

Frequency Mixer

ADE-2ASK

Typical Performance Data

| RF (IN) (MHz) | LO (MHz) | CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) | | | RF (IN) (MHz) | LO (MHz) | IP3 INPUT (dBm) | | | RF (IN) (MHz) | LO (MHz) | COMPRESSION @RF IN=+1dBm (dB) | | |
|---------------|----------|--|------|------|---------------|----------|-----------------|-------|-------|---------------|----------|-------------------------------|------|------|
| | | @LO (dBm) | | | | | @LO (dBm) | | | | | @LO (dBm) | | |
| | | +4 | +7 | +10 | | | +4 | +7 | +10 | | | +4 | +7 | +10 |
| 1.0 | 31.0 | 6.33 | 6.13 | 5.83 | 10.1 | 40.1 | 20.63 | 23.58 | 22.71 | 10.1 | 40.1 | 1.31 | 1.20 | 0.88 |
| 2.0 | 32.0 | 5.98 | 5.68 | 5.58 | 50.4 | 80.4 | 23.45 | 19.76 | 23.68 | 50.4 | 80.4 | 1.41 | 1.10 | 0.96 |
| 2.2 | 32.2 | 5.88 | 5.68 | 5.48 | 90.8 | 120.8 | 20.06 | 20.85 | 22.02 | 90.8 | 120.8 | 1.46 | 1.16 | 0.98 |
| 4.7 | 34.7 | 5.75 | 5.45 | 5.35 | 110.9 | 140.9 | 19.20 | 19.79 | 20.11 | 110.9 | 140.9 | 1.49 | 1.23 | 0.99 |
| 10.3 | 40.3 | 5.60 | 5.40 | 5.30 | 151.3 | 181.3 | 18.73 | 24.20 | 19.96 | 151.3 | 181.3 | 1.46 | 1.06 | 0.95 |
| 50.4 | 80.4 | 5.62 | 5.34 | 5.20 | 171.5 | 201.5 | 18.48 | 23.33 | 21.14 | 171.5 | 201.5 | 1.40 | 1.08 | 0.86 |
| 90.8 | 120.8 | 5.64 | 5.39 | 5.25 | 211.8 | 241.8 | 22.35 | 18.50 | 20.44 | 211.8 | 241.8 | 1.32 | 1.00 | 0.85 |
| 110.9 | 140.9 | 5.63 | 5.38 | 5.25 | 232.0 | 262.0 | 19.40 | 21.64 | 20.99 | 232.0 | 262.0 | 1.37 | 1.14 | 0.88 |
| 171.5 | 201.5 | 5.65 | 5.43 | 5.30 | 272.3 | 302.3 | 19.97 | 16.95 | 23.32 | 272.3 | 302.3 | 1.31 | 1.00 | 0.91 |
| 211.8 | 241.8 | 5.68 | 5.46 | 5.32 | 292.5 | 322.5 | 15.84 | 13.51 | 14.13 | 292.5 | 322.5 | 1.26 | 1.04 | 0.87 |
| 232.0 | 262.0 | 5.69 | 5.48 | 5.33 | 332.8 | 362.8 | 16.12 | 14.50 | 15.45 | 332.8 | 362.8 | 1.33 | 1.09 | 0.90 |
| 272.3 | 302.3 | 5.74 | 5.52 | 5.37 | 353.0 | 383.0 | 18.85 | 20.31 | 20.72 | 353.0 | 383.0 | 1.34 | 1.17 | 0.90 |
| 292.5 | 322.5 | 5.73 | 5.51 | 5.37 | 393.3 | 423.3 | 14.51 | 15.27 | 21.80 | 393.3 | 423.3 | 1.28 | 1.01 | 0.93 |
| 332.8 | 362.8 | 5.76 | 5.52 | 5.36 | 413.5 | 443.5 | 13.55 | 13.99 | 15.06 | 413.5 | 443.5 | 1.35 | 1.13 | 0.94 |
| 353.0 | 383.0 | 5.82 | 5.55 | 5.37 | 453.8 | 483.8 | 14.56 | 13.02 | 14.20 | 453.8 | 483.8 | 1.44 | 1.11 | 0.94 |
| 393.3 | 423.3 | 5.91 | 5.65 | 5.45 | 474.0 | 504.0 | 14.90 | 13.22 | 13.67 | 474.0 | 504.0 | 1.52 | 1.29 | 1.02 |
| 453.8 | 483.8 | 5.99 | 5.75 | 5.58 | 514.3 | 544.3 | 16.29 | 15.05 | 18.07 | 514.3 | 544.3 | 1.66 | 1.24 | 0.99 |
| 474.0 | 504.0 | 5.98 | 5.73 | 5.56 | 534.5 | 564.5 | 14.60 | 15.28 | 20.73 | 534.5 | 564.5 | 1.74 | 1.30 | 1.06 |
