

Frequency Mixer

ZMX-10G+

Typical Performance Data

| RF (IN) (MHz) | LO (MHz) | CONVERSION LOSS IF FIXED @IF(OUT)=30MHz (dB) | | |
|------------------|-------------|---|-------|-------|
| | | @LO (dBm) | | |
| | | +4 | +7 | +10 |
| 1500.1 | 1530.1 | 9.17 | 7.98 | 7.54 |
| 1725.1 | 1755.1 | 7.40 | 6.65 | 6.33 |
| 1950.1 | 1980.1 | 6.70 | 6.13 | 5.83 |
| 2175.1 | 2205.1 | 5.83 | 5.44 | 5.29 |
| 2400.1 | 2430.1 | 5.46 | 5.20 | 5.03 |
| 2625.1 | 2655.1 | 5.14 | 4.95 | 4.85 |
| 2850.1 | 2880.1 | 4.92 | 4.80 | 4.75 |
| 3075.1 | 3105.1 | 4.92 | 4.80 | 4.75 |
| 3300.1 | 3330.1 | 4.98 | 4.77 | 4.68 |
| 3525.1 | 3555.1 | 5.08 | 4.85 | 4.76 |
| 3750.1 | 3780.1 | 5.34 | 5.11 | 4.99 |
| 3975.1 | 4005.1 | 5.56 | 5.33 | 5.18 |
| 4200.1 | 4230.1 | 5.60 | 5.38 | 5.27 |
| 4425.1 | 4455.1 | 5.75 | 5.54 | 5.45 |
| 4650.1 | 4680.1 | 5.81 | 5.65 | 5.58 |
| 4875.1 | 4905.1 | 5.63 | 5.51 | 5.51 |
| 5100.1 | 5130.1 | 5.43 | 5.33 | 5.41 |
| 5325.1 | 5355.1 | 7.86 | 7.17 | 6.69 |
| 5550.1 | 5580.1 | 8.14 | 7.56 | 7.19 |
| 5775.1 | 5805.1 | 7.55 | 7.13 | 6.94 |
| 6000.1 | 6030.1 | 7.34 | 6.95 | 6.83 |
| 6247.6 | 6277.6 | 7.19 | 6.87 | 6.79 |
| 6472.6 | 6502.6 | 7.13 | 6.82 | 6.76 |
| 6720.1 | 6750.1 | 7.22 | 6.88 | 6.83 |
| 6945.1 | 6975.1 | 7.39 | 6.97 | 6.87 |
| 7192.6 | 7222.6 | 7.22 | 6.89 | 6.76 |
| 7417.6 | 7447.6 | 7.72 | 7.32 | 7.14 |
| 7665.1 | 7695.1 | 7.22 | 6.97 | 6.86 |
| 7890.1 | 7920.1 | 7.24 | 7.03 | 6.94 |
| 8137.6 | 8167.6 | 7.05 | 6.88 | 6.83 |
| 8362.6 | 8392.6 | 6.82 | 6.69 | 6.65 |
| 8610.1 | 8640.1 | 6.52 | 6.37 | 6.32 |
| 8835.1 | 8865.1 | 6.19 | 6.04 | 6.00 |
| 9082.6 | 9112.6 | 6.08 | 5.89 | 5.85 |
| 9307.6 | 9337.6 | 6.14 | 5.91 | 5.89 |
| 9555.1 | 9585.1 | 6.42 | 6.21 | 6.20 |
| 9780.1 | 9810.1 | 6.89 | 6.61 | 6.69 |
| 10027.6 | 10057.6 | 8.23 | 7.68 | 7.93 |
| 10252.6 | 10282.6 | 9.95 | 8.71 | 8.96 |
| 10500.1 | 10530.1 | 14.34 | 11.51 | 10.28 |

