# Signal Generator

# SSG-8N12GD-RC

## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 0°C.

| Freq. (MHz) | Power deviation from nominal vs. Output Frequency (dB) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | -50 dBm | -45 dBm | -40 dBm | -30 dBm | -20 dBm | -10 dBm | 0 dBm | +10 dBm | +15 dBm | +20 dBm |
| 8000 | -0.38 | -0.24 | -0.05 | -0.01 | -0.05 | -0.01 | 0.08 | 0.21 | 0.15 | 0.31 |
| 8100 | -0.04 | -0.06 | 0.08 | -0.09 | -0.14 | 0.01 | 0.09 | 0.21 | 0.12 | 0.28 |
| 8200 | 0.10 | -0.01 | -0.03 | -0.02 | 0.00 | 0.12 | 0.20 | 0.32 | 0.24 | 0.37 |
| 8300 | -0.08 | -0.23 | -0.13 | -0.18 | -0.16 | 0.01 | 0.04 | 0.06 | 0.09 | 0.21 |
| 8400 | -0.34 | -0.45 | -0.34 | -0.14 | -0.07 | -0.10 | -0.01 | 0.11 | 0.13 | 0.28 |
| 8500 | -0.21 | -0.23 | -0.14 | -0.24 | -0.20 | -0.22 | -0.07 | 0.03 | -0.01 | 0.16 |
| 8600 | 0.13 | -0.01 | -0.02 | -0.07 | -0.11 | -0.11 | 0.06 | 0.12 | 0.18 | 0.30 |
| 8700 | -0.19 | -0.27 | -0.02 | -0.16 | -0.19 | -0.12 | -0.07 | 0.02 | 0.09 | 0.27 |
| 8800 | -0.43 | -0.26 | -0.10 | 0.00 | 0.01 | 0.10 | 0.22 | 0.28 | 0.34 | 0.45 |
| 8900 | -0.03 | -0.03 | 0.06 | -0.06 | -0.05 | -0.10 | 0.04 | 0.10 | 0.17 | 0.32 |
| 9000 | -0.24 | -0.34 | -0.17 | -0.18 | -0.24 | -0.13 | -0.01 | 0.13 | 0.13 | 0.22 |
| 9100 | -0.29 | -0.31 | -0.12 | -0.23 | -0.20 | -0.23 | -0.11 | 0.00 | -0.02 | 0.11 |
| 9200 | -0.31 | -0.37 | -0.16 | -0.12 | -0.02 | -0.09 | 0.03 | 0.14 | 0.18 | 0.27 |
| 9300 | -0.28 | -0.20 | -0.11 | -0.13 | -0.15 | -0.12 | -0.10 | 0.03 | 0.04 | 0.16 |
| 9400 | -0.31 | -0.40 | -0.20 | -0.24 | -0.02 | -0.03 | 0.06 | 0.23 | 0.19 | 0.31 |
| 9500 | -0.05 | -0.16 | -0.08 | -0.07 | -0.15 | -0.11 | -0.02 | 0.14 | 0.04 | 0.15 |
| 9600 | -0.32 | -0.37 | -0.33 | -0.25 | -0.16 | -0.08 | 0.06 | 0.09 | 0.13 | 0.25 |
| 9700 | 0.00 | -0.06 | -0.06 | -0.13 | -0.10 | -0.16 | 0.02 | 0.06 | 0.06 | 0.20 |
| 9800 | -0.30 | -0.24 | -0.19 | -0.17 | -0.08 | -0.06 | 0.08 | 0.26 | 0.13 | 0.29 |
| 9900 | -0.32 | -0.19 | -0.13 | -0.02 | -0.02 | -0.13 | -0.01 | 0.18 | 0.09 | 0.27 |
| 10000 | -0.29 | -0.16 | -0.22 | -0.27 | -0.26 | -0.15 | -0.14 | -0.04 | 0.01 | 0.22 |
| 10100 | -0.11 | -0.43 | -0.21 | -0.10 | 0.00 | -0.10 | -0.07 | 0.05 | 0.17 | 0.34 |
| 10200 | -0.03 | -0.16 | -0.06 | -0.21 | -0.20 | -0.20 | -0.09 | 0.00 | 0.12 | 0.28 |
| 10300 | -0.18 | -0.28 | -0.22 | -0.05 | 0.06 | -0.06 | 0.01 | 0.07 | 0.22 | 0.42 |
| 10400 | -0.17 | 0.00 | 0.06 | 0.01 | 0.04 | -0.04 | -0.01 | 0.12 | 0.25 | 0.45 |
| 10500 | -0.15 | -0.12 | 0.01 | 0.13 | 0.12 | 0.05 | 0.05 | 0.22 | 0.30 | 0.53 |
| 10600 | -0.09 | -0.04 | -0.09 | -0.15 | -0.22 | -0.31 | -0.10 | 0.06 | 0.08 | 0.39 |
| 10700 | -0.63 | -0.66 | -0.42 | -0.25 | -0.17 | -0.12 | 0.01 | 0.09 | 0.19 | 0.50 |
| 10800 | -0.48 | -0.28 | -0.14 | -0.22 | -0.28 | -0.29 | -0.22 | -0.03 | -0.08 | 0.29 |
| 10900 | -0.19 | -0.18 | -0.27 | -0.17 | -0.05 | -0.02 | 0.03 | 0.10 | 0.23 | 0.52 |
| 11000 | 0.08 | 0.00 | 0.02 | -0.06 | -0.14 | -0.17 | -0.11 | -0.02 | 0.04 | 0.29 |
| 11100 | -0.12 | -0.32 | -0.26 | -0.26 | -0.13 | -0.01 | 0.07 | 0.27 | 0.17 | 0.45 |
| 11200 | -0.40 | -0.32 | -0.17 | -0.23 | -0.27 | -0.28 | -0.25 | -0.13 | -0.15 | 0.07 |
| 11300 | -0.52 | -0.50 | -0.40 | -0.29 | -0.12 | -0.01 | 0.13 | 0.16 | 0.21 | 0.41 |
| 11400 | -0.26 | -0.19 | -0.09 | 0.08 | -0.04 | -0.11 | -0.02 | 0.08 | 0.05 | 0.18 |
| 11500 | -0.70 | -0.44 | -0.22 | -0.11 | 0.03 | 0.14 | 0.21 | 0.31 | 0.27 | 0.42 |
| 11600 | -0.06 | 0.33 | 0.26 | 0.01 | 0.08 | 0.03 | 0.13 | 0.09 | 0.13 | 0.27 |
| 11700 | 0.70 | 0.24 | 0.14 | -0.06 | 0.14 | 0.04 | 0.12 | 0.16 | 0.26 | 0.39 |
| 11800 | 0.02 | -0.16 | -0.10 | -0.22 | -0.12 | -0.12 | 0.02 | 0.10 | 0.14 | 0.24 |
| 11900 | 0.37 | 0.02 | 0.09 | -0.04 | -0.02 | -0.14 | -0.04 | 0.11 | 0.11 | 0.15 |
| 12000 | -0.59 | -0.49 | -0.36 | -0.40 | -0.28 | -0.13 | 0.00 | 0.06 | 0.10 | 0.16 |
| 12100 | -1.09 | -0.57 | -0.21 | -0.02 | -0.07 | -0.08 | 0.01 | 0.10 | 0.15 | 0.24 |
| 12200 | -0.90 | -0.59 | -0.38 | -0.32 | -0.34 | -0.32 | -0.12 | -0.02 | 0.04 | 0.16 |
| 12300 | -0.71 | -0.57 | -0.34 | -0.15 | -0.27 | -0.35 | -0.20 | -0.07 | 0.07 | 0.18 |
| 12400 | -0.40 | -0.43 | -0.28 | -0.40 | -0.32 | -0.31 | -0.08 | 0.04 | 0.13 | 0.25 |
| 12500 | -0.67 | -0.73 | -0.47 | -0.47 | -0.50 | -0.59 | -0.43 | -0.33 | -0.18 | -0.02 |

# Signal Generator



## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 0°C.

| Power (dBm) | Power deviation from nominal vs. Output Power (dB) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 8.0 GHz | 8.5 GHz | 9.0 GHz | 9.5 GHz | 10.0 GHz | 10.5 GHz | 11.0 GHz | 11.5 GHz | 12.0 GHz | 12.5 GHz |
| -50 | -0.38 | -0.21 | -0.24 | -0.05 | -0.29 | -0.15 | 0.08 | -0.70 | -0.59 | -0.67 |
| -49 | -0.36 | -0.22 | -0.26 | -0.07 | -0.27 | -0.14 | 0.06 | -0.65 | -0.57 | -0.68 |
| -48 | -0.33 | -0.22 | -0.28 | -0.09 | -0.24 | -0.14 | 0.05 | -0.60 | -0.55 | -0.69 |
| -47 | -0.30 | -0.22 | -0.30 | -0.12 | -0.21 | -0.13 | 0.03 | -0.54 | -0.53 | -0.70 |
| -46 | -0.27 | -0.23 | -0.32 | -0.14 | -0.19 | -0.13 | 0.02 | -0.49 | -0.51 | -0.71 |
| -45 | -0.24 | -0.23 | -0.34 | -0.16 | -0.16 | -0.12 | 0.00 | -0.44 | -0.49 | -0.73 |
| -44 | -0.20 | -0.21 | -0.30 | -0.14 | -0.17 | -0.10 | 0.01 | -0.40 | -0.46 | -0.67 |
| -43 | -0.16 | -0.19 | -0.27 | -0.13 | -0.18 | -0.07 | 0.01 | -0.35 | -0.44 | -0.62 |
| -42 | -0.13 | -0.18 | -0.24 | -0.11 | -0.19 | -0.04 | 0.01 | -0.31 | -0.41 | -0.57 |
| -41 | -0.09 | -0.16 | -0.20 | -0.10 | -0.21 | -0.02 | 0.02 | -0.27 | -0.39 | -0.52 |
| -40 | -0.05 | -0.14 | -0.17 | -0.08 | -0.22 | 0.01 | 0.02 | -0.22 | -0.36 | -0.47 |
| -38 | -0.09 | -0.14 | -0.19 | -0.08 | -0.20 | 0.02 | 0.00 | -0.22 | -0.37 | -0.52 |
| -36 | -0.12 | -0.13 | -0.22 | -0.08 | -0.18 | 0.03 | -0.02 | -0.22 | -0.39 | -0.56 |
| -34 | -0.12 | -0.15 | -0.22 | -0.08 | -0.20 | 0.05 | -0.04 | -0.20 | -0.40 | -0.56 |
| -32 | -0.06 | -0.19 | -0.20 | -0.08 | -0.23 | 0.09 | -0.05 | -0.15 | -0.40 | -0.52 |
| -30 | -0.01 | -0.24 | -0.18 | -0.07 | -0.27 | 0.13 | -0.06 | -0.11 | -0.40 | -0.47 |
| -28 | -0.02 | -0.24 | -0.18 | -0.07 | -0.27 | 0.11 | -0.02 | -0.11 | -0.38 | -0.48 |
| -26 | -0.04 | -0.25 | -0.18 | -0.07 | -0.27 | 0.09 | 0.01 | -0.10 | -0.37 | -0.49 |
| -24 | -0.05 | -0.24 | -0.19 | -0.09 | -0.27 | 0.08 | -0.01 | -0.07 | -0.34 | -0.50 |
| -22 | -0.05 | -0.22 | -0.22 | -0.12 | -0.27 | 0.10 | -0.07 | -0.02 | -0.31 | -0.50 |
| -20 | -0.05 | -0.20 | -0.24 | -0.15 | -0.26 | 0.12 | -0.14 | 0.03 | -0.28 | -0.50 |
| -18 | -0.05 | -0.23 | -0.19 | -0.15 | -0.26 | 0.10 | -0.14 | 0.05 | -0.28 | -0.53 |
| -16 | -0.04 | -0.27 | -0.14 | -0.14 | -0.26 | 0.07 | -0.14 | 0.06 | -0.29 | -0.55 |
| -14 | -0.03 | -0.27 | -0.12 | -0.13 | -0.24 | 0.06 | -0.15 | 0.09 | -0.26 | -0.57 |
| -12 | -0.02 | -0.25 | -0.12 | -0.12 | -0.19 | 0.05 | -0.16 | 0.11 | -0.20 | -0.58 |
| -10 | -0.01 | -0.22 | -0.13 | -0.11 | -0.15 | 0.05 | -0.17 | 0.14 | -0.13 | -0.59 |
| -8 | 0.02 | -0.18 | -0.10 | -0.11 | -0.13 | 0.05 | -0.16 | 0.15 | -0.11 | -0.56 |
| -6 | 0.04 | -0.14 | -0.08 | -0.10 | -0.12 | 0.04 | -0.14 | 0.16 | -0.09 | -0.54 |
| -4 | 0.06 | -0.11 | -0.06 | -0.08 | -0.12 | 0.04 | -0.13 | 0.17 | -0.07 | -0.51 |
| -2 | 0.07 | -0.09 | -0.03 | -0.05 | -0.13 | 0.05 | -0.12 | 0.19 | -0.03 | -0.47 |
| 0 | 0.08 | -0.07 | -0.01 | -0.02 | -0.14 | 0.05 | -0.11 | 0.21 | 0.00 | -0.43 |
| +2 | 0.12 | -0.02 | 0.01 | 0.00 | -0.11 | 0.10 | -0.11 | 0.22 | 0.00 | -0.42 |
| +4 | 0.15 | 0.03 | 0.04 | 0.02 | -0.08 | 0.15 | -0.11 | 0.23 | 0.01 | -0.40 |
| +6 | 0.18 | 0.05 | 0.07 | 0.05 | -0.06 | 0.18 | -0.09 | 0.25 | 0.02 | -0.38 |
| +8 | 0.19 | 0.04 | 0.10 | 0.10 | -0.05 | 0.20 | -0.06 | 0.28 | 0.04 | -0.36 |
| +10 | 0.21 | 0.03 | 0.13 | 0.14 | -0.04 | 0.22 | -0.02 | 0.31 | 0.06 | -0.33 |
| +11 | 0.20 | 0.02 | 0.13 | 0.12 | -0.03 | 0.24 | -0.01 | 0.30 | 0.07 | -0.30 |
| +12 | 0.19 | 0.01 | 0.13 | 0.10 | -0.02 | 0.26 | 0.00 | 0.30 | 0.07 | -0.27 |
| +13 | 0.17 | 0.01 | 0.13 | 0.08 | -0.01 | 0.27 | 0.01 | 0.29 | 0.08 | -0.24 |
| +14 | 0.16 | 0.00 | 0.13 | 0.06 | 0.00 | 0.29 | 0.03 | 0.28 | 0.09 | -0.21 |
| +15 | 0.15 | -0.01 | 0.13 | 0.04 | 0.01 | 0.30 | 0.04 | 0.27 | 0.10 | -0.18 |
| +16 | 0.18 | 0.02 | 0.15 | 0.07 | 0.06 | 0.35 | 0.09 | 0.30 | 0.11 | -0.15 |
| +17 | 0.21 | 0.06 | 0.17 | 0.09 | 0.10 | 0.39 | 0.14 | 0.33 | 0.12 | -0.12 |
| +18 | 0.25 | 0.09 | 0.19 | 0.11 | 0.14 | 0.44 | 0.19 | 0.36 | 0.13 | -0.09 |
| +19 | 0.28 | 0.13 | 0.21 | 0.13 | 0.18 | 0.48 | 0.24 | 0.39 | 0.15 | -0.05 |
| +20 | 0.31 | 0.16 | 0.22 | 0.15 | 0.22 | 0.53 | 0.29 | 0.42 | 0.16 | -0.02 |

