

# Voltage Controlled Oscillator

ROS-EDR6211

## 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       | 27.22                   | 3219.2             | 3205.3 | 3193.9 | 2.60                  | 1.72  | 0.57  | -26.1           | -22.5 | -59.4 | -0.74                    | 1                       | -71                        |
| 0.5       | 27.50                   | 3226.2             | 3212.2 | 3200.8 | 2.69                  | 1.83  | 0.63  | -25.7           | -23.8 | -58.7 | -0.69                    | 10                      | -96                        |
| 0.8       | 29.04                   | 3233.5             | 3219.4 | 3207.9 | 2.78                  | 1.90  | 0.71  | -25.4           | -24.4 | -59.1 | -0.67                    | 100                     | -116                       |
| 1.0       | 31.35                   | 3241.6             | 3227.3 | 3215.6 | 2.85                  | 2.00  | 0.79  | -25.6           | -25.1 | -58.9 | -0.65                    | 1000                    | -137                       |
| 1.3       | 34.79                   | 3250.6             | 3236.0 | 3224.1 | 2.92                  | 2.09  | 0.87  | -26.3           | -26.3 | -59.3 | -0.65                    |                         |                            |
| 1.5       | 38.94                   | 3260.8             | 3245.7 | 3233.5 | 3.02                  | 2.14  | 0.96  | -27.0           | -27.3 | -59.7 | -0.66                    |                         |                            |
| 1.8       | 44.26                   | 3272.4             | 3256.8 | 3244.2 | 3.05                  | 2.18  | 1.05  | -28.7           | -28.0 | -59.3 | -0.67                    |                         |                            |
| 2.0       | 50.20                   | 3285.5             | 3269.3 | 3256.3 | 3.07                  | 2.20  | 1.12  | -29.4           | -28.7 | -59.4 | -0.76                    |                         |                            |
| 2.3       | 55.77                   | 3299.9             | 3283.3 | 3269.8 | 3.16                  | 2.17  | 1.14  | -29.1           | -29.7 | -60.0 | -0.95                    |                         |                            |
| 2.5       | 61.18                   | 3315.4             | 3298.6 | 3284.7 | 3.39                  | 2.28  | 1.12  | -29.1           | -30.9 | -58.8 | -1.23                    |                         |                            |
| 2.8       | 64.71                   | 3331.7             | 3314.7 | 3300.9 | 3.53                  | 2.49  | 1.11  | -30.3           | -32.7 | -58.4 | -1.68                    |                         |                            |
| 3.0       | 65.86                   | 3348.2             | 3331.2 | 3317.6 | 3.66                  | 2.65  | 1.28  | -32.4           | -34.3 | -59.8 | -2.41                    |                         |                            |
| 3.3       | 66.35                   | 3364.4             | 3347.8 | 3334.4 | 3.74                  | 2.66  | 1.43  | -32.7           | -34.4 | -60.1 | -3.38                    |                         |                            |
| 3.5       | 64.07                   | 3380.2             | 3363.8 | 3351.0 | 3.71                  | 2.68  | 1.47  | -32.9           | -36.3 | -59.6 | -4.43                    |                         |                            |
| 3.8       | 61.90                   | 3394.9             | 3379.3 | 3366.8 | 3.81                  | 2.64  | 1.51  | -33.2           | -35.7 | -58.9 | -5.44                    |                         |                            |
| 4.0       | 56.46                   | 3408.4             | 3393.4 | 3381.6 | 3.90                  | 2.79  | 1.41  | -35.4           | -36.6 | -59.2 | -6.09                    |                         |                            |
| 4.3       | 51.12                   | 3420.9             | 3406.2 | 3395.2 | 3.90                  | 2.88  | 1.40  | -35.8           | -36.4 | -59.6 | -6.59                    |                         |                            |
| 4.5       | 46.26                   | 3432.3             | 3417.7 | 3407.1 | 3.93                  | 2.86  | 1.51  | -34.4           | -37.4 | -59.0 | -6.91                    |                         |                            |
| 4.8       | 41.48                   | 3442.4             | 3428.1 | 3417.5 | 4.01                  | 2.80  | 1.54  | -32.8           | -38.8 | -58.9 | -6.91                    |                         |                            |
