# Frequency Mixer ZP-2MH

## *Typical Performance Data*

| RF (IN) (MHz) | LO (MHz) | CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) @LO (dBm) | | |
|---|---|---|---|---|
| | | +10 | +13 | +16 |
| 10.1 | 40.1 | 6.12 | 5.68 | 5.39 |
| 50.4 | 80.4 | 6.18 | 5.77 | 5.50 |
| 90.7 | 120.7 | 6.16 | 5.70 | 5.44 |
| 131.0 | 161.0 | 6.06 | 5.62 | 5.41 |
| 171.3 | 201.3 | 6.13 | 5.65 | 5.42 |
| 211.5 | 241.5 | 5.94 | 5.54 | 5.36 |
| 251.8 | 281.8 | 6.06 | 5.62 | 5.40 |
| 292.1 | 322.1 | 5.96 | 5.55 | 5.39 |
| 332.4 | 362.4 | 5.93 | 5.61 | 5.43 |
| 372.7 | 402.7 | 5.96 | 5.62 | 5.44 |
| 413.0 | 443.0 | 5.85 | 5.55 | 5.40 |
| 453.3 | 483.3 | 5.98 | 5.61 | 5.45 |
| 493.6 | 523.6 | 5.99 | 5.67 | 5.45 |
| 533.9 | 563.9 | 6.00 | 5.74 | 5.54 |
| 574.2 | 604.2 | 6.02 | 5.77 | 5.61 |
| 614.4 | 644.4 | 6.10 | 5.76 | 5.59 |
| 654.7 | 684.7 | 6.14 | 5.83 | 5.65 |
| 695.0 | 725.0 | 6.14 | 5.91 | 5.74 |
| 735.3 | 765.3 | 6.25 | 6.03 | 5.86 |
| 775.6 | 805.6 | 6.25 | 6.07 | 5.92 |
| 815.9 | 845.9 | 6.31 | 6.14 | 6.01 |
| 856.2 | 886.2 | 6.38 | 6.15 | 6.00 |
| 896.5 | 926.5 | 6.61 | 6.27 | 6.06 |
| 916.6 | 946.6 | 6.65 | 6.29 | 6.09 |
| 956.9 | 986.9 | 6.79 | 6.35 | 6.12 |
| 977.1 | 1007.1 | 6.92 | 6.36 | 6.13 |
| 1017.3 | 1047.3 | 7.27 | 6.53 | 6.23 |
| 1037.5 | 1067.5 | 7.38 | 6.54 | 6.23 |
| 1077.8 | 1107.8 | 7.78 | 6.83 | 6.36 |
| 1097.9 | 1127.9 | 7.74 | 6.80 | 6.39 |
| 1138.2 | 1168.2 | 8.25 | 7.14 | 6.59 |
| 1158.4 | 1188.4 | 8.43 | 7.31 | 6.69 |
| 1198.7 | 1228.7 | 8.90 | 7.74 | 6.96 |
| 1218.8 | 1248.8 | 9.16 | 7.94 | 7.10 |
| 1259.1 | 1289.1 | 9.52 | 8.36 | 7.38 |
| 1279.2 | 1309.2 | 9.69 | 8.62 | 7.62 |
| 1319.5 | 1349.5 | 10.23 | 9.11 | 8.16 |
| 1339.7 | 1369.7 | 10.51 | 9.47 | 8.57 |
| 1380.0 | 1410.0 | 10.99 | 10.08 | 9.17 |
| 1400.1 | 1430.1 | 11.30 | 10.48 | 9.58 |