# Signal Generator



## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 0°C.

| Freq. (MHz) | Harmonics levels vs. Output Frequency (dBc) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | F2 | | | | | F3 | | | | |
| | -50 dBm | -40 dBm | -20 dBm | 0 dBm | +20 dBm | -50 dBm | -40 dBm | -20 dBm | 0 dBm | +20 dBm |
| 8000 | -34.32 | -37.90 | -48.64 | -46.28 | -48.62 | -49.75 | -44.10 | -61.99 | -79.61 | -82.02 |
| 8100 | -58.81 | -44.17 | -54.19 | -52.44 | -50.57 | -50.97 | -40.77 | -58.72 | -80.90 | -81.09 |
| 8200 | -47.87 | -50.37 | -56.22 | -58.16 | -52.15 | -51.51 | -41.36 | -62.69 | -80.19 | -80.32 |
| 8300 | -49.33 | -47.32 | -60.32 | -61.65 | -53.53 | -53.32 | -40.91 | -56.43 | -82.28 | -82.44 |
| 8400 | -47.59 | -42.45 | -60.42 | -59.06 | -54.44 | -54.82 | -39.40 | -64.52 | -81.56 | -83.67 |
| 8500 | -46.55 | -41.46 | -61.09 | -57.11 | -55.00 | -54.19 | -39.01 | -63.89 | -78.02 | -85.31 |
| 8600 | -47.68 | -43.26 | -62.57 | -55.93 | -54.81 | -57.13 | -35.72 | -56.80 | -78.97 | -83.09 |
| 8700 | -49.55 | -42.08 | -55.93 | -54.58 | -54.79 | -53.72 | -40.72 | -57.83 | -81.86 | -85.52 |
| 8800 | -46.78 | -37.59 | -58.25 | -53.68 | -54.99 | -59.99 | -35.98 | -55.70 | -78.01 | -85.81 |
| 8900 | -50.01 | -42.80 | -55.64 | -52.99 | -54.91 | -53.75 | -41.58 | -61.18 | -76.15 | -88.51 |
| 9000 | -47.76 | -43.26 | -52.40 | -53.02 | -55.40 | -58.65 | -41.36 | -56.69 | -81.68 | -86.73 |
| 9100 | -42.76 | -42.37 | -59.37 | -53.66 | -56.35 | -57.12 | -40.26 | -60.33 | -79.95 | -85.53 |
| 9200 | -38.00 | -41.29 | -52.25 | -54.13 | -57.76 | -50.11 | -36.94 | -60.37 | -77.24 | -86.92 |
| 9300 | -37.43 | -41.32 | -57.72 | -54.50 | -60.13 | -50.58 | -41.48 | -60.06 | -77.53 | -81.95 |
| 9400 | -37.59 | -42.68 | -55.12 | -55.56 | -64.61 | -44.79 | -38.66 | -58.22 | -82.45 | -80.82 |
| 9500 | -37.71 | -41.57 | -53.88 | -57.44 | -67.70 | -43.77 | -39.45 | -59.69 | -79.81 | -79.72 |
| 9600 | -36.78 | -39.86 | -57.53 | -57.91 | -66.53 | -45.52 | -39.08 | -58.80 | -81.35 | -78.47 |
| 9700 | -36.97 | -37.33 | -57.27 | -59.45 | -62.12 | -48.50 | -38.60 | -60.32 | -79.61 | -74.63 |
| 9800 | -36.36 | -38.01 | -55.53 | -60.30 | -57.97 | -42.81 | -45.16 | -57.89 | -81.18 | -74.20 |
| 9900 | -35.93 | -38.73 | -62.07 | -60.45 | -54.47 | -46.68 | -38.02 | -60.76 | -89.64 | -72.79 |
| 10000 | -37.16 | -38.15 | -59.13 | -62.77 | -52.00 | -50.93 | -41.02 | -62.99 | -79.28 | -67.69 |
| 10100 | -43.75 | -37.46 | -59.53 | -67.34 | -49.09 | -49.83 | -38.90 | -62.81 | -81.63 | -64.46 |
| 10200 | -45.21 | -39.68 | -55.26 | -61.91 | -49.33 | -55.34 | -36.99 | -58.33 | -77.47 | -61.12 |
| 10300 | -37.40 | -42.59 | -59.65 | -71.26 | -47.63 | -57.55 | -41.38 | -59.09 | -78.58 | -56.28 |
| 10400 | -35.05 | -41.84 | -54.12 | -71.13 | -48.40 | -49.03 | -46.04 | -60.79 | -79.69 | -54.51 |
| 10500 | -39.29 | -39.86 | -58.95 | -72.39 | -49.40 | -55.28 | -36.41 | -58.74 | -79.65 | -56.70 |
| 10600 | -39.28 | -41.52 | -55.86 | -76.43 | -50.77 | -55.12 | -47.77 | -55.78 | -79.11 | -60.57 |
| 10700 | -36.19 | -41.13 | -60.48 | -76.70 | -50.93 | -55.58 | -40.62 | -59.85 | -80.20 | -64.20 |
| 10800 | -41.49 | -43.89 | -58.90 | -74.38 | -52.19 | -55.52 | -40.26 | -60.09 | -78.48 | -68.51 |
| 10900 | -39.33 | -42.56 | -54.87 | -76.51 | -55.28 | -47.02 | -40.53 | -56.74 | -76.87 | -67.09 |
| 11000 | -37.58 | -38.48 | -56.22 | -74.75 | -56.82 | -50.66 | -38.55 | -58.07 | -80.47 | -66.12 |
| 11100 | -39.02 | -41.20 | -60.44 | -78.44 | -56.91 | -51.51 | -36.71 | -57.59 | -81.20 | -65.60 |
| 11200 | -40.57 | -42.32 | -63.22 | -80.05 | -59.55 | -47.05 | -37.33 | -58.77 | -77.41 | -72.69 |
| 11300 | -42.34 | -46.09 | -61.32 | -78.84 | -59.44 | -55.87 | -39.21 | -60.35 | -85.22 | -88.72 |
| 11400 | -46.34 | -43.68 | -60.79 | -75.21 | -60.26 | -55.13 | -38.53 | -56.15 | -80.29 | -77.12 |
| 11500 | -43.66 | -38.86 | -63.40 | -76.49 | -60.02 | -54.19 | -35.30 | -56.55 | -79.77 | -76.47 |
| 11600 | -50.08 | -41.84 | -61.58 | -78.66 | -63.46 | -50.77 | -36.24 | -59.79 | -78.32 | -81.40 |
| 11700 | -50.19 | -39.46 | -66.11 | -76.89 | -64.89 | -47.30 | -37.51 | -54.53 | -74.25 | -74.70 |
| 11800 | -47.82 | -37.54 | -63.23 | -90.09 | -66.67 | -45.18 | -38.13 | -53.59 | -81.81 | -76.89 |
| 11900 | -46.86 | -41.50 | -63.35 | -76.25 | -68.26 | -49.97 | -37.14 | -51.47 | -74.87 | -80.15 |
| 12000 | -48.32 | -42.11 | -55.53 | -82.89 | -68.76 | -52.33 | -41.39 | -57.55 | -71.07 | -78.10 |
| 12100 | -43.01 | -41.54 | -59.73 | -75.61 | -67.94 | -47.44 | -37.79 | -54.08 | -73.68 | -78.39 |
| 12200 | -42.37 | -39.30 | -64.90 | -79.90 | -69.03 | -49.91 | -34.66 | -57.53 | -72.46 | -81.86 |
| 12300 | -53.23 | -44.43 | -58.72 | -74.58 | -67.79 | -49.44 | -37.80 | -52.60 | -71.77 | -84.59 |
| 12400 | -45.84 | -43.18 | -62.14 | -70.15 | -62.81 | -50.32 | -35.36 | -55.03 | -73.17 | -90.46 |
| 12500 | -50.78 | -39.71 | -59.01 | -69.23 | -61.63 | -51.82 | -39.45 | -57.27 | -77.45 | -87.87 |

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 0°C.

