

# Frequency Multiplier (Tripler)

# RMK-3-812+

## Typical Performance Data

Test Conditions: RF Input Power = 0 dBm @ +25°C

| FREQUENCY (MHz) |           |           |           | CONVERSION<br>LOSS<br>(dB) | HARMONIC OUTPUT*<br>(-dBc) |           |           |
|-----------------|-----------|-----------|-----------|----------------------------|----------------------------|-----------|-----------|
| X1 OUTPUT       | X2 OUTPUT | X3 OUTPUT | X4 OUTPUT |                            | X3 OUTPUT                  | X1 OUTPUT | X2 OUTPUT |
| 1800            | 3600      | 5400      | 7200      | 18.73                      | 3.01                       | 52.77     | 34.47     |
| 1823            | 3645      | 5468      | 7290      | 18.26                      | 3.12                       | 53.55     | 34.77     |
| 1845            | 3690      | 5535      | 7380      | 18.08                      | 3.13                       | 55.11     | 35.02     |
| 1868            | 3735      | 5603      | 7470      | 18.04                      | 3.11                       | 53.94     | 35.76     |
| 1890            | 3780      | 5670      | 7560      | 17.76                      | 3.18                       | 55.19     | 36.59     |
| 1913            | 3825      | 5738      | 7650      | 17.65                      | 3.27                       | 59.46     | 37.35     |
| 1935            | 3870      | 5805      | 7740      | 17.77                      | 2.91                       | 56.85     | 38.18     |
| 1958            | 3915      | 5873      | 7830      | 17.73                      | 2.88                       | 55.67     | 38.69     |
| 1980            | 3960      | 5940      | 7920      | 17.07                      | 3.44                       | 56.26     | 41.08     |
| 2003            | 4005      | 6008      | 8010      | 16.77                      | 3.49                       | 57.25     | 42.37     |
| 2025            | 4050      | 6075      | 8100      | 16.66                      | 3.43                       | 58.47     | 40.02     |
| 2048            | 4095      | 6143      | 8190      | 16.62                      | 3.35                       | 60.04     | 42.80     |
| 2070            | 4140      | 6210      | 8280      | 16.25                      | 3.56                       | 56.27     | 46.85     |
| 2093            | 4185      | 6278      | 8370      | 16.05                      | 3.64                       | 55.03     | 47.13     |
| 2115            | 4230      | 6345      | 8460      | 16.44                      | 3.22                       | 54.83     | 46.55     |
| 2138            | 4275      | 6413      | 8550      | 16.49                      | 3.09                       | 56.14     | 47.83     |
| 2160            | 4320      | 6480      | 8640      | 16.09                      | 3.29                       | 59.51     | 52.22     |
| 2183            | 4365      | 6548      | 8730      | 15.95                      | 3.25                       | 56.94     | 59.60     |
| 2205            | 4410      | 6615      | 8820      | 15.93                      | 3.30                       | 52.76     | 61.42     |
| 2228            | 4455      | 6683      | 8910      | 15.88                      | 3.16                       | 53.63     | 66.91     |
| 2250            | 4500      | 6750      | 9000      | 15.61                      | 3.32                       | 55.79     | 60.01     |
| 2273            | 4545      | 6818      | 9090      | 15.63                      | 3.17                       | 55.93     | 59.07     |
| 2295            | 4590      | 6885      | 9180      | 16.24                      | 2.56                       | 55.97     | 54.07     |
| 2318            | 4635      | 6953      | 9270      | 16.52                      | 2.25                       | 52.15     | 54.15     |
| 2340            | 4680      | 7020      | 9360      | 16.38                      | 2.17                       | 52.16     | 54.43     |
| 2363            | 4725      | 7088      | 9450      | 16.06                      | 2.35                       | 53.34     | 50.01     |
| 2385            | 4770      | 7155      | 9540      | 16.10                      | 2.19                       | 54.15     | 49.22     |
| 2408            | 4815      | 7223      | 9630      | 15.99                      | 2.19                       | 50.98     | 50.93     |
| 2430            | 4860      | 7290      | 9720      | 16.00                      | 2.13                       | 48.37     | 51.12     |
| 2453            | 4905      | 7358      | 9810      | 16.11                      | 2.08                       | 48.37     | 48.24     |
| 2475            | 4950      | 7425      | 9900      | 16.80                      | 1.35                       | 49.59     | 47.26     |
| 2498            | 4995      | 7493      | 9990      | 17.38                      | 0.81                       | 48.50     | 47.46     |
| 2520            | 5040      | 7560      | 10080     | 17.30                      | 0.84                       | 45.15     | 47.74     |
| 2543            | 5085      | 7628      | 10170     | 16.72                      | 1.18                       | 46.55     | 46.11     |
| 2565            | 5130      | 7695      | 10260     | 16.93                      | 0.91                       | 46.89     | 44.73     |
| 2588            | 5175      | 7763      | 10350     | 17.28                      | 0.41                       | 46.42     | 44.52     |
| 2610            | 5220      | 7830      | 10440     | 17.16                      | 0.34                       | 44.43     | 45.78     |
| 2633            | 5265      | 7898      | 10530     | 17.03                      | 0.36                       | 45.67     | 44.35     |
| 2655            | 5310      | 7965      | 10620     | 17.10                      | 0.18                       | 47.08     | 44.03     |
| 2678            | 5355      | 8033      | 10710     | 17.45                      | -0.19                      | 45.53     | 45.37     |
| 2700            | 5400      | 8100      | 10800     | 17.83                      | -0.54                      | 44.26     | 45.20     |