| RF (IN) (MHz) | LO (MHz) | IP3 INPUT (dBm) @LO (dBm) | | |
|---|---|---|---|---|
| | | +10 | +13 | +16 |
| 10.1 | 40.1 | 20.04 | 23.58 | 25.85 |
| 50.4 | 80.4 | 19.05 | 22.18 | 23.87 |
| 90.7 | 120.7 | 19.24 | 20.85 | 21.08 |
| 131.0 | 161.0 | 19.77 | 19.86 | 23.49 |
| 171.3 | 201.3 | 19.31 | 19.34 | 25.23 |
| 211.5 | 241.5 | 18.78 | 23.03 | 23.94 |
| 251.8 | 281.8 | 17.65 | 27.09 | 21.89 |
| 292.1 | 322.1 | 19.12 | 23.75 | 21.73 |
| 332.4 | 362.4 | 23.15 | 21.74 | 25.20 |
| 372.7 | 402.7 | 24.55 | 22.12 | 23.57 |
| 413.0 | 443.0 | 19.81 | 18.72 | 22.60 |
| 453.3 | 483.3 | 18.81 | 17.36 | 18.99 |
| 493.6 | 523.6 | 18.86 | 22.00 | 32.90 |
| 533.9 | 563.9 | 18.91 | 21.62 | 28.09 |
| 574.2 | 604.2 | 18.32 | 20.62 | 25.50 |
| 614.4 | 644.4 | 21.10 | 21.44 | 24.00 |
| 654.7 | 684.7 | 21.20 | 25.88 | 28.53 |
| 695.0 | 725.0 | 16.55 | 21.92 | 29.67 |
| 735.3 | 765.3 | 15.48 | 18.22 | 21.99 |
| 775.6 | 805.6 | 14.42 | 16.35 | 18.77 |
| 815.9 | 845.9 | 12.81 | 14.38 | 16.92 |
| 856.2 | 886.2 | 11.55 | 13.54 | 15.85 |
| 896.5 | 926.5 | 13.24 | 15.74 | 17.90 |
| 916.6 | 946.6 | 14.94 | 17.87 | 19.96 |
| 956.9 | 986.9 | 16.22 | 21.81 | 24.10 |
| 977.1 | 1007.1 | 15.86 | 24.18 | 27.52 |
| 1017.3 | 1047.3 | 13.19 | 22.75 | 26.10 |
| 1037.5 | 1067.5 | 12.36 | 22.69 | 23.82 |
| 1077.8 | 1107.8 | 11.33 | 18.02 | 23.05 |
| 1097.9 | 1127.9 | 12.04 | 18.86 | 28.04 |
| 1138.2 | 1168.2 | 11.56 | 18.12 | 26.78 |
| 1158.4 | 1188.4 | 12.44 | 18.18 | 28.80 |
| 1198.7 | 1228.7 | 12.59 | 16.88 | 23.70 |
| 1218.8 | 1248.8 | 12.90 | 16.59 | 23.49 |
| 1259.1 | 1289.1 | 13.48 | 15.66 | 21.19 |
| 1279.2 | 1309.2 | 14.08 | 15.68 | 20.63 |
| 1319.5 | 1349.5 | 14.08 | 15.99 | 18.12 |
| 1339.7 | 1369.7 | 14.01 | 15.56 | 17.13 |
| 1380.0 | 1410.0 | 14.56 | 15.22 | 16.40 |
| 1400.1 | 1430.1 | 14.46 | 14.46 | 15.47 |

| RF (IN) (MHz) | LO (MHz) | COMPRESSION @RF IN=+9dBm (dB) @LO (dBm) | | |
|---|---|---|---|---|
| | | +10 | +13 | +16 |
| 10.1 | 40.1 | 1.54 | 1.29 | 1.09 |
| 50.4 | 80.4 | 1.30 | 1.14 | 0.96 |
| 90.7 | 120.7 | 1.40 | 1.10 | 0.94 |
| 131.0 | 161.0 | 1.41 | 1.14 | 0.96 |
| 171.3 | 201.3 | 1.29 | 1.07 | 0.90 |
| 211.5 | 241.5 | 1.30 | 1.04 | 0.87 |
| 251.8 | 281.8 | 1.31 | 1.06 | 0.85 |
| 292.1 | 322.1 | 1.39 | 1.06 | 0.85 |
| 332.4 | 362.4 | 1.35 | 0.98 | 0.81 |
| 372.7 | 402.7 | 1.34 | 0.98 | 0.78 |
| 413.0 | 443.0 | 1.32 | 0.92 | 0.73 |
| 453.3 | 483.3 | 1.31 | 0.96 | 0.78 |
| 493.6 | 523.6 | 1.21 | 0.85 | 0.72 |
| 533.9 | 563.9 | 1.16 | 0.80 | 0.67 |
| 574.2 | 604.2 | 1.32 | 0.89 | 0.69 |
| 614.4 | 644.4 | 1.28 | 0.95 | 0.78 |
| 654.7 | 684.7 | 1.39 | 1.00 | 0.79 |
| 695.0 | 725.0 | 1.47 | 1.08 | 0.83 |
| 735.3 | 765.3 | 1.65 | 1.22 | 0.96 |
| 775.6 | 805.6 | 1.92 | 1.43 | 1.12 |
| 815.9 | 845.9 | 1.93 | 1.47 | 1.19 |
| 856.2 | 886.2 | 2.10 | 1.62 | 1.31 |
| 896.5 | 926.5 | 2.10 | 1.64 | 1.32 |
| 916.6 | 946.6 | 2.08 | 1.63 | 1.35 |
| 956.9 | 986.9 | 2.18 | 1.71 | 1.38 |
| 977.1 | 1007.1 | 2.20 | 1.77 | 1.46 |
| 1017.3 | 1047.3 | 2.19 | 1.91 | 1.54 |
| 1037.5 | 1067.5 | 2.14 | 1.91 | 1.56 |
| 1077.8 | 1107.8 | 1.98 | 1.87 | 1.55 |
| 1097.9 | 1127.9 | 1.91 | 1.81 | 1.50 |
| 1138.2 | 1168.2 | 1.62 | 1.67 | 1.44 |
| 1158.4 | 1188.4 | 1.56 | 1.62 | 1.40 |
| 1198.7 | 1228.7 | 1.26 | 1.43 | 1.34 |
| 1218.8 | 1248.8 | 1.15 | 1.34 | 1.33 |
| 1259.1 | 1289.1 | 1.03 | 1.22 | 1.38 |
| 1279.2 | 1309.2 | 0.89 | 1.10 | 1.32 |
| 1319.5 | 1349.5 | 0.71 | 1.01 | 1.21 |
| 1339.7 | 1369.7 | 0.57 | 0.93 | 1.14 |
| 1380.0 | 1410.0 | 0.32 | 0.70 | 1.07 |
| 1400.1 | 1430.1 | 0.18 | 0.52 | 0.94 |