| Freq. (MHz) | Phase Noise vs. Output Frequency (dBc / Hz) | | | | |
|---|---|---|---|---|---|
| | 1 kHz | 10 kHz | 100 kHz | 1 MHz | 10 MHz |
| 8000 | -97.47 | -108.74 | -113.49 | -121.10 | -134.85 |
| 8100 | -97.04 | -108.28 | -113.48 | -121.02 | -134.57 |
| 8200 | -97.37 | -108.24 | -113.90 | -120.75 | -134.20 |
| 8300 | -97.15 | -108.07 | -113.45 | -120.01 | -133.80 |
| 8400 | -97.48 | -108.25 | -113.39 | -119.44 | -135.74 |
| 8500 | -96.52 | -108.11 | -113.09 | -119.45 | -133.64 |
| 8600 | -97.25 | -107.79 | -112.88 | -119.38 | -134.69 |
| 8700 | -96.89 | -107.65 | -112.71 | -123.28 | -134.41 |
| 8800 | -96.67 | -107.50 | -112.83 | -121.21 | -134.10 |
| 8900 | -96.64 | -107.51 | -112.80 | -121.76 | -134.72 |
| 9000 | -96.19 | -107.44 | -112.36 | -120.87 | -134.23 |
| 9100 | -96.42 | -107.21 | -112.25 | -120.79 | -134.01 |
| 9200 | -96.75 | -106.91 | -112.01 | -120.21 | -133.73 |
| 9300 | -96.15 | -107.20 | -111.88 | -118.52 | -134.22 |
| 9400 | -96.37 | -106.95 | -111.92 | -119.72 | -134.66 |
| 9500 | -95.88 | -106.71 | -111.90 | -119.88 | -134.41 |
| 9600 | -96.05 | -106.90 | -111.64 | -118.83 | -134.57 |
| 9700 | -95.99 | -106.46 | -111.41 | -118.55 | -133.57 |
| 9800 | -95.63 | -106.31 | -111.76 | -117.48 | -133.98 |
| 9900 | -96.19 | -106.43 | -111.68 | -118.06 | -133.66 |
| 10000 | -95.74 | -106.49 | -111.41 | -118.72 | -133.74 |
| 10100 | -95.48 | -106.21 | -111.32 | -119.29 | -133.92 |
| 10200 | -95.64 | -105.79 | -111.26 | -119.13 | -134.22 |
| 10300 | -95.28 | -105.84 | -111.14 | -118.20 | -134.85 |
| 10400 | -95.31 | -105.81 | -111.31 | -119.33 | -134.55 |
| 10500 | -95.21 | -105.74 | -111.23 | -118.95 | -134.82 |
| 10600 | -94.85 | -105.39 | -110.80 | -117.07 | -134.84 |
| 10700 | -95.01 | -105.59 | -111.10 | -116.89 | -133.39 |
| 10800 | -94.98 | -105.25 | -110.66 | -117.39 | -134.64 |
| 10900 | -95.16 | -105.15 | -110.92 | -116.55 | -133.71 |
| 11000 | -94.68 | -105.68 | -110.64 | -116.56 | -133.40 |
| 11100 | -94.73 | -105.48 | -110.37 | -117.95 | -134.12 |
| 11200 | -94.89 | -105.41 | -110.52 | -117.17 | -133.21 |
| 11300 | -94.58 | -105.20 | -110.27 | -117.90 | -135.05 |
| 11400 | -94.58 | -105.44 | -110.11 | -117.18 | -134.88 |
| 11500 | -94.54 | -105.24 | -110.27 | -116.56 | -134.62 |
| 11600 | -94.25 | -105.14 | -110.12 | -116.79 | -132.85 |
| 11700 | -94.58 | -105.61 | -110.22 | -116.06 | -134.22 |
| 11800 | -94.26 | -104.77 | -109.93 | -116.96 | -134.63 |
| 11900 | -94.11 | -105.22 | -110.18 | -115.53 | -133.58 |
| 12000 | -94.20 | -105.41 | -110.19 | -114.18 | -134.61 |
| 12100 | -93.70 | -105.00 | -109.99 | -113.45 | -133.62 |
| 12200 | -93.85 | -105.28 | -110.66 | -112.45 | -134.71 |
| 12300 | -93.16 | -104.46 | -109.65 | -112.60 | -135.45 |
| 12400 | -93.43 | -104.49 | -109.85 | -112.92 | -134.21 |
| 12500 | -93.33 | -104.83 | -110.00 | -112.79 | -134.10 |

| Freq. (MHz) | Power (dBM) Max |
|---|---|
| 8000 | 24.47 |
| 8100 | 24.48 |
| 8200 | 24.47 |
| 8300 | 24.40 |
| 8400 | 24.35 |
| 8500 | 24.29 |
| 8600 | 24.23 |
| 8700 | 24.17 |
| 8800 | 24.17 |
| 8900 | 24.17 |
| 9000 | 24.15 |
| 9100 | 24.16 |
| 9200 | 24.16 |
| 9300 | 24.17 |
| 9400 | 24.27 |
| 9500 | 24.23 |
| 9600 | 24.27 |
| 9700 | 24.18 |
| 9800 | 24.10 |
| 9900 | 23.90 |
| 10000 | 23.43 |
| 10100 | 22.90 |
| 10200 | 22.32 |
| 10300 | 22.07 |
| 10400 | 22.22 |
| 10500 | 22.34 |
| 10600 | 22.46 |
| 10700 | 22.61 |
| 10800 | 22.63 |
| 10900 | 22.76 |
| 11000 | 22.72 |
| 11100 | 22.83 |
| 11200 | 22.97 |
| 11300 | 23.07 |
| 11400 | 23.26 |
| 11500 | 23.50 |
| 11600 | 23.71 |
| 11700 | 23.85 |
| 11800 | 23.87 |
| 11900 | 23.83 |
| 12000 | 23.65 |
| 12100 | 23.44 |
| 12200 | 23.20 |
| 12300 | 22.98 |
| 12400 | 22.73 |
| 12500 | 22.30 |

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 0°C.

| Freq. Offsets (kHz) | Phase Noise vs. Offset Frequency (dBc / Hz) | | | | | |
|---|---|---|---|---|---|---|
| | 8.0 GHz | 9.0 GHz | 10.0 GHz | 11.0 GHz | 12.0 GHz | 12.5 GHz |
| 1 | -97.47 | -96.19 | -95.74 | -94.68 | -94.20 | -93.33 |
| 10 | -108.74 | -107.44 | -106.49 | -105.68 | -105.41 | -104.83 |
| 100 | -113.49 | -112.36 | -111.41 | -110.64 | -110.19 | -110.00 |
| 1000 | -121.10 | -120.87 | -118.72 | -116.56 | -114.18 | -112.79 |
| 10000 | -134.85 | -134.23 | -133.74 | -133.40 | -134.61 | -134.10 |

| Freq. (MHz) | Spurious (dBc) | |
|---|---|---|
| | Far | Near |
| 8000 | -69.38 | -39.22 |
| 8100 | -69.22 | -39.29 |
| 8200 | -68.06 | -39.36 |
| 8300 | -68.81 | -39.21 |
| 8400 | -69.47 | -39.02 |
| 8500 | -69.63 | -39.18 |
| 8600 | -68.80 | -39.12 |
| 8700 | -67.69 | -39.10 |
| 8800 | -69.75 | -39.02 |
| 8900 | -68.78 | -38.89 |
| 9000 | -69.23 | -38.91 |
| 9100 | -66.57 | -38.75 |
| 9200 | -68.85 | -38.59 |
| 9300 | -69.00 | -38.52 |
| 9400 | -68.69 | -38.30 |
| 9500 | -68.60 | -38.35 |
| 9600 | -67.49 | -38.32 |
| 9700 | -68.57 | -38.19 |
| 9800 | -68.37 | -38.31 |
| 9900 | -67.56 | -38.25 |
| 10000 | -69.69 | -38.15 |
| 10100 | -68.12 | -37.85 |
| 10200 | -69.39 | -37.81 |
| 10300 | -69.33 | -37.44 |
| 10400 | -67.07 | -37.31 |
| 10500 | -68.89 | -37.41 |
| 10600 | -68.54 | -37.19 |
| 10700 | -67.62 | -37.36 |
| 10800 | -68.43 | -37.30 |
| 10900 | -68.82 | -37.51 |
| 11000 | -68.29 | -37.49 |
| 11100 | -68.66 | -37.56 |
| 11200 | -68.00 | -37.80 |
| 11300 | -68.96 | -37.84 |
| 11400 | -67.85 | -37.80 |
| 11500 | -67.99 | -38.28 |
| 11600 | -68.93 | -38.32 |
| 11700 | -68.29 | -39.08 |
| 11800 | -68.14 | -39.35 |
| 11900 | -68.77 | -39.83 |
| 12000 | -68.44 | -40.24 |
| 12100 | -69.60 | -40.53 |
| 12200 | -68.54 | -40.64 |
| 12300 | -68.78 | -40.84 |
| 12400 | -69.22 | -41.11 |
| 12500 | -67.55 | -40.50 |

**Note:** Spurious was measured in offsets of 1 MHz to 150 MHz (Far) and 1 kHz to 1 MHz (Near).

# Signal Generator



## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 25°C.

| Freq. (MHz) | Power deviation from nominal vs. Output Frequency (dB) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | -50 dBm | -45 dBm | -40 dBm | -30 dBm | -20 dBm | -10 dBm | 0 dBm | +10 dBm | +15 dBm | +20 dBm |
| 8000 | 0.03 | 0.04 | 0.05 | 0.04 | 0.09 | 0.12 | 0.11 | 0.15 | 0.22 | 0.19 |
| 8100 | 0.04 | 0.07 | 0.11 | -0.01 | 0.03 | 0.09 | 0.06 | 0.13 | 0.21 | 0.14 |
| 8200 | 0.09 | 0.02 | 0.01 | 0.04 | 0.07 | 0.16 | 0.13 | 0.22 | 0.28 | 0.21 |
| 8300 | 0.09 | 0.11 | 0.03 | -0.01 | 0.04 | 0.11 | 0.08 | 0.11 | 0.21 | 0.18 |
| 8400 | 0.08 | -0.06 | -0.04 | 0.03 | 0.07 | 0.16 | 0.09 | 0.17 | 0.23 | 0.23 |
| 8500 | 0.11 | 0.09 | 0.04 | 0.00 | -0.01 | 0.06 | 0.03 | 0.11 | 0.15 | 0.14 |
| 8600 | -0.02 | -0.01 | -0.05 | 0.07 | 0.20 | 0.14 | 0.12 | 0.19 | 0.20 | 0.19 |
| 8700 | 0.23 | 0.08 | 0.09 | -0.05 | 0.03 | 0.04 | 0.03 | 0.12 | 0.09 | 0.08 |
| 8800 | -0.09 | 0.03 | -0.02 | 0.01 | 0.18 | 0.16 | 0.16 | 0.22 | 0.16 | 0.18 |
| 8900 | 0.02 | 0.10 | 0.09 | -0.04 | 0.02 | 0.06 | 0.02 | 0.11 | 0.08 | 0.08 |
| 9000 | 0.00 | -0.06 | -0.06 | 0.01 | 0.15 | 0.17 | 0.13 | 0.18 | 0.20 | 0.19 |
| 9100 | 0.07 | 0.12 | 0.05 | -0.01 | 0.01 | 0.06 | -0.01 | 0.11 | 0.11 | 0.08 |
| 9200 | 0.00 | 0.05 | 0.02 | 0.06 | 0.17 | 0.16 | 0.09 | 0.16 | 0.25 | 0.22 |
| 9300 | 0.14 | 0.03 | 0.05 | 0.01 | 0.04 | 0.04 | 0.02 | 0.01 | 0.09 | 0.07 |
| 9400 | 0.01 | -0.09 | -0.09 | -0.02 | 0.10 | 0.07 | 0.10 | 0.17 | 0.28 | 0.26 |
| 9500 | 0.11 | 0.06 | 0.02 | -0.02 | 0.06 | -0.01 | -0.01 | 0.05 | 0.14 | 0.09 |
| 9600 | -0.06 | -0.14 | -0.15 | -0.05 | 0.06 | 0.07 | 0.10 | 0.09 | 0.25 | 0.21 |
| 9700 | 0.08 | 0.09 | 0.07 | 0.01 | 0.06 | -0.01 | 0.02 | 0.06 | 0.16 | 0.10 |
| 9800 | -0.06 | -0.05 | -0.05 | -0.07 | -0.02 | 0.05 | 0.10 | 0.25 | 0.22 | 0.16 |
| 9900 | 0.10 | 0.01 | 0.07 | 0.14 | 0.16 | 0.03 | 0.02 | 0.20 | 0.21 | 0.17 |
| 10000 | 0.05 | 0.05 | 0.00 | -0.12 | -0.09 | -0.04 | -0.09 | -0.01 | 0.07 | 0.04 |
| 10100 | 0.11 | -0.02 | 0.05 | 0.05 | 0.15 | 0.08 | 0.07 | 0.12 | 0.17 | 0.19 |
| 10200 | 0.11 | 0.15 | 0.08 | -0.06 | -0.03 | 0.05 | 0.02 | 0.12 | 0.09 | 0.12 |
| 10300 | -0.08 | -0.06 | -0.11 | 0.02 | 0.12 | 0.12 | 0.08 | 0.20 | 0.15 | 0.17 |
| 10400 | 0.07 | 0.13 | 0.10 | 0.05 | 0.03 | 0.00 | 0.02 | 0.12 | 0.09 | 0.15 |
| 10500 | 0.00 | -0.02 | -0.03 | 0.10 | 0.12 | 0.13 | 0.15 | 0.26 | 0.17 | 0.23 |
| 10600 | 0.16 | 0.16 | 0.10 | 0.08 | 0.05 | -0.04 | -0.01 | 0.15 | 0.12 | 0.12 |
| 10700 | 0.02 | -0.04 | -0.05 | 0.01 | 0.14 | 0.13 | 0.14 | 0.20 | 0.28 | 0.26 |
| 10800 | 0.20 | 0.17 | 0.16 | 0.09 | 0.11 | -0.02 | 0.00 | 0.10 | 0.14 | 0.08 |
| 10900 | -0.03 | -0.01 | -0.11 | 0.03 | 0.18 | 0.16 | 0.19 | 0.27 | 0.33 | 0.28 |
| 11000 | 0.28 | 0.24 | 0.27 | 0.21 | 0.13 | 0.02 | -0.01 | 0.08 | 0.13 | 0.05 |
| 11100 | 0.06 | -0.06 | -0.07 | -0.02 | 0.13 | 0.18 | 0.15 | 0.34 | 0.22 | 0.18 |
| 11200 | 0.26 | 0.16 | 0.14 | 0.09 | 0.07 | -0.13 | -0.10 | -0.03 | 0.03 | 0.01 |
| 11300 | -0.06 | -0.02 | -0.07 | 0.00 | 0.13 | 0.17 | 0.16 | 0.15 | 0.24 | 0.21 |
| 11400 | 0.24 | 0.27 | 0.22 | 0.24 | 0.10 | -0.06 | -0.05 | 0.09 | 0.09 | 0.08 |
| 11500 | 0.08 | 0.06 | 0.00 | 0.03 | 0.13 | 0.16 | 0.19 | 0.31 | 0.25 | 0.21 |
| 11600 | 0.12 | 0.07 | 0.07 | 0.03 | 0.04 | 0.05 | 0.10 | 0.15 | 0.16 | 0.10 |
| 11700 | 0.01 | 0.02 | -0.01 | 0.04 | 0.11 | 0.15 | 0.15 | 0.24 | 0.22 | 0.23 |
| 11800 | 0.05 | 0.03 | 0.05 | -0.02 | 0.00 | 0.04 | 0.07 | 0.19 | 0.12 | 0.14 |
| 11900 | -0.05 | -0.02 | 0.04 | 0.10 | 0.12 | 0.10 | 0.14 | 0.27 | 0.21 | 0.23 |
| 12000 | 0.07 | 0.10 | -0.02 | -0.06 | -0.03 | 0.11 | 0.14 | 0.24 | 0.20 | 0.20 |
| 12100 | 0.03 | 0.09 | 0.06 | 0.08 | 0.19 | 0.11 | 0.11 | 0.23 | 0.23 | 0.25 |
| 12200 | 0.09 | 0.09 | 0.04 | -0.03 | 0.02 | 0.08 | 0.09 | 0.21 | 0.24 | 0.24 |
| 12300 | 0.25 | 0.22 | 0.20 | 0.28 | 0.24 | 0.15 | 0.19 | 0.25 | 0.31 | 0.29 |
| 12400 | 0.11 | 0.09 | 0.07 | -0.02 | 0.22 | 0.29 | 0.33 | 0.45 | 0.43 | 0.34 |
| 12500 | -0.04 | -0.14 | -0.05 | -0.04 | 0.06 | -0.06 | -0.04 | 0.04 | 0.11 | 0.02 |

