   | 1664.5             | 1656.8 | 1652.4 | 1.60                  | 0.06  | -1.04 | -22.8           | -44.0 | -45.4 | -0.23                    |                         |                            |
| 3.0       | 32.60                   | 1672.7             | 1665.0 | 1660.5 | 1.65                  | -0.13 | -1.11 | -22.9           | -45.9 | -43.9 | -0.24                    |                         |                            |
| 3.3       | 32.81                   | 1681.1             | 1673.2 | 1668.7 | 1.54                  | -0.20 | -1.17 | -23.2           | -48.0 | -44.7 | -0.26                    |                         |                            |
| 3.5       | 33.26                   | 1689.4             | 1681.5 | 1677.0 | 1.28                  | -0.21 | -1.16 | -23.8           | -50.3 | -45.7 | -0.30                    |                         |                            |
| 3.8       | 33.77                   | 1697.8             | 1689.9 | 1685.5 | 1.23                  | -0.17 | -1.34 | -24.6           | -53.5 | -45.4 | -0.35                    |                         |                            |
| 4.0       | 34.36                   | 1706.3             | 1698.5 | 1693.9 | 1.20                  | -0.26 | -1.53 | -25.4           | -60.4 | -45.6 | -0.40                    |                         |                            |
| 4.3       | 34.10                   | 1714.8             | 1707.1 | 1702.3 | 1.15                  | -0.60 | -1.66 | -25.2           | -51.6 | -46.7 | -0.43                    |                         |                            |
| 4.5       | 33.80                   | 1723.3             | 1715.5 | 1710.8 | 1.12                  | -0.78 | -1.82 | -25.0           | -47.4 | -45.3 | -0.48                    |                         |                            |
| 4.8       | 33.83                   | 1731.8             | 1724.0 | 1719.3 | 1.00                  | -0.87 | -1.92 | -25.2           | -44.5 | -44.4 | -0.54                    |                         |                            |
| 5.0       | 33.72                   | 1740.2             | 1732.4 | 1727.8 | 0.73                  | -0.95 | -1.99 | -25.5           | -42.3 | -44.7 | -0.60                    |                         |                            |
| 5.3       | 33.64                   | 1748.6             | 1740.8 | 1736.2 | 0.61                  | -1.00 | -2.19 | -25.7           | -40.6 | -43.8 | -0.65                    |                         |                            |
| 5.5       | 33.56                   | 1756.9             | 1749.2 | 1744.4 | 0.52                  | -1.14 | -2.45 | -25.9           | -38.8 | -43.4 | -0.69                    |                         |                            |
| 5.8       | 32.95                   | 1765.2             | 1757.4 | 1752.6 | 0.50                  | -1.44 | -2.61 | -26.5           | -36.6 | -44.1 | -0.73                    |                         |                            |
| 6.0       | 32.49                   | 1773.3             | 1765.5 | 1760.8 | 0.45                  | -1.62 | -2.77 | -25.7           | -35.4 | -43.1 | -0.77                    |                         |                            |
| 6.3       | 32.19                   | 1781.4             | 1773.6 | 1768.9 | 0.43                  | -1.74 | -2.87 | -25.3           | -34.1 | -41.3 | -0.81                    |                         |                            |
| 6.5       | 31.88                   | 1789.4             | 1781.6 | 1776.8 | 0.03                  | -1.81 | -2.94 | -25.2           | -33.5 | -41.0 | -0.85                    |                         |                            |
| 6.8       | 31.79                   | 1797.2             | 1789.5 | 1784.7 | -0.25                 | -1.80 | -3.04 | -25.8           | -32.9 | -41.2 | -0.89                    |                         |                            |
| 7.0       | 31.56                   | 1805.0             | 1797.4 | 1792.4 | -0.45                 | -2.11 | -3.50 | -25.5           | -32.2 | -40.1 | -0.90                    |                         |                            |