| RF (IN) (MHz) | LO (MHz) | IP3 INPUT (dBm) | | |
|------------------|-------------|--------------------|-------|-------|
| | | @LO (dBm) | | |
| | | +4 | +7 | +10 |
| 1500.1 | 1530.1 | 10.84 | 10.70 | 8.42 |
| 1725.1 | 1755.1 | 6.95 | 5.97 | 4.57 |
| 1950.1 | 1980.1 | 7.35 | 7.16 | 6.60 |
| 2175.1 | 2205.1 | 8.48 | 8.21 | 6.50 |
| 2400.1 | 2430.1 | 9.15 | 10.02 | 9.20 |
| 2625.1 | 2655.1 | 9.73 | 9.52 | 8.49 |
| 2850.1 | 2880.1 | 10.77 | 11.07 | 10.23 |
| 3075.1 | 3105.1 | 8.85 | 10.07 | 10.17 |
| 3300.1 | 3330.1 | 9.87 | 11.29 | 12.21 |
| 3525.1 | 3555.1 | 10.59 | 10.63 | 11.05 |
| 3750.1 | 3780.1 | 9.65 | 10.27 | 10.51 |
| 3975.1 | 4005.1 | 10.12 | 11.56 | 11.39 |
| 4200.1 | 4230.1 | 9.61 | 12.09 | 12.96 |
| 4425.1 | 4455.1 | 9.29 | 12.17 | 14.59 |
| 4650.1 | 4680.1 | 10.28 | 12.21 | 15.95 |
| 4875.1 | 4905.1 | 12.53 | 12.16 | 14.41 |
| 5100.1 | 5130.1 | 7.82 | 10.79 | 14.04 |
| 5325.1 | 5355.1 | 7.20 | 10.07 | 14.72 |
| 5550.1 | 5580.1 | 12.04 | 12.85 | 13.32 |
| 5775.1 | 5805.1 | 11.48 | 11.61 | 12.81 |
| 6000.1 | 6030.1 | 12.84 | 11.65 | 11.66 |
| 6247.6 | 6277.6 | 14.80 | 13.11 | 11.65 |
| 6472.6 | 6502.6 | 15.28 | 15.61 | 12.17 |
| 6720.1 | 6750.1 | 15.59 | 17.19 | 14.40 |
| 6945.1 | 6975.1 | 17.23 | 18.70 | 18.84 |
| 7192.6 | 7222.6 | 19.80 | 20.29 | 18.73 |
| 7417.6 | 7447.6 | 14.64 | 16.18 | 15.78 |
| 7665.1 | 7695.1 | 12.66 | 13.13 | 13.13 |
| 7890.1 | 7920.1 | 12.47 | 12.95 | 12.89 |
| 8137.6 | 8167.6 | 11.84 | 12.19 | 11.96 |
| 8362.6 | 8392.6 | 10.18 | 10.57 | 10.82 |
| 8610.1 | 8640.1 | 9.08 | 9.78 | 10.01 |
| 8835.1 | 8865.1 | 7.93 | 8.89 | 9.23 |
| 9082.6 | 9112.6 | 5.81 | 7.47 | 8.19 |
| 9307.6 | 9337.6 | 4.23 | 6.49 | 7.69 |
| 9555.1 | 9585.1 | 4.28 | 6.92 | 8.56 |
| 9780.1 | 9810.1 | 4.78 | 6.22 | 8.19 |
| 10027.6 | 10057.6 | 7.67 | 7.06 | 7.91 |
| 10252.6 | 10282.6 | 4.67 | 6.14 | 10.98 |
| 10500.1 | 10530.1 | 1.05 | 5.16 | 11.26 |

| RF (IN) (MHz) | LO (MHz) | COMPRESSION @RF IN=+1dBm (dB) | | |
|------------------|-------------|-------------------------------------|------|------|
| | | @LO (dBm) | | |
| | | +4 | +7 | +10 |
| 1500.1 | 1530.1 | 1.81 | 1.55 | 1.38 |
| 1725.1 | 1755.1 | 2.10 | 1.98 | 1.91 |
| 1950.1 | 1980.1 | 2.01 | 1.94 | 1.93 |
| 2175.1 | 2205.1 | 2.29 | 2.11 | 2.07 |
| 2400.1 | 2430.1 | 2.27 | 2.03 | 1.90 |
| 2625.1 | 2655.1 | 2.15 | 1.84 | 1.63 |
| 2850.1 | 2880.1 | 1.81 | 1.52 | 1.33 |
| 3075.1 | 3105.1 | 1.40 | 1.24 | 1.13 |
| 3300.1 | 3330.1 | 1.15 | 0.98 | 0.88 |
| 3525.1 | 3555.1 | 1.03 | 0.86 | 0.76 |
| 3750.1 | 3780.1 | 0.82 | 0.65 | 0.57 |
| 3975.1 | 4005.1 | 0.72 | 0.55 | 0.44 |
| 4200.1 | 4230.1 | 0.76 | 0.50 | 0.40 |
| 4425.1 | 4455.1 | 0.66 | 0.39 | 0.32 |
| 4650.1 | 4680.1 | 0.62 | 0.32 | 0.21 |
| 4875.1 | 4905.1 | 0.81 | 0.42 | 0.22 |
| 5100.1 | 5130.1 | 1.48 | 1.00 | 0.61 |
| 5325.1 | 5355.1 | 1.30 | 1.12 | 0.80 |
| 5550.1 | 5580.1 | 0.47 | 0.38 | 0.33 |
| 5775.1 | 5805.1 | 0.43 | 0.34 | 0.32 |
| 6000.1 | 6030.1 | 0.49 | 0.37 | 0.32 |
| 6247.6 | 6277.6 | 0.43 | 0.34 | 0.28 |
| 6472.6 | 6502.6 | 0.45 | 0.36 | 0.30 |
| 6720.1 | 6750.1 | 0.41 | 0.33 | 0.28 |
| 6945.1 | 6975.1 | 0.34 | 0.26 | 0.23 |
| 7192.6 | 7222.6 | 0.44 | 0.36 | 0.35 |
| 7417.6 | 7447.6 | 0.34 | 0.33 | 0.39 |
| 7665.1 | 7695.1 | 0.56 | 0.58 | 0.65 |
| 7890.1 | 7920.1 | 0.55 | 0.56 | 0.63 |
| 8137.6 | 8167.6 | 0.69 | 0.70 | 0.70 |
| 8362.6 | 8392.6 | 0.78 | 0.76 | 0.80 |
| 8610.1 | 8640.1 | 0.87 | 0.84 | 0.87 |
| 8835.1 | 8865.1 | 1.12 | 1.04 | 1.04 |
| 9082.6 | 9112.6 | 1.32 | 1.10 | 1.10 |
| 9307.6 | 9337.6 | 1.57 | 1.24 | 1.20 |
| 9555.1 | 9585.1 | 1.52 | 1.13 | 1.12 |
| 9780.1 | 9810.1 | 1.99 | 1.25 | 1.22 |
| 10027.6 | 10057.6 | 1.78 | 1.27 | 1.11 |
| 10252.6 | 10282.6 | 1.82 | 1.53 | 0.86 |
| 10500.1 | 10530.1 | 0.22 | 0.84 | 0.71 |