# Signal Generator



## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 25°C.

| Power (dBm) | Power deviation from nominal vs. Output Power (dB) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 8.0 GHz | 8.5 GHz | 9.0 GHz | 9.5 GHz | 10.0 GHz | 10.5 GHz | 11.0 GHz | 11.5 GHz | 12.0 GHz | 12.5 GHz |
| -50 | 0.03 | 0.11 | 0.00 | 0.11 | 0.05 | 0.00 | 0.28 | 0.08 | 0.07 | -0.04 |
| -49 | 0.03 | 0.10 | -0.01 | 0.10 | 0.05 | -0.01 | 0.27 | 0.07 | 0.08 | -0.06 |
| -48 | 0.04 | 0.10 | -0.03 | 0.09 | 0.05 | -0.01 | 0.26 | 0.07 | 0.08 | -0.08 |
| -47 | 0.04 | 0.10 | -0.04 | 0.08 | 0.05 | -0.01 | 0.25 | 0.07 | 0.09 | -0.10 |
| -46 | 0.04 | 0.09 | -0.05 | 0.07 | 0.05 | -0.02 | 0.25 | 0.06 | 0.09 | -0.12 |
| -45 | 0.04 | 0.09 | -0.06 | 0.06 | 0.05 | -0.02 | 0.24 | 0.06 | 0.10 | -0.14 |
| -44 | 0.04 | 0.08 | -0.06 | 0.05 | 0.04 | -0.02 | 0.24 | 0.05 | 0.07 | -0.12 |
| -43 | 0.04 | 0.07 | -0.06 | 0.04 | 0.03 | -0.02 | 0.25 | 0.03 | 0.05 | -0.10 |
| -42 | 0.04 | 0.06 | -0.06 | 0.03 | 0.02 | -0.02 | 0.26 | 0.02 | 0.02 | -0.09 |
| -41 | 0.04 | 0.05 | -0.06 | 0.02 | 0.01 | -0.03 | 0.26 | 0.01 | 0.00 | -0.07 |
| -40 | 0.05 | 0.04 | -0.06 | 0.02 | 0.00 | -0.03 | 0.27 | 0.00 | -0.02 | -0.05 |
| -38 | 0.03 | 0.04 | -0.07 | 0.03 | -0.01 | -0.02 | 0.25 | -0.02 | -0.02 | -0.09 |
| -36 | 0.00 | 0.04 | -0.08 | 0.05 | -0.02 | -0.01 | 0.23 | -0.04 | -0.02 | -0.12 |
| -34 | 0.00 | 0.03 | -0.06 | 0.04 | -0.04 | 0.02 | 0.21 | -0.03 | -0.03 | -0.12 |
| -32 | 0.02 | 0.02 | -0.03 | 0.01 | -0.08 | 0.06 | 0.21 | 0.00 | -0.05 | -0.08 |
| -30 | 0.04 | 0.00 | 0.01 | -0.02 | -0.12 | 0.10 | 0.21 | 0.03 | -0.06 | -0.04 |
| -28 | 0.06 | -0.01 | 0.01 | -0.01 | -0.10 | 0.10 | 0.23 | 0.04 | -0.01 | -0.02 |
| -26 | 0.07 | -0.02 | 0.01 | 0.01 | -0.08 | 0.10 | 0.24 | 0.05 | 0.04 | 0.01 |
| -24 | 0.08 | -0.02 | 0.04 | 0.03 | -0.08 | 0.10 | 0.22 | 0.07 | 0.05 | 0.03 |
| -22 | 0.09 | -0.01 | 0.10 | 0.04 | -0.08 | 0.11 | 0.18 | 0.10 | 0.01 | 0.04 |
| -20 | 0.09 | -0.01 | 0.15 | 0.06 | -0.09 | 0.12 | 0.13 | 0.13 | -0.03 | 0.06 |
| -18 | 0.12 | -0.01 | 0.15 | 0.05 | -0.10 | 0.13 | 0.11 | 0.11 | 0.00 | 0.03 |
| -16 | 0.15 | -0.01 | 0.15 | 0.04 | -0.12 | 0.14 | 0.09 | 0.09 | 0.03 | 0.00 |
| -14 | 0.16 | 0.00 | 0.15 | 0.03 | -0.11 | 0.14 | 0.07 | 0.10 | 0.06 | -0.02 |
| -12 | 0.14 | 0.03 | 0.16 | 0.01 | -0.08 | 0.13 | 0.04 | 0.13 | 0.08 | -0.04 |
| -10 | 0.12 | 0.06 | 0.17 | -0.01 | -0.04 | 0.13 | 0.02 | 0.16 | 0.11 | -0.06 |
| -8 | 0.13 | 0.06 | 0.14 | 0.00 | -0.04 | 0.12 | 0.02 | 0.17 | 0.12 | -0.05 |
| -6 | 0.13 | 0.06 | 0.12 | 0.00 | -0.04 | 0.11 | 0.01 | 0.17 | 0.12 | -0.05 |
| -4 | 0.13 | 0.05 | 0.11 | 0.00 | -0.05 | 0.11 | 0.01 | 0.18 | 0.13 | -0.04 |
| -2 | 0.12 | 0.04 | 0.12 | 0.00 | -0.07 | 0.13 | 0.00 | 0.19 | 0.14 | -0.04 |
| 0 | 0.11 | 0.03 | 0.13 | -0.01 | -0.09 | 0.15 | -0.01 | 0.19 | 0.14 | -0.04 |
| +2 | 0.12 | 0.04 | 0.15 | 0.02 | -0.09 | 0.15 | -0.01 | 0.18 | 0.15 | -0.01 |
| +4 | 0.12 | 0.04 | 0.16 | 0.05 | -0.08 | 0.15 | 0.00 | 0.17 | 0.16 | 0.02 |
| +6 | 0.13 | 0.06 | 0.17 | 0.06 | -0.07 | 0.17 | 0.02 | 0.19 | 0.18 | 0.04 |
| +8 | 0.14 | 0.09 | 0.18 | 0.06 | -0.04 | 0.21 | 0.05 | 0.25 | 0.21 | 0.04 |
| +10 | 0.15 | 0.11 | 0.18 | 0.05 | -0.01 | 0.26 | 0.08 | 0.31 | 0.24 | 0.04 |
| +11 | 0.17 | 0.12 | 0.19 | 0.07 | 0.01 | 0.24 | 0.09 | 0.30 | 0.23 | 0.06 |
| +12 | 0.18 | 0.13 | 0.19 | 0.09 | 0.03 | 0.22 | 0.10 | 0.29 | 0.22 | 0.07 |
| +13 | 0.19 | 0.13 | 0.19 | 0.10 | 0.04 | 0.20 | 0.11 | 0.28 | 0.21 | 0.08 |
| +14 | 0.21 | 0.14 | 0.20 | 0.12 | 0.06 | 0.19 | 0.12 | 0.27 | 0.20 | 0.10 |
| +15 | 0.22 | 0.15 | 0.20 | 0.14 | 0.07 | 0.17 | 0.13 | 0.25 | 0.20 | 0.11 |
| +16 | 0.21 | 0.14 | 0.20 | 0.13 | 0.07 | 0.18 | 0.11 | 0.24 | 0.20 | 0.09 |
| +17 | 0.21 | 0.14 | 0.20 | 0.12 | 0.06 | 0.19 | 0.10 | 0.24 | 0.20 | 0.08 |
| +18 | 0.20 | 0.14 | 0.19 | 0.11 | 0.06 | 0.20 | 0.08 | 0.23 | 0.20 | 0.06 |
| +19 | 0.19 | 0.14 | 0.19 | 0.10 | 0.05 | 0.21 | 0.07 | 0.22 | 0.20 | 0.04 |
| +20 | 0.19 | 0.14 | 0.19 | 0.09 | 0.04 | 0.23 | 0.05 | 0.21 | 0.20 | 0.02 |

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 25°C.

