

# Voltage Controlled Oscillator

MOS-2220-119+

## Typical Performance Data

| V<br>TUNE | TUNE<br>SENS<br>(MHz/V) | FREQUENCY<br>(MHz) |        |        | POWER OUTPUT<br>(dBm) |       |       | HARMONICS<br>(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      | 105.88                  | 1974.1             | 1959.6 | 1946.5 | 0.37                  | 0.40  | -0.10 | -37.72             | -48.71 | -45.69 | 7.86                     | 1                       | -72                        |
| 0.25      | 91.50                   | 1998.8             | 1986.1 | 1974.3 | 0.42                  | 0.41  | 0.10  | -39.87             | -47.48 | -42.55 | 4.77                     | 10                      | -99                        |
| 0.50      | 84.20                   | 2021.0             | 2008.9 | 1997.8 | 0.40                  | 0.45  | 0.15  | -41.08             | -46.63 | -40.67 | 3.55                     | 100                     | -120                       |
| 0.70      | 79.57                   | 2037.4             | 2025.8 | 2014.9 | 0.32                  | 0.42  | 0.18  | -41.55             | -46.09 | -38.52 | 2.94                     | 1000                    | -140                       |
| 1.00      | 74.97                   | 2060.7             | 2049.6 | 2039.1 | 0.35                  | 0.32  | 0.11  | -42.15             | -44.61 | -37.47 | 2.29                     |                         |                            |
| 1.25      | 73.34                   | 2079.4             | 2068.3 | 2058.0 | 0.45                  | 0.38  | 0.10  | -42.04             | -44.53 | -36.37 | 1.94                     |                         |                            |
| 1.50      | 72.16                   | 2097.7             | 2086.7 | 2076.3 | 0.51                  | 0.48  | 0.17  | -41.98             | -42.95 | -36.95 | 1.66                     |                         |                            |
| 1.75      | 71.16                   | 2115.7             | 2104.7 | 2094.3 | 0.54                  | 0.51  | 0.26  | -41.90             | -43.08 | -37.84 | 1.43                     |                         |                            |
| 2.00      | 69.80                   | 2133.4             | 2122.5 | 2112.0 | 0.45                  | 0.51  | 0.31  | -41.69             | -42.91 | -37.76 | 1.24                     |                         |                            |
| 2.25      | 69.03                   | 2150.7             | 2139.9 | 2129.5 | 0.42                  | 0.43  | 0.29  | -41.52             | -41.22 | -38.21 | 1.08                     |                         |                            |
| 2.50      | 69.13                   | 2168.1             | 2157.2 | 2146.7 | 0.47                  | 0.39  | 0.22  | -40.53             | -40.94 | -40.26 | 0.97                     |                         |                            |
| 2.75      | 69.46                   | 2185.5             | 2174.5 | 2163.8 | 0.60                  | 0.51  | 0.23  | -41.21             | -39.77 | -40.26 | 0.88                     |                         |                            |
| 3.00      | 69.06                   | 2202.9             | 2191.8 | 2181.0 | 0.67                  | 0.61  | 0.36  | -41.92             | -39.73 | -40.65 | 0.81                     |                         |                            |
| 3.25      | 69.10                   | 2220.3             | 2209.1 | 2198.3 | 0.68                  | 0.66  | 0.47  | -41.23             | -38.07 | -41.94 | 0.77                     |                         |                            |
| 3.50      | 69.25                   | 2237.7             | 2226.4 | 2215.4 | 0.72                  | 0.69  | 0.51  | -41.85             | -38.46 | -40.59 | 0.76                     |                         |                            |
| 3.75      | 68.36                   | 2255.0             | 2243.7 | 2232.6 | 0.69                  | 0.72  | 0.56  | -42.83             | -37.29 | -41.80 | 0.78                     |                         |                            |
| 4.00      | 67.65                   | 2272.2             | 2260.8 | 2249.6 | 0.68                  | 0.70  | 0.54  | -42.54             | -37.04 | -42.12 | 0.83                     |                         |                            |
| 4.30      | 67.59                   | 2292.8             | 2281.1 | 2269.8 | 0.75                  | 0.70  | 0.55  | -43.24             | -35.13 | -40.17 | 0.95                     |                         |                            |
| 4.50      | 67.17                   | 2306.5             | 2294.6 | 2283.2 | 0.78                  | 0.76  | 0.55  | -44.39             | -35.07 | -41.06 | 1.03                     |                         |                            |
| 4.75      | 65.63                   | 2323.2             | 2311.4 | 2299.9 | 0.78                  | 0.76  | 0.62  | -44.64             | -35.46 | -39.01 | 1.16                     |                         |                            |
| 5.00      | 63.92                   | 2339.6             | 2327.8 | 2316.2 | 0.69                  | 0.76  | 0.61  | -45.56             | -34.09 | -38.37 | 1.31                     |                         |                            |
| 5.25      | 61.80                   | 2355.6             | 2343.8 | 2332.2 | 0.60                  | 0.69  | 0.59  | -46.50             | -34.10 | -37.63 | 1.46                     |                         |                            |
| 5.50      | 59.60                   | 2370.9             | 2359.2 | 2347.7 | 0.49                  | 0.58  | 0.53  | -47.19             | -33.48 | -36.04 | 1.63                     |                         |                            |
| 5.75      | 58.09                   | 2385.9             | 2374.1 | 2362.7 | 0.47                  | 0.46  | 0.40  | -48.49             | -34.39 | -36.01 | 1.83                     |                         |                            |
| 6.00      | 56.94                   | 2400.7             | 2388.7 | 2377.1 | 0.50                  | 0.44  | 0.29  | -50.14             | -32.95 | -34.17 | 2.06                     |                         |                            |
| 6.25      | 54.60                   | 2414.9             | 2402.9 | 2391.1 | 0.50                  | 0.46  | 0.26  | -50.83             | -33.17 | -37.04 | 2.31                     |                         |                            |
| 6.50      | 51.49                   | 2428.3             | 2416.6 | 2404.9 | 0.33                  | 0.45  | 0.28  | -51.88             | -33.27 | -33.46 | 2.55                     |                         |                            |
| 6.75      | 48.51                   | 2441.0             | 2429.4 | 2418.0 | 0.15                  | 0.31  | 0.25  | -53.46             | -34.29 | -35.61 | 2.80                     |                         |                            |
| 7.00      | 48.51                   | 2453.1             | 2441.6 | 2430.3 | -0.02                 | 0.14  | 0.12  | -53.98             | -33.73 | -35.67 | 3.05                     |                         |                            |

REV. X1

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