## *Typical Performance Data*

| IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=500.1MHz (dB) |
|---|---|---|
| | | @LO (dBm) |
| | | +13 |
| 400.0 | 100.1 | 5.72 |
| 390.3 | 109.9 | 5.67 |
| 380.5 | 119.6 | 5.68 |
| 370.8 | 129.4 | 5.66 |
| 361.0 | 139.1 | 5.63 |
| 351.3 | 148.9 | 5.58 |
| 341.5 | 158.6 | 5.59 |
| 331.8 | 168.4 | 5.61 |
| 322.0 | 178.1 | 5.55 |
| 312.3 | 187.9 | 5.57 |
| 302.5 | 197.6 | 5.57 |
| 292.8 | 207.4 | 5.52 |
| 283.0 | 217.1 | 5.51 |
| 273.3 | 226.9 | 5.50 |
| 263.5 | 236.6 | 5.53 |
| 253.8 | 246.4 | 5.50 |
| 244.0 | 256.1 | 5.53 |
| 234.3 | 265.9 | 5.57 |
| 224.5 | 275.6 | 5.54 |
| 214.8 | 285.4 | 5.51 |
| 205.0 | 295.1 | 5.58 |
| 195.3 | 304.9 | 5.58 |
| 185.5 | 314.6 | 5.55 |
| 175.8 | 324.4 | 5.56 |
| 166.0 | 334.1 | 5.57 |
| 156.3 | 343.9 | 5.57 |
| 146.5 | 353.6 | 5.55 |
| 136.8 | 363.4 | 5.56 |
| 127.0 | 373.1 | 5.59 |
| 117.3 | 382.9 | 5.57 |
| 107.5 | 392.6 | 5.58 |
| 97.8 | 402.4 | 5.59 |
| 88.0 | 412.1 | 5.57 |
| 78.3 | 421.9 | 5.53 |
| 68.5 | 431.6 | 5.58 |
| 58.8 | 441.4 | 5.59 |
| 49.0 | 451.1 | 5.60 |
| 39.3 | 460.9 | 5.57 |
| 19.8 | 480.4 | 5.65 |
| 10.0 | 490.1 | 5.73 |

| IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=50.1MHz (dB) |
|---|---|---|
| | | @LO (dBm) |
| | | +13 |
| 10.0 | 60.1 | 5.84 |
| 30.0 | 80.1 | 5.77 |
| 50.0 | 100.1 | 5.67 |
| 70.0 | 120.1 | 5.72 |
| 90.0 | 140.1 | 5.75 |
| 110.0 | 160.1 | 5.70 |
| 130.0 | 180.1 | 5.78 |
| 150.0 | 200.1 | 5.77 |
| 170.0 | 220.1 | 5.78 |
| 190.0 | 240.1 | 5.74 |
| 210.0 | 260.1 | 5.81 |
| 230.0 | 280.1 | 5.86 |
| 250.0 | 300.1 | 5.79 |
| 270.0 | 320.1 | 5.78 |
| 290.0 | 340.1 | 5.81 |
| 310.0 | 360.1 | 5.87 |
| 330.0 | 380.1 | 5.80 |
| 350.0 | 400.1 | 5.83 |
| 370.0 | 420.1 | 5.87 |
| 390.0 | 440.1 | 5.76 |
| 410.0 | 460.1 | 5.77 |
| 430.0 | 480.1 | 5.84 |
| 450.0 | 500.1 | 5.81 |
| 470.0 | 520.1 | 5.76 |
| 510.0 | 560.1 | 5.88 |
| 530.0 | 580.1 | 5.85 |
| 570.0 | 620.1 | 5.91 |
| 590.0 | 640.1 | 5.94 |
| 630.0 | 680.1 | 6.04 |
| 650.0 | 700.1 | 6.04 |
| 690.0 | 740.1 | 6.11 |
| 710.0 | 760.1 | 6.13 |
| 750.0 | 800.1 | 6.00 |
| 770.0 | 820.1 | 5.93 |
| 810.0 | 860.1 | 5.88 |
| 830.0 | 880.1 | 5.87 |
| 870.0 | 920.1 | 5.75 |
| 890.0 | 940.1 | 5.73 |
| 930.0 | 980.1 | 5.64 |
| 950.0 | 1000.1 | 5.61 |

| IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1000.1MHz (dB) |
|---|---|---|
| | | @LO (dBm) |
| | | +13 |
| 950.0 | 50.1 | 7.15 |
| 930.0 | 70.1 | 7.20 |
| 910.0 | 90.1 | 7.20 |
| 890.0 | 110.1 | 7.08 |
| 870.0 | 130.1 | 6.99 |
| 850.0 | 150.1 | 6.99 |
| 830.0 | 170.1 | 7.02 |
| 810.0 | 190.1 | 6.92 |
| 790.0 | 210.1 | 6.90 |
| 770.0 | 230.1 | 6.85 |
| 750.0 | 250.1 | 6.80 |
| 730.0 | 270.1 | 6.89 |
| 710.0 | 290.1 | 6.84 |
| 690.0 | 310.1 | 6.88 |
| 670.0 | 330.1 | 6.88 |
| 650.0 | 350.1 | 6.93 |
| 630.0 | 370.1 | 6.94 |
| 610.0 | 390.1 | 6.93 |
| 590.0 | 410.1 | 6.92 |
| 570.0 | 430.1 | 6.93 |
| 550.0 | 450.1 | 6.95 |
| 530.0 | 470.1 | 6.90 |
| 510.0 | 490.1 | 6.91 |
| 490.0 | 510.1 | 6.90 |
| 450.0 | 550.1 | 6.87 |
| 430.0 | 570.1 | 6.87 |
| 390.0 | 610.1 | 6.82 |
| 370.0 | 630.1 | 6.82 |
| 330.0 | 670.1 | 6.74 |
| 310.0 | 690.1 | 6.73 |
| 270.0 | 730.1 | 6.70 |
| 250.0 | 750.1 | 6.72 |
| 210.0 | 790.1 | 6.75 |
| 190.0 | 810.1 | 6.72 |
| 150.0 | 850.1 | 6.69 |
| 130.0 | 870.1 | 6.78 |
| 90.0 | 910.1 | 6.79 |
| 70.0 | 930.1 | 6.67 |
| 30.0 | 970.1 | 6.53 |
| 10.0 | 990.1 | 6.61 |