| Freq. (MHz) | Harmonics levels vs. Output Frequency (dBc) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | F2 | | | | | F3 | | | | |
| | -50 dBm | -40 dBm | -20 dBm | 0 dBm | +20 dBm | -50 dBm | -40 dBm | -20 dBm | 0 dBm | +20 dBm |
| 8000 | -43.99 | -45.84 | -49.46 | -48.76 | -49.55 | -55.04 | -42.26 | -54.89 | -79.92 | -80.44 |
| 8100 | -57.17 | -42.75 | -54.37 | -55.10 | -51.34 | -51.05 | -45.70 | -58.98 | -80.09 | -83.72 |
| 8200 | -52.95 | -44.03 | -62.25 | -60.17 | -52.82 | -58.51 | -41.03 | -56.64 | -82.37 | -81.43 |
| 8300 | -51.74 | -48.84 | -61.44 | -61.43 | -54.02 | -54.21 | -37.84 | -58.24 | -81.06 | -85.11 |
| 8400 | -51.15 | -44.81 | -66.87 | -59.33 | -54.90 | -56.34 | -35.93 | -61.28 | -85.65 | -89.41 |
| 8500 | -49.14 | -44.35 | -57.64 | -57.41 | -55.30 | -53.19 | -39.77 | -61.66 | -79.25 | -87.53 |
| 8600 | -52.12 | -42.05 | -58.70 | -56.04 | -55.20 | -53.72 | -35.96 | -57.20 | -72.89 | -86.61 |
| 8700 | -53.43 | -39.67 | -58.39 | -55.43 | -55.27 | -57.02 | -40.64 | -53.84 | -77.50 | -89.61 |
| 8800 | -50.35 | -41.29 | -57.88 | -54.76 | -55.93 | -51.79 | -37.17 | -61.75 | -78.37 | -85.96 |
| 8900 | -51.35 | -37.10 | -56.58 | -54.36 | -55.62 | -56.10 | -40.22 | -57.18 | -79.43 | -82.14 |
| 9000 | -46.80 | -41.70 | -54.22 | -54.56 | -56.07 | -54.08 | -41.38 | -54.33 | -78.89 | -88.49 |
| 9100 | -41.90 | -39.63 | -56.02 | -54.95 | -57.17 | -50.27 | -35.73 | -60.87 | -84.81 | -83.73 |
| 9200 | -38.16 | -38.09 | -57.56 | -55.66 | -58.76 | -56.64 | -40.65 | -61.44 | -83.55 | -87.81 |
| 9300 | -39.35 | -38.32 | -53.91 | -55.96 | -61.22 | -55.31 | -37.36 | -57.78 | -77.91 | -85.30 |
| 9400 | -36.93 | -41.60 | -55.48 | -56.86 | -65.91 | -53.13 | -41.35 | -59.49 | -78.63 | -83.04 |
| 9500 | -36.08 | -48.46 | -54.75 | -58.51 | -72.85 | -48.70 | -43.85 | -62.52 | -78.39 | -80.46 |
| 9600 | -37.35 | -41.49 | -58.32 | -60.42 | -71.04 | -54.27 | -48.25 | -60.19 | -77.77 | -78.21 |
| 9700 | -36.62 | -40.14 | -64.44 | -60.89 | -63.86 | -49.22 | -40.30 | -58.65 | -85.61 | -75.69 |
| 9800 | -38.72 | -39.03 | -60.04 | -61.18 | -59.41 | -46.82 | -43.19 | -56.64 | -77.14 | -74.81 |
| 9900 | -35.99 | -38.66 | -60.16 | -63.05 | -55.84 | -51.66 | -35.29 | -58.63 | -84.45 | -74.79 |
| 10000 | -35.23 | -36.50 | -58.23 | -64.64 | -53.25 | -50.23 | -39.79 | -59.17 | -79.12 | -67.88 |
| 10100 | -36.96 | -39.61 | -58.19 | -71.66 | -50.23 | -53.26 | -36.55 | -60.99 | -80.41 | -64.69 |
| 10200 | -38.00 | -40.06 | -54.53 | -63.46 | -50.17 | -52.28 | -38.28 | -60.62 | -80.51 | -61.46 |
| 10300 | -35.92 | -38.75 | -57.87 | -71.32 | -48.48 | -55.78 | -36.41 | -59.19 | -82.37 | -57.26 |
| 10400 | -35.45 | -46.77 | -56.73 | -72.35 | -49.17 | -58.28 | -37.33 | -58.57 | -85.08 | -56.21 |
| 10500 | -38.23 | -38.37 | -59.87 | -75.72 | -50.53 | -54.98 | -38.64 | -63.25 | -80.94 | -58.75 |
| 10600 | -38.33 | -38.97 | -64.70 | -73.99 | -51.94 | -52.31 | -37.93 | -57.62 | -79.65 | -62.57 |
| 10700 | -35.13 | -42.51 | -58.45 | -80.34 | -52.39 | -52.93 | -40.12 | -58.58 | -80.12 | -65.29 |
| 10800 | -43.64 | -39.11 | -58.86 | -79.25 | -53.69 | -52.26 | -38.29 | -64.41 | -80.31 | -69.67 |
| 10900 | -41.30 | -42.67 | -68.05 | -77.92 | -56.56 | -55.83 | -42.21 | -63.73 | -81.70 | -71.37 |
| 11000 | -40.69 | -38.15 | -55.97 | -76.85 | -58.00 | -55.10 | -39.62 | -60.49 | -83.64 | -70.97 |
| 11100 | -39.49 | -41.32 | -59.21 | -75.20 | -58.70 | -50.62 | -38.51 | -58.48 | -79.56 | -69.09 |
| 11200 | -44.24 | -42.16 | -62.19 | -75.65 | -60.77 | -52.03 | -38.68 | -58.45 | -76.03 | -75.00 |
| 11300 | -46.90 | -42.09 | -61.97 | -78.02 | -60.46 | -52.50 | -40.81 | -65.24 | -79.43 | -87.35 |
| 11400 | -52.04 | -46.11 | -59.08 | -77.96 | -60.95 | -58.09 | -41.55 | -61.26 | -82.82 | -82.97 |
| 11500 | -49.26 | -41.62 | -66.95 | -81.02 | -61.22 | -56.85 | -38.30 | -63.60 | -79.41 | -79.88 |
| 11600 | -52.47 | -45.08 | -61.97 | -74.70 | -64.11 | -56.05 | -39.56 | -56.47 | -82.33 | -82.67 |
| 11700 | -49.36 | -42.51 | -57.41 | -73.41 | -65.44 | -48.70 | -35.72 | -59.46 | -75.56 | -84.09 |
| 11800 | -52.68 | -41.11 | -60.62 | -75.73 | -67.08 | -50.11 | -37.66 | -58.59 | -73.89 | -82.76 |
| 11900 | -51.00 | -37.78 | -64.93 | -77.37 | -68.15 | -48.81 | -35.01 | -54.45 | -73.95 | -75.50 |
| 12000 | -56.47 | -36.29 | -64.46 | -74.29 | -67.72 | -49.50 | -33.75 | -53.62 | -79.11 | -83.78 |
| 12100 | -50.94 | -43.20 | -59.45 | -71.97 | -67.82 | -52.86 | -35.86 | -54.73 | -73.74 | -84.61 |
| 12200 | -51.86 | -40.04 | -61.36 | -74.66 | -69.18 | -45.80 | -32.37 | -54.15 | -74.28 | -88.76 |
| 12300 | -53.16 | -49.46 | -69.12 | -76.05 | -67.43 | -50.08 | -34.87 | -54.21 | -76.41 | -86.31 |
| 12400 | -52.82 | -38.71 | -61.03 | -68.41 | -62.50 | -49.26 | -39.46 | -51.80 | -71.83 | -86.35 |
| 12500 | -49.60 | -36.54 | -60.28 | -68.90 | -60.92 | -52.10 | -38.30 | -51.04 | -75.90 | -88.66 |

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 25°C.

| Freq. (MHz) | Phase Noise vs. Output Frequency (dBc / Hz) | | | | |
|---|---|---|---|---|---|
| | 1 kHz | 10 kHz | 100 kHz | 1 MHz | 10 MHz |
| 8000 | -97.38 | -107.98 | -113.01 | -121.13 | -134.49 |
| 8100 | -97.08 | -108.29 | -113.55 | -121.46 | -133.83 |
| 8200 | -96.86 | -107.99 | -113.08 | -120.55 | -134.78 |
| 8300 | -97.42 | -108.12 | -113.28 | -119.95 | -134.36 |
| 8400 | -96.85 | -107.86 | -112.97 | -119.74 | -134.90 |
| 8500 | -96.48 | -107.88 | -113.11 | -118.99 | -134.50 |
| 8600 | -96.86 | -107.55 | -112.61 | -119.66 | -134.34 |
| 8700 | -96.69 | -107.01 | -112.06 | -121.91 | -134.28 |
| 8800 | -96.46 | -106.94 | -111.97 | -121.77 | -133.89 |
| 8900 | -96.64 | -107.07 | -111.93 | -120.27 | -133.50 |
| 9000 | -96.58 | -106.93 | -112.11 | -121.11 | -133.03 |
| 9100 | -96.20 | -107.10 | -112.02 | -120.27 | -133.67 |
| 9200 | -96.15 | -106.92 | -111.73 | -119.43 | -134.10 |
| 9300 | -96.03 | -106.69 | -111.56 | -119.33 | -134.08 |
| 9400 | -95.80 | -106.54 | -111.72 | -119.74 | -134.26 |
| 9500 | -95.87 | -106.62 | -111.71 | -119.35 | -133.96 |
| 9600 | -96.23 | -106.43 | -111.64 | -118.28 | -134.03 |
| 9700 | -96.13 | -106.04 | -111.67 | -118.30 | -133.87 |
| 9800 | -95.62 | -106.30 | -111.21 | -118.83 | -134.05 |
| 9900 | -95.95 | -106.20 | -111.42 | -118.54 | -133.48 |
| 10000 | -95.54 | -106.16 | -111.18 | -119.78 | -133.68 |
| 10100 | -95.50 | -106.15 | -111.24 | -119.52 | -134.52 |
| 10200 | -95.18 | -105.72 | -110.74 | -119.24 | -133.66 |
| 10300 | -95.32 | -106.16 | -110.71 | -118.06 | -134.93 |
| 10400 | -94.96 | -105.87 | -111.14 | -118.31 | -134.70 |
| 10500 | -95.21 | -105.52 | -110.57 | -117.86 | -133.80 |
| 10600 | -94.91 | -105.59 | -110.42 | -117.69 | -134.20 |
| 10700 | -94.85 | -105.55 | -110.64 | -117.26 | -133.93 |
| 10800 | -94.94 | -105.47 | -110.62 | -116.79 | -134.27 |
| 10900 | -94.90 | -105.23 | -110.48 | -116.92 | -134.07 |
| 11000 | -94.68 | -105.17 | -110.56 | -116.57 | -133.96 |
| 11100 | -94.79 | -105.40 | -110.35 | -118.77 | -133.37 |
| 11200 | -94.60 | -105.10 | -109.95 | -116.61 | -134.49 |
| 11300 | -94.46 | -105.29 | -110.26 | -116.88 | -134.03 |
| 11400 | -94.70 | -105.14 | -110.11 | -116.35 | -134.06 |
| 11500 | -94.18 | -105.13 | -109.96 | -115.63 | -133.93 |
| 11600 | -94.37 | -105.10 | -109.91 | -116.51 | -133.74 |
| 11700 | -94.15 | -105.03 | -110.13 | -116.34 | -134.76 |
| 11800 | -93.88 | -104.82 | -110.00 | -115.15 | -133.71 |
| 11900 | -93.90 | -104.59 | -109.89 | -115.49 | -134.11 |
| 12000 | -93.97 | -105.01 | -109.84 | -113.76 | -133.92 |
| 12100 | -93.69 | -104.39 | -109.10 | -114.84 | -133.10 |
| 12200 | -93.43 | -104.48 | -109.57 | -114.79 | -135.19 |
| 12300 | -93.58 | -104.56 | -109.88 | -114.08 | -133.64 |
| 12400 | -93.56 | -104.52 | -109.50 | -114.11 | -133.96 |
| 12500 | -93.88 | -104.69 | -109.87 | -113.05 | -135.33 |

| Freq. (MHz) | Power (dBM) Max |
|---|---|
| 8000 | 24.23 |
| 8100 | 24.23 |
| 8200 | 24.24 |
| 8300 | 24.18 |
| 8400 | 24.12 |
| 8500 | 24.09 |
| 8600 | 24.04 |
| 8700 | 23.99 |
| 8800 | 24.01 |
| 8900 | 24.00 |
| 9000 | 23.99 |
| 9100 | 23.99 |
| 9200 | 23.99 |
| 9300 | 23.98 |
| 9400 | 24.05 |
| 9500 | 23.97 |
| 9600 | 23.99 |
| 9700 | 23.89 |
| 9800 | 23.78 |
| 9900 | 23.56 |
| 10000 | 23.09 |
| 10100 | 22.56 |
| 10200 | 22.04 |
| 10300 | 21.83 |
| 10400 | 21.97 |
| 10500 | 22.11 |
| 10600 | 22.20 |
| 10700 | 22.36 |
| 10800 | 22.41 |
| 10900 | 22.54 |
| 11000 | 22.50 |
| 11100 | 22.57 |
| 11200 | 22.72 |
| 11300 | 22.81 |
| 11400 | 23.02 |
| 11500 | 23.22 |
| 11600 | 23.44 |
| 11700 | 23.53 |
| 11800 | 23.52 |
| 11900 | 23.48 |
| 12000 | 23.31 |
| 12100 | 23.14 |
| 12200 | 22.91 |
| 12300 | 22.73 |
| 12400 | 22.50 |
| 12500 | 22.07 |