Typical Performance Data

| IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=6850MHz (dB) | IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=3690MHz (dB) | IF (OUT) (MHz) | LO (MHz) | CONVERSION LOSS VS. IF FREQUENCY @RF(IN)=10010.09MHz (dB) |
|----------------|----------|---|----------------|----------|---|----------------|----------|---|
| | | @LO (dBm) | | | @LO (dBm) | | | @LO (dBm) |
| | | +7 | | | +7 | | | +7 |
| 2549.9 | 4300.1 | 11.40 | 10.1 | 3700.1 | 5.31 | 2610.0 | 7400.1 | 10.36 |
| 2412.1 | 4437.9 | 9.60 | 90.1 | 3780.1 | 5.12 | 2550.0 | 7460.1 | 10.11 |
| 2274.3 | 4575.7 | 8.50 | 170.1 | 3860.1 | 5.15 | 2490.0 | 7520.1 | 9.92 |
| 2136.4 | 4713.6 | 8.18 | 250.1 | 3940.1 | 5.21 | 2430.0 | 7580.1 | 9.72 |
| 1998.6 | 4851.4 | 8.15 | 330.1 | 4020.1 | 5.29 | 2370.0 | 7640.1 | 9.47 |
| 1860.8 | 4989.2 | 8.15 | 410.1 | 4100.1 | 5.36 | 2310.0 | 7700.1 | 9.30 |
| 1723.0 | 5127.0 | 7.96 | 490.1 | 4180.1 | 5.52 | 2250.0 | 7760.1 | 9.19 |
| 1585.1 | 5264.9 | 7.90 | 570.1 | 4260.1 | 5.59 | 2190.0 | 7820.1 | 8.97 |
| 1447.3 | 5402.7 | 7.87 | 650.1 | 4340.1 | 5.63 | 2130.0 | 7880.1 | 8.86 |
| 1309.5 | 5540.5 | 7.80 | 710.1 | 4400.1 | 5.77 | 2070.0 | 7940.1 | 8.76 |
| 1171.7 | 5678.3 | 7.62 | 790.1 | 4480.1 | 5.81 | 2010.0 | 8000.1 | 8.50 |
| 1033.8 | 5816.2 | 7.04 | 850.1 | 4540.1 | 5.78 | 1950.0 | 8060.1 | 8.40 |
| 896.0 | 5954.0 | 6.90 | 930.1 | 4620.1 | 5.73 | 1890.0 | 8120.1 | 8.28 |
| 758.2 | 6091.8 | 6.88 | 990.1 | 4680.1 | 5.39 | 1830.0 | 8180.1 | 8.04 |
| 640.1 | 6209.9 | 7.00 | 1070.1 | 4760.1 | 4.95 | 1750.0 | 8260.1 | 8.05 |
| 502.2 | 6347.8 | 6.98 | 1130.1 | 4820.1 | 5.16 | 1690.0 | 8320.1 | 7.95 |
| 384.1 | 6465.9 | 6.95 | 1210.1 | 4900.1 | 5.30 | 1610.0 | 8400.1 | 7.86 |
| 246.3 | 6603.7 | 6.91 | 1270.1 | 4960.1 | 5.42 | 1550.0 | 8460.1 | 7.94 |
| 128.1 | 6721.9 | 6.87 | 1350.1 | 5040.1 | 5.60 | 1470.0 | 8540.1 | 7.86 |
| 10.0 | 6860.0 | 7.29 | 1410.1 | 5100.1 | 5.49 | 1410.0 | 8600.1 | 7.80 |
| 131.9 | 6981.9 | 6.90 | 1490.1 | 5180.1 | 5.66 | 1330.0 | 8680.1 | 7.76 |
| 274.0 | 7124.0 | 6.98 | 1550.1 | 5240.1 | 5.70 | 1270.0 | 8740.1 | 7.75 |
| 395.9 | 7245.9 | 7.15 | 1630.1 | 5320.1 | 5.70 | 1190.0 | 8820.1 | 7.61 |
| 538.0 | 7388.0 | 7.42 | 1690.1 | 5380.1 | 5.72 | 1130.0 | 8880.1 | 7.83 |
| 659.9 | 7509.9 | 7.67 | 1770.1 | 5460.1 | 5.83 | 1050.0 | 8960.1 | 7.64 |
| 802.0 | 7652.0 | 7.93 | 1830.1 | 5520.1 | 5.71 | 990.0 | 9020.1 | 7.67 |
| 923.9 | 7773.9 | 8.06 | 1910.1 | 5600.1 | 5.82 | 910.0 | 9100.1 | 7.68 |
| 1066.0 | 7916.0 | 8.19 | 1970.1 | 5660.1 | 5.97 | 850.0 | 9160.1 | 7.64 |
| 1187.9 | 8037.9 | 8.41 | 2050.1 | 5740.1 | 6.09 | 770.0 | 9240.1 | 7.68 |
| 1330.0 | 8180.0 | 8.65 | 2110.1 | 5800.1 | 6.25 | 710.0 | 9300.1 | 7.60 |
| 1451.9 | 8301.9 | 8.89 | 2190.1 | 5880.1 | 6.48 | 630.0 | 9380.1 | 7.64 |
| 1594.1 | 8444.1 | 8.93 | 2250.1 | 5940.1 | 6.76 | 570.0 | 9440.1 | 7.64 |
| 1715.9 | 8565.9 | 8.94 | 2330.1 | 6020.1 | 7.05 | 490.0 | 9520.1 | 7.61 |
| 1858.1 | 8708.1 | 9.01 | 2390.1 | 6080.1 | 7.35 | 430.0 | 9580.1 | 7.65 |
| 1979.9 | 8829.9 | 8.84 | 2470.1 | 6160.1 | 7.72 | 350.0 | 9660.1 | 7.61 |
| 2122.1 | 8972.1 | 8.48 | 2530.1 | 6220.1 | 8.33 | 290.0 | 9720.1 | 7.67 |
| 2243.9 | 9093.9 | 8.43 | 2610.1 | 6300.1 | 8.83 | 210.0 | 9800.1 | 7.60 |
| 2386.1 | 9236.1 | 8.74 | 2670.1 | 6360.1 | 9.27 | 150.0 | 9860.1 | 7.69 |
| 2507.9 | 9357.9 | 9.33 | 2750.1 | 6440.1 | 9.58 | 70.0 | 9940.1 | 7.59 |
| 2650.1 | 9500.1 | 10.75 | 2810.1 | 6500.1 | 10.03 | 10.0 | 10000.1 | 7.88 |