\* Harmonic Output below power level of X3 Output.



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# Frequency Multiplier (Tripler)

# RMK-3-812+

## Typical Performance Data

Test Conditions: RF Input Power = 0 dBm @ -40°C

| FREQUENCY (MHz) |           |           |           | CONVERSION<br>LOSS<br>(dB) | HARMONIC OUTPUT*<br>(-dBc) |           |           |
|-----------------|-----------|-----------|-----------|----------------------------|----------------------------|-----------|-----------|
| X1 OUTPUT       | X2 OUTPUT | X3 OUTPUT | X4 OUTPUT |                            | X3 OUTPUT                  | X1 OUTPUT | X2 OUTPUT |
| 1800            | 3600      | 5400      | 7200      | 19.73                      | 0.40                       | 43.26     | 26.64     |
| 1823            | 3645      | 5468      | 7290      | 19.27                      | 0.52                       | 43.96     | 26.73     |
| 1845            | 3690      | 5535      | 7380      | 18.66                      | 0.93                       | 47.98     | 27.87     |
| 1868            | 3735      | 5603      | 7470      | 18.57                      | 0.94                       | 48.85     | 29.70     |
| 1890            | 3780      | 5670      | 7560      | 18.19                      | 1.05                       | 48.90     | 30.12     |
| 1913            | 3825      | 5738      | 7650      | 18.31                      | 0.88                       | 56.40     | 30.81     |
| 1935            | 3870      | 5805      | 7740      | 18.60                      | 0.35                       | 51.89     | 32.80     |
| 1958            | 3915      | 5873      | 7830      | 18.70                      | 0.16                       | 50.10     | 33.28     |
| 1980            | 3960      | 5940      | 7920      | 17.72                      | 1.05                       | 58.04     | 34.73     |
| 2003            | 4005      | 6008      | 8010      | 17.51                      | 1.03                       | 55.83     | 36.53     |
| 2025            | 4050      | 6075      | 8100      | 17.17                      | 1.22                       | 58.36     | 36.33     |
| 2048            | 4095      | 6143      | 8190      | 16.83                      | 1.46                       | 60.24     | 38.63     |
| 2070            | 4140      | 6210      | 8280      | 16.40                      | 1.77                       | 55.82     | 40.79     |
| 2093            | 4185      | 6278      | 8370      | 16.09                      | 2.00                       | 56.94     | 40.35     |
| 2115            | 4230      | 6345      | 8460      | 16.64                      | 1.44                       | 59.69     | 40.80     |
| 2138            | 4275      | 6413      | 8550      | 16.80                      | 1.20                       | 57.34     | 41.40     |
| 2160            | 4320      | 6480      | 8640      | 16.30                      | 1.50                       | 57.34     | 43.93     |
| 2183            | 4365      | 6548      | 8730      | 16.15                      | 1.43                       | 58.85     | 47.81     |
| 2205            | 4410      | 6615      | 8820      | 15.96                      | 1.61                       | 53.94     | 45.42     |
| 2228            | 4455      | 6683      | 8910      | 15.62                      | 1.69                       | 56.35     | 48.22     |
| 2250            | 4500      | 6750      | 9000      | 15.07                      | 2.07                       | 56.12     | 55.28     |
| 2273            | 4545      | 6818      | 9090      | 15.01                      | 1.97                       | 54.38     | 53.22     |
| 2295            | 4590      | 6885      | 9180      | 15.83                      | 1.17                       | 55.29     | 55.11     |
| 2318            | 4635      | 6953      | 9270      | 16.40                      | 0.62                       | 51.94     | 56.28     |
| 2340            | 4680      | 7020      | 9360      | 16.21                      | 0.67                       | 52.57     | 52.46     |
| 2363            | 4725      | 7088      | 9450      | 15.67                      | 1.10                       | 52.22     | 50.64     |
| 2385            | 4770      | 7155      | 9540      | 15.63                      | 1.05                       | 53.74     | 50.46     |
| 2408            | 4815      | 7223      | 9630      | 15.13                      | 1.45                       | 49.61     | 51.67     |
| 2430            | 4860      | 7290      | 9720      | 14.75                      | 1.74                       | 48.34     | 47.19     |
| 2453            | 4905      | 7358      | 9810      | 14.80                      | 1.71                       | 50.17     | 44.58     |
| 2475            | 4950      | 7425      | 9900      | 15.82                      | 0.64                       | 49.44     | 44.68     |
| 2498            | 4995      | 7493      | 9990      | 16.59                      | -0.13                      | 45.06     | 44.88     |
| 2520            | 5040      | 7560      | 10080     | 16.45                      | -0.09                      | 42.31     | 44.05     |
| 2543            | 5085      | 7628      | 10170     | 15.72                      | 0.36                       | 45.38     | 43.21     |
| 2565            | 5130      | 7695      | 10260     | 16.04                      | -0.06                      | 43.88     | 42.31     |
| 2588            | 5175      | 7763      | 10350     | 16.43                      | -0.56                      | 40.56     | 41.65     |
| 2610            | 5220      | 7830      | 10440     | 16.06                      | -0.36                      | 39.88     | 41.78     |
| 2633            | 5265      | 7898      | 10530     | 15.88                      | -0.25                      | 40.18     | 40.41     |
| 2655            | 5310      | 7965      | 10620     | 16.00                      | -0.43                      | 42.93     | 39.43     |
| 2678            | 5355      | 8033      | 10710     | 16.55                      | -1.01                      | 37.82     | 40.33     |
| 2700            | 5400      | 8100      | 10800     | 17.10                      | -1.41                      | 36.82     | 39.25     |