| 514.3 | 544.3 | 5.98 | 5.70 | 5.54 | 574.8 | 604.8 | 9.70 | 15.13 | 16.99 | 574.8 | 604.8 | 1.92 | 1.54 | 1.30 |
| 534.5 | 564.5 | 6.05 | 5.73 | 5.58 | 595.0 | 625.0 | 7.27 | 12.16 | 16.38 | 595.0 | 625.0 | 1.92 | 1.61 | 1.42 |
| 574.8 | 604.8 | 6.29 | 5.86 | 5.65 | 635.4 | 665.4 | 4.82 | 6.84 | 11.93 | 635.4 | 665.4 | 2.03 | 1.89 | 1.71 |
| 595.0 | 625.0 | 6.47 | 6.01 | 5.73 | 655.5 | 685.5 | 4.33 | 5.91 | 9.59 | 655.5 | 685.5 | 2.02 | 1.82 | 1.69 |
| 635.4 | 665.4 | 6.78 | 6.32 | 5.91 | 695.9 | 725.9 | 4.31 | 5.21 | 6.96 | 695.9 | 725.9 | 2.00 | 1.82 | 1.68 |
| 695.9 | 725.9 | 7.12 | 6.68 | 6.26 | 716.0 | 746.0 | 4.42 | 5.26 | 6.64 | 716.0 | 746.0 | 2.10 | 1.78 | 1.73 |
| 716.0 | 746.0 | 7.22 | 6.78 | 6.38 | 756.4 | 786.4 | 4.89 | 5.85 | 7.41 | 756.4 | 786.4 | 1.96 | 1.84 | 1.67 |
| 756.4 | 786.4 | 7.42 | 6.95 | 6.52 | 776.5 | 806.5 | 5.47 | 6.54 | 8.25 | 776.5 | 806.5 | 2.01 | 1.86 | 1.75 |
| 776.5 | 806.5 | 7.54 | 7.02 | 6.57 | 816.9 | 846.9 | 7.42 | 8.71 | 10.77 | 816.9 | 846.9 | 2.23 | 2.09 | 1.90 |
| 816.9 | 846.9 | 7.56 | 6.96 | 6.51 | 837.0 | 867.0 | 8.91 | 9.93 | 14.36 | 837.0 | 867.0 | 2.08 | 1.85 | 1.73 |
| 837.0 | 867.0 | 7.55 | 6.92 | 6.48 | 877.4 | 907.4 | 12.31 | 15.89 | 17.50 | 877.4 | 907.4 | 2.23 | 1.83 | 1.70 |
| 877.4 | 907.4 | 7.49 | 6.86 | 6.46 | 897.6 | 927.6 | 16.12 | 19.42 | 15.50 | 897.6 | 927.6 | 2.20 | 1.93 | 1.70 |
| 897.6 | 927.6 | 7.43 | 6.84 | 6.47 | 937.9 | 967.9 | 15.21 | 15.68 | 14.49 | 937.9 | 967.9 | 2.29 | 1.92 | 1.67 |
| 958.1 | 988.1 | 7.56 | 7.04 | 6.76 | 958.1 | 988.1 | 14.33 | 14.11 | 14.23 | 958.1 | 988.1 | 2.12 | 1.84 | 1.56 |
| 998.4 | 1028.4 | 7.71 | 7.28 | 7.04 | 998.4 | 1028.4 | 12.27 | 13.56 | 14.66 | 998.4 | 1028.4 | 2.17 | 1.67 | 1.42 |
| 1018.6 | 1048.6 | 7.86 | 7.42 | 7.20 | 1018.6 | 1048.6 | 11.30 | 13.39 | 14.24 | 1018.6 | 1048.6 | 2.15 | 1.68 | 1.53 |
| 1058.9 | 1088.9 | 8.22 | 7.82 | 7.60 | 1058.9 | 1088.9 | 10.85 | 11.89 | 11.33 | 1058.9 | 1088.9 | 1.97 | 1.59 | 1.32 |
| 1079.1 | 1109.1 | 8.42 | 8.04 | 7.86 | 1079.1 | 1109.1 | 10.91 | 11.13 | 10.80 | 1079.1 | 1109.1 | 1.92 | 1.50 | 1.28 |
| 1119.4 | 1149.4 | 8.86 | 8.50 | 8.35 | 1119.4 | 1149.4 | 9.50 | 9.94 | 9.46 | 1119.4 | 1149.4 | 1.92 | 1.35 | 1.15 |
| 1139.6 | 1169.6 | 9.17 | 8.79 | 8.64 | 1139.6 | 1169.6 | 9.43 | 10.13 | 9.68 | 1139.6 | 1169.6 | 1.93 | 1.32 | 1.02 |
| 1179.9 | 1209.9 | 9.68 | 9.29 | 9.17 | 1179.9 | 1209.9 | 8.84 | 10.59 | 10.73 | 1179.9 | 1209.9 | 1.88 | 1.29 | 1.00 |
| 1200.1 | 1230.1 | 9.90 | 9.53 | 9.40 | 1200.1 | 1230.1 | 9.14 | 10.96 | 11.92 | 1200.1 | 1230.1 | 1.88 | 1.23 | 0.85 |