## *Typical Performance Data*

| LO (MHz) | LO-RF ISOLATION (dB) @LO (dBm) | | | LO-IF ISOLATION (dB) @LO (dBm) | | |
|---|---|---|---|---|---|---|
| | +10 | +13 | +16 | +10 | +13 | +16 |
| 10.1 | 76.41 | 76.00 | 76.25 | 76.82 | 79.76 | 70.78 |
| 50.4 | 61.76 | 62.79 | 63.60 | 70.14 | 71.40 | 70.84 |
| 90.7 | 56.53 | 57.54 | 58.42 | 68.38 | 69.40 | 68.69 |
| 131.0 | 53.57 | 54.63 | 55.47 | 65.45 | 67.24 | 66.51 |
| 171.3 | 51.05 | 52.11 | 53.11 | 62.77 | 64.77 | 64.04 |
| 211.5 | 49.50 | 50.73 | 51.70 | 60.58 | 61.48 | 61.50 |
| 251.8 | 48.00 | 49.33 | 50.27 | 58.58 | 58.85 | 59.40 |
| 292.1 | 46.86 | 48.13 | 49.15 | 55.43 | 55.85 | 57.18 |
| 332.4 | 45.98 | 47.25 | 48.05 | 52.80 | 53.88 | 55.56 |
| 372.7 | 45.12 | 46.60 | 47.12 | 50.78 | 52.45 | 54.46 |
| 413.0 | 44.43 | 45.67 | 46.68 | 48.98 | 50.79 | 52.62 |
| 453.3 | 43.60 | 44.70 | 45.09 | 47.50 | 49.70 | 51.29 |
| 493.6 | 42.87 | 43.95 | 44.70 | 46.45 | 48.07 | 49.84 |
| 533.9 | 42.44 | 43.22 | 44.02 | 45.74 | 47.06 | 48.24 |
| 574.2 | 42.13 | 42.77 | 43.18 | 44.81 | 47.08 | 48.56 |
| 614.4 | 42.15 | 42.39 | 42.45 | 44.21 | 46.63 | 48.12 |
| 654.7 | 42.23 | 43.36 | 43.77 | 43.83 | 46.15 | 47.53 |
| 695.0 | 41.87 | 42.84 | 43.07 | 42.92 | 44.87 | 45.82 |
| 735.3 | 41.30 | 42.10 | 42.44 | 42.14 | 43.47 | 44.36 |
| 775.6 | 40.70 | 41.18 | 41.47 | 41.46 | 43.23 | 44.11 |
| 815.9 | 39.89 | 40.11 | 40.30 | 40.57 | 42.40 | 43.47 |
| 856.2 | 39.18 | 39.36 | 39.56 | 39.86 | 41.49 | 42.45 |
| 896.5 | 39.51 | 40.26 | 41.07 | 39.37 | 40.98 | 42.08 |
| 916.6 | 39.47 | 40.70 | 41.41 | 38.67 | 40.24 | 41.11 |
| 956.9 | 38.59 | 39.95 | 40.54 | 37.81 | 38.87 | 39.42 |
| 977.1 | 38.59 | 39.91 | 40.57 | 37.45 | 38.22 | 38.86 |
| 1017.3 | 37.57 | 38.95 | 39.73 | 36.38 | 37.02 | 37.52 |
| 1037.5 | 37.79 | 38.97 | 39.55 | 35.98 | 36.54 | 37.10 |
| 1077.8 | 37.18 | 38.51 | 39.18 | 35.34 | 35.97 | 36.64 |
| 1097.9 | 37.01 | 38.38 | 39.08 | 35.49 | 35.81 | 36.73 |
| 1138.2 | 36.70 | 37.99 | 38.86 | 35.81 | 36.21 | 37.17 |
| 1158.4 | 36.79 | 38.33 | 39.09 | 36.32 | 37.02 | 37.60 |
| 1198.7 | 36.70 | 38.19 | 38.94 | 36.06 | 37.12 | 37.61 |
| 1218.8 | 36.74 | 38.17 | 38.68 | 36.15 | 37.19 | 37.47 |
| 1259.1 | 36.82 | 38.06 | 38.85 | 35.82 | 36.71 | 37.05 |
| 1279.2 | 36.50 | 37.52 | 38.56 | 35.58 | 36.35 | 36.79 |
| 1319.5 | 36.53 | 37.47 | 38.25 | 35.43 | 36.06 | 36.19 |
| 1339.7 | 36.24 | 37.22 | 38.14 | 35.06 | 35.69 | 35.76 |
| 1380.0 | 36.06 | 36.86 | 37.53 | 35.01 | 35.50 | 35.15 |
| 1400.1 | 35.78 | 36.55 | 37.09 | 34.84 | 35.23 | 34.66 |