\* Harmonic Output below power level of X3 Output.



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# Frequency Multiplier (Tripler)

# RMK-3-812+

## Typical Performance Data

Test Conditions: RF Input Power = 0 dBm @ +85°C

| FREQUENCY (MHz) |           |           |           | CONVERSION LOSS (dB) | HARMONIC OUTPUT* (-dBc) |           |           |
|-----------------|-----------|-----------|-----------|----------------------|-------------------------|-----------|-----------|
| X1 OUTPUT       | X2 OUTPUT | X3 OUTPUT | X4 OUTPUT | X3 OUTPUT            | X1 OUTPUT               | X2 OUTPUT | X4 OUTPUT |
| 1800            | 3600      | 5400      | 7200      | 19.30                | 4.23                    | 54.78     | 36.96     |
| 1823            | 3645      | 5468      | 7290      | 18.86                | 4.32                    | 55.17     | 37.96     |
| 1845            | 3690      | 5535      | 7380      | 18.85                | 4.21                    | 56.17     | 37.78     |
| 1868            | 3735      | 5603      | 7470      | 18.81                | 4.20                    | 52.40     | 38.55     |
| 1890            | 3780      | 5670      | 7560      | 18.66                | 4.15                    | 53.63     | 39.43     |
| 1913            | 3825      | 5738      | 7650      | 18.47                | 4.32                    | 56.94     | 40.47     |
| 1935            | 3870      | 5805      | 7740      | 18.51                | 4.04                    | 56.58     | 41.66     |
| 1958            | 3915      | 5873      | 7830      | 18.44                | 4.00                    | 54.75     | 40.62     |
| 1980            | 3960      | 5940      | 7920      | 17.94                | 4.39                    | 54.21     | 45.28     |
| 2003            | 4005      | 6008      | 8010      | 17.71                | 4.36                    | 55.63     | 46.59     |
| 2025            | 4050      | 6075      | 8100      | 17.64                | 4.26                    | 54.62     | 43.79     |
| 2048            | 4095      | 6143      | 8190      | 17.72                | 4.06                    | 57.59     | 46.80     |
| 2070            | 4140      | 6210      | 8280      | 17.49                | 4.15                    | 56.51     | 50.52     |
| 2093            | 4185      | 6278      | 8370      | 17.44                | 4.12                    | 56.04     | 54.29     |
| 2115            | 4230      | 6345      | 8460      | 17.75                | 3.79                    | 54.51     | 53.36     |
| 2138            | 4275      | 6413      | 8550      | 17.79                | 3.66                    | 56.52     | 51.79     |
| 2160            | 4320      | 6480      | 8640      | 17.55                | 3.71                    | 59.39     | 56.39     |
| 2183            | 4365      | 6548      | 8730      | 17.48                | 3.59                    | 61.70     | 62.45     |
| 2205            | 4410      | 6615      | 8820      | 17.56                | 3.54                    | 54.48     | 60.81     |
| 2228            | 4455      | 6683      | 8910      | 17.64                | 3.29                    | 53.55     | 61.17     |
| 2250            | 4500      | 6750      | 9000      | 17.56                | 3.31                    | 55.90     | 58.32     |
| 2273            | 4545      | 6818      | 9090      | 17.69                | 3.06                    | 57.33     | 60.03     |
| 2295            | 4590      | 6885      | 9180      | 18.23                | 2.51                    | 52.74     | 62.43     |
| 2318            | 4635      | 6953      | 9270      | 18.39                | 2.30                    | 55.30     | 60.17     |
| 2340            | 4680      | 7020      | 9360      | 18.28                | 2.12                    | 52.00     | 57.09     |
| 2363            | 4725      | 7088      | 9450      | 18.10                | 2.14                    | 48.57     | 54.49     |
| 2385            | 4770      | 7155      | 9540      | 18.11                | 2.02                    | 49.93     | 55.24     |
| 2408            | 4815      | 7223      | 9630      | 18.09                | 1.93                    | 51.24     | 55.11     |
| 2430            | 4860      | 7290      | 9720      | 18.23                | 1.79                    | 47.61     | 51.72     |
| 2453            | 4905      | 7358      | 9810      | 18.32                | 1.76                    | 45.49     | 49.50     |
| 2475            | 4950      | 7425      | 9900      | 18.81                | 1.24                    | 49.38     | 50.39     |
| 2498            | 4995      | 7493      | 9990      | 19.16                | 0.91                    | 48.19     | 51.49     |
| 2520            | 5040      | 7560      | 10080     | 19.04                | 0.95                    | 45.37     | 50.90     |
| 2543            | 5085      | 7628      | 10170     | 18.55                | 1.20                    | 47.73     | 48.49     |
| 2565            | 5130      | 7695      | 10260     | 18.74                | 0.93                    | 47.58     | 47.91     |
| 2588            | 5175      | 7763      | 10350     | 19.00                | 0.54                    | 48.68     | 48.90     |
| 2610            | 5220      | 7830      | 10440     | 18.96                | 0.37                    | 47.06     | 50.62     |
| 2633            | 5265      | 7898      | 10530     | 18.98                | 0.25                    | 46.04     | 48.48     |
| 2655            | 5310      | 7965      | 10620     | 19.05                | 0.09                    | 50.86     | 47.76     |
| 2678            | 5355      | 8033      | 10710     | 19.41                | -0.51                   | 42.50     | 49.20     |
| 2700            | 5400      | 8100      | 10800     | 19.70                | -0.50                   | 46.49     | 50.19     |



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# Frequency Multiplier (Tripler)

