

# Voltage Controlled Oscillator

ROS-ED10315/1

## 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    |                          |                         |                            |
| 0.2       | 21.03                   | 546.8              | 542.6 | 540.0 | 4.58                  | 4.68  | 4.58  | -16.8           | -26.5 | -49.3 | 0.68                     | 1                       | -83                        |
| 0.3       | 18.57                   | 549.5              | 545.4 | 542.8 | 4.50                  | 4.66  | 4.50  | -16.9           | -26.6 | -50.9 | 0.54                     | 10                      | -106                       |
| 0.5       | 16.85                   | 552.1              | 547.9 | 545.4 | 4.48                  | 4.58  | 4.48  | -16.9           | -26.6 | -51.1 | 0.47                     | 100                     | -126                       |
| 0.6       | 15.38                   | 554.4              | 550.2 | 547.7 | 4.43                  | 4.56  | 4.40  | -17.0           | -26.7 | -50.9 | 0.41                     | 1000                    | -146                       |
| 0.8       | 14.48                   | 556.6              | 552.4 | 549.8 | 4.41                  | 4.54  | 4.38  | -17.0           | -26.8 | -53.0 | 0.38                     |                         |                            |
| 0.9       | 13.59                   | 558.7              | 554.4 | 551.8 | 4.35                  | 4.48  | 4.36  | -17.1           | -26.8 | -52.2 | 0.35                     |                         |                            |
| 1.1       | 13.00                   | 560.7              | 556.4 | 553.7 | 4.34                  | 4.47  | 4.29  | -17.1           | -26.8 | -54.0 | 0.32                     |                         |                            |
| 1.2       | 12.45                   | 562.6              | 558.2 | 555.6 | 4.29                  | 4.40  | 4.27  | -17.1           | -26.9 | -54.6 | 0.31                     |                         |                            |
| 1.4       | 11.95                   | 564.4              | 560.0 | 557.3 | 4.28                  | 4.39  | 4.26  | -17.1           | -27.0 | -54.2 | 0.29                     |                         |                            |
| 1.5       | 11.56                   | 566.2              | 561.8 | 559.0 | 4.29                  | 4.38  | 4.19  | -17.2           | -26.9 | -53.8 | 0.28                     |                         |                            |
| 1.7       | 11.28                   | 568.0              | 563.5 | 560.7 | 4.26                  | 4.34  | 4.18  | -17.2           | -27.2 | -54.4 | 0.27                     |                         |                            |
| 1.8       | 10.91                   | 569.7              | 565.1 | 562.3 | 4.27                  | 4.33  | 4.17  | -17.2           | -27.0 | -54.4 | 0.25                     |                         |                            |
| 2.0       | 10.72                   | 571.3              | 566.7 | 563.9 | 4.27                  | 4.33  | 4.12  | -17.2           | -27.2 | -54.3 | 0.25                     |                         |                            |
| 2.1       | 10.47                   | 573.0              | 568.3 | 565.4 | 4.26                  | 4.30  | 4.12  | -17.2           | -27.4 | -54.5 | 0.25                     |                         |                            |
| 2.3       | 10.23                   | 574.6              | 569.8 | 566.9 | 4.27                  | 4.30  | 4.11  | -17.2           | -27.4 | -53.6 | 0.26                     |                         |                            |
| 2.4       | 10.04                   | 576.1              | 571.3 | 568.4 | 4.29                  | 4.32  | 4.08  | -17.3           | -27.6 | -53.6 | 0.24                     |                         |                            |
| 2.6       | 9.91                    | 577.7              | 572.8 | 569.8 | 4.31                  | 4.29  | 4.08  | -17.3           | -27.6 | -53.3 | 0.24                     |                         |                            |
| 2.7       | 9.81                    | 579.2              | 574.3 | 571.3 | 4.33                  | 4.31  | 4.09  | -17.3           | -27.7 | -53.3 | 0.24                     |                         |                            |
| 2.9       | 9.66                    | 580.7              | 575.7 | 572.7 | 4.36                  | 4.33  | 4.06  | -17.4           | -27.9 | -54.1 | 0.24                     |                         |                            |
| 3.0       | 9.51                    | 582.2              | 577.1 | 574.1 | 4.38                  | 4.34  | 4.07  | -17.4           | -28.0 | -52.6 | 0.23                     |                         |                            |
