

Frequency Mixer

MA3-242LH+

Typical Performance Data

| RF (IN) (MHz) | LO (MHz) | CONVERSION LOSS IF FIXED @IF(OUT)=50MHz (dB) | | |
|---------------|----------|--|------|------|
| | | @LO (dBm) | | |
| | | -3 | 0 | +3 |
| 600.1 | 650.1 | 8.30 | 8.41 | 8.76 |
| 620.1 | 670.1 | 7.96 | 8.07 | 8.39 |
| 640.1 | 690.1 | 7.59 | 7.68 | 7.98 |
| 660.1 | 710.1 | 7.33 | 7.43 | 7.73 |
| 680.1 | 730.1 | 7.11 | 7.19 | 7.42 |
| 700.1 | 750.1 | 6.92 | 7.01 | 7.26 |
| 720.1 | 770.1 | 6.65 | 6.69 | 6.86 |
| 740.1 | 790.1 | 6.39 | 6.46 | 6.66 |
| 760.1 | 810.1 | 6.17 | 6.21 | 6.38 |
| 780.1 | 830.1 | 6.02 | 6.06 | 6.24 |
| 805.1 | 855.1 | 5.80 | 5.82 | 5.98 |
| 825.1 | 875.1 | 5.63 | 5.69 | 5.87 |
| 850.1 | 900.1 | 5.44 | 5.49 | 5.68 |
| 865.1 | 915.1 | 5.36 | 5.43 | 5.66 |
| 885.1 | 935.1 | 5.29 | 5.37 | 5.64 |
| 905.1 | 955.1 | 5.19 | 5.29 | 5.54 |
| 925.1 | 975.1 | 5.18 | 5.34 | 5.66 |
| 945.1 | 995.1 | 5.13 | 5.29 | 5.60 |
| 965.1 | 1015.1 | 5.18 | 5.40 | 5.75 |
| 985.1 | 1035.1 | 5.13 | 5.32 | 5.64 |
| 1010.1 | 1060.1 | 5.21 | 5.48 | 5.86 |
| 1030.1 | 1080.1 | 5.19 | 5.45 | 5.81 |
| 1050.1 | 1100.1 | 5.30 | 5.59 | 6.00 |
| 1070.1 | 1120.1 | 5.31 | 5.58 | 6.01 |
| 1090.1 | 1140.1 | 5.36 | 5.65 | 6.08 |
| 1110.1 | 1160.1 | 5.44 | 5.76 | 6.22 |
| 1130.1 | 1180.1 | 5.52 | 5.83 | 6.29 |
| 1150.1 | 1200.1 | 5.64 | 5.97 | 6.44 |
| 1170.1 | 1220.1 | 5.71 | 5.97 | 6.39 |
| 1190.1 | 1240.1 | 5.84 | 6.14 | 6.56 |
| 1215.1 | 1265.1 | 5.98 | 6.24 | 6.63 |
| 1235.1 | 1285.1 | 6.14 | 6.39 | 6.76 |
| 1255.1 | 1305.1 | 6.25 | 6.45 | 6.79 |
| 1275.1 | 1325.1 | 6.38 | 6.57 | 6.89 |
| 1295.1 | 1345.1 | 6.54 | 6.74 | 7.04 |
| 1315.1 | 1365.1 | 6.68 | 6.83 | 7.11 |
| 1335.1 | 1385.1 | 6.86 | 7.00 | 7.27 |
| 1355.1 | 1405.1 | 6.97 | 7.06 | 7.29 |
| 1375.1 | 1425.1 | 7.12 | 7.21 | 7.44 |
| 1400.1 | 1450.1 | 7.28 | 7.37 | 7.57 |