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## Typical Performance Data

Test Conditions: RF Input Power = 6 dBm @ +25°C

| FREQUENCY (MHz) |           |           |           | CONVERSION LOSS (dB) | HARMONIC OUTPUT* (-dBc) |           |           |
|-----------------|-----------|-----------|-----------|----------------------|-------------------------|-----------|-----------|
| X1 OUTPUT       | X2 OUTPUT | X3 OUTPUT | X4 OUTPUT | X3 OUTPUT            | X1 OUTPUT               | X2 OUTPUT | X4 OUTPUT |
| 1800            | 3600      | 5400      | 7200      | 17.42                | 8.63                    | 55.51     | 34.18     |
| 1823            | 3645      | 5468      | 7290      | 16.85                | 8.83                    | 54.77     | 34.54     |
| 1845            | 3690      | 5535      | 7380      | 17.22                | 8.42                    | 58.29     | 34.85     |
| 1868            | 3735      | 5603      | 7470      | 16.96                | 8.61                    | 52.93     | 35.80     |
| 1890            | 3780      | 5670      | 7560      | 16.78                | 8.52                    | 54.71     | 35.68     |
| 1913            | 3825      | 5738      | 7650      | 16.51                | 8.74                    | 58.89     | 36.82     |
| 1935            | 3870      | 5805      | 7740      | 16.55                | 8.45                    | 54.54     | 38.29     |
| 1958            | 3915      | 5873      | 7830      | 16.33                | 8.52                    | 54.58     | 36.31     |
| 1980            | 3960      | 5940      | 7920      | 15.85                | 8.83                    | 53.50     | 40.34     |
| 2003            | 4005      | 6008      | 8010      | 15.73                | 8.66                    | 52.62     | 43.70     |
| 2025            | 4050      | 6075      | 8100      | 15.78                | 8.48                    | 51.71     | 40.12     |
| 2048            | 4095      | 6143      | 8190      | 15.88                | 8.34                    | 52.06     | 44.10     |
| 2070            | 4140      | 6210      | 8280      | 15.62                | 8.43                    | 53.20     | 50.54     |
| 2093            | 4185      | 6278      | 8370      | 15.79                | 8.16                    | 52.60     | 53.62     |
| 2115            | 4230      | 6345      | 8460      | 16.09                | 7.81                    | 49.33     | 59.60     |
| 2138            | 4275      | 6413      | 8550      | 15.92                | 7.86                    | 51.87     | 54.50     |
| 2160            | 4320      | 6480      | 8640      | 15.80                | 7.76                    | 55.20     | 57.45     |
| 2183            | 4365      | 6548      | 8730      | 15.97                | 7.37                    | 55.76     | 53.81     |
| 2205            | 4410      | 6615      | 8820      | 16.16                | 7.21                    | 52.32     | 54.59     |
| 2228            | 4455      | 6683      | 8910      | 16.18                | 7.03                    | 52.62     | 50.26     |