| 3.2       | 9.38                    | 583.7              | 578.6 | 575.5 | 4.36                  | 4.36  | 4.07  | -17.4           | -28.1 | -51.4 | 0.24                     |                         |                            |
| 3.3       | 9.32                    | 585.2              | 579.9 | 576.9 | 4.39                  | 4.38  | 4.08  | -17.4           | -28.1 | -50.5 | 0.23                     |                         |                            |
| 3.5       | 9.24                    | 586.7              | 581.3 | 578.3 | 4.41                  | 4.40  | 4.09  | -17.4           | -28.3 | -49.7 | 0.23                     |                         |                            |
| 3.6       | 9.21                    | 588.1              | 582.7 | 579.7 | 4.44                  | 4.38  | 4.10  | -17.4           | -28.2 | -50.5 | 0.23                     |                         |                            |
| 3.8       | 9.13                    | 589.6              | 584.1 | 581.1 | 4.46                  | 4.40  | 4.12  | -17.4           | -28.4 | -49.1 | 0.23                     |                         |                            |
| 3.9       | 9.07                    | 591.0              | 585.4 | 582.4 | 4.48                  | 4.43  | 4.13  | -17.5           | -28.5 | -49.8 | 0.23                     |                         |                            |
| 4.1       | 8.99                    | 592.4              | 586.8 | 583.8 | 4.50                  | 4.45  | 4.10  | -17.5           | -28.6 | -49.3 | 0.24                     |                         |                            |
| 4.2       | 9.03                    | 593.9              | 588.2 | 585.2 | 4.52                  | 4.48  | 4.11  | -17.5           | -28.7 | -48.9 | 0.23                     |                         |                            |
| 4.4       | 8.99                    | 595.3              | 589.5 | 586.6 | 4.53                  | 4.50  | 4.12  | -17.5           | -28.8 | -49.0 | 0.23                     |                         |                            |
| 4.5       | 8.91                    | 596.7              | 590.8 | 588.0 | 4.54                  | 4.52  | 4.14  | -17.5           | -28.9 | -48.3 | 0.24                     |                         |                            |
| 4.7       | 8.97                    | 598.1              | 592.2 | 589.4 | 4.56                  | 4.53  | 4.14  | -17.5           | -29.1 | -48.9 | 0.24                     |                         |                            |
| 4.8       | 8.89                    | 599.5              | 593.5 | 590.8 | 4.57                  | 4.55  | 4.15  | -17.6           | -29.1 | -47.8 | 0.25                     |                         |                            |
| 5.0       | 8.96                    | 600.9              | 594.9 | 592.2 | 4.57                  | 4.56  | 4.15  | -17.6           | -29.3 | -48.0 | 0.26                     |                         |                            |
| 5.1       | 8.99                    | 602.4              | 596.2 | 593.6 | 4.57                  | 4.57  | 4.16  | -17.7           | -29.4 | -47.6 | 0.27                     |                         |                            |
| 5.3       | 8.95                    | 603.8              | 597.5 | 595.0 | 4.60                  | 4.59  | 4.15  | -17.7           | -29.6 | -46.4 | 0.28                     |                         |                            |
| 5.4       | 9.07                    | 605.2              | 598.9 | 596.4 | 4.60                  | 4.59  | 4.14  | -17.7           | -29.7 | -46.0 | 0.30                     |                         |                            |
| 5.6       | 9.06                    | 606.6              | 600.3 | 597.9 | 4.60                  | 4.60  | 4.15  | -17.8           | -29.7 | -46.0 | 0.31                     |                         |                            |
| 5.7       | 9.12                    | 608.0              | 601.6 | 599.3 | 4.62                  | 4.60  | 4.14  | -17.8           | -30.1 | -46.0 | 0.37                     |                         |                            |
| 5.9       | 9.23                    | 609.4              | 603.0 | 600.7 | 4.62                  | 4.62  | 4.13  | -17.8           | -30.3 | -46.1 | 0.40                     |                         |                            |
| 6.0       | 9.33                    | 610.8              | 604.4 | 602.2 | 4.60                  | 4.62  | 4.11  | -17.9           | -30.4 | -46.4 | 0.43                     |                         |                            |