

# Voltage Controlled Oscillator

ROS-ED8684B/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    |                          |                         |                            |
| 0.6       | 13.82                   | 1516.7             | 1510.8 | 1506.4 | 7.17                  | 7.19  | 6.53  | -21.9           | -20.5 | -30.2 | 0.14                     | 1                       | -90                        |
| 1.3       | 11.22                   | 1523.5             | 1517.8 | 1513.5 | 7.33                  | 7.20  | 6.56  | -22.3           | -20.3 | -30.3 | 0.14                     | 10                      | -110                       |
| 1.9       | 10.10                   | 1529.9             | 1524.2 | 1519.8 | 7.36                  | 7.20  | 6.57  | -22.5           | -20.3 | -30.0 | 0.19                     | 100                     | -130                       |
| 2.5       | 9.59                    | 1535.9             | 1530.1 | 1525.7 | 7.40                  | 7.19  | 6.58  | -22.8           | -20.0 | -30.3 | 0.19                     | 1000                    | -148                       |
| 3.1       | 9.43                    | 1541.8             | 1536.0 | 1531.6 | 7.41                  | 7.18  | 6.57  | -23.1           | -19.9 | -30.0 | 0.19                     |                         |                            |
| 3.8       | 9.44                    | 1547.7             | 1541.9 | 1537.4 | 7.36                  | 7.15  | 6.55  | -23.4           | -20.1 | -29.8 | 0.19                     |                         |                            |
| 4.4       | 9.68                    | 1553.9             | 1548.0 | 1543.4 | 7.32                  | 7.10  | 6.53  | -23.7           | -20.1 | -29.7 | 0.19                     |                         |                            |
| 5.0       | 10.10                   | 1560.2             | 1554.3 | 1549.6 | 7.26                  | 7.07  | 6.51  | -23.9           | -20.0 | -29.6 | 0.20                     |                         |                            |
| 5.6       | 10.57                   | 1566.9             | 1560.9 | 1556.1 | 7.21                  | 7.08  | 6.50  | -24.2           | -20.1 | -29.4 | 0.21                     |                         |                            |
| 6.3       | 11.29                   | 1574.1             | 1568.0 | 1563.0 | 7.21                  | 7.02  | 6.47  | -24.7           | -21.1 | -29.5 | 0.20                     |                         |                            |
| 6.9       | 12.11                   | 1581.7             | 1575.5 | 1570.5 | 7.36                  | 7.08  | 6.51  | -25.1           | -24.7 | -29.1 | 0.23                     |                         |                            |
| 7.5       | 13.09                   | 1590.1             | 1583.7 | 1578.6 | 7.35                  | 7.25  | 6.62  | -25.5           | -21.3 | -29.2 | 0.23                     |                         |                            |
| 8.1       | 14.16                   | 1599.0             | 1592.6 | 1587.4 | 7.26                  | 7.21  | 6.72  | -26.2           | -17.7 | -29.0 | 0.20                     |                         |                            |
| 8.8       | 15.20                   | 1608.6             | 1602.1 | 1596.8 | 7.19                  | 7.14  | 6.70  | -26.9           | -17.4 | -29.1 | 0.20                     |                         |                            |
| 9.4       | 16.18                   | 1618.9             | 1612.2 | 1606.8 | 7.05                  | 7.08  | 6.68  | -27.6           | -17.4 | -29.0 | 0.15                     |                         |                            |
| 10.0      | 16.88                   | 1629.5             | 1622.7 | 1617.2 | 6.98                  | 6.99  | 6.64  | -28.4           | -17.4 | -29.5 | 0.13                     |                         |                            |
| 10.6      | 17.36                   | 1640.5             | 1633.6 | 1627.9 | 6.89                  | 6.94  | 6.58  | -28.5           | -17.5 | -30.3 | 0.08                     |                         |                            |
| 11.3      | 17.37                   | 1651.5             | 1644.4 | 1638.7 | 6.76                  | 6.88  | 6.53  | -29.0           | -17.5 | -30.6 | 0.05                     |                         |                            |
| 11.9      | 17.05                   | 1662.2             | 1655.1 | 1649.3 | 6.65                  | 6.78  | 6.46  | -29.2           | -17.4 | -30.9 | 0.00                     |                         |                            |
| 12.5      | 16.47                   | 1672.6             | 1665.4 | 1659.6 | 6.59                  | 6.73  | 6.40  | -28.6           | -17.6 | -31.1 | 0.03                     |                         |                            |
| 13.1      | 15.81                   | 1682.6             | 1675.3 | 1669.5 | 6.57                  | 6.69  | 6.35  | -27.9           | -18.1 | -32.3 | 0.03                     |                         |                            |
| 13.8      | 15.19                   | 1692.0             | 1684.7 | 1679.1 | 6.53                  | 6.67  | 6.33  | -27.1           | -18.8 | -34.1 | 0.03                     |                         |                            |
| 14.4      | 14.63                   | 1701.1             | 1693.9 | 1688.1 | 6.51                  | 6.67  | 6.35  | -26.2           | -19.5 | -36.1 | 0.00                     |                         |                            |
| 15.0      | 14.03                   | 1709.8             | 1702.7 | 1696.8 | 6.49                  | 6.67  | 6.38  | -25.8           | -20.2 | -38.3 | 0.00                     |                         |                            |
| 15.6      | 13.41                   | 1718.2             | 1711.0 | 1705.1 | 6.45                  | 6.67  | 6.39  | -25.2           | -20.6 | -41.4 | 0.05                     |                         |                            |
| 16.3      | 12.93                   | 1726.5             | 1719.1 | 1713.1 | 6.43                  | 6.65  | 6.41  | -24.8           | -21.0 | -44.2 | 0.08                     |                         |                            |
| 16.9      | 12.47                   | 1734.3             | 1726.9 | 1720.7 | 6.41                  | 6.63  | 6.41  | -24.5           | -21.0 | -44.6 | 0.11                     |                         |                            |
| 17.5      | 11.99                   | 1741.9             | 1734.4 | 1728.2 | 6.38                  | 6.61  | 6.41  | -24.1           | -20.9 | -40.8 | 0.14                     |                         |                            |
| 18.1      | 11.58                   | 1749.3             | 1741.7 | 1735.3 | 6.42                  | 6.60  | 6.39  | -23.8           | -20.9 | -42.2 | 0.16                     |                         |                            |