Frequency Mixer

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Typical Performance Data

| IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=500.1MHz (dB) | IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=10.1MHz (dB) | IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=1000.1MHz (dB) |
|----------------|----------|--|----------------|----------|---|----------------|----------|---|
| | | @LO (dBm) | | | @LO (dBm) | | | @LO (dBm) |
| | | +7 | | | +7 | | | +7 |
| 490.0 | 10.1 | 5.82 | 10.0 | 20.1 | 5.10 | 990.0 | 10.1 | 8.14 |
| 477.7 | 22.4 | 5.80 | 30.0 | 40.1 | 4.68 | 970.0 | 30.1 | 8.16 |
| 465.4 | 34.7 | 5.77 | 50.0 | 60.1 | 4.83 | 950.0 | 50.1 | 8.15 |
| 453.1 | 47.0 | 5.75 | 70.0 | 80.1 | 4.80 | 930.0 | 70.1 | 8.16 |
| 440.8 | 59.3 | 5.77 | 90.0 | 100.1 | 4.74 | 910.0 | 90.1 | 8.18 |
| 428.5 | 71.6 | 5.76 | 110.0 | 120.1 | 4.75 | 890.0 | 110.1 | 8.15 |
| 416.2 | 83.9 | 5.72 | 130.0 | 140.1 | 4.80 | 870.0 | 130.1 | 8.09 |
| 403.8 | 96.3 | 5.65 | 150.0 | 160.1 | 4.79 | 850.0 | 150.1 | 8.12 |
| 391.5 | 108.6 | 5.65 | 170.0 | 180.1 | 4.80 | 830.0 | 170.1 | 8.14 |
| 379.2 | 120.9 | 5.65 | 190.0 | 200.1 | 4.82 | 810.0 | 190.1 | 8.09 |
| 366.9 | 133.2 | 5.65 | 210.0 | 220.1 | 4.85 | 790.0 | 210.1 | 8.08 |
| 354.6 | 145.5 | 5.65 | 230.0 | 240.1 | 4.87 | 770.0 | 230.1 | 8.01 |
| 342.3 | 157.8 | 5.65 | 250.0 | 260.1 | 4.91 | 750.0 | 250.1 | 7.96 |
| 330.0 | 170.1 | 5.65 | 270.0 | 280.1 | 4.95 | 730.0 | 270.1 | 7.96 |
| 317.7 | 182.4 | 5.66 | 290.0 | 300.1 | 4.99 | 710.0 | 290.1 | 7.93 |
| 305.4 | 194.7 | 5.67 | 310.0 | 320.1 | 4.99 | 690.0 | 310.1 | 7.90 |
| 293.1 | 207.0 | 5.66 | 330.0 | 340.1 | 4.94 | 670.0 | 330.1 | 7.85 |
| 280.8 | 219.3 | 5.65 | 350.0 | 360.1 | 4.92 | 650.0 | 350.1 | 7.79 |
| 268.5 | 231.6 | 5.65 | 370.0 | 380.1 | 4.96 | 630.0 | 370.1 | 7.71 |
| 256.2 | 243.9 | 5.68 | 390.0 | 400.1 | 5.00 | 610.0 | 390.1 | 7.71 |
| 243.8 | 256.3 | 5.65 | 430.0 | 440.1 | 5.55 | 570.0 | 430.1 | 7.78 |
| 231.5 | 268.6 | 5.60 | 450.0 | 460.1 | 5.20 | 550.0 | 450.1 | 7.84 |
| 219.2 | 280.9 | 5.60 | 490.0 | 500.1 | 5.23 | 510.0 | 490.1 | 7.75 |
| 206.9 | 293.2 | 5.67 | 510.0 | 520.1 | 5.17 | 490.0 | 510.1 | 7.62 |
| 194.6 | 305.5 | 5.69 | 550.0 | 560.1 | 5.19 | 450.0 | 550.1 | 7.35 |
| 182.3 | 317.8 | 5.70 | 570.0 | 580.1 | 5.19 | 430.0 | 570.1 | 7.42 |
| 170.0 | 330.1 | 5.71 | 610.0 | 620.1 | 5.26 | 390.0 | 610.1 | 7.38 |
| 157.7 | 342.4 | 5.70 | 630.0 | 640.1 | 5.22 | 370.0 | 630.1 | 7.56 |
| 145.4 | 354.7 | 5.73 | 670.0 | 680.1 | 5.34 | 330.0 | 670.1 | 7.96 |
| 133.1 | 367.0 | 5.71 | 690.0 | 700.1 | 5.33 | 310.0 | 690.1 | 8.05 |
| 120.8 | 379.3 | 5.71 | 730.0 | 740.1 | 5.38 | 270.0 | 730.1 | 8.16 |
| 108.5 | 391.6 | 5.73 | 750.0 | 760.1 | 5.35 | 250.0 | 750.1 | 8.25 |
| 96.2 | 403.9 | 5.73 | 790.0 | 800.1 | 5.36 | 210.0 | 790.1 | 8.27 |
| 83.8 | 416.3 | 5.72 | 810.0 | 820.1 | 5.31 | 190.0 | 810.1 | 8.25 |
| 71.5 | 428.6 | 5.79 | 850.0 | 860.1 | 5.27 | 150.0 | 850.1 | 8.11 |
| 59.2 | 440.9 | 5.79 | 870.0 | 880.1 | 5.24 | 130.0 | 870.1 | 7.95 |
| 46.9 | 453.2 | 5.76 | 910.0 | 920.1 | 5.24 | 90.0 | 910.1 | 7.65 |
| 34.6 | 465.5 | 5.79 | 930.0 | 940.1 | 5.25 | 70.0 | 930.1 | 7.55 |
| 22.3 | 477.8 | 5.84 | 970.0 | 980.1 | 5.34 | 30.0 | 970.1 | 7.38 |
| 10.0 | 490.1 | 5.83 | 990.0 | 1000.1 | 5.39 | 10.0 | 990.1 | 7.51 |