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 25°C.

| Freq. Offsets (kHz) | Phase Noise vs. Offset Frequency (dBc / Hz) | | | | | |
|---|---|---|---|---|---|---|
| | 8.0 GHz | 9.0 GHz | 10.0 GHz | 11.0 GHz | 12.0 GHz | 12.5 GHz |
| 1 | -97.38 | -96.58 | -95.54 | -94.68 | -93.97 | -93.88 |
| 10 | -107.98 | -106.93 | -106.16 | -105.17 | -105.01 | -104.69 |
| 100 | -113.01 | -112.11 | -111.18 | -110.56 | -109.84 | -109.87 |
| 1000 | -121.13 | -121.11 | -119.78 | -116.57 | -113.76 | -113.05 |
| 10000 | -134.49 | -133.03 | -133.68 | -133.96 | -133.92 | -135.33 |

| Freq. (MHz) | Spurious (dBc) | |
|---|---|---|
| | Far | Near |
| 8000 | -68.83 | -39.02 |
| 8100 | -68.64 | -39.12 |
| 8200 | -68.75 | -38.98 |
| 8300 | -69.65 | -38.95 |
| 8400 | -68.44 | -38.70 |
| 8500 | -68.99 | -38.81 |
| 8600 | -67.92 | -38.82 |
| 8700 | -68.07 | -38.73 |
| 8800 | -68.77 | -38.79 |
| 8900 | -67.21 | -38.66 |
| 9000 | -68.07 | -38.43 |
| 9100 | -68.04 | -38.53 |
| 9200 | -68.46 | -38.20 |
| 9300 | -68.19 | -38.09 |
| 9400 | -68.70 | -37.99 |
| 9500 | -68.34 | -38.08 |
| 9600 | -68.31 | -37.87 |
| 9700 | -68.23 | -38.07 |
| 9800 | -68.18 | -37.97 |
| 9900 | -68.36 | -37.93 |
| 10000 | -68.96 | -37.85 |
| 10100 | -69.50 | -37.67 |
| 10200 | -68.72 | -37.40 |
| 10300 | -69.30 | -37.24 |
| 10400 | -67.21 | -37.00 |
| 10500 | -69.16 | -36.94 |
| 10600 | -67.99 | -37.02 |
| 10700 | -68.91 | -37.00 |
| 10800 | -67.63 | -36.95 |
| 10900 | -68.04 | -37.15 |
| 11000 | -68.03 | -37.01 |
| 11100 | -67.37 | -37.13 |
| 11200 | -67.18 | -37.10 |
| 11300 | -67.85 | -37.15 |
| 11400 | -66.43 | -37.32 |
| 11500 | -68.80 | -37.61 |
| 11600 | -68.54 | -37.80 |
| 11700 | -68.41 | -38.35 |
| 11800 | -67.93 | -38.54 |
| 11900 | -68.41 | -39.31 |
| 12000 | -67.74 | -39.45 |
| 12100 | -68.80 | -39.84 |
| 12200 | -68.17 | -40.21 |
| 12300 | -68.75 | -40.47 |
| 12400 | -69.15 | -40.51 |
| 12500 | -67.94 | -40.25 |

**Note:** Spurious was measured in offsets of 1 MHz to 150 MHz (Far) and 1 kHz to 1 MHz (Near).

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 50°C.

| Freq. (MHz) | Power deviation from nominal vs. Output Frequency (dB) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | -50 dBm | -45 dBm | -40 dBm | -30 dBm | -20 dBm | -10 dBm | 0 dBm | +10 dBm | +15 dBm | +20 dBm |
| 8000 | -0.05 | -0.22 | -0.28 | -0.19 | 0.14 | 0.06 | 0.00 | 0.10 | 0.04 | -0.06 |
| 8100 | -0.23 | -0.21 | -0.16 | -0.23 | 0.05 | -0.02 | -0.02 | 0.07 | 0.00 | -0.02 |
| 8200 | -0.35 | -0.17 | -0.32 | -0.18 | 0.19 | 0.11 | 0.08 | 0.18 | 0.12 | 0.07 |
| 8300 | -0.11 | -0.03 | -0.26 | -0.32 | -0.06 | -0.08 | -0.15 | -0.01 | -0.04 | -0.07 |
| 8400 | -0.29 | -0.47 | -0.37 | -0.21 | 0.02 | -0.07 | -0.18 | -0.05 | -0.04 | -0.05 |
| 8500 | -0.39 | -0.39 | -0.38 | -0.45 | -0.23 | -0.24 | -0.21 | -0.11 | -0.14 | -0.13 |
| 8600 | -0.58 | -0.38 | -0.43 | -0.22 | -0.01 | -0.14 | -0.12 | -0.04 | 0.06 | -0.02 |
| 8700 | -0.22 | -0.52 | -0.47 | -0.47 | -0.14 | -0.15 | -0.23 | -0.20 | -0.03 | -0.11 |
| 8800 | -0.13 | -0.13 | -0.28 | -0.10 | 0.16 | 0.07 | 0.00 | 0.09 | 0.20 | 0.10 |
| 8900 | -0.16 | -0.22 | -0.24 | -0.29 | -0.10 | -0.13 | -0.18 | -0.12 | 0.01 | -0.02 |
| 9000 | -0.31 | -0.49 | -0.44 | -0.37 | -0.07 | -0.17 | -0.18 | -0.09 | -0.04 | -0.12 |
| 9100 | -0.28 | -0.40 | -0.39 | -0.46 | -0.24 | -0.29 | -0.37 | -0.27 | -0.19 | -0.25 |
| 9200 | -0.27 | -0.39 | -0.34 | -0.30 | -0.01 | -0.13 | -0.16 | 0.03 | -0.02 | -0.06 |
| 9300 | -0.36 | -0.32 | -0.31 | -0.30 | -0.26 | -0.23 | -0.25 | -0.17 | -0.17 | -0.20 |
| 9400 | -0.37 | -0.46 | -0.43 | -0.38 | -0.08 | -0.19 | -0.12 | 0.06 | -0.01 | 0.00 |
| 9500 | -0.20 | -0.19 | -0.22 | -0.24 | -0.18 | -0.22 | -0.25 | -0.10 | -0.16 | -0.16 |
| 9600 | -0.44 | -0.58 | -0.54 | -0.47 | -0.28 | -0.20 | -0.23 | -0.25 | -0.13 | -0.13 |
| 9700 | -0.22 | -0.21 | -0.31 | -0.34 | -0.20 | -0.21 | -0.28 | -0.19 | -0.17 | -0.22 |
| 9800 | -0.44 | -0.37 | -0.35 | -0.32 | -0.17 | -0.07 | -0.04 | 0.05 | -0.05 | -0.07 |
| 9900 | -0.34 | -0.25 | -0.22 | -0.18 | -0.13 | -0.15 | -0.21 | -0.08 | -0.03 | -0.09 |
| 10000 | -0.23 | -0.23 | -0.34 | -0.43 | -0.28 | -0.28 | -0.30 | -0.26 | -0.16 | -0.23 |
| 10100 | -0.29 | -0.33 | -0.38 | -0.30 | -0.11 | -0.17 | -0.22 | -0.19 | -0.04 | -0.25 |
| 10200 | -0.20 | -0.19 | -0.27 | -0.43 | -0.22 | -0.29 | -0.28 | -0.18 | -0.16 | -0.30 |
| 10300 | -0.41 | -0.43 | -0.48 | -0.25 | -0.04 | -0.18 | -0.21 | -0.22 | -0.15 | -0.25 |
| 10400 | -0.24 | -0.16 | -0.19 | -0.19 | -0.10 | -0.25 | -0.25 | -0.17 | -0.05 | -0.24 |
| 10500 | -0.39 | -0.34 | -0.27 | -0.06 | 0.02 | 0.01 | -0.02 | 0.00 | 0.04 | -0.13 |
| 10600 | -0.03 | -0.09 | -0.09 | -0.10 | -0.04 | -0.17 | -0.18 | -0.18 | -0.05 | -0.36 |
| 10700 | -0.16 | -0.11 | -0.35 | -0.24 | -0.05 | 0.01 | -0.02 | -0.11 | 0.04 | -0.23 |
| 10800 | -0.07 | -0.09 | -0.10 | -0.14 | -0.04 | -0.11 | -0.22 | -0.17 | -0.09 | -0.31 |
| 10900 | -0.37 | -0.26 | -0.40 | -0.20 | 0.06 | 0.18 | 0.08 | -0.06 | 0.14 | -0.14 |
| 11000 | 0.09 | -0.06 | 0.07 | 0.06 | -0.05 | -0.19 | -0.20 | -0.22 | -0.08 | -0.23 |
| 11100 | -0.23 | -0.24 | -0.29 | -0.36 | -0.10 | 0.00 | 0.01 | -0.01 | 0.03 | -0.12 |
| 11200 | 0.17 | 0.03 | -0.12 | -0.20 | -0.14 | -0.40 | -0.37 | -0.31 | -0.25 | -0.20 |
| 11300 | -0.31 | -0.34 | -0.40 | -0.41 | -0.20 | -0.06 | -0.13 | -0.17 | -0.03 | -0.11 |
| 11400 | 0.13 | 0.02 | -0.10 | -0.09 | -0.16 | -0.33 | -0.32 | -0.21 | -0.16 | -0.09 |
| 11500 | -0.16 | -0.41 | -0.34 | -0.28 | -0.09 | -0.10 | -0.08 | 0.04 | 0.12 | 0.07 |
| 11600 | -0.24 | -0.31 | -0.31 | -0.26 | -0.07 | -0.14 | -0.13 | -0.18 | -0.03 | -0.13 |
| 11700 | -0.39 | -0.30 | -0.34 | -0.35 | -0.05 | -0.16 | -0.13 | -0.08 | 0.07 | -0.02 |
| 11800 | -0.80 | -0.58 | -0.48 | -0.46 | -0.18 | -0.26 | -0.25 | -0.18 | -0.10 | -0.13 |
| 11900 | -1.03 | -0.67 | -0.43 | -0.28 | -0.13 | -0.27 | -0.25 | -0.14 | -0.10 | -0.11 |
| 12000 | -0.13 | -0.17 | -0.30 | -0.33 | -0.13 | -0.07 | -0.12 | -0.08 | -0.02 | 0.02 |
| 12100 | -0.35 | -0.18 | -0.17 | -0.16 | 0.11 | -0.12 | -0.08 | -0.03 | 0.01 | 0.07 |
| 12200 | 0.25 | 0.13 | -0.02 | -0.18 | 0.00 | -0.04 | -0.03 | 0.07 | 0.07 | 0.04 |
| 12300 | 0.56 | 0.30 | 0.07 | 0.20 | 0.32 | 0.13 | 0.10 | 0.16 | 0.16 | 0.09 |
| 12400 | -0.14 | -0.10 | -0.14 | -0.11 | 0.24 | 0.23 | 0.26 | 0.36 | 0.20 | 0.14 |
| 12500 | -0.59 | -0.45 | -0.37 | -0.20 | 0.01 | -0.14 | -0.10 | -0.03 | -0.16 | -0.22 |

# Signal Generator SSG-8N12GD-RC

## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 50°C.