| RF (IN) (MHz) | LO (MHz) | IP-3 INPUT (dBm) | | |
|---------------|----------|------------------|-------|-------|
| | | @LO (dBm) | | |
| | | -3 | 0 | +3 |
| 600.1 | 650.1 | 22.19 | 23.65 | 26.57 |
| 620.1 | 670.1 | 22.20 | 23.72 | 25.82 |
| 640.1 | 690.1 | 22.63 | 24.61 | 25.02 |
| 660.1 | 710.1 | 22.78 | 24.12 | 24.84 |
| 680.1 | 730.1 | 22.38 | 23.15 | 23.55 |
| 700.1 | 750.1 | 22.35 | 22.97 | 23.44 |
| 720.1 | 770.1 | 21.72 | 22.47 | 23.00 |
| 740.1 | 790.1 | 21.67 | 22.38 | 22.42 |
| 760.1 | 810.1 | 21.01 | 21.52 | 21.59 |
| 780.1 | 830.1 | 20.35 | 20.88 | 20.74 |
| 805.1 | 855.1 | 19.16 | 19.65 | 19.79 |
| 825.1 | 875.1 | 18.79 | 19.23 | 19.59 |
| 850.1 | 900.1 | 17.83 | 18.15 | 18.73 |
| 865.1 | 915.1 | 17.54 | 18.11 | 18.58 |
| 885.1 | 935.1 | 17.19 | 17.77 | 18.36 |
| 905.1 | 955.1 | 16.86 | 17.33 | 18.02 |
| 925.1 | 975.1 | 16.76 | 17.43 | 18.07 |
| 945.1 | 995.1 | 16.62 | 17.35 | 18.15 |
| 965.1 | 1015.1 | 16.65 | 17.46 | 18.45 |
| 985.1 | 1035.1 | 16.61 | 17.51 | 18.61 |
| 1010.1 | 1060.1 | 17.44 | 18.33 | 19.62 |
| 1030.1 | 1080.1 | 17.39 | 18.53 | 19.96 |
| 1050.1 | 1100.1 | 17.93 | 19.13 | 20.84 |
| 1070.1 | 1120.1 | 17.65 | 19.33 | 21.12 |
| 1090.1 | 1140.1 | 18.18 | 19.64 | 22.34 |
| 1110.1 | 1160.1 | 18.72 | 20.43 | 22.97 |
| 1130.1 | 1180.1 | 18.65 | 20.61 | 23.71 |
| 1150.1 | 1200.1 | 19.06 | 21.14 | 23.77 |
| 1170.1 | 1220.1 | 18.76 | 21.36 | 24.39 |
| 1190.1 | 1240.1 | 19.12 | 21.49 | 24.31 |
| 1215.1 | 1265.1 | 19.41 | 21.92 | 25.05 |
| 1235.1 | 1285.1 | 19.42 | 22.08 | 24.35 |
| 1255.1 | 1305.1 | 19.35 | 22.08 | 25.10 |
| 1275.1 | 1325.1 | 19.44 | 22.24 | 24.92 |
| 1295.1 | 1345.1 | 19.83 | 22.86 | 24.69 |
| 1315.1 | 1365.1 | 19.86 | 22.68 | 24.34 |
| 1335.1 | 1385.1 | 19.83 | 21.90 | 24.03 |
| 1355.1 | 1405.1 | 20.03 | 22.83 | 24.61 |
| 1375.1 | 1425.1 | 20.04 | 22.48 | 24.04 |
| 1400.1 | 1450.1 | 20.32 | 22.54 | 24.14 |

| RF (IN) (MHz) | LO (MHz) | COMPRESSION @RF IN=10dBm (dB) | | |
|---------------|----------|-------------------------------|------|------|
| | | @LO (dBm) | | |
| | | -3 | 0 | +3 |
| 600.1 | 650.1 | 0.32 | 0.23 | 0.16 |
| 620.1 | 670.1 | 0.30 | 0.22 | 0.16 |
| 640.1 | 690.1 | 0.34 | 0.24 | 0.21 |
| 660.1 | 710.1 | 0.35 | 0.26 | 0.23 |
| 680.1 | 730.1 | 0.40 | 0.27 | 0.27 |
| 700.1 | 750.1 | 0.43 | 0.33 | 0.33 |
| 720.1 | 770.1 | 0.49 | 0.36 | 0.35 |
| 740.1 | 790.1 | 0.56 | 0.42 | 0.39 |
| 760.1 | 810.1 | 0.65 | 0.50 | 0.44 |
| 780.1 | 830.1 | 0.71 | 0.55 | 0.49 |
| 805.1 | 855.1 | 0.81 | 0.66 | 0.59 |
| 825.1 | 875.1 | 0.88 | 0.71 | 0.62 |
| 850.1 | 900.1 | 0.97 | 0.79 | 0.70 |
| 865.1 | 915.1 | 0.98 | 0.81 | 0.68 |
| 885.1 | 935.1 | 1.00 | 0.83 | 0.70 |
| 905.1 | 955.1 | 0.99 | 0.79 | 0.66 |
| 925.1 | 975.1 | 1.02 | 0.80 | 0.67 |
| 945.1 | 995.1 | 0.99 | 0.77 | 0.62 |
| 965.1 | 1015.1 | 0.96 | 0.73 | 0.58 |
| 985.1 | 1035.1 | 0.98 | 0.75 | 0.57 |
| 1010.1 | 1060.1 | 0.89 | 0.67 | 0.50 |
| 1030.1 | 1080.1 | 0.91 | 0.67 | 0.51 |
| 1050.1 | 1100.1 | 0.80 | 0.61 | 0.42 |
| 1070.1 | 1120.1 | 0.85 | 0.63 | 0.42 |
| 1090.1 | 1140.1 | 0.78 | 0.56 | 0.36 |
| 1110.1 | 1160.1 | 0.72 | 0.51 | 0.31 |
| 1130.1 | 1180.1 | 0.71 | 0.48 | 0.28 |
| 1150.1 | 1200.1 | 0.65 | 0.43 | 0.26 |
| 1170.1 | 1220.1 | 0.65 | 0.42 | 0.28 |
| 1190.1 | 1240.1 | 0.63 | 0.40 | 0.25 |
| 1215.1 | 1265.1 | 0.60 | 0.38 | 0.23 |
| 1235.1 | 1285.1 | 0.59 | 0.36 | 0.25 |
| 1255.1 | 1305.1 | 0.57 | 0.35 | 0.23 |
| 1275.1 | 1325.1 | 0.54 | 0.33 | 0.24 |
| 1295.1 | 1345.1 | 0.54 | 0.32 | 0.22 |
| 1315.1 | 1365.1 | 0.50 | 0.33 | 0.23 |
| 1335.1 | 1385.1 | 0.56 | 0.35 | 0.25 |
| 1355.1 | 1405.1 | 0.54 | 0.34 | 0.23 |
| 1375.1 | 1425.1 | 0.48 | 0.33 | 0.25 |
| 1400.1 | 1450.1 | 0.53 | 0.35 | 0.25 |