Frequency Mixer

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Typical Performance Data

| LO (MHz) | LO-RF ISOLATION (dB) | | | LO-IF ISOLATION (dB) | | |
|-------------|-------------------------|-------|-------|-------------------------|-------|-------|
| | @LO (dBm) | | | @LO (dBm) | | |
| | +4 | +7 | +10 | +4 | +7 | +10 |
| 1.0 | 65.7 | 67.7 | 70.6 | 65.5 | 64.1 | 62.9 |
| 2.0 | 65.4 | 67.9 | 70.3 | 65.4 | 64.2 | 62.6 |
| 2.2 | 64.8 | 67.9 | 69.5 | 65.7 | 64.0 | 62.5 |
| 4.7 | 64.5 | 66.9 | 69.6 | 65.0 | 64.1 | 62.5 |
| 10.3 | 63.4 | 66.0 | 68.1 | 65.0 | 63.1 | 60.8 |
| 50.4 | 72.24 | 89.61 | 78.67 | 53.31 | 51.24 | 50.16 |
| 90.8 | 62.11 | 70.02 | 81.00 | 49.15 | 46.64 | 45.76 |
| 110.9 | 60.21 | 66.69 | 76.09 | 47.36 | 45.12 | 44.04 |
| 171.5 | 54.45 | 59.29 | 63.81 | 44.02 | 42.13 | 40.84 |
| 211.8 | 51.60 | 55.40 | 58.59 | 42.78 | 40.80 | 39.42 |
| 232.0 | 50.52 | 53.86 | 56.32 | 41.85 | 39.91 | 38.49 |
| 272.3 | 48.72 | 51.44 | 53.26 | 40.56 | 38.52 | 37.09 |
| 292.5 | 47.40 | 50.16 | 51.90 | 40.35 | 38.24 | 36.71 |
| 332.8 | 45.22 | 47.53 | 49.18 | 38.99 | 36.94 | 35.45 |
| 353.0 | 44.20 | 46.22 | 47.75 | 38.24 | 36.27 | 34.78 |
| 393.3 | 43.01 | 44.51 | 45.53 | 36.79 | 35.19 | 33.83 |
| 453.8 | 41.81 | 42.83 | 43.16 | 34.05 | 32.74 | 31.69 |
| 474.0 | 41.30 | 42.21 | 42.53 | 33.51 | 32.19 | 31.15 |
| 514.3 | 40.60 | 41.20 | 41.02 | 32.27 | 30.91 | 29.70 |
| 534.5 | 40.15 | 40.64 | 40.34 | 31.68 | 30.21 | 28.92 |
| 574.8 | 39.12 | 39.51 | 39.17 | 30.56 | 29.12 | 27.85 |
| 595.0 | 38.67 | 38.90 | 38.46 | 29.85 | 28.41 | 27.19 |
| 635.4 | 37.90 | 38.16 | 37.75 | 28.57 | 27.28 | 25.99 |
| 695.9 | 36.42 | 37.15 | 36.94 | 26.97 | 26.24 | 25.12 |
| 716.0 | 35.58 | 36.40 | 36.31 | 26.38 | 25.75 | 24.78 |
| 756.4 | 34.71 | 35.59 | 35.53 | 25.50 | 25.06 | 24.29 |
| 776.5 | 34.16 | 35.02 | 34.90 | 25.04 | 24.58 | 23.77 |
| 816.9 | 33.15 | 33.90 | 33.57 | 24.16 | 23.83 | 22.91 |
| 837.0 | 32.70 | 33.33 | 32.92 | 23.74 | 23.43 | 22.38 |
| 877.4 | 31.86 | 32.18 | 31.60 | 23.21 | 22.91 | 21.61 |
| 897.6 | 31.32 | 31.53 | 30.92 | 22.66 | 22.42 | 21.11 |
| 958.1 | 30.21 | 29.99 | 29.43 | 21.24 | 20.83 | 19.68 |
| 998.4 | 29.08 | 28.68 | 28.09 | 19.98 | 19.75 | 18.83 |
| 1018.6 | 28.55 | 28.03 | 27.41 | 19.25 | 19.11 | 18.28 |
| 1058.9 | 27.37 | 26.67 | 25.97 | 18.23 | 18.41 | 17.75 |
| 1079.1 | 26.84 | 26.03 | 25.24 | 17.51 | 17.97 | 17.48 |
| 1119.4 | 25.75 | 24.75 | 23.87 | 16.52 | 17.22 | 16.97 |
| 1139.6 | 25.29 | 24.16 | 23.24 | 16.14 | 16.92 | 16.73 |
| 1179.9 | 24.58 | 23.26 | 22.22 | 15.25 | 16.25 | 16.36 |
| 1200.1 | 24.03 | 22.67 | 21.63 | 14.89 | 15.93 | 16.09 |