Frequency Mixer

ZMX-10G+

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) | | |
| | +4 | +7 | +10 | +4 | +7 | +10 | | | +4 | +7 | +10 |
| 1530.1 | 30.39 | 37.43 | 44.32 | 9.28 | 11.58 | 13.76 | 1500.1 | 1530.1 | 13.05 | 12.67 | 12.05 |
| 1755.1 | 36.25 | 41.90 | 44.22 | 9.44 | 11.85 | 14.38 | 1725.1 | 1755.1 | 14.19 | 14.03 | 13.74 |
| 1980.1 | 33.86 | 36.28 | 37.40 | 9.38 | 11.49 | 13.50 | 1950.1 | 1980.1 | 16.52 | 16.31 | 16.64 |
| 2205.1 | 31.35 | 31.91 | 32.48 | 8.90 | 10.18 | 11.18 | 2175.1 | 2205.1 | 19.79 | 19.08 | 18.53 |
| 2430.1 | 33.16 | 32.04 | 31.56 | 7.88 | 8.68 | 8.93 | 2400.1 | 2430.1 | 21.42 | 21.64 | 21.49 |
| 2655.1 | 41.79 | 38.82 | 36.85 | 7.48 | 7.87 | 8.08 | 2625.1 | 2655.1 | 18.63 | 18.96 | 19.61 |
| 2880.1 | 36.78 | 38.32 | 39.47 | 8.31 | 8.46 | 8.19 | 2850.1 | 2880.1 | 18.00 | 17.99 | 18.22 |
| 3105.1 | 35.28 | 35.31 | 35.01 | 9.28 | 9.09 | 8.44 | 3075.1 | 3105.1 | 19.50 | 19.25 | 19.16 |
| 3330.1 | 36.36 | 35.00 | 34.02 | 10.33 | 9.35 | 8.83 | 3300.1 | 3330.1 | 21.18 | 21.03 | 20.93 |
| 3555.1 | 37.23 | 36.17 | 34.98 | 11.06 | 9.89 | 9.25 | 3525.1 | 3555.1 | 22.26 | 22.46 | 22.48 |
| 3780.1 | 37.75 | 36.27 | 35.08 | 11.69 | 10.36 | 9.71 | 3750.1 | 3780.1 | 22.88 | 23.36 | 23.47 |
| 4005.1 | 37.23 | 36.15 | 34.74 | 12.01 | 11.09 | 10.18 | 3975.1 | 4005.1 | 24.03 | 24.27 | 24.59 |
| 4230.1 | 37.21 | 36.13 | 34.47 | 12.72 | 11.72 | 10.68 | 4200.1 | 4230.1 | 25.17 | 25.71 | 26.05 |
| 4455.1 | 36.97 | 35.60 | 33.98 | 13.23 | 11.91 | 11.28 | 4425.1 | 4455.1 | 26.67 | 27.03 | 27.31 |
| 4680.1 | 34.93 | 35.44 | 34.47 | 13.66 | 12.61 | 11.98 | 4650.1 | 4680.1 | 28.27 | 28.63 | 28.95 |
| 4905.1 | 34.03 | 35.18 | 35.00 | 14.15 | 13.21 | 12.68 | 4875.1 | 4905.1 | 29.64 | 30.10 | 30.44 |
| 5130.1 | 34.76 | 36.09 | 36.14 | 14.59 | 13.80 | 13.31 | 5100.1 | 5130.1 | 29.87 | 29.86 | 29.95 |
| 5355.1 | 33.72 | 35.67 | 37.57 | 14.90 | 14.50 | 13.95 | 5325.1 | 5355.1 | 29.70 | 29.61 | 29.49 |
| 5580.1 | 32.53 | 34.44 | 36.35 | 15.57 | 14.96 | 14.57 | 5550.1 | 5580.1 | 32.52 | 32.36 | 32.14 |