Typical Performance Data

| IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=985.1MHz (dB) | IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=850.1MHz (dB) | IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1120.1MHz (dB) |
|----------------|----------|--|----------------|----------|--|----------------|----------|---|
| | | @LO (dBm) | | | @LO (dBm) | | | @LO (dBm) |
| | | 0 | | | 0 | | | 0 |
| 655.0 | 330.1 | 10.11 | 10.0 | 860.1 | 5.66 | 720.0 | 400.1 | 10.53 |
| 625.0 | 360.1 | 8.97 | 20.0 | 870.1 | 5.52 | 710.0 | 410.1 | 10.48 |
| 595.0 | 390.1 | 8.12 | 40.0 | 890.1 | 5.51 | 690.0 | 430.1 | 9.69 |
| 565.0 | 420.1 | 7.87 | 50.0 | 900.1 | 5.48 | 670.0 | 450.1 | 9.47 |
| 525.0 | 460.1 | 7.03 | 70.0 | 920.1 | 5.52 | 650.0 | 470.1 | 8.76 |
| 495.0 | 490.1 | 6.66 | 80.0 | 930.1 | 5.60 | 630.0 | 490.1 | 8.39 |
| 465.0 | 520.1 | 6.31 | 100.0 | 950.1 | 5.65 | 620.0 | 500.1 | 8.32 |
| 435.0 | 550.1 | 6.17 | 110.0 | 960.1 | 5.71 | 600.0 | 520.1 | 7.85 |
| 395.0 | 590.1 | 6.03 | 130.0 | 980.1 | 5.78 | 580.0 | 540.1 | 7.82 |
| 365.0 | 620.1 | 5.73 | 140.0 | 990.1 | 5.83 | 560.0 | 560.1 | 7.43 |
| 335.0 | 650.1 | 5.59 | 160.0 | 1010.1 | 5.99 | 540.0 | 580.1 | 7.18 |
| 295.0 | 690.1 | 5.46 | 170.0 | 1020.1 | 6.01 | 520.0 | 600.1 | 7.06 |
| 265.0 | 720.1 | 5.26 | 190.0 | 1040.1 | 6.14 | 510.0 | 610.1 | 6.87 |
| 235.0 | 750.1 | 5.12 | 200.0 | 1050.1 | 6.24 | 490.0 | 630.1 | 6.85 |
| 205.0 | 780.1 | 5.14 | 220.0 | 1070.1 | 6.33 | 470.0 | 650.1 | 6.66 |
| 165.0 | 820.1 | 5.03 | 230.0 | 1080.1 | 6.39 | 450.0 | 670.1 | 6.43 |
| 135.0 | 850.1 | 4.97 | 250.0 | 1100.1 | 6.51 | 430.0 | 690.1 | 6.29 |
| 105.0 | 880.1 | 4.96 | 260.0 | 1110.1 | 6.41 | 420.0 | 700.1 | 6.17 |
| 65.0 | 920.1 | 4.99 | 280.0 | 1130.1 | 6.55 | 400.0 | 720.1 | 6.16 |
| 35.0 | 950.1 | 5.03 | 290.0 | 1140.1 | 6.70 | 380.0 | 740.1 | 5.98 |
| 15.0 | 1000.1 | 5.34 | 310.0 | 1160.1 | 6.72 | 360.0 | 760.1 | 5.74 |
| 35.0 | 1020.1 | 5.37 | 320.0 | 1170.1 | 6.76 | 340.0 | 780.1 | 5.80 |
| 55.0 | 1040.1 | 5.32 | 340.0 | 1190.1 | 6.91 | 320.0 | 800.1 | 5.67 |
| 75.0 | 1060.1 | 5.44 | 350.0 | 1200.1 | 6.87 | 310.0 | 810.1 | 5.66 |
| 105.0 | 1090.1 | 5.57 | 370.0 | 1220.1 | 6.89 | 290.0 | 830.1 | 5.56 |
| 125.0 | 1110.1 | 5.63 | 380.0 | 1230.1 | 7.03 | 270.0 | 850.1 | 5.41 |
| 145.0 | 1130.1 | 5.66 | 400.0 | 1250.1 | 7.05 | 250.0 | 870.1 | 5.47 |
| 175.0 | 1160.1 | 5.76 | 410.0 | 1260.1 | 7.04 | 230.0 | 890.1 | 5.42 |
| 195.0 | 1180.1 | 5.83 | 430.0 | 1280.1 | 7.24 | 220.0 | 900.1 | 5.39 |
| 215.0 | 1200.1 | 5.86 | 440.0 | 1290.1 | 7.23 | 200.0 | 920.1 | 5.36 |
| 245.0 | 1230.1 | 5.96 | 460.0 | 1310.1 | 7.35 | 180.0 | 940.1 | 5.34 |
| 265.0 | 1250.1 | 5.95 | 470.0 | 1320.1 | 7.48 | 160.0 | 960.1 | 5.37 |
| 285.0 | 1270.1 | 6.01 | 490.0 | 1340.1 | 7.63 | 140.0 | 980.1 | 5.35 |
| 305.0 | 1290.1 | 5.98 | 500.0 | 1350.1 | 7.62 | 120.0 | 1000.1 | 5.41 |
| 335.0 | 1320.1 | 6.15 | 520.0 | 1370.1 | 7.82 | 110.0 | 1010.1 | 5.41 |
| 355.0 | 1340.1 | 6.21 | 530.0 | 1380.1 | 7.94 | 90.0 | 1030.1 | 5.48 |
| 375.0 | 1360.1 | 6.29 | 550.0 | 1400.1 | 8.04 | 70.0 | 1050.1 | 5.55 |
| 405.0 | 1390.1 | 6.45 | 560.0 | 1410.1 | 8.17 | 50.0 | 1070.1 | 5.58 |
| 425.0 | 1410.1 | 6.49 | 580.0 | 1430.1 | 8.51 | 30.0 | 1090.1 | 5.65 |
| 445.0 | 1430.1 | 6.67 | 600.0 | 1450.1 | 8.49 | 10.0 | 1110.1 | 5.81 |