| RF (IN) (MHz) | LO (MHz) | RF-IF ISOLATION (dB) | | |
|---------------------|-------------|-------------------------|-------|-------|
| | | @LO (dBm) | | |
| | | +4 | +7 | +10 |
| 10.1 | 40.1 | 34.31 | 34.06 | 35.99 |
| 50.4 | 80.4 | 33.92 | 34.31 | 35.56 |
| 90.8 | 120.8 | 30.41 | 30.78 | 30.39 |
| 110.9 | 140.9 | 29.26 | 29.40 | 29.34 |
| 151.3 | 181.3 | 27.42 | 27.61 | 27.58 |
| 171.5 | 201.5 | 26.58 | 26.81 | 26.94 |
| 211.8 | 241.8 | 25.80 | 25.97 | 26.25 |
| 232.0 | 262.0 | 25.61 | 25.84 | 26.07 |
| 272.3 | 302.3 | 25.36 | 25.86 | 26.30 |
| 292.5 | 322.5 | 25.36 | 25.89 | 26.22 |
| 332.8 | 362.8 | 25.62 | 26.11 | 26.51 |
| 353.0 | 383.0 | 25.92 | 26.46 | 26.93 |
| 393.3 | 423.3 | 26.71 | 27.30 | 27.85 |
| 413.5 | 443.5 | 26.95 | 27.52 | 28.08 |
| 453.8 | 483.8 | 26.36 | 27.04 | 27.52 |
| 474.0 | 504.0 | 25.52 | 25.95 | 26.33 |
| 514.3 | 544.3 | 23.26 | 23.53 | 23.67 |
| 534.5 | 564.5 | 22.13 | 22.12 | 22.15 |
| 574.8 | 604.8 | 20.41 | 20.15 | 19.92 |
| 595.0 | 625.0 | 19.81 | 19.50 | 19.21 |
| 635.4 | 665.4 | 18.94 | 18.72 | 18.46 |
| 655.5 | 685.5 | 18.65 | 18.46 | 18.33 |
| 695.9 | 725.9 | 18.47 | 18.25 | 18.23 |
| 716.0 | 746.0 | 18.54 | 18.31 | 18.26 |
| 756.4 | 786.4 | 18.90 | 18.72 | 18.68 |
| 776.5 | 806.5 | 19.00 | 18.84 | 18.81 |
| 816.9 | 846.9 | 18.92 | 18.64 | 18.45 |
| 837.0 | 867.0 | 18.60 | 18.22 | 17.90 |
| 877.4 | 907.4 | 17.76 | 17.26 | 16.99 |
| 897.6 | 927.6 | 17.28 | 16.93 | 16.71 |
| 937.9 | 967.9 | 16.44 | 16.28 | 16.15 |
| 958.1 | 988.1 | 15.94 | 15.83 | 15.68 |
| 998.4 | 1028.4 | 14.80 | 14.67 | 14.47 |
| 1018.6 | 1048.6 | 14.15 | 14.01 | 13.79 |
| 1058.9 | 1088.9 | 12.81 | 12.63 | 12.37 |
| 1079.1 | 1109.1 | 12.09 | 11.86 | 11.59 |
| 1119.4 | 1149.4 | 10.79 | 10.43 | 10.10 |
| 1139.6 | 1169.6 | 10.25 | 9.80 | 9.43 |
| 1179.9 | 1209.9 | 9.24 | 8.65 | 8.20 |
| 1200.1 | 1230.1 | 8.78 | 8.16 | 7.69 |