| 5805.1 | 32.49 | 34.50 | 36.49 | 15.86 | 15.41 | 15.15 | 5775.1 | 5805.1 | 34.08 | 34.19 | 34.14 |
| 6030.1 | 32.58 | 35.08 | 37.75 | 16.20 | 15.90 | 15.70 | 6000.1 | 6030.1 | 35.19 | 34.99 | 35.08 |
| 6277.6 | 33.12 | 36.02 | 39.49 | 16.56 | 16.66 | 16.23 | 6247.6 | 6277.6 | 35.83 | 35.44 | 35.16 |
| 6502.6 | 33.41 | 36.46 | 40.39 | 17.08 | 17.20 | 16.99 | 6472.6 | 6502.6 | 35.97 | 35.58 | 35.12 |
| 6750.1 | 33.77 | 36.76 | 39.57 | 17.47 | 17.90 | 17.72 | 6720.1 | 6750.1 | 35.24 | 35.18 | 34.68 |
| 6975.1 | 34.73 | 38.43 | 40.84 | 18.02 | 18.38 | 18.70 | 6945.1 | 6975.1 | 34.35 | 34.06 | 33.72 |
| 7222.6 | 35.93 | 37.63 | 36.93 | 18.50 | 19.38 | 19.71 | 7192.6 | 7222.6 | 33.08 | 32.95 | 32.68 |
| 7447.6 | 35.69 | 34.84 | 33.43 | 19.12 | 19.99 | 20.86 | 7417.6 | 7447.6 | 31.54 | 31.48 | 31.22 |
| 7695.1 | 36.03 | 34.00 | 32.23 | 19.72 | 20.86 | 21.97 | 7665.1 | 7695.1 | 29.32 | 29.23 | 29.11 |
| 7920.1 | 38.11 | 35.12 | 33.13 | 20.56 | 21.76 | 22.98 | 7890.1 | 7920.1 | 27.55 | 27.53 | 27.49 |
| 8167.6 | 42.03 | 39.32 | 36.89 | 21.84 | 23.22 | 24.54 | 8137.6 | 8167.6 | 26.52 | 26.46 | 26.36 |
| 8392.6 | 40.50 | 48.30 | 47.81 | 23.46 | 25.03 | 26.56 | 8362.6 | 8392.6 | 26.33 | 26.24 | 26.28 |
| 8640.1 | 34.17 | 37.53 | 41.03 | 25.44 | 27.15 | 28.80 | 8610.1 | 8640.1 | 27.38 | 27.19 | 27.00 |
| 8865.1 | 30.89 | 33.21 | 35.25 | 27.54 | 29.28 | 30.70 | 8835.1 | 8865.1 | 28.62 | 28.38 | 28.18 |
| 9112.6 | 28.25 | 30.13 | 31.87 | 29.77 | 30.91 | 31.79 | 9082.6 | 9112.6 | 30.02 | 29.46 | 29.04 |
| 9337.6 | 26.14 | 27.91 | 29.58 | 32.30 | 32.42 | 32.46 | 9307.6 | 9337.6 | 30.78 | 29.64 | 29.04 |
| 9585.1 | 24.72 | 25.91 | 27.17 | 36.30 | 35.15 | 34.05 | 9555.1 | 9585.1 | 30.93 | 29.16 | 27.94 |
| 9810.1 | 23.40 | 23.89 | 24.69 | 41.56 | 38.88 | 36.33 | 9780.1 | 9810.1 | 31.01 | 28.72 | 26.99 |
| 10057.6 | 22.97 | 21.93 | 22.19 | 48.36 | 44.82 | 40.06 | 10027.6 | 10057.6 | 29.34 | 27.66 | 25.40 |
| 10282.6 | 21.98 | 20.44 | 20.59 | 44.73 | 40.16 | 38.24 | 10252.6 | 10282.6 | 26.82 | 26.48 | 25.07 |
| 10530.1 | 19.58 | 19.93 | 21.52 | 31.05 | 31.61 | 31.96 | 10500.1 | 10530.1 | 24.46 | 26.98 | 27.43 |