Typical Performance Data

| LO (MHz) | LO-RF ISOLATION (dB) | | | LO-IF ISOLATION (dB) | | | RF (IN) (MHz) | LO (MHz) | RF-IF ISOLATION (dB) | | |
|-------------|-------------------------|-------|-------|-------------------------|-------|-------|---------------------|-------------|-------------------------|-------|-------|
| | @LO (dBm) | | | @LO (dBm) | | | | | @LO (dBm) | | |
| | -3 | 0 | +3 | -3 | 0 | +3 | | | -3 | 0 | +3 |
| 700.1 | 18.64 | 20.70 | 22.78 | 14.65 | 16.72 | 18.82 | 700.1 | 750.1 | 6.88 | 7.35 | 7.98 |
| 715.1 | 18.31 | 20.47 | 22.57 | 14.82 | 16.95 | 19.08 | 715.1 | 765.1 | 6.96 | 7.39 | 7.98 |
| 735.1 | 18.14 | 20.35 | 22.57 | 14.60 | 16.82 | 19.04 | 735.1 | 785.1 | 7.19 | 7.60 | 8.14 |
| 750.1 | 17.45 | 19.63 | 21.84 | 15.06 | 17.24 | 19.46 | 750.1 | 800.1 | 7.33 | 7.78 | 8.34 |
| 770.1 | 16.98 | 19.23 | 21.47 | 15.44 | 17.70 | 19.94 | 770.1 | 820.1 | 7.63 | 8.05 | 8.64 |
| 785.1 | 16.73 | 19.02 | 21.28 | 15.60 | 17.88 | 20.14 | 785.1 | 835.1 | 8.00 | 8.42 | 8.96 |
| 805.1 | 16.39 | 18.69 | 20.92 | 16.25 | 18.55 | 20.79 | 805.1 | 855.1 | 8.37 | 8.79 | 9.32 |
| 825.1 | 16.26 | 18.58 | 20.90 | 16.36 | 18.70 | 21.04 | 825.1 | 875.1 | 9.04 | 9.46 | 10.04 |
| 840.1 | 15.76 | 18.05 | 20.33 | 17.20 | 19.50 | 21.79 | 840.1 | 890.1 | 9.54 | 10.01 | 10.60 |
| 860.1 | 15.39 | 17.69 | 19.99 | 18.20 | 20.50 | 22.80 | 860.1 | 910.1 | 10.36 | 10.86 | 11.46 |
| 875.1 | 15.22 | 17.54 | 19.83 | 18.74 | 21.06 | 23.35 | 875.1 | 925.1 | 11.19 | 11.67 | 12.28 |
| 900.1 | 15.02 | 17.36 | 19.68 | 20.17 | 22.49 | 24.83 | 895.1 | 945.1 | 12.30 | 12.81 | 13.44 |
| 915.1 | 14.82 | 17.16 | 19.48 | 20.83 | 23.17 | 25.49 | 915.1 | 965.1 | 13.86 | 14.38 | 15.01 |
| 930.1 | 14.51 | 16.80 | 19.03 | 22.58 | 24.88 | 27.12 | 930.1 | 980.1 | 15.20 | 15.74 | 16.38 |
| 950.1 | 14.18 | 16.46 | 18.71 | 24.68 | 26.99 | 29.24 | 950.1 | 1000.1 | 17.60 | 18.18 | 18.77 |
| 965.1 | 14.08 | 16.40 | 18.66 | 26.69 | 29.02 | 31.31 | 965.1 | 1015.1 | 20.03 | 20.58 | 21.20 |
| 985.1 | 13.98 | 16.20 | 18.39 | 31.19 | 33.45 | 35.66 | 985.1 | 1035.1 | 24.26 | 24.89 | 25.47 |
| 1005.1 | 13.68 | 15.97 | 18.24 | 36.57 | 38.89 | 41.16 | 1005.1 | 1055.1 | 31.10 | 31.73 | 32.33 |