Frequency Mixer

ADE-2ASK

Typical Performance Data

| RF (IN) (MHz) | LO (MHz) | RF VSWR (:1) | | |
|------------------|-------------|--------------|------|------|
| | | @LO (dBm) | | |
| | | +4 | +7 | +10 |
| 1.0 | 31.0 | 1.39 | 1.38 | 1.38 |
| 2.0 | 32.0 | 1.25 | 1.22 | 1.22 |
| 2.2 | 32.2 | 1.24 | 1.21 | 1.20 |
| 4.7 | 34.7 | 1.18 | 1.12 | 1.10 |
| 10.3 | 40.3 | 1.16 | 1.09 | 1.05 |
| 50.4 | 80.4 | 1.06 | 1.03 | 1.07 |
| 90.8 | 120.8 | 1.17 | 1.10 | 1.08 |
| 110.9 | 140.9 | 1.11 | 1.04 | 1.03 |
| 171.5 | 201.5 | 1.13 | 1.08 | 1.07 |
| 211.8 | 241.8 | 1.09 | 1.09 | 1.12 |
| 232.0 | 262.0 | 1.13 | 1.13 | 1.14 |
| 272.3 | 302.3 | 1.14 | 1.12 | 1.14 |
| 292.5 | 322.5 | 1.12 | 1.12 | 1.14 |
| 332.8 | 362.8 | 1.16 | 1.16 | 1.18 |
| 353.0 | 383.0 | 1.16 | 1.15 | 1.18 |
| 393.3 | 423.3 | 1.20 | 1.20 | 1.23 |
| 453.8 | 483.8 | 1.21 | 1.23 | 1.25 |
| 474.0 | 504.0 | 1.23 | 1.25 | 1.29 |
| 514.3 | 544.3 | 1.21 | 1.25 | 1.29 |
| 534.5 | 564.5 | 1.22 | 1.26 | 1.30 |
| 574.8 | 604.8 | 1.23 | 1.24 | 1.27 |
| 595.0 | 625.0 | 1.23 | 1.21 | 1.24 |
| 635.4 | 665.4 | 1.30 | 1.26 | 1.26 |
| 695.9 | 725.9 | 1.45 | 1.39 | 1.36 |
| 716.0 | 746.0 | 1.53 | 1.48 | 1.44 |
| 756.4 | 786.4 | 1.76 | 1.69 | 1.64 |
| 776.5 | 806.5 | 1.82 | 1.75 | 1.70 |
| 816.9 | 846.9 | 2.07 | 1.98 | 1.92 |
| 837.0 | 867.0 | 2.18 | 2.09 | 2.02 |
| 877.4 | 907.4 | 2.30 | 2.20 | 2.14 |
| 897.6 | 927.6 | 2.44 | 2.35 | 2.28 |
| 958.1 | 988.1 | 2.63 | 2.54 | 2.47 |
| 998.4 | 1028.4 | 2.88 | 2.79 | 2.72 |
| 1018.6 | 1048.6 | 2.93 | 2.83 | 2.75 |
| 1058.9 | 1088.9 | 2.97 | 2.88 | 2.82 |
| 1079.1 | 1109.1 | 3.07 | 2.98 | 2.90 |
| 1119.4 | 1149.4 | 2.99 | 2.89 | 2.82 |
| 1139.6 | 1169.6 | 3.01 | 2.91 | 2.84 |
| 1179.9 | 1209.9 | 3.07 | 2.93 | 2.84 |
| 1200.1 | 1230.1 | 2.96 | 2.82 | 2.73 |