| 5.0       | 35.83                   | 3451.2             | 3437.1 | 3426.5 | 3.97                  | 2.83  | 1.52  | -32.6           | -40.1 | -59.6 | -6.49                    |                         |                            |
| 5.3       | 30.17                   | 3459.0             | 3444.6 | 3434.0 | 3.86                  | 2.80  | 1.52  | -32.7           | -41.3 | -60.0 | -5.97                    |                         |                            |
| 5.5       | 25.49                   | 3465.7             | 3451.0 | 3440.3 | 3.82                  | 2.69  | 1.54  | -33.5           | -41.4 | -58.9 | -5.40                    |                         |                            |
| 5.8       | 21.29                   | 3471.2             | 3456.3 | 3445.2 | 3.83                  | 2.62  | 1.54  | -34.3           | -41.4 | -59.5 | -4.72                    |                         |                            |
| 6.0       | 17.46                   | 3475.7             | 3460.7 | 3449.2 | 3.85                  | 2.63  | 1.50  | -34.7           | -41.8 | -58.5 | -3.97                    |                         |                            |
| 6.3       | 14.00                   | 3479.3             | 3464.2 | 3452.3 | 3.85                  | 2.67  | 1.45  | -34.8           | -42.2 | -59.8 | -3.25                    |                         |                            |
| 6.5       | 11.14                   | 3482.2             | 3467.0 | 3454.8 | 3.85                  | 2.70  | 1.40  | -34.8           | -42.0 | -59.5 | -2.64                    |                         |                            |
| 6.8       | 8.94                    | 3484.5             | 3469.2 | 3456.9 | 3.84                  | 2.72  | 1.34  | -34.6           | -41.8 | -60.1 | -2.19                    |                         |                            |
| 7.0       | 7.34                    | 3486.4             | 3471.0 | 3458.6 | 3.83                  | 2.73  | 1.30  | -34.5           | -41.2 | -59.5 | -1.87                    |                         |                            |
| 7.3       | 6.17                    | 3487.9             | 3472.6 | 3460.1 | 3.82                  | 2.74  | 1.26  | -34.4           | -40.5 | -60.1 | -1.64                    |                         |                            |
| 7.5       | 5.31                    | 3489.2             | 3473.9 | 3461.4 | 3.81                  | 2.74  | 1.24  | -34.4           | -40.3 | -59.9 | -1.48                    |                         |                            |
| 7.8       | 4.67                    | 3490.4             | 3475.1 | 3462.6 | 3.80                  | 2.74  | 1.22  | -34.2           | -40.0 | -59.7 | -1.37                    |                         |                            |
| 8.0       | 4.17                    | 3491.4             | 3476.1 | 3463.6 | 3.79                  | 2.74  | 1.20  | -34.2           | -39.7 | -59.8 | -1.29                    |                         |                            |
| 8.3       | 3.78                    | 3492.3             | 3477.0 | 3464.6 | 3.78                  | 2.74  | 1.19  | -34.0           | -39.6 | -59.4 | -1.22                    |                         |                            |
| 8.5       | 3.45                    | 3493.2             | 3477.9 | 3465.5 | 3.77                  | 2.74  | 1.18  | -34.1           | -39.6 | -59.4 | -1.18                    |                         |                            |
| 8.8       | 3.19                    | 3494.0             | 3478.7 | 3466.3 | 3.76                  | 2.74  | 1.17  | -34.0           | -39.6 | -59.8 | -1.14                    |                         |                            |
| 9.0       | 2.97                    | 3494.7             | 3479.4 | 3467.0 | 3.75                  | 2.74  | 1.17  | -34.0           | -39.6 | -59.1 | -1.11                    |                         |                            |
| 9.3       | 2.78                    | 3495.4             | 3480.1 | 3467.8 | 3.75                  | 2.73  | 1.16  | -33.7           | -39.5 | -59.7 | -1.08                    |                         |                            |
| 9.8       | 2.49                    | 3496.6             | 3481.4 | 3469.1 | 3.73                  | 2.73  | 1.16  | -33.6           | -39.5 | -58.8 | -1.05                    |                         |                            |
| 10.0      | 2.35                    | 3497.2             | 3482.0 | 3469.7 | 3.73                  | 2.72  | 1.16  | -33.6           | -39.6 | -59.2 | -1.03                    |                         |                            |