| 1020.1 | 13.43 | 15.58 | 17.76 | 36.67 | 38.79 | 40.93 | 1020.1 | 1070.1 | 30.90 | 31.67 | 32.28 |
| 1040.1 | 13.15 | 15.28 | 17.48 | 30.37 | 32.45 | 34.63 | 1040.1 | 1090.1 | 24.44 | 25.10 | 25.68 |
| 1055.1 | 13.04 | 15.18 | 17.38 | 26.70 | 28.83 | 31.03 | 1055.1 | 1105.1 | 21.26 | 21.93 | 22.47 |
| 1075.1 | 13.12 | 15.16 | 17.29 | 24.05 | 26.09 | 28.21 | 1075.1 | 1125.1 | 18.03 | 18.75 | 19.34 |
| 1090.1 | 12.98 | 15.12 | 17.26 | 21.56 | 23.70 | 25.83 | 1090.1 | 1140.1 | 16.35 | 17.01 | 17.57 |
| 1110.1 | 12.75 | 14.70 | 16.71 | 19.67 | 21.62 | 23.62 | 1110.1 | 1160.1 | 14.24 | 14.96 | 15.54 |
| 1130.1 | 12.69 | 14.62 | 16.63 | 18.31 | 20.23 | 22.24 | 1130.1 | 1180.1 | 13.00 | 13.68 | 14.25 |
| 1145.1 | 12.57 | 14.53 | 16.56 | 16.88 | 18.84 | 20.85 | 1145.1 | 1195.1 | 12.18 | 12.88 | 13.44 |
| 1170.1 | 12.74 | 14.61 | 16.62 | 16.04 | 17.92 | 19.92 | 1165.1 | 1215.1 | 11.01 | 11.67 | 12.28 |
| 1180.1 | 12.69 | 14.64 | 16.69 | 15.09 | 17.04 | 19.09 | 1180.1 | 1230.1 | 10.35 | 10.98 | 11.56 |
| 1200.1 | 12.71 | 14.50 | 16.47 | 14.26 | 16.03 | 17.99 | 1200.1 | 1250.1 | 9.46 | 10.10 | 10.67 |
| 1220.1 | 12.68 | 14.49 | 16.53 | 13.66 | 15.49 | 17.54 | 1220.1 | 1270.1 | 8.89 | 9.48 | 10.03 |
| 1235.1 | 12.72 | 14.56 | 16.64 | 12.86 | 14.69 | 16.75 | 1235.1 | 1285.1 | 8.49 | 9.09 | 9.66 |
| 1255.1 | 12.79 | 14.59 | 16.63 | 12.57 | 14.36 | 16.40 | 1255.1 | 1305.1 | 7.94 | 8.52 | 9.07 |
| 1270.1 | 12.82 | 14.74 | 16.86 | 11.83 | 13.75 | 15.87 | 1270.1 | 1320.1 | 7.56 | 8.13 | 8.62 |
| 1290.1 | 12.97 | 14.76 | 16.79 | 11.50 | 13.29 | 15.31 | 1290.1 | 1340.1 | 7.19 | 7.75 | 8.24 |
| 1310.1 | 12.90 | 14.75 | 16.79 | 11.05 | 12.90 | 14.94 | 1310.1 | 1360.1 | 6.84 | 7.38 | 7.84 |
| 1325.1 | 13.01 | 14.90 | 16.99 | 10.57 | 12.45 | 14.55 | 1325.1 | 1375.1 | 6.57 | 7.13 | 7.64 |
| 1345.1 | 12.90 | 14.77 | 16.85 | 10.30 | 12.17 | 14.24 | 1345.1 | 1395.1 | 6.34 | 6.88 | 7.34 |
| 1360.1 | 13.04 | 15.01 | 17.12 | 9.81 | 11.78 | 13.89 | 1360.1 | 1410.1 | 6.17 | 6.67 | 7.12 |
| 1380.1 | 13.27 | 15.09 | 17.10 | 9.75 | 11.59 | 13.59 | 1380.1 | 1430.1 | 5.93 | 6.43 | 6.87 |
| 1400.1 | 13.23 | 15.14 | 17.21 | 9.43 | 11.33 | 13.39 | 1400.1 | 1450.1 | 5.83 | 6.31 | 6.73 |