| RF (IN) (MHz) | LO (MHz) | RF-IF ISOLATION (dB) @LO (dBm) | | |
|---|---|---|---|---|
| | | +10 | +13 | +16 |
| 10.1 | 40.1 | 46.43 | 47.69 | 51.81 |
| 50.4 | 80.4 | 37.27 | 37.47 | 37.88 |
| 90.7 | 120.7 | 32.71 | 33.02 | 33.12 |
| 131.0 | 161.0 | 29.87 | 30.16 | 30.39 |
| 171.3 | 201.3 | 28.20 | 28.48 | 28.73 |
| 211.5 | 241.5 | 27.13 | 27.43 | 27.65 |
| 251.8 | 281.8 | 26.19 | 26.69 | 27.05 |
| 292.1 | 322.1 | 26.15 | 26.52 | 26.71 |
| 332.4 | 362.4 | 26.18 | 26.75 | 27.07 |
| 372.7 | 402.7 | 25.97 | 27.01 | 27.43 |
| 413.0 | 443.0 | 26.39 | 27.28 | 27.94 |
| 453.3 | 483.3 | 26.89 | 27.33 | 27.69 |
| 493.6 | 523.6 | 28.21 | 28.28 | 28.28 |
| 533.9 | 563.9 | 29.24 | 29.34 | 29.36 |
| 574.2 | 604.2 | 28.56 | 28.81 | 29.43 |
| 614.4 | 644.4 | 26.08 | 26.77 | 27.59 |
| 654.7 | 684.7 | 23.45 | 23.83 | 24.53 |
| 695.0 | 725.0 | 21.68 | 21.53 | 21.62 |
| 735.3 | 765.3 | 20.45 | 20.14 | 19.97 |
| 775.6 | 805.6 | 19.40 | 19.04 | 18.81 |
| 815.9 | 845.9 | 18.75 | 18.37 | 18.09 |
| 856.2 | 886.2 | 18.25 | 17.84 | 17.54 |
| 896.5 | 926.5 | 17.65 | 17.21 | 16.88 |
| 916.6 | 946.6 | 17.39 | 16.91 | 16.63 |
| 956.9 | 986.9 | 16.96 | 16.49 | 16.20 |
| 977.1 | 1007.1 | 16.92 | 16.45 | 16.18 |
| 1017.3 | 1047.3 | 16.79 | 16.41 | 16.23 |
| 1037.5 | 1067.5 | 16.76 | 16.44 | 16.31 |
| 1077.8 | 1107.8 | 16.63 | 16.34 | 16.27 |
| 1097.9 | 1127.9 | 16.46 | 16.25 | 16.25 |
| 1138.2 | 1168.2 | 16.44 | 16.19 | 16.13 |
| 1158.4 | 1188.4 | 16.38 | 16.24 | 16.09 |
| 1198.7 | 1228.7 | 16.20 | 16.24 | 16.14 |
| 1218.8 | 1248.8 | 16.12 | 16.20 | 16.25 |
| 1259.1 | 1289.1 | 15.91 | 16.04 | 16.11 |
| 1279.2 | 1309.2 | 15.76 | 15.97 | 16.02 |
| 1319.5 | 1349.5 | 15.44 | 15.73 | 15.74 |
| 1339.7 | 1369.7 | 15.26 | 15.56 | 15.61 |
| 1380.0 | 1410.0 | 14.89 | 15.15 | 15.17 |
| 1400.1 | 1430.1 | 14.68 | 14.91 | 14.94 |

## *Typical Performance Data*

| RF (IN) (MHz) | LO (MHz) | RF VSWR (:1) @LO (dBm) | | |
|---|---|---|---|---|
| | | +10 | +13 | +16 |
| 10.1 | 40.1 | 1.17 | 1.09 | 1.10 |
| 50.4 | 80.4 | 1.18 | 1.06 | 1.03 |
| 90.7 | 120.7 | 1.16 | 1.07 | 1.06 |
| 131.0 | 161.0 | 1.16 | 1.08 | 1.10 |
| 171.3 | 201.3 | 1.20 | 1.12 | 1.14 |
| 211.5 | 241.5 | 1.20 | 1.15 | 1.18 |
| 251.8 | 281.8 | 1.24 | 1.19 | 1.21 |
| 292.1 | 322.1 | 1.26 | 1.21 | 1.24 |
| 332.4 | 362.4 | 1.26 | 1.23 | 1.26 |
| 372.7 | 402.7 | 1.28 | 1.26 | 1.29 |
| 413.0 | 443.0 | 1.28 | 1.28 | 1.32 |
| 453.3 | 483.3 | 1.31 | 1.29 | 1.32 |
| 493.6 | 523.6 | 1.35 | 1.34 | 1.37 |
| 533.9 | 563.9 | 1.38 | 1.39 | 1.42 |
| 574.2 | 604.2 | 1.41 | 1.42 | 1.45 |
| 614.4 | 644.4 | 1.44 | 1.45 | 1.48 |
| 654.7 | 684.7 | 1.46 | 1.49 | 1.53 |
| 695.0 | 725.0 | 1.44 | 1.48 | 1.53 |
| 735.3 | 765.3 | 1.43 | 1.46 | 1.51 |
| 775.6 | 805.6 | 1.41 | 1.44 | 1.48 |
| 815.9 | 845.9 | 1.39 | 1.41 | 1.43 |
| 856.2 | 886.2 | 1.41 | 1.41 | 1.43 |
| 896.5 | 926.5 | 1.47 | 1.46 | 1.47 |
| 916.6 | 946.6 | 1.50 | 1.48 | 1.49 |
| 956.9 | 986.9 | 1.58 | 1.57 | 1.57 |
| 977.1 | 1007.1 | 1.65 | 1.63 | 1.63 |
| 1017.3 | 1047.3 | 1.80 | 1.75 | 1.74 |
| 1037.5 | 1067.5 | 1.90 | 1.84 | 1.83 |
| 1077.8 | 1107.8 | 2.08 | 2.00 | 1.97 |
| 1097.9 | 1127.9 | 2.16 | 2.08 | 2.05 |
| 1138.2 | 1168.2 | 2.40 | 2.28 | 2.22 |
| 1158.4 | 1188.4 | 2.51 | 2.38 | 2.31 |
| 1198.7 | 1228.7 | 2.76 | 2.61 | 2.51 |
| 1218.8 | 1248.8 | 2.89 | 2.72 | 2.60 |
| 1259.1 | 1289.1 | 3.12 | 2.96 | 2.79 |
| 1279.2 | 1309.2 | 3.24 | 3.08 | 2.89 |
| 1319.5 | 1349.5 | 3.45 | 3.29 | 3.13 |
| 1339.7 | 1369.7 | 3.55 | 3.40 | 3.26 |
| 1380.0 | 1410.0 | 3.65 | 3.54 | 3.40 |
| 1400.1 | 1430.1 | 3.73 | 3.62 | 3.49 |

