

# Voltage Controlled Oscillator

ROS-EDR5540/2

## 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       | 24.42                   | 2419.5             | 2400.1 | 2387.1 | -0.32                 | 0.58  | -0.17 | -20.5           | -26.2 | -35.3 | 0.08                     | 1                       | -77                        |
| 0.5       | 23.21                   | 2425.2             | 2405.9 | 2393.0 | -0.32                 | 0.56  | -0.19 | -20.6           | -26.5 | -35.3 | 0.08                     | 10                      | -99                        |
| 0.8       | 22.68                   | 2430.8             | 2411.5 | 2398.8 | -0.31                 | 0.56  | -0.18 | -20.4           | -26.9 | -35.1 | 0.09                     | 100                     | -118                       |
| 1.0       | 22.77                   | 2436.6             | 2417.2 | 2404.5 | -0.30                 | 0.58  | -0.16 | -20.3           | -26.8 | -34.9 | 0.09                     | 1000                    | -138                       |
| 1.3       | 23.34                   | 2442.5             | 2423.1 | 2410.3 | -0.28                 | 0.60  | -0.13 | -20.4           | -27.1 | -34.5 | 0.10                     |                         |                            |
| 1.5       | 24.40                   | 2448.6             | 2429.2 | 2416.2 | -0.25                 | 0.63  | -0.10 | -20.4           | -27.3 | -34.7 | 0.10                     |                         |                            |
| 1.8       | 25.50                   | 2455.1             | 2435.5 | 2422.5 | -0.25                 | 0.66  | -0.06 | -20.2           | -27.1 | -34.9 | 0.11                     |                         |                            |
| 2.0       | 26.88                   | 2461.9             | 2442.3 | 2429.1 | -0.28                 | 0.67  | -0.03 | -20.2           | -27.7 | -35.0 | 0.11                     |                         |                            |
| 2.3       | 28.61                   | 2469.3             | 2449.4 | 2436.1 | -0.29                 | 0.66  | -0.02 | -20.3           | -27.9 | -35.0 | 0.13                     |                         |                            |
| 2.5       | 30.10                   | 2477.0             | 2456.9 | 2443.5 | -0.29                 | 0.65  | -0.02 | -20.1           | -28.6 | -34.8 | 0.13                     |                         |                            |
| 2.8       | 31.53                   | 2485.1             | 2464.8 | 2451.2 | -0.27                 | 0.67  | 0.00  | -19.9           | -28.7 | -35.0 | 0.13                     |                         |                            |
| 3.0       | 32.69                   | 2493.5             | 2473.0 | 2459.2 | -0.19                 | 0.71  | 0.05  | -19.9           | -29.3 | -34.8 | 0.14                     |                         |                            |
| 3.3       | 33.71                   | 2501.9             | 2481.4 | 2467.5 | -0.14                 | 0.75  | 0.08  | -19.7           | -29.4 | -35.6 | 0.14                     |                         |                            |
| 3.5       | 34.04                   | 2510.5             | 2489.9 | 2475.9 | -0.12                 | 0.75  | 0.09  | -19.9           | -30.1 | -35.7 | 0.14                     |                         |                            |
| 3.8       | 34.13                   | 2519.0             | 2498.5 | 2484.4 | -0.12                 | 0.71  | 0.06  | -20.0           | -30.2 | -36.2 | 0.14                     |                         |                            |
| 4.0       | 33.23                   | 2527.2             | 2506.8 | 2492.7 | -0.11                 | 0.73  | 0.01  | -20.2           | -31.4 | -36.3 | 0.12                     |                         |                            |
| 4.3       | 31.82                   | 2535.2             | 2514.7 | 2500.8 | -0.16                 | 0.78  | 0.02  | -20.5           | -31.9 | -36.7 | 0.12                     |                         |                            |
| 4.5       | 30.33                   | 2542.7             | 2522.3 | 2508.4 | -0.18                 | 0.79  | 0.06  | -20.8           | -32.9 | -37.5 | 0.12                     |                         |                            |
| 4.8       | 28.72                   | 2549.7             | 2529.5 | 2515.7 | -0.24                 | 0.78  | 0.08  | -20.8           | -33.0 | -37.7 | 0.12                     |                         |                            |
| 5.0       | 27.17                   | 2556.5             | 2536.3 | 2522.5 | -0.26                 | 0.76  | 0.09  | -20.9           | -33.3 | -38.2 | 0.12                     |                         |                            |
| 5.3       | 26.20                   | 2562.9             | 2542.8 | 2529.1 | -0.25                 | 0.72  | 0.10  | -21.2           | -33.2 | -38.6 | 0.13                     |                         |                            |
| 5.5       | 25.54                   | 2569.2             | 2549.2 | 2535.5 | -0.29                 | 0.67  | 0.09  | -21.3           | -33.4 | -38.4 | 0.13                     |                         |                            |
| 5.8       | 24.85                   | 2575.4             | 2555.4 | 2541.7 | -0.33                 | 0.65  | 0.06  | -21.3           | -33.6 | -38.9 | 0.13                     |                         |                            |
| 6.0       | 24.47                   | 2581.5             | 2561.5 | 2547.7 | -0.36                 | 0.61  | 0.00  | -21.5           | -33.4 | -39.2 | 0.13                     |                         |                            |
| 6.3       | 24.12                   | 2587.5             | 2567.6 | 2553.7 | -0.37                 | 0.59  | -0.01 | -21.6           | -33.7 | -39.6 | 0.13                     |                         |                            |
| 6.5       | 23.71                   | 2593.3             | 2573.5 | 2559.5 | -0.39                 | 0.60  | -0.01 | -21.5           | -34.1 | -39.6 | 0.13                     |                         |                            |
| 6.8       | 23.02                   | 2599.0             | 2579.3 | 2565.3 | -0.43                 | 0.59  | -0.03 | -21.4           | -34.4 | -40.4 | 0.12                     |                         |                            |
| 7.0       | 22.62                   | 2604.7             | 2584.9 | 2571.0 | -0.46                 | 0.57  | -0.05 | -21.5           | -35.3 | -41.1 | 0.12                     |                         |                            |