Frequency Mixer

ZMX-10G+

Typical Performance Data

| RF (IN) (MHz) | LO (MHz) | RF VSWR (:1) | | |
|------------------|-------------|--------------|------|------|
| | | @LO (dBm) | | |
| | | +4 | +7 | +10 |
| 1500.1 | 1530.1 | 5.87 | 5.03 | 4.62 |
| 1725.1 | 1755.1 | 3.82 | 3.28 | 3.03 |
| 1950.1 | 1980.1 | 3.13 | 2.61 | 2.26 |
| 2175.1 | 2205.1 | 2.80 | 2.40 | 1.98 |
| 2400.1 | 2430.1 | 2.24 | 2.06 | 1.89 |
| 2625.1 | 2655.1 | 1.87 | 1.76 | 1.71 |
| 2850.1 | 2880.1 | 1.77 | 1.67 | 1.63 |
| 3075.1 | 3105.1 | 1.67 | 1.55 | 1.50 |
| 3300.1 | 3330.1 | 1.79 | 1.63 | 1.57 |
| 3525.1 | 3555.1 | 2.04 | 1.85 | 1.74 |
| 3750.1 | 3780.1 | 2.24 | 2.07 | 1.95 |
| 3975.1 | 4005.1 | 2.31 | 2.17 | 2.06 |
| 4200.1 | 4230.1 | 2.48 | 2.32 | 2.23 |
| 4425.1 | 4455.1 | 2.57 | 2.35 | 2.26 |
| 4650.1 | 4680.1 | 2.52 | 2.30 | 2.20 |
| 4875.1 | 4905.1 | 2.53 | 2.20 | 2.06 |
| 5100.1 | 5130.1 | 2.42 | 1.93 | 1.66 |
| 5325.1 | 5355.1 | 4.50 | 4.07 | 3.67 |
| 5550.1 | 5580.1 | 4.69 | 4.33 | 4.02 |
| 5775.1 | 5805.1 | 4.62 | 4.21 | 3.96 |
| 6000.1 | 6030.1 | 4.77 | 4.21 | 3.84 |
| 6247.6 | 6277.6 | 4.51 | 3.94 | 3.45 |
| 6472.6 | 6502.6 | 4.40 | 3.81 | 3.29 |
| 6720.1 | 6750.1 | 3.92 | 3.44 | 2.97 |
| 6945.1 | 6975.1 | 3.83 | 3.35 | 3.00 |
| 7192.6 | 7222.6 | 3.99 | 3.60 | 3.26 |
| 7417.6 | 7447.6 | 4.05 | 3.67 | 3.41 |
| 7665.1 | 7695.1 | 3.34 | 3.10 | 2.92 |
| 7890.1 | 7920.1 | 2.73 | 2.57 | 2.43 |
| 8137.6 | 8167.6 | 2.54 | 2.39 | 2.27 |
| 8362.6 | 8392.6 | 2.24 | 2.12 | 2.03 |
| 8610.1 | 8640.1 | 1.97 | 1.83 | 1.74 |
| 8835.1 | 8865.1 | 1.72 | 1.57 | 1.48 |
| 9082.6 | 9112.6 | 1.42 | 1.30 | 1.24 |
| 9307.6 | 9337.6 | 1.17 | 1.12 | 1.17 |
| 9555.1 | 9585.1 | 1.26 | 1.37 | 1.47 |
| 9780.1 | 9810.1 | 1.55 | 1.64 | 1.74 |
| 10027.6 | 10057.6 | 2.26 | 2.25 | 2.27 |
| 10252.6 | 10282.6 | 3.36 | 3.00 | 2.93 |
| 10500.1 | 10530.1 | 3.53 | 3.58 | 3.91 |