| LO (MHz) | LO VSWR (:1) @LO (dBm) | | |
|---|---|---|---|
| | +10 | +13 | +16 |
| 10.1 | 1.55 | 2.19 | 3.19 |
| 50.4 | 1.66 | 2.52 | 3.67 |
| 90.7 | 1.56 | 2.35 | 3.45 |
| 131.0 | 1.61 | 2.44 | 3.54 |
| 171.3 | 1.59 | 2.35 | 3.36 |
| 211.5 | 1.60 | 2.38 | 3.40 |
| 251.8 | 1.64 | 2.45 | 3.52 |
| 292.1 | 1.64 | 2.40 | 3.40 |
| 332.4 | 1.69 | 2.51 | 3.60 |
| 372.7 | 1.75 | 2.63 | 3.79 |
| 413.0 | 1.75 | 2.54 | 3.62 |
| 453.3 | 1.77 | 2.57 | 3.65 |
| 493.6 | 1.81 | 2.58 | 3.62 |
| 533.9 | 1.88 | 2.67 | 3.75 |
| 574.2 | 1.90 | 2.62 | 3.65 |
| 614.4 | 2.00 | 2.76 | 3.79 |
| 654.7 | 2.09 | 2.86 | 3.94 |
| 695.0 | 2.09 | 2.77 | 3.70 |
| 735.3 | 2.18 | 2.84 | 3.77 |
| 775.6 | 2.20 | 2.80 | 3.68 |
| 815.9 | 2.24 | 2.80 | 3.65 |
| 856.2 | 2.31 | 2.79 | 3.50 |
| 896.5 | 2.31 | 2.70 | 3.38 |
| 916.6 | 2.30 | 2.65 | 3.30 |
| 956.9 | 2.32 | 2.58 | 3.18 |
| 977.1 | 2.36 | 2.63 | 3.21 |
| 1017.3 | 2.36 | 2.57 | 3.08 |
| 1037.5 | 2.41 | 2.64 | 3.12 |
| 1077.8 | 2.39 | 2.61 | 3.05 |
| 1097.9 | 2.38 | 2.53 | 2.92 |
| 1138.2 | 2.32 | 2.46 | 2.82 |
| 1158.4 | 2.30 | 2.44 | 2.77 |
| 1198.7 | 2.22 | 2.33 | 2.64 |
| 1218.8 | 2.17 | 2.30 | 2.59 |
| 1259.1 | 2.10 | 2.23 | 2.53 |
| 1279.2 | 2.05 | 2.13 | 2.42 |
| 1319.5 | 1.94 | 2.02 | 2.31 |
| 1339.7 | 1.90 | 1.96 | 2.25 |
| 1380.0 | 1.81 | 1.86 | 2.15 |
| 1400.1 | 1.73 | 1.83 | 2.13 |