Typical Performance Data

| RF (IN) (MHz) | LO (MHz) | RF VSWR (:1) | | | LO (MHz) | LO VSWR (:1) | | | IF (OUT) (MHz) | IF VSWR @LO=1170.1MHz (:1) | | |
|---------------|----------|--------------|------|------|----------|--------------|------|------|----------------|----------------------------|------|------|
| | | @LO (dBm) | | | | @LO (dBm) | | | | @LO (dBm) | | |
| | | -3 | 0 | +3 | | -3 | 0 | +3 | | -3 | 0 | +3 |
| 700.1 | 750.1 | 2.34 | 2.49 | 2.71 | 750.1 | 2.20 | 2.24 | 2.37 | 10.1 | 1.52 | 1.61 | 1.99 |
| 715.1 | 765.1 | 2.18 | 2.30 | 2.50 | 765.1 | 2.05 | 2.15 | 2.30 | 15.1 | 1.42 | 1.72 | 1.98 |
| 735.1 | 785.1 | 2.05 | 2.16 | 2.33 | 785.1 | 1.87 | 2.02 | 2.21 | 20.1 | 1.38 | 1.68 | 1.95 |
| 750.1 | 800.1 | 1.93 | 2.03 | 2.20 | 800.1 | 1.75 | 1.94 | 2.14 | 25.1 | 1.41 | 1.73 | 2.03 |
| 770.1 | 820.1 | 1.79 | 1.89 | 2.04 | 820.1 | 1.63 | 1.85 | 2.07 | 30.1 | 1.44 | 1.77 | 1.99 |
| 785.1 | 835.1 | 1.72 | 1.80 | 1.94 | 835.1 | 1.61 | 1.87 | 2.09 | 35.1 | 1.41 | 1.66 | 2.03 |
| 805.1 | 855.1 | 1.60 | 1.67 | 1.79 | 855.1 | 1.51 | 1.79 | 2.02 | 40.1 | 1.45 | 1.77 | 2.03 |
| 825.1 | 875.1 | 1.54 | 1.59 | 1.70 | 875.1 | 1.40 | 1.71 | 1.95 | 45.1 | 1.47 | 1.80 | 2.07 |
| 840.1 | 890.1 | 1.49 | 1.55 | 1.66 | 890.1 | 1.33 | 1.65 | 1.89 | 50.1 | 1.47 | 1.77 | 2.06 |
| 860.1 | 910.1 | 1.42 | 1.47 | 1.57 | 910.1 | 1.27 | 1.59 | 1.83 | 55.1 | 1.46 | 1.78 | 2.07 |
| 875.1 | 925.1 | 1.40 | 1.44 | 1.55 | 925.1 | 1.27 | 1.59 | 1.82 | 60.1 | 1.46 | 1.75 | 2.05 |
| 895.1 | 945.1 | 1.40 | 1.41 | 1.49 | 945.1 | 1.17 | 1.50 | 1.73 | 65.1 | 1.44 | 1.72 | 2.02 |
| 915.1 | 965.1 | 1.35 | 1.36 | 1.43 | 965.1 | 1.13 | 1.46 | 1.70 | 70.1 | 1.43 | 1.73 | 2.02 |
| 930.1 | 980.1 | 1.33 | 1.32 | 1.39 | 980.1 | 1.08 | 1.40 | 1.64 | 75.1 | 1.44 | 1.70 | 1.99 |
| 950.1 | 1000.1 | 1.32 | 1.33 | 1.42 | 1000.1 | 1.03 | 1.34 | 1.59 | 80.1 | 1.42 | 1.69 | 1.99 |
| 965.1 | 1015.1 | 1.29 | 1.30 | 1.40 | 1015.1 | 1.05 | 1.31 | 1.55 | 85.1 | 1.44 | 1.71 | 2.00 |
| 985.1 | 1035.1 | 1.31 | 1.30 | 1.39 | 1035.1 | 1.13 | 1.23 | 1.48 | 90.1 | 1.45 | 1.73 | 2.01 |
| 1005.1 | 1055.1 | 1.27 | 1.29 | 1.40 | 1055.1 | 1.20 | 1.21 | 1.44 | 95.1 | 1.47 | 1.73 | 2.01 |