| LO (MHz) | LO VSWR (:1) | | |
|-------------|--------------|-------|-------|
| | @LO (dBm) | | |
| | +4 | +7 | +10 |
| 1530.1 | 6.26 | 4.91 | 4.96 |
| 1755.1 | 3.69 | 3.56 | 4.10 |
| 1980.1 | 2.60 | 2.86 | 3.51 |
| 2205.1 | 2.03 | 2.39 | 3.00 |
| 2430.1 | 1.77 | 2.18 | 2.75 |
| 2655.1 | 1.62 | 2.09 | 2.68 |
| 2880.1 | 1.49 | 2.01 | 2.66 |
| 3105.1 | 1.45 | 2.00 | 2.60 |
| 3330.1 | 1.52 | 2.07 | 2.67 |
| 3555.1 | 1.64 | 2.17 | 2.83 |
| 3780.1 | 1.80 | 2.33 | 2.96 |
| 4005.1 | 1.92 | 2.36 | 2.95 |
| 4230.1 | 2.01 | 2.39 | 2.93 |
| 4455.1 | 2.19 | 2.48 | 3.01 |
| 4680.1 | 2.35 | 2.56 | 3.04 |
| 4905.1 | 2.53 | 2.64 | 3.05 |
| 5130.1 | 2.74 | 2.73 | 3.06 |
| 5355.1 | 2.94 | 2.81 | 3.12 |
| 5580.1 | 3.07 | 2.78 | 3.00 |
| 5805.1 | 3.25 | 2.74 | 2.82 |
| 6030.1 | 3.30 | 2.68 | 2.63 |
| 6277.6 | 3.18 | 2.52 | 2.44 |
| 6502.6 | 3.10 | 2.34 | 2.22 |
| 6750.1 | 2.98 | 2.07 | 1.87 |
| 6975.1 | 2.74 | 1.77 | 1.56 |
| 7222.6 | 2.26 | 1.43 | 1.23 |
| 7447.6 | 1.91 | 1.18 | 1.23 |
| 7695.1 | 1.46 | 1.16 | 1.53 |
| 7920.1 | 1.23 | 1.42 | 1.91 |
| 8167.6 | 1.28 | 1.79 | 2.40 |
| 8392.6 | 1.59 | 2.22 | 2.93 |
| 8640.1 | 2.04 | 2.70 | 3.50 |
| 8865.1 | 2.70 | 3.41 | 4.34 |
| 9112.6 | 3.58 | 4.15 | 5.07 |
| 9337.6 | 4.80 | 5.09 | 5.93 |
| 9585.1 | 6.71 | 6.53 | 7.20 |
| 9810.1 | 9.18 | 7.97 | 8.16 |
| 10057.6 | 10.96 | 8.99 | 8.72 |
| 10282.6 | 12.18 | 9.63 | 9.08 |
| 10530.1 | 11.93 | 11.03 | 10.69 |

