

Unit Conversion Table for 50Ω Systems

| dBm | mW | mV_{pk-pk} | mV_{RMS} |
|------------|-----------|---------------------------|-------------------------|
| -50 | .00001 | 2.0 | 0.7 |
| -45 | .00003 | 3.6 | 1.3 |
| -40 | .00010 | 6.3 | 2.2 |
| -35 | .00032 | 11.2 | 4.0 |
| -30 | .001 | 20.0 | 7.1 |
| -25 | .003 | 35.6 | 12.6 |
| -20 | .010 | 63.2 | 22.4 |
| -15 | .032 | 112.5 | 39.8 |
| -10 | .100 | 200.0 | 70.7 |
| -5 | .316 | 355.7 | 125.7 |
| 0 | 1.000 | 632.5 | 223.6 |
| +1 | 1.259 | 709.6 | 250.9 |
| +2 | 1.585 | 796.2 | 281.5 |
| +3 | 1.995 | 893.4 | 315.9 |
| +4 | 2.512 | 1002.4 | 354.4 |
| +5 | 3.162 | 1124.7 | 397.6 |
| +6 | 3.981 | 1261.9 | 446.2 |
| +7 | 5.012 | 1415.9 | 500.6 |
| +8 | 6.310 | 1588.7 | 561.7 |
| +9 | 7.943 | 1782.5 | 630.2 |
| +10 | 10.000 | 2000.0 | 707.1 |
| +11 | 12.589 | 2244.0 | 793.4 |
| +12 | 15.849 | 2517.9 | 890.2 |
| +13 | 19.953 | 2825.1 | 998.8 |
| +14 | 25.119 | 3169.8 | 1120.7 |
| +15 | 31.623 | 3556.6 | 1257.4 |
| +16 | 39.811 | 3990.5 | 1410.9 |
| +17 | 50.119 | 4477.4 | 1583.0 |
| +18 | 63.096 | 5023.8 | 1776.2 |
| +19 | 79.433 | 5636.8 | 1992.9 |
| +20 | 100.000 | 6324.6 | 2236.1 |
| +21 | 125.893 | 7096.3 | 2508.9 |
| +22 | 158.489 | 7962.1 | 2815.0 |
| +23 | 199.526 | 8933.7 | 3158.5 |
| +24 | 251.189 | 10023.7 | 3543.9 |
| +25 | 316.228 | 11246.8 | 3976.4 |
| +26 | 398.107 | 12619.1 | 4461.5 |
| +27 | 501.187 | 14158.9 | 5005.9 |
| +28 | 630.957 | 15886.6 | 5616.7 |
| +29 | 794.328 | 17825.0 | 6302.1 |
| +30 | 1000.000 | 20000.0 | 7071.1 |