

# Voltage Controlled Oscillator

ROS-ED12948/1

## 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     |                          |                         |                            |
| 0.0       | 94.58                   | 1435.84            | 1410.57 | 1386.85 | 7.68                  | 7.39  | 6.90  | -13.47          | -20.26 | -28.83 | 6.26                     | 1                       | -68                        |
| 1.0       | 70.48                   | 1515.89            | 1492.66 | 1471.53 | 7.74                  | 7.28  | 6.90  | -15.36          | -19.71 | -29.59 | 5.49                     | 10                      | -92                        |
| 2.0       | 77.09                   | 1593.04            | 1568.45 | 1546.31 | 7.87                  | 7.12  | 6.55  | -17.48          | -18.76 | -30.56 | 5.48                     | 100                     | -112                       |
| 3.0       | 85.48                   | 1672.37            | 1645.29 | 1624.33 | 8.06                  | 7.50  | 6.87  | -19.62          | -18.11 | -33.67 | 4.94                     | 1000                    | -132                       |
| 4.0       | 89.57                   | 1759.13            | 1731.31 | 1712.66 | 8.34                  | 7.81  | 7.10  | -21.85          | -18.09 | -38.97 | 3.52                     |                         |                            |
| 5.0       | 121.27                  | 1866.73            | 1834.51 | 1817.19 | 8.21                  | 7.55  | 6.75  | -21.67          | -22.57 | -52.03 | 1.02                     |                         |                            |
| 6.0       | 131.00                  | 1998.31            | 1963.02 | 1940.79 | 8.74                  | 7.76  | 6.66  | -24.26          | -24.12 | -54.59 | 0.73                     |                         |                            |
| 7.0       | 123.57                  | 2119.20            | 2089.86 | 2069.38 | 8.80                  | 8.10  | 6.96  | -24.21          | -23.53 | -55.77 | 1.37                     |                         |                            |
| 8.0       | 113.89                  | 2233.93            | 2208.05 | 2191.14 | 8.73                  | 8.18  | 7.36  | -23.03          | -24.80 | -45.33 | 3.41                     |                         |                            |
| 9.0       | 103.37                  | 2341.81            | 2318.75 | 2304.47 | 8.92                  | 8.47  | 7.84  | -22.88          | -26.71 | -39.96 | 3.98                     |                         |                            |
| 10.0      | 101.38                  | 2447.01            | 2425.61 | 2411.98 | 8.65                  | 8.08  | 7.51  | -21.31          | -30.44 | -39.45 | 3.66                     |                         |                            |
| 11.0      | 94.99                   | 2546.65            | 2527.21 | 2514.38 | 8.67                  | 8.11  | 7.50  | -20.16          | -36.34 | -42.06 | 2.77                     |                         |                            |
| 12.0      | 83.91                   | 2636.34            | 2619.90 | 2608.66 | 8.57                  | 7.83  | 7.19  | -19.30          | -42.82 | -36.43 | 1.26                     |                         |                            |
| 13.0      | 76.63                   | 2716.16            | 2701.88 | 2691.67 | 8.35                  | 7.61  | 6.92  | -19.20          | -53.78 | -36.20 | 0.67                     |                         |                            |
| 14.0      | 65.82                   | 2781.85            | 2771.75 | 2764.74 | 8.26                  | 7.46  | 6.68  | -20.07          | -49.97 | -40.06 | 2.36                     |                         |                            |
| 15.0      | 63.52                   | 2844.14            | 2838.88 | 2833.55 | 8.33                  | 7.43  | 6.61  | -21.15          | -47.44 | -48.77 | 2.26                     |                         |                            |
| 16.0      | 67.58                   | 2914.68            | 2906.06 | 2897.75 | 7.21                  | 6.49  | 5.76  | -21.91          | -44.75 | -60.41 | 1.37                     |                         |                            |
| 17.0      | 57.91                   | 2980.15            | 2968.46 | 2957.97 | 6.58                  | 6.06  | 5.39  | -21.44          | -40.94 | -59.18 | 1.29                     |                         |                            |
| 18.0      | 61.19                   | 3043.24            | 3027.28 | 3013.48 | 5.80                  | 5.53  | 5.00  | -21.15          | -39.46 | -66.18 | 2.06                     |                         |                            |
| 19.0      | 58.06                   | 3103.86            | 3085.72 | 3070.14 | 4.86                  | 4.65  | 4.23  | -20.58          | -37.07 | -58.91 | 2.68                     |                         |                            |
| 20.0      | 62.86                   | 3166.96            | 3146.70 | 3127.19 | 4.50                  | 4.33  | 3.83  | -20.43          | -36.93 | -58.68 | 3.36                     |                         |                            |
| 21.0      | 41.15                   | 3213.16            | 3194.41 | 3177.58 | 4.79                  | 4.75  | 4.28  | -20.64          | -35.71 | -54.91 | 3.05                     |                         |                            |
| 22.0      | 35.65                   | 3251.80            | 3233.01 | 3215.82 | 5.04                  | 4.78  | 4.36  | -21.63          | -36.16 | -54.78 | 3.08                     |                         |                            |
| 23.0      | 30.97                   | 3284.46            | 3265.62 | 3248.96 | 5.06                  | 4.76  | 4.17  | -21.50          | -36.04 | -52.57 | 3.02                     |                         |                            |
| 24.0      | 25.42                   | 3311.77            | 3293.77 | 3277.25 | 5.40                  | 5.12  | 4.56  | -22.20          | -36.50 | -53.25 | 2.96                     |                         |                            |