| IF (OUT) (MHz) | IF VSWR @LO=10000MHz (:1) | | |
|-------------------|---------------------------|------|------|
| | @LO (dBm) | | |
| | +4 | +7 | +10 |
| 10.0 | 2.65 | 2.11 | 1.78 |
| 90.3 | 2.75 | 2.17 | 1.81 |
| 170.5 | 2.69 | 2.12 | 1.80 |
| 250.8 | 2.60 | 2.08 | 1.78 |
| 331.1 | 2.63 | 2.14 | 1.86 |
| 411.3 | 2.74 | 2.28 | 2.01 |
| 491.6 | 2.85 | 2.44 | 2.17 |
| 571.9 | 2.91 | 2.53 | 2.29 |
| 652.1 | 2.89 | 2.54 | 2.31 |
| 732.4 | 2.82 | 2.50 | 2.32 |
| 812.7 | 2.82 | 2.53 | 2.36 |
| 893.0 | 2.88 | 2.63 | 2.49 |
| 973.2 | 2.96 | 2.73 | 2.61 |
| 1053.5 | 2.95 | 2.75 | 2.64 |
| 1133.8 | 2.95 | 2.75 | 2.63 |
| 1214.0 | 3.14 | 2.86 | 2.71 |
| 1294.3 | 3.17 | 2.86 | 2.71 |
| 1374.6 | 3.04 | 2.75 | 2.61 |
| 1454.8 | 2.95 | 2.65 | 2.52 |
| 1535.1 | 3.09 | 2.75 | 2.58 |
| 1615.4 | 3.21 | 2.76 | 2.55 |
| 1695.6 | 3.00 | 2.55 | 2.36 |
| 1775.9 | 2.91 | 2.41 | 2.21 |
| 1856.2 | 2.91 | 2.36 | 2.12 |
| 1936.4 | 2.96 | 2.29 | 1.98 |
| 2016.7 | 2.80 | 2.07 | 1.75 |
| 2097.0 | 2.54 | 1.82 | 1.52 |
| 2157.2 | 2.55 | 1.81 | 1.48 |
| 2237.4 | 2.36 | 1.64 | 1.35 |
| 2297.7 | 2.16 | 1.52 | 1.32 |
| 2377.9 | 1.98 | 1.47 | 1.44 |
| 2438.1 | 1.81 | 1.47 | 1.57 |
| 2518.4 | 1.70 | 1.67 | 1.96 |
| 2578.6 | 1.60 | 1.83 | 2.23 |
| 2658.9 | 1.62 | 2.15 | 2.72 |
| 2719.1 | 1.85 | 2.60 | 3.31 |
| 2799.3 | 2.26 | 3.25 | 4.06 |
| 2859.5 | 2.43 | 3.45 | 4.29 |
| 2939.8 | 3.14 | 4.39 | 5.38 |
| 3000.0 | 3.90 | 5.20 | 6.15 |

Harmonics Tables

RF HARMONICS ORDER

| | (-dBm) | (-dBc) | | | | | | | | | | |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0 | - | - | +10 | 37 | 15 | --- | --- | --- | --- | --- | --- | --- |
| 1 | - | 28 | +0 | 44 | 35 | 53 | --- | --- | --- | --- | --- | --- |
| 2 | 86 | >69 | 62 | 56 | 63 | >69 | 66 | --- | --- | --- | --- | --- |
| 3 | >90 | >69 | >69 | >69 | 65 | >69 | >69 | >69 | --- | --- | --- | --- |
| 4 | --- | --- | >69 | >69 | >69 | >69 | >69 | >69 | >69 | --- | --- | --- |
| 5 | --- | --- | --- | >69 | >69 | >69 | >69 | >69 | >69 | >69 | --- | --- |
| 6 | --- | --- | --- | --- | >69 | >69 | >69 | >69 | >69 | >69 | >69 | --- |
| 7 | --- | --- | --- | --- | --- | >69 | >69 | >69 | >69 | >69 | >69 | >69 |
| 8 | --- | --- | --- | --- | --- | --- | >69 | >69 | >69 | >69 | >69 | >69 |
| 9 | --- | --- | --- | --- | --- | --- | --- | >69 | >69 | >69 | >69 | >69 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | >69 | >69 | >69 | >69 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

LO HARMONICS ORDER

Test conditions: RF IN: 6850 MHz; -14.00 dBm.
 LO IN: 6880 MHz; +7.00 dBm
 IF OUT: 30 MHz; -20.97 dBm

RF HARMONICS ORDER

| | (-dBm) | (-dBc) | | | | | | | | | | |
|----|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0 | - | - | +0 | 46 | 26 | --- | --- | --- | --- | --- | --- | --- |
| 1 | - | 27 | +0 | 44 | 35 | 55 | --- | --- | --- | --- | --- | --- |
| 2 | 66 | 66 | 52 | 45 | 55 | 73 | 57 | --- | --- | --- | --- | --- |
| 3 | >90 | 71 | 64 | 70 | 45 | 70 | 72 | 78 | --- | --- | --- | --- |
| 4 | --- | --- | >79 | >79 | >79 | >79 | >79 | >79 | >79 | --- | --- | --- |
| 5 | --- | --- | --- | >79 | >79 | >79 | 72 | >79 | >79 | >79 | --- | --- |
| 6 | --- | --- | --- | --- | >79 | >79 | >79 | >79 | >79 | >79 | >79 | --- |
| 7 | --- | --- | --- | --- | --- | >79 | >79 | >79 | >79 | >79 | >79 | >79 |
| 8 | --- | --- | --- | --- | --- | --- | >79 | >79 | >79 | >79 | >79 | >79 |
| 9 | --- | --- | --- | --- | --- | --- | --- | >79 | >79 | >79 | >79 | >79 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | >79 | >79 | >79 | >79 |
| | RF CAL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

LO HARMONICS ORDER

Test conditions: RF IN: 6850 MHz; -4.00 dBm.
 LO IN: 6880 MHz; +7.00 dBm
 IF OUT: 30 MHz; -11.05 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.