| Power (dBm) | Power deviation from nominal vs. Output Power (dB) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 8.0 GHz | 8.5 GHz | 9.0 GHz | 9.5 GHz | 10.0 GHz | 10.5 GHz | 11.0 GHz | 11.5 GHz | 12.0 GHz | 12.5 GHz |
| -50 | -0.05 | -0.39 | -0.31 | -0.20 | -0.23 | -0.39 | 0.09 | -0.16 | -0.13 | -0.59 |
| -49 | -0.08 | -0.39 | -0.35 | -0.20 | -0.23 | -0.38 | 0.06 | -0.21 | -0.14 | -0.57 |
| -48 | -0.12 | -0.39 | -0.38 | -0.19 | -0.23 | -0.37 | 0.03 | -0.26 | -0.15 | -0.54 |
| -47 | -0.15 | -0.39 | -0.42 | -0.19 | -0.23 | -0.36 | 0.00 | -0.31 | -0.16 | -0.51 |
| -46 | -0.18 | -0.39 | -0.46 | -0.19 | -0.23 | -0.35 | -0.03 | -0.36 | -0.16 | -0.48 |
| -45 | -0.22 | -0.39 | -0.49 | -0.19 | -0.23 | -0.34 | -0.06 | -0.41 | -0.17 | -0.45 |
| -44 | -0.23 | -0.39 | -0.48 | -0.20 | -0.25 | -0.33 | -0.03 | -0.40 | -0.20 | -0.44 |
| -43 | -0.24 | -0.38 | -0.47 | -0.20 | -0.27 | -0.32 | -0.01 | -0.38 | -0.22 | -0.42 |
| -42 | -0.26 | -0.38 | -0.46 | -0.21 | -0.30 | -0.30 | 0.02 | -0.37 | -0.25 | -0.40 |
| -41 | -0.27 | -0.38 | -0.45 | -0.22 | -0.32 | -0.29 | 0.05 | -0.35 | -0.27 | -0.38 |
| -40 | -0.28 | -0.38 | -0.44 | -0.22 | -0.34 | -0.27 | 0.07 | -0.34 | -0.30 | -0.37 |
| -38 | -0.30 | -0.36 | -0.44 | -0.22 | -0.35 | -0.23 | 0.05 | -0.36 | -0.33 | -0.35 |
| -36 | -0.31 | -0.34 | -0.44 | -0.21 | -0.36 | -0.19 | 0.03 | -0.38 | -0.36 | -0.33 |
| -34 | -0.29 | -0.35 | -0.42 | -0.21 | -0.38 | -0.15 | 0.03 | -0.36 | -0.37 | -0.30 |
| -32 | -0.24 | -0.40 | -0.39 | -0.23 | -0.41 | -0.10 | 0.04 | -0.32 | -0.35 | -0.25 |
| -30 | -0.19 | -0.45 | -0.37 | -0.24 | -0.43 | -0.06 | 0.06 | -0.28 | -0.33 | -0.20 |
| -28 | -0.17 | -0.43 | -0.35 | -0.24 | -0.38 | 0.00 | 0.04 | -0.19 | -0.25 | -0.13 |
| -26 | -0.14 | -0.41 | -0.34 | -0.23 | -0.33 | 0.06 | 0.02 | -0.09 | -0.18 | -0.07 |
| -24 | -0.07 | -0.37 | -0.28 | -0.22 | -0.30 | 0.07 | 0.00 | -0.05 | -0.14 | -0.02 |
| -22 | 0.03 | -0.30 | -0.18 | -0.20 | -0.29 | 0.04 | -0.03 | -0.07 | -0.13 | -0.01 |
| -20 | 0.14 | -0.23 | -0.07 | -0.18 | -0.28 | 0.02 | -0.05 | -0.09 | -0.13 | 0.01 |
| -18 | 0.10 | -0.24 | -0.09 | -0.17 | -0.27 | 0.01 | -0.03 | -0.08 | -0.13 | -0.01 |
| -16 | 0.06 | -0.26 | -0.12 | -0.16 | -0.27 | 0.01 | 0.00 | -0.07 | -0.13 | -0.03 |
| -14 | 0.04 | -0.26 | -0.13 | -0.17 | -0.27 | 0.01 | -0.03 | -0.08 | -0.12 | -0.06 |
| -12 | 0.05 | -0.25 | -0.15 | -0.20 | -0.27 | 0.01 | -0.11 | -0.09 | -0.09 | -0.10 |
| -10 | 0.06 | -0.24 | -0.17 | -0.22 | -0.28 | 0.01 | -0.19 | -0.10 | -0.07 | -0.14 |
| -8 | 0.02 | -0.22 | -0.15 | -0.24 | -0.30 | -0.02 | -0.19 | -0.13 | -0.08 | -0.13 |
| -6 | -0.03 | -0.19 | -0.14 | -0.26 | -0.33 | -0.05 | -0.19 | -0.15 | -0.08 | -0.12 |
| -4 | -0.04 | -0.19 | -0.14 | -0.26 | -0.33 | -0.05 | -0.20 | -0.14 | -0.09 | -0.11 |
| -2 | -0.02 | -0.20 | -0.16 | -0.25 | -0.32 | -0.04 | -0.20 | -0.11 | -0.10 | -0.11 |
| 0 | 0.00 | -0.21 | -0.18 | -0.25 | -0.30 | -0.02 | -0.20 | -0.08 | -0.12 | -0.10 |
| +2 | 0.02 | -0.17 | -0.14 | -0.21 | -0.29 | -0.02 | -0.21 | -0.04 | -0.09 | -0.07 |
| +4 | 0.04 | -0.14 | -0.10 | -0.17 | -0.28 | -0.01 | -0.22 | 0.00 | -0.07 | -0.03 |
| +6 | 0.06 | -0.12 | -0.09 | -0.14 | -0.27 | -0.01 | -0.23 | 0.02 | -0.07 | -0.02 |
| +8 | 0.08 | -0.12 | -0.09 | -0.12 | -0.27 | -0.01 | -0.22 | 0.03 | -0.07 | -0.02 |
| +10 | 0.10 | -0.11 | -0.09 | -0.10 | -0.26 | 0.00 | -0.22 | 0.04 | -0.08 | -0.03 |
| +11 | 0.09 | -0.12 | -0.08 | -0.11 | -0.24 | 0.01 | -0.19 | 0.06 | -0.06 | -0.05 |
| +12 | 0.08 | -0.12 | -0.07 | -0.12 | -0.22 | 0.01 | -0.16 | 0.07 | -0.05 | -0.08 |
| +13 | 0.06 | -0.13 | -0.06 | -0.14 | -0.20 | 0.02 | -0.14 | 0.09 | -0.04 | -0.11 |
| +14 | 0.05 | -0.13 | -0.05 | -0.15 | -0.18 | 0.03 | -0.11 | 0.11 | -0.03 | -0.13 |
| +15 | 0.04 | -0.14 | -0.04 | -0.16 | -0.16 | 0.04 | -0.08 | 0.12 | -0.02 | -0.16 |
| +16 | 0.02 | -0.14 | -0.06 | -0.16 | -0.18 | 0.01 | -0.11 | 0.11 | -0.01 | -0.17 |
| +17 | 0.00 | -0.14 | -0.08 | -0.16 | -0.19 | -0.03 | -0.14 | 0.10 | 0.00 | -0.18 |
| +18 | -0.02 | -0.14 | -0.09 | -0.16 | -0.20 | -0.06 | -0.17 | 0.09 | 0.01 | -0.20 |
| +19 | -0.04 | -0.13 | -0.11 | -0.16 | -0.21 | -0.09 | -0.20 | 0.08 | 0.01 | -0.21 |
| +20 | -0.06 | -0.13 | -0.12 | -0.16 | -0.23 | -0.13 | -0.23 | 0.07 | 0.02 | -0.22 |

# Signal Generator



## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 50°C.

| Freq. (MHz) | Harmonics levels vs. Output Frequency (dBc) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | F2 | | | | | F3 | | | | |
| | -50 dBm | -40 dBm | -20 dBm | 0 dBm | +20 dBm | -50 dBm | -40 dBm | -20 dBm | 0 dBm | +20 dBm |
| 8000 | -57.05 | -42.02 | -48.22 | -51.11 | -50.06 | -53.19 | -37.94 | -63.78 | -83.42 | -81.38 |
| 8100 | -53.12 | -45.45 | -53.93 | -57.56 | -51.89 | -52.55 | -45.10 | -62.59 | -77.60 | -83.90 |
| 8200 | -54.12 | -43.13 | -59.28 | -62.11 | -53.19 | -52.04 | -39.87 | -61.91 | -81.83 | -80.24 |
| 8300 | -54.33 | -46.47 | -66.89 | -60.69 | -54.42 | -52.25 | -43.41 | -61.27 | -82.38 | -89.78 |
| 8400 | -52.48 | -41.74 | -60.52 | -58.70 | -55.30 | -54.90 | -41.64 | -59.05 | -77.84 | -83.96 |
| 8500 | -53.85 | -42.61 | -56.94 | -57.74 | -55.68 | -52.15 | -40.83 | -64.89 | -79.51 | -92.85 |
| 8600 | -55.27 | -44.66 | -60.32 | -56.80 | -55.61 | -53.80 | -34.87 | -61.88 | -75.22 | -83.33 |
| 8700 | -51.93 | -47.04 | -58.65 | -56.30 | -55.86 | -53.20 | -40.19 | -60.60 | -84.97 | -85.31 |
| 8800 | -55.29 | -42.89 | -62.42 | -55.60 | -56.12 | -49.77 | -38.14 | -57.26 | -80.80 | -90.39 |
| 8900 | -51.49 | -41.60 | -57.78 | -55.93 | -56.07 | -56.17 | -40.47 | -57.57 | -79.00 | -89.87 |
| 9000 | -45.54 | -39.80 | -59.58 | -55.51 | -56.47 | -53.31 | -37.07 | -64.24 | -81.52 | -87.61 |
| 9100 | -41.49 | -41.01 | -58.02 | -55.95 | -57.72 | -57.97 | -39.34 | -59.33 | -75.71 | -88.21 |
| 9200 | -39.51 | -41.37 | -57.46 | -56.65 | -59.45 | -52.60 | -40.66 | -61.80 | -75.61 | -83.70 |
| 9300 | -41.84 | -42.24 | -55.81 | -57.24 | -62.05 | -52.99 | -43.62 | -57.33 | -78.18 | -83.81 |
| 9400 | -39.81 | -43.19 | -56.22 | -58.91 | -66.58 | -51.91 | -41.92 | -65.08 | -82.35 | -84.51 |
| 9500 | -38.76 | -41.86 | -61.17 | -60.37 | -74.75 | -54.29 | -46.24 | -58.92 | -81.23 | -80.26 |
| 9600 | -40.01 | -40.33 | -54.31 | -60.74 | -76.13 | -46.45 | -37.81 | -64.15 | -83.53 | -80.44 |
| 9700 | -37.46 | -39.16 | -61.63 | -63.33 | -65.19 | -55.06 | -39.38 | -60.85 | -80.73 | -76.74 |
| 9800 | -37.51 | -42.49 | -59.84 | -63.99 | -60.65 | -48.10 | -41.40 | -62.71 | -80.77 | -77.86 |
| 9900 | -36.51 | -38.91 | -61.40 | -66.05 | -57.04 | -52.31 | -35.04 | -55.06 | -82.54 | -75.33 |
| 10000 | -34.63 | -40.78 | -60.23 | -67.54 | -54.06 | -52.20 | -38.76 | -63.40 | -81.10 | -71.79 |
| 10100 | -35.35 | -39.74 | -58.96 | -73.80 | -51.09 | -51.76 | -39.05 | -57.84 | -77.92 | -65.58 |
| 10200 | -35.44 | -40.12 | -57.59 | -64.77 | -50.93 | -53.99 | -39.07 | -60.35 | -85.88 | -62.64 |
| 10300 | -35.56 | -38.07 | -57.82 | -76.37 | -49.33 | -52.02 | -43.40 | -58.54 | -77.62 | -58.31 |
| 10400 | -36.34 | -39.23 | -60.29 | -77.80 | -50.14 | -51.44 | -37.61 | -60.25 | -75.64 | -58.32 |
| 10500 | -39.87 | -42.76 | -59.40 | -74.56 | -51.35 | -53.23 | -36.91 | -59.15 | -79.34 | -61.24 |
| 10600 | -40.12 | -40.43 | -61.67 | -76.10 | -52.96 | -53.41 | -39.34 | -58.73 | -77.79 | -66.04 |
| 10700 | -36.48 | -41.59 | -62.28 | -82.29 | -53.64 | -50.90 | -37.45 | -61.42 | -86.04 | -68.44 |
| 10800 | -46.22 | -38.65 | -64.12 | -86.46 | -55.03 | -52.02 | -41.99 | -62.41 | -78.09 | -73.55 |
| 10900 | -41.98 | -40.08 | -61.80 | -80.00 | -57.62 | -52.46 | -39.38 | -58.74 | -78.46 | -75.22 |
| 11000 | -42.08 | -40.34 | -59.64 | -83.88 | -58.78 | -63.89 | -47.98 | -58.96 | -76.50 | -73.02 |
| 11100 | -44.58 | -40.29 | -58.55 | -76.94 | -59.67 | -55.60 | -39.61 | -56.08 | -77.45 | -72.92 |
| 11200 | -45.97 | -39.54 | -58.47 | -79.57 | -61.25 | -51.19 | -36.07 | -58.81 | -82.74 | -75.30 |
| 11300 | -50.13 | -39.67 | -61.40 | -76.97 | -60.77 | -56.39 | -40.16 | -59.98 | -82.95 | -80.32 |
| 11400 | -50.23 | -41.11 | -64.63 | -75.65 | -61.33 | -51.51 | -44.47 | -59.41 | -74.27 | -84.32 |
| 11500 | -50.66 | -37.39 | -58.48 | -79.60 | -61.89 | -50.07 | -31.78 | -57.05 | -77.37 | -89.59 |
| 11600 | -58.21 | -42.11 | -65.29 | -76.83 | -64.94 | -49.47 | -34.13 | -55.06 | -76.21 | -85.96 |
| 11700 | -59.27 | -47.19 | -61.04 | -80.99 | -66.12 | -49.15 | -32.81 | -55.86 | -80.24 | -83.59 |
| 11800 | -56.61 | -39.92 | -67.02 | -75.77 | -67.95 | -48.03 | -37.62 | -51.51 | -71.12 | -82.30 |
| 11900 | -51.59 | -39.42 | -59.09 | -77.33 | -68.69 | -48.71 | -32.55 | -49.61 | -72.50 | -79.58 |
| 12000 | -57.69 | -43.38 | -60.27 | -78.81 | -68.07 | -46.51 | -34.99 | -57.00 | -79.77 | -82.01 |
| 12100 | -54.00 | -37.81 | -59.38 | -75.99 | -68.05 | -55.60 | -34.39 | -58.22 | -74.59 | -83.50 |
| 12200 | -54.29 | -37.57 | -66.01 | -76.88 | -68.98 | -47.09 | -37.19 | -56.53 | -78.50 | -81.51 |
| 12300 | -56.74 | -40.90 | -59.27 | -78.08 | -68.09 | -50.19 | -34.02 | -52.10 | -71.68 | -82.39 |
| 12400 | -53.66 | -41.24 | -67.01 | -71.30 | -62.73 | -46.87 | -34.61 | -50.16 | -73.16 | -84.74 |
| 12500 | -55.81 | -39.29 | -63.54 | -75.52 | -61.47 | -54.72 | -32.45 | -58.01 | -79.29 | -88.21 |