| LO (MHz) | LO VSWR (:1) | | |
|-------------|--------------|------|------|
| | @LO (dBm) | | |
| | +4 | +7 | +10 |
| 1.0 | 1.77 | 2.58 | 3.57 |
| 2.0 | 1.73 | 2.55 | 3.57 |
| 2.2 | 1.75 | 2.52 | 3.50 |
| 4.7 | 1.73 | 2.55 | 3.57 |
| 10.3 | 1.77 | 2.52 | 3.50 |
| 50.4 | 1.80 | 2.62 | 3.70 |
| 90.8 | 1.79 | 2.59 | 3.61 |
| 110.9 | 1.74 | 2.51 | 3.47 |
| 171.5 | 1.82 | 2.61 | 3.60 |
| 211.8 | 1.82 | 2.58 | 3.53 |
| 232.0 | 1.87 | 2.66 | 3.64 |
| 272.3 | 1.91 | 2.69 | 3.65 |
| 292.5 | 1.90 | 2.65 | 3.56 |
| 332.8 | 1.96 | 2.73 | 3.67 |
| 353.0 | 2.01 | 2.79 | 3.73 |
| 393.3 | 2.02 | 2.75 | 3.63 |
| 453.8 | 2.17 | 2.93 | 3.88 |
| 474.0 | 2.16 | 2.89 | 3.79 |
| 514.3 | 2.20 | 2.91 | 3.79 |
| 534.5 | 2.23 | 2.92 | 3.79 |
| 574.8 | 2.32 | 2.98 | 3.80 |
| 595.0 | 2.42 | 3.11 | 3.95 |
| 635.4 | 2.53 | 3.27 | 4.10 |
| 695.9 | 2.60 | 3.34 | 4.18 |
| 716.0 | 2.60 | 3.33 | 4.16 |
| 756.4 | 2.65 | 3.34 | 4.15 |
| 776.5 | 2.69 | 3.38 | 4.20 |
| 816.9 | 2.75 | 3.43 | 4.22 |
| 837.0 | 2.77 | 3.42 | 4.19 |
| 877.4 | 2.77 | 3.37 | 4.09 |
| 897.6 | 2.77 | 3.34 | 4.06 |
| 958.1 | 2.89 | 3.45 | 4.16 |
| 998.4 | 2.99 | 3.54 | 4.23 |
| 1018.6 | 3.11 | 3.64 | 4.31 |
| 1058.9 | 3.27 | 3.74 | 4.36 |
| 1079.1 | 3.33 | 3.74 | 4.33 |
| 1119.4 | 3.62 | 3.97 | 4.52 |
| 1139.6 | 3.76 | 4.09 | 4.61 |
| 1179.9 | 3.90 | 4.15 | 4.60 |
| 1200.1 | 4.01 | 4.26 | 4.69 |

| IF (OUT) (MHz) | IF VSWR @LO=1200.1MHz (:1) | | |
|-------------------|----------------------------|------|------|
| | @LO (dBm) | | |
| | +4 | +7 | +10 |
| 10.0 | 1.64 | 1.37 | 1.19 |
| 29.9 | 1.34 | 1.11 | 1.03 |
| 49.7 | 1.24 | 1.03 | 1.14 |
| 69.5 | 1.20 | 1.11 | 1.17 |
| 89.3 | 1.29 | 1.15 | 1.17 |
| 109.1 | 1.31 | 1.16 | 1.17 |
| 128.9 | 1.29 | 1.14 | 1.17 |
| 148.7 | 1.27 | 1.16 | 1.21 |
| 168.5 | 1.28 | 1.18 | 1.22 |
| 188.3 | 1.31 | 1.21 | 1.24 |
| 208.1 | 1.30 | 1.20 | 1.23 |
| 227.9 | 1.28 | 1.20 | 1.24 |
| 247.7 | 1.28 | 1.21 | 1.29 |
| 267.5 | 1.30 | 1.26 | 1.32 |
| 287.3 | 1.33 | 1.28 | 1.33 |
| 307.1 | 1.33 | 1.29 | 1.34 |
| 326.9 | 1.31 | 1.27 | 1.34 |
| 346.7 | 1.30 | 1.28 | 1.36 |
| 386.3 | 1.34 | 1.33 | 1.41 |
| 406.1 | 1.34 | 1.34 | 1.42 |
| 445.7 | 1.34 | 1.36 | 1.45 |
| 465.5 | 1.35 | 1.38 | 1.49 |
| 505.1 | 1.35 | 1.38 | 1.48 |
| 524.9 | 1.36 | 1.39 | 1.50 |
| 564.5 | 1.37 | 1.41 | 1.53 |
| 584.3 | 1.36 | 1.39 | 1.49 |
| 623.9 | 1.37 | 1.41 | 1.52 |
| 643.7 | 1.38 | 1.42 | 1.53 |
| 683.3 | 1.40 | 1.40 | 1.51 |
| 703.1 | 1.39 | 1.39 | 1.50 |
| 742.7 | 1.40 | 1.38 | 1.48 |
| 762.5 | 1.42 | 1.37 | 1.46 |
| 802.1 | 1.40 | 1.32 | 1.41 |
| 821.9 | 1.40 | 1.31 | 1.39 |
| 861.5 | 1.44 | 1.30 | 1.36 |
| 881.3 | 1.45 | 1.27 | 1.31 |
| 920.9 | 1.44 | 1.23 | 1.25 |
| 940.7 | 1.46 | 1.23 | 1.24 |
| 980.3 | 1.50 | 1.21 | 1.15 |
| 1000.1 | 1.49 | 1.19 | 1.10 |