| IF (OUT) (MHz) | IF VSWR @LO=1000.1MHz (:1) @LO (dBm) | | |
|---|---|---|---|
| | +10 | +13 | +16 |
| 10.0 | 2.26 | 1.81 | 1.58 |
| 30.2 | 1.93 | 1.54 | 1.38 |
| 50.4 | 1.74 | 1.39 | 1.26 |
| 70.6 | 1.75 | 1.41 | 1.30 |
| 90.8 | 1.82 | 1.48 | 1.37 |
| 111.0 | 1.89 | 1.52 | 1.39 |
| 131.2 | 1.92 | 1.55 | 1.42 |
| 151.4 | 1.84 | 1.51 | 1.40 |
| 171.6 | 1.80 | 1.48 | 1.38 |
| 191.8 | 1.90 | 1.56 | 1.45 |
| 212.0 | 1.98 | 1.62 | 1.52 |
| 232.2 | 1.91 | 1.58 | 1.49 |
| 252.4 | 1.87 | 1.56 | 1.47 |
| 272.7 | 1.95 | 1.64 | 1.55 |
| 292.9 | 2.01 | 1.70 | 1.61 |
| 313.1 | 1.98 | 1.67 | 1.60 |
| 333.3 | 2.02 | 1.70 | 1.63 |
| 353.5 | 2.05 | 1.77 | 1.71 |
| 373.7 | 2.03 | 1.77 | 1.71 |
| 393.9 | 2.05 | 1.77 | 1.72 |
| 434.3 | 2.12 | 1.86 | 1.83 |
| 454.5 | 2.09 | 1.85 | 1.83 |
| 494.9 | 2.18 | 1.95 | 1.93 |
| 515.1 | 2.11 | 1.89 | 1.89 |
| 555.5 | 2.24 | 2.03 | 2.04 |
| 575.7 | 2.25 | 2.05 | 2.07 |
| 616.1 | 2.20 | 2.00 | 2.02 |
| 636.3 | 2.24 | 2.06 | 2.10 |
| 676.7 | 2.30 | 2.08 | 2.11 |
| 696.9 | 2.30 | 2.08 | 2.11 |
| 737.3 | 2.18 | 1.99 | 2.03 |
| 757.6 | 2.30 | 2.08 | 2.11 |
| 798.0 | 2.24 | 1.99 | 2.01 |
| 818.2 | 2.18 | 1.93 | 1.94 |
| 858.6 | 2.24 | 2.00 | 2.01 |
| 878.8 | 2.28 | 1.99 | 1.97 |
| 919.2 | 2.16 | 1.87 | 1.84 |
| 939.4 | 2.08 | 1.81 | 1.79 |
| 979.8 | 2.30 | 1.95 | 1.89 |
| 1000.0 | 2.28 | 2.37 | 2.65 |

## *Harmonics Tables*

| RF HARMONICS ORDER | (-dBm) | (-dBc) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | - | - | 32 | 38 | 37 | 45 | 41 | 63 | 55 | 60 | 58 | 74 |
| 1 | - | 23 | +0 | 29 | 12 | 33 | 21 | 41 | 45 | 45 | 56 | 61 |
| 2 | 81 | 66 | 68 | 60 | 62 | 66 | 59 | 57 | 58 | 82 | 59 | 65 |
| 3 | >100 | 64 | 41 | 56 | 43 | 52 | 38 | 57 | 46 | 53 | 56 | 50 |
| 4 | >100 | 81 | 77 | 68 | 76 | 69 | 72 | 73 | 76 | 83 | 77 | 83 |
| 5 | >100 | 71 | 64 | 73 | 53 | 66 | 50 | 60 | 47 | 64 | 52 | 74 |
| 6 | >100 | 97 | 88 | 94 | 79 | 84 | 77 | 85 | 75 | 89 | 79 | 84 |
| 7 | >100 | 84 | 78 | 84 | 75 | 84 | 74 | 96 | 69 | 81 | 65 | 80 |
| 8 | >100 | >98 | >98 | >98 | 95 | >98 | 92 | 89 | 95 | 85 | 86 | 83 |
| 9 | >100 | 89 | 90 | 89 | 90 | 87 | 92 | 86 | 77 | 83 | 74 | 79 |
| 10 | >100 | >98 | >98 | >98 | >98 | >98 | >98 | 95 | 93 | 95 | 88 | 95 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

**LO HARMONICS ORDER**

**Test conditions:** **RF IN: 500.1 MHz; 4.00 dBm.**
**LO IN: 530.01 MHz; +13.00 dBm**
**IF OUT: 29.91 MHz; -1.88 dBm**

| RF HARMONICS ORDER | (-dBm) | (-dBc) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | - | - | 22 | 28 | 26 | 31 | 29 | 54 | 37 | 42 | 41 | 74 |
| 1 | - | 22 | +0 | 28 | 11 | 32 | 20 | 37 | 44 | 37 | 46 | 51 |
| 2 | >100 | 66 | 80 | 65 | 76 | 69 | 67 | 66 | 65 | 85 | 66 | 70 |
| 3 | >100 | >88 | 72 | 87 | 64 | 75 | 59 | 79 | 62 | 79 | 68 | 74 |
| 4 | >100 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| 5 | >100 | >88 | 86 | >88 | >88 | >88 | 88 | >88 | 86 | >88 | 85 | >88 |
| 6 | >100 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| 7 | >100 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| 8 | >100 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| 9 | >100 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| 10 | >100 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 | >88 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

**LO HARMONICS ORDER**

**Test conditions:** **RF IN: 500.1 MHz; -6.00 dBm.**
**LO IN: 530.01 MHz; +13.00 dBm**
**IF OUT: 29.91 MHz; -11.88 dBm**

**Notes: 1. All Harmonics are in (dBc) relative to IF OUTPUT.**
**2. + entry denotes harmonics are in (dBc) above IF OUTPUT.**
**3. RF Cal represent the Harmonics level of the RF input signal to the mixer.**