| 1020.1 | 1070.1 | 1.29 | 1.26 | 1.36 | 1070.1 | 1.25 | 1.21 | 1.44 | 100.1 | 1.45 | 1.74 | 2.02 |
| 1040.1 | 1090.1 | 1.25 | 1.29 | 1.41 | 1090.1 | 1.32 | 1.21 | 1.42 | 105.1 | 1.45 | 1.72 | 2.01 |
| 1055.1 | 1105.1 | 1.26 | 1.30 | 1.42 | 1105.1 | 1.41 | 1.22 | 1.39 | 110.1 | 1.43 | 1.71 | 1.99 |
| 1075.1 | 1125.1 | 1.29 | 1.32 | 1.44 | 1125.1 | 1.48 | 1.25 | 1.37 | 115.1 | 1.44 | 1.71 | 2.01 |
| 1090.1 | 1140.1 | 1.26 | 1.30 | 1.42 | 1140.1 | 1.52 | 1.29 | 1.38 | 120.1 | 1.43 | 1.71 | 1.99 |
| 1110.1 | 1160.1 | 1.30 | 1.32 | 1.45 | 1160.1 | 1.62 | 1.36 | 1.38 | 125.1 | 1.44 | 1.73 | 2.02 |
| 1130.1 | 1180.1 | 1.28 | 1.32 | 1.46 | 1180.1 | 1.70 | 1.43 | 1.42 | 130.1 | 1.46 | 1.75 | 2.04 |
| 1145.1 | 1195.1 | 1.30 | 1.35 | 1.49 | 1195.1 | 1.81 | 1.50 | 1.44 | 135.1 | 1.48 | 1.77 | 2.05 |
| 1165.1 | 1215.1 | 1.34 | 1.39 | 1.53 | 1215.1 | 1.84 | 1.55 | 1.46 | 140.1 | 1.49 | 1.77 | 2.08 |
| 1180.1 | 1230.1 | 1.31 | 1.36 | 1.49 | 1230.1 | 1.88 | 1.59 | 1.49 | 145.1 | 1.49 | 1.78 | 2.06 |
| 1200.1 | 1250.1 | 1.37 | 1.43 | 1.56 | 1250.1 | 1.93 | 1.66 | 1.53 | 150.1 | 1.48 | 1.76 | 2.06 |
| 1220.1 | 1270.1 | 1.38 | 1.45 | 1.58 | 1270.1 | 2.01 | 1.73 | 1.58 | 155.1 | 1.48 | 1.76 | 2.03 |
| 1235.1 | 1285.1 | 1.41 | 1.48 | 1.60 | 1285.1 | 2.06 | 1.78 | 1.62 | 160.1 | 1.46 | 1.73 | 2.01 |
| 1255.1 | 1305.1 | 1.43 | 1.50 | 1.63 | 1305.1 | 2.07 | 1.81 | 1.64 | 165.1 | 1.45 | 1.73 | 1.99 |
| 1270.1 | 1320.1 | 1.49 | 1.56 | 1.68 | 1320.1 | 2.09 | 1.83 | 1.65 | 170.1 | 1.44 | 1.72 | 1.99 |
| 1290.1 | 1340.1 | 1.49 | 1.58 | 1.71 | 1340.1 | 2.10 | 1.85 | 1.67 | 175.1 | 1.44 | 1.73 | 2.00 |
| 1310.1 | 1360.1 | 1.56 | 1.65 | 1.77 | 1360.1 | 2.13 | 1.87 | 1.67 | 180.1 | 1.45 | 1.74 | 2.01 |
| 1325.1 | 1375.1 | 1.60 | 1.70 | 1.82 | 1375.1 | 2.10 | 1.87 | 1.68 | 185.1 | 1.46 | 1.74 | 2.02 |
| 1345.1 | 1395.1 | 1.62 | 1.72 | 1.84 | 1395.1 | 2.11 | 1.87 | 1.68 | 190.1 | 1.48 | 1.76 | 2.04 |
| 1360.1 | 1410.1 | 1.69 | 1.79 | 1.91 | 1410.1 | 2.11 | 1.87 | 1.67 | 195.1 | 1.49 | 1.77 | 2.05 |
| 1380.1 | 1430.1 | 1.77 | 1.87 | 2.00 | 1430.1 | 2.09 | 1.87 | 1.67 | 200.1 | 1.49 | 1.77 | 2.06 |
| 1400.1 | 1450.1 | 1.82 | 1.92 | 2.04 | 1450.1 | 2.06 | 1.83 | 1.64 | 250.1 | 1.52 | 1.80 | 2.08 |