Harmonics Tables

RF HARMONICS ORDER

| | (-dBm) | (-dBc) | | | | | | | | | | |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0 | - | - | 4 | 16 | 11 | 30 | 14 | 28 | 36 | 45 | 45 | 51 |
| 1 | - | 18 | 0 | 37 | 11 | 32 | 34 | 51 | 50 | 43 | 65 | 55 |
| 2 | 109 | 59 | 45 | 57 | 44 | 57 | 47 | 64 | 52 | 66 | 70 | 73 |
| 3 | 113 | 67 | 67 | 68 | 65 | 69 | 63 | 83 | 89 | 81 | 89 | 79 |
| 4 | 120 | 95 | 92 | 90 | 95 | 90 | 98 | 92 | 92 | 92 | 93 | 96 |
| 5 | 119 | 99 | 120 | 107 | 108 | 111 | 95 | 109 | 102 | 117 | 96 | 111 |
| 6 | 128 | 125 | 108 | 102 | 124 | 94 | 101 | 85 | 104 | 100 | 108 | 105 |
| 7 | 112 | 107 | 108 | 99 | 106 | 131 | 97 | 97 | 87 | 101 | 102 | 98 |
| 8 | 116 | 107 | 99 | 104 | 105 | 106 | 102 | 100 | 97 | 85 | 96 | 111 |
| 9 | 111 | 109 | 122 | 100 | 99 | 107 | 109 | 106 | 100 | 98 | 96 | 99 |
| 10 | 120 | 106 | 106 | 105 | 104 | 105 | 119 | 118 | 122 | 99 | 92 | 90 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

LO HARMONICS ORDER

Test conditions: RF IN: 500.1 MHz; -14.00 dBm.
 LO IN: 530.01 MHz; +7.00 dBm
 IF OUT: 29.91 MHz; -19.53 dBm

RF HARMONICS ORDER

| | (-dBm) | (-dBc) | | | | | | | | | | |
|----|--------|--------|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 0 | - | - | 13 | 28 | 23 | 42 | 27 | 39 | 49 | 54 | 54 | 63 |
| 1 | - | 19 | 0 | 34 | 12 | 33 | 35 | 52 | 52 | 49 | 65 | 61 |
| 2 | 94 | 47 | 38 | 59 | 38 | 49 | 39 | 61 | 44 | 58 | 61 | 73 |
| 3 | 110 | 44 | 43 | 51 | 42 | 52 | 40 | 54 | 65 | 68 | 70 | 63 |
| 4 | 109 | 76 | 61 | 59 | 53 | 57 | 53 | 57 | 57 | 67 | 62 | 70 |
| 5 | 142 | 71 | 70 | 84 | 58 | 61 | 58 | 62 | 61 | 74 | 77 | 76 |
| 6 | 112 | 84 | 92 | 90 | 78 | 82 | 73 | 84 | 91 | 73 | 77 | 81 |
| 7 | 113 | 87 | 95 | 91 | 83 | 75 | 72 | 73 | 74 | 73 | 74 | 86 |
| 8 | 112 | 93 | 89 | 95 | 101 | 92 | 81 | 77 | 76 | 76 | 77 | 80 |
| 9 | 109 | 115 | 100 | 96 | 100 | 98 | 98 | 87 | 81 | 86 | 85 | 85 |
| 10 | 113 | 117 | 113 | 104 | 102 | 110 | 112 | 109 | 94 | 89 | 94 | 94 |
| | 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; +7.00 dBm
 IF OUT: 29.91 MHz; -9.52 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.

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 100817
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