

# Voltage Controlled Oscillator

# ROS-2170-1319R+

## 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      | 72.3                    | 1607.6             | 1593.3 | 1581.9 | 7.2                   | 6.9   | 6.6   | -14.5           | -28.5 | -29.4 | 0.1                      | 1                       | -76                        |
| 0.50      | 61.4                    | 1642.3             | 1629.5 | 1619.5 | 7.3                   | 7.0   | 6.7   | -14.3           | -28.2 | -29.2 | 0.2                      | 10                      | -103                       |
| 1.00      | 56.4                    | 1672.6             | 1660.2 | 1650.6 | 7.3                   | 7.0   | 6.7   | -14.3           | -27.1 | -29.1 | 0.3                      | 100                     | -124                       |
| 1.50      | 53.4                    | 1700.4             | 1688.4 | 1679.1 | 7.4                   | 7.0   | 6.7   | -14.4           | -26.8 | -29.1 | 0.3                      | 1000                    | -144                       |
| 2.00      | 53.0                    | 1727.2             | 1715.1 | 1705.8 | 7.5                   | 7.1   | 6.8   | -14.5           | -26.1 | -29.0 | 0.3                      |                         |                            |
| 2.50      | 53.0                    | 1753.9             | 1741.6 | 1732.1 | 7.5                   | 7.2   | 6.9   | -14.5           | -25.7 | -29.1 | 0.3                      |                         |                            |
| 3.00      | 52.5                    | 1780.3             | 1768.1 | 1758.6 | 7.5                   | 7.1   | 6.8   | -14.6           | -24.3 | -29.1 | 0.3                      |                         |                            |
| 3.50      | 53.1                    | 1806.7             | 1794.3 | 1784.8 | 7.6                   | 7.2   | 6.8   | -14.5           | -23.4 | -28.8 | 0.3                      |                         |                            |
| 4.00      | 54.7                    | 1833.6             | 1820.9 | 1811.1 | 7.7                   | 7.3   | 7.0   | -14.6           | -23.2 | -29.1 | 0.3                      |                         |                            |
| 4.50      | 56.1                    | 1861.3             | 1848.2 | 1838.1 | 7.6                   | 7.3   | 7.1   | -15.2           | -22.4 | -28.7 | 0.3                      |                         |                            |
| 5.00      | 55.7                    | 1889.2             | 1876.3 | 1866.1 | 7.6                   | 7.3   | 7.0   | -15.7           | -22.0 | -28.8 | 0.3                      |                         |                            |
| 5.50      | 57.2                    | 1917.3             | 1904.1 | 1893.9 | 7.7                   | 7.4   | 7.1   | -15.8           | -21.9 | -29.5 | 0.3                      |                         |                            |
| 6.00      | 58.6                    | 1946.4             | 1932.7 | 1922.1 | 7.8                   | 7.5   | 7.2   | -16.2           | -21.8 | -31.9 | 0.3                      |                         |                            |
| 6.50      | 58.7                    | 1975.7             | 1962.0 | 1951.2 | 7.7                   | 7.5   | 7.2   | -16.5           | -21.6 | -29.9 | 0.2                      |                         |                            |
| 7.00      | 57.9                    | 2004.9             | 1991.3 | 1980.5 | 7.8                   | 7.4   | 7.2   | -16.8           | -21.7 | -29.5 | 0.2                      |                         |                            |
| 7.50      | 58.0                    | 2034.1             | 2020.3 | 2009.6 | 7.9                   | 7.5   | 7.3   | -17.4           | -21.4 | -28.9 | 0.1                      |                         |                            |
| 8.00      | 59.1                    | 2063.5             | 2049.3 | 2038.5 | 7.9                   | 7.6   | 7.4   | -18.4           | -21.5 | -29.6 | 0.1                      |                         |                            |
| 8.50      | 57.0                    | 2092.8             | 2078.9 | 2067.8 | 7.8                   | 7.6   | 7.4   | -18.5           | -21.8 | -29.0 | 0.1                      |                         |                            |
| 9.00      | 56.2                    | 2121.0             | 2107.4 | 2096.8 | 7.9                   | 7.5   | 7.3   | -18.5           | -21.6 | -28.7 | 0.0                      |                         |                            |
| 9.50      | 57.3                    | 2149.8             | 2135.5 | 2124.6 | 8.0                   | 7.7   | 7.4   | -18.6           | -21.5 | -29.2 | 0.0                      |                         |                            |
| 10.00     | 54.9                    | 2178.0             | 2164.1 | 2153.1 | 7.9                   | 7.7   | 7.5   | -19.9           | -21.6 | -29.3 | 0.1                      |                         |                            |
| 10.50     | 54.1                    | 2205.5             | 2191.5 | 2180.8 | 7.9                   | 7.6   | 7.4   | -20.2           | -21.6 | -29.2 | 0.1                      |                         |                            |
| 11.00     | 52.8                    | 2232.6             | 2218.6 | 2207.8 | 7.9                   | 7.6   | 7.4   | -20.2           | -21.4 | -30.5 | 0.1                      |                         |                            |
| 11.50     | 52.1                    | 2259.1             | 2245.0 | 2234.3 | 7.9                   | 7.7   | 7.4   | -21.8           | -21.4 | -30.7 | 0.2                      |                         |                            |
| 12.00     | 50.5                    | 2285.0             | 2271.0 | 2260.3 | 7.8                   | 7.6   | 7.4   | -22.9           | -21.9 | -30.6 | 0.2                      |                         |                            |
| 12.50     | 49.1                    | 2310.2             | 2296.3 | 2285.7 | 7.8                   | 7.6   | 7.3   | -24.1           | -22.0 | -31.3 | 0.2                      |                         |                            |
| 13.00     | 47.5                    | 2334.8             | 2320.8 | 2310.4 | 7.8                   | 7.6   | 7.3   | -24.3           | -21.2 | -30.5 | 0.3                      |                         |                            |
| 13.50     | 45.9                    | 2358.4             | 2344.6 | 2334.3 | 7.8                   | 7.5   | 7.3   | -24.3           | -21.8 | -29.6 | 0.3                      |                         |                            |
| 14.00     | 45.9                    | 2381.5             | 2367.6 | 2357.3 | 7.8                   | 7.5   | 7.3   | -25.7           | -21.9 | -29.4 | 0.3                      |                         |                            |

**Notes**

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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