Harmonics Tables

RF HARMONICS ORDER

| | (-dBm) | (-dBc) | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0 | -- | -- | 17.35 | -3.42 | -0.11 | 0.14 | 2.60 | -0.63 | 1.44 | 7.29 | 8.31 | 11.61 |
| 1 | -- | 19.53 | -- | 27.01 | 12.63 | 19.13 | 17.86 | 18.62 | 27.88 | 21.11 | 30.45 | 26.67 |
| 2 | 114.49 | 38.93 | 53.05 | 40.27 | 50.43 | 40.31 | 41.57 | 44.76 | 43.18 | 47.28 | 45.98 | 46.45 |
| 3 | 105.47 | 58.49 | 59.61 | 68.99 | 58.81 | 68.80 | 58.83 | 60.70 | 59.58 | 61.28 | 61.35 | 61.20 |
| 4 | 107.47 | 80.47 | 78.07 | 78.02 | 85.45 | 79.40 | 85.27 | 77.71 | 77.00 | 76.52 | 77.94 | 76.39 |
| 5 | 111.29 | 103.28 | 106.68 | 102.09 | 99.38 | 96.87 | 73.44 | 101.35 | 93.83 | 93.24 | 90.11 | 90.88 |
| 6 | 105.64 | 104.44 | 106.07 | 107.71 | 102.72 | 103.80 | 112.36 | 94.62 | 107.47 | 102.18 | 106.83 | 105.55 |
| 7 | 101.16 | 102.14 | 105.29 | 103.43 | 103.57 | 107.16 | 107.29 | 109.05 | 107.85 | 105.65 | 106.94 | 109.00 |
| 8 | 102.74 | 102.89 | 105.33 | 106.59 | 108.05 | 107.57 | 109.14 | 110.37 | 108.86 | 117.93 | 108.12 | 106.78 |
| 9 | 99.87 | 105.66 | 102.27 | 104.69 | 105.31 | 110.32 | 108.55 | 107.38 | 104.06 | 107.74 | 109.62 | 110.19 |
| 10 | 105.12 | 106.21 | 110.54 | 104.31 | 107.08 | 107.22 | 101.69 | 106.29 | 102.42 | 108.19 | 116.64 | 104.98 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

LO HARMONICS ORDER

Test conditions: RF IN: 985.1 MHz; -10 dBm.
 LO IN: 1035.1 MHz; 0 dBm
 IF OUT: 50 MHz; -15.16 dBm

RF HARMONICS ORDER

| | (-dBm) | (-dBc) | | | | | | | | | | |
|----|--------|--------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| 0 | -- | -- | 26.36 | 6.40 | 10.03 | 9.15 | 14.02 | 8.72 | 11.42 | 18.15 | 17.49 | 23.63 |
| 1 | -- | 19.57 | -- | 26.41 | 13.53 | 18.46 | 18.92 | 19.48 | 26.47 | 22.71 | 28.94 | 28.21 |
| 2 | 92.46 | 27.46 | 41.91 | 29.08 | 39.32 | 29.94 | 30.90 | 36.50 | 34.85 | 38.61 | 43.10 | 40.19 |
| 3 | 93.15 | 40.14 | 40.92 | 51.17 | 40.41 | 50.11 | 40.66 | 42.00 | 43.42 | 43.66 | 46.14 | 46.32 |
| 4 | 92.78 | 58.77 | 58.06 | 56.07 | 61.36 | 53.94 | 58.83 | 51.73 | 50.52 | 50.86 | 51.94 | 51.83 |
| 5 | 93.31 | 66.64 | 70.99 | 64.18 | 63.78 | 65.79 | 57.80 | 64.15 | 58.22 | 57.05 | 56.54 | 57.98 |
| 6 | 92.19 | 74.35 | 72.30 | 74.53 | 69.35 | 69.25 | 71.89 | 65.39 | 69.26 | 65.32 | 63.81 | 62.90 |
| 7 | 91.22 | 88.30 | 99.41 | 85.73 | 85.59 | 78.63 | 76.67 | 78.06 | 72.93 | 74.25 | 70.72 | 70.18 |
| 8 | 94.19 | 86.60 | 85.99 | 90.23 | 84.67 | 86.37 | 81.00 | 80.12 | 81.52 | 77.78 | 78.23 | 75.51 |
| 9 | 93.23 | 101.90 | 98.10 | 94.50 | 98.35 | 89.62 | 92.66 | 86.86 | 86.84 | 86.50 | 83.67 | 83.37 |
| 10 | 87.86 | 114.16 | 100.06 | 97.98 | 94.90 | 104.75 | 95.00 | 95.05 | 94.44 | 90.52 | 90.91 | 89.62 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

LO HARMONICS ORDER

Test conditions: RF IN: 985.1 MHz; 0 dBm.
 LO IN: 1035.1 MHz; 0 dBm
 IF OUT: 50 MHz; -5.34 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 represents the Harmonics level of the RF Input Signal to the mixer