# Signal Generator



## Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 50°C.

| Freq. (MHz) | Phase Noise vs. Output Frequency (dBc / Hz) | | | | |
|---|---|---|---|---|---|
| | 1 kHz | 10 kHz | 100 kHz | 1 MHz | 10 MHz |
| 8000 | -97.38 | -107.73 | -112.94 | -121.22 | -134.60 |
| 8100 | -96.94 | -107.70 | -112.62 | -121.31 | -134.58 |
| 8200 | -97.03 | -107.56 | -112.97 | -121.24 | -134.38 |
| 8300 | -96.57 | -107.22 | -112.50 | -120.60 | -133.90 |
| 8400 | -96.66 | -107.46 | -112.61 | -120.25 | -134.51 |
| 8500 | -96.83 | -107.35 | -112.43 | -119.13 | -134.41 |
| 8600 | -96.40 | -107.45 | -112.39 | -119.57 | -133.85 |
| 8700 | -96.51 | -106.97 | -111.49 | -122.04 | -134.06 |
| 8800 | -96.52 | -106.90 | -111.65 | -121.92 | -134.75 |
| 8900 | -96.28 | -106.62 | -111.33 | -121.69 | -134.39 |
| 9000 | -96.20 | -106.57 | -111.80 | -121.45 | -133.34 |
| 9100 | -96.12 | -106.54 | -111.22 | -121.65 | -134.64 |
| 9200 | -95.44 | -106.41 | -111.45 | -119.97 | -133.73 |
| 9300 | -96.08 | -106.47 | -111.16 | -120.35 | -135.65 |
| 9400 | -95.81 | -105.92 | -111.28 | -118.67 | -134.15 |
| 9500 | -95.83 | -106.15 | -110.83 | -120.92 | -134.18 |
| 9600 | -95.75 | -106.17 | -110.81 | -118.98 | -134.61 |
| 9700 | -95.82 | -105.88 | -110.90 | -119.53 | -133.79 |
| 9800 | -95.32 | -105.87 | -111.07 | -119.20 | -135.30 |
| 9900 | -95.29 | -105.74 | -110.90 | -117.92 | -133.67 |
| 10000 | -95.60 | -105.31 | -110.53 | -120.74 | -134.66 |
| 10100 | -95.11 | -105.67 | -110.40 | -119.52 | -134.68 |
| 10200 | -94.78 | -105.26 | -110.32 | -118.68 | -135.03 |
| 10300 | -94.85 | -105.30 | -110.40 | -119.67 | -135.79 |
| 10400 | -94.79 | -104.99 | -110.39 | -117.98 | -133.54 |
| 10500 | -94.74 | -104.89 | -110.01 | -117.79 | -134.47 |
| 10600 | -94.83 | -105.17 | -110.12 | -118.18 | -134.09 |
| 10700 | -94.62 | -105.02 | -110.23 | -118.29 | -134.36 |
| 10800 | -94.61 | -105.19 | -110.12 | -118.47 | -133.79 |
| 10900 | -94.47 | -104.77 | -110.25 | -117.20 | -133.90 |
| 11000 | -94.42 | -104.97 | -110.05 | -117.71 | -134.31 |
| 11100 | -94.05 | -104.73 | -109.79 | -118.44 | -133.60 |
| 11200 | -94.14 | -104.83 | -109.78 | -118.34 | -134.75 |
| 11300 | -94.05 | -104.60 | -109.52 | -118.30 | -133.60 |
| 11400 | -93.82 | -104.49 | -109.59 | -118.06 | -134.92 |
| 11500 | -94.07 | -104.44 | -109.83 | -116.92 | -133.60 |
| 11600 | -94.04 | -104.56 | -109.54 | -117.47 | -134.78 |
| 11700 | -94.24 | -104.45 | -109.46 | -116.71 | -133.18 |
| 11800 | -93.64 | -104.67 | -109.76 | -116.73 | -134.87 |
| 11900 | -93.95 | -104.04 | -109.15 | -115.67 | -134.97 |
| 12000 | -93.98 | -104.47 | -109.27 | -115.41 | -135.26 |
| 12100 | -93.44 | -103.89 | -108.89 | -116.05 | -133.92 |
| 12200 | -93.46 | -103.89 | -109.28 | -114.97 | -135.25 |
| 12300 | -93.76 | -104.58 | -109.86 | -113.91 | -134.14 |
| 12400 | -93.53 | -104.09 | -109.26 | -116.03 | -133.43 |
| 12500 | -93.57 | -104.23 | -109.39 | -114.86 | -134.96 |

| Freq. (MHz) | Power (dBM) Max |
|---|---|
| 8000 | 23.85 |
| 8100 | 23.86 |
| 8200 | 23.87 |
| 8300 | 23.82 |
| 8400 | 23.76 |
| 8500 | 23.73 |
| 8600 | 23.70 |
| 8700 | 23.63 |
| 8800 | 23.67 |
| 8900 | 23.66 |
| 9000 | 23.63 |
| 9100 | 23.63 |
| 9200 | 23.62 |
| 9300 | 23.57 |
| 9400 | 23.62 |
| 9500 | 23.52 |
| 9600 | 23.52 |
| 9700 | 23.40 |
| 9800 | 23.28 |
| 9900 | 23.04 |
| 10000 | 22.55 |
| 10100 | 22.04 |
| 10200 | 21.57 |
| 10300 | 21.39 |
| 10400 | 21.53 |
| 10500 | 21.67 |
| 10600 | 21.79 |
| 10700 | 21.93 |
| 10800 | 21.96 |
| 10900 | 22.08 |
| 11000 | 22.07 |
| 11100 | 22.15 |
| 11200 | 22.34 |
| 11300 | 22.41 |
| 11400 | 22.59 |
| 11500 | 22.73 |
| 11600 | 22.92 |
| 11700 | 22.99 |
| 11800 | 22.96 |
| 11900 | 22.92 |
| 12000 | 22.74 |
| 12100 | 22.58 |
| 12200 | 22.37 |
| 12300 | 22.21 |
| 12400 | 21.98 |
| 12500 | 21.55 |

# Signal Generator

## SSG-8N12GD-RC

### Typical Performance Data

Test Conditions: Channel 1 @ Temperature = 50°C.

| Freq. Offsets (kHz) | Phase Noise vs. Offset Frequency (dBc / Hz) | | | | | |
|---|---|---|---|---|---|---|
| | 8.0 GHz | 9.0 GHz | 10.0 GHz | 11.0 GHz | 12.0 GHz | 12.5 GHz |
| 1 | -97.38 | -96.20 | -95.60 | -94.42 | -93.98 | -93.57 |
| 10 | -107.73 | -106.57 | -105.31 | -104.97 | -104.47 | -104.23 |
| 100 | -112.94 | -111.80 | -110.53 | -110.05 | -109.27 | -109.39 |
| 1000 | -121.22 | -121.45 | -120.74 | -117.71 | -115.41 | -114.86 |
| 10000 | -134.60 | -133.34 | -134.66 | -134.31 | -135.26 | -134.96 |

| Freq. (MHz) | Spurious (dBc) | |
|---|---|---|
| | Far | Near |
| 8000 | -68.53 | -39.34 |
| 8100 | -68.82 | -39.28 |
| 8200 | -68.58 | -39.27 |
| 8300 | -67.65 | -39.23 |
| 8400 | -67.86 | -39.09 |
| 8500 | -67.92 | -39.14 |
| 8600 | -68.02 | -38.93 |
| 8700 | -67.37 | -38.98 |
| 8800 | -68.12 | -38.95 |
| 8900 | -67.99 | -38.80 |
| 9000 | -68.52 | -38.64 |
| 9100 | -66.36 | -38.61 |
| 9200 | -68.64 | -38.43 |
| 9300 | -67.26 | -38.49 |
| 9400 | -69.11 | -38.21 |
| 9500 | -68.38 | -38.20 |
| 9600 | -68.42 | -38.31 |
| 9700 | -67.57 | -38.26 |
| 9800 | -68.22 | -38.08 |
| 9900 | -68.18 | -38.24 |
| 10000 | -68.52 | -37.97 |
| 10100 | -68.01 | -37.74 |
| 10200 | -68.78 | -37.57 |
| 10300 | -67.84 | -37.39 |
| 10400 | -67.35 | -37.41 |
| 10500 | -67.58 | -37.14 |
| 10600 | -67.27 | -37.25 |
| 10700 | -67.34 | -37.30 |
| 10800 | -68.23 | -37.36 |
| 10900 | -68.38 | -37.31 |
| 11000 | -68.20 | -37.10 |
| 11100 | -68.66 | -37.43 |
| 11200 | -68.13 | -37.17 |
| 11300 | -67.87 | -37.61 |
| 11400 | -67.73 | -37.39 |
| 11500 | -67.38 | -37.90 |
| 11600 | -67.92 | -37.86 |
| 11700 | -67.84 | -38.65 |
| 11800 | -67.79 | -38.72 |
| 11900 | -68.21 | -38.94 |
| 12000 | -66.86 | -39.81 |
| 12100 | -67.71 | -39.67 |
| 12200 | -67.82 | -40.42 |
| 12300 | -67.61 | -40.44 |
| 12400 | -68.33 | -40.24 |
| 12500 | -67.80 | -39.95 |

**Note:** Spurious was measured in offsets of 1 MHz to 150 MHz (Far) and 1 kHz to 1 MHz (Near).