| 2250            | 4500      | 6750      | 9000      | 16.16                | 7.02                    | 51.85     | 49.47     |
| 2273            | 4545      | 6818      | 9090      | 16.50                | 6.60                    | 51.32     | 53.83     |
| 2295            | 4590      | 6885      | 9180      | 16.93                | 6.14                    | 51.64     | 52.45     |
| 2318            | 4635      | 6953      | 9270      | 16.76                | 6.19                    | 50.29     | 50.51     |
| 2340            | 4680      | 7020      | 9360      | 16.70                | 5.96                    | 48.88     | 50.26     |
| 2363            | 4725      | 7088      | 9450      | 16.73                | 5.77                    | 47.58     | 47.82     |
| 2385            | 4770      | 7155      | 9540      | 16.89                | 5.55                    | 47.38     | 47.87     |
| 2408            | 4815      | 7223      | 9630      | 16.74                | 5.56                    | 47.30     | 48.51     |
| 2430            | 4860      | 7290      | 9720      | 16.82                | 5.40                    | 45.53     | 46.50     |
| 2453            | 4905      | 7358      | 9810      | 17.10                | 5.19                    | 45.12     | 45.77     |
| 2475            | 4950      | 7425      | 9900      | 17.56                | 4.72                    | 46.10     | 47.96     |
| 2498            | 4995      | 7493      | 9990      | 17.54                | 4.71                    | 46.20     | 47.89     |
| 2520            | 5040      | 7560      | 10080     | 17.19                | 4.89                    | 43.98     | 46.14     |
| 2543            | 5085      | 7628      | 10170     | 16.83                | 4.93                    | 44.93     | 45.42     |
| 2565            | 5130      | 7695      | 10260     | 17.17                | 4.62                    | 44.38     | 45.80     |
| 2588            | 5175      | 7763      | 10350     | 17.18                | 4.47                    | 44.88     | 47.73     |
| 2610            | 5220      | 7830      | 10440     | 16.97                | 4.47                    | 43.80     | 47.75     |
| 2633            | 5265      | 7898      | 10530     | 17.31                | 4.04                    | 44.34     | 45.93     |
| 2655            | 5310      | 7965      | 10620     | 17.62                | 3.62                    | 43.67     | 46.02     |
| 2678            | 5355      | 8033      | 10710     | 17.76                | 3.55                    | 41.54     | 48.63     |
| 2700            | 5400      | 8100      | 10800     | 17.75                | 3.57                    | 42.99     | 47.89     |

\* Harmonic Output below power level of X3 Output.



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# Frequency Multiplier (Tripler)

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## Typical Performance Data

Test Conditions: RF Input Power = 6 dBm @ -40°C

| FREQUENCY (MHz) |           |           |           | CONVERSION LOSS (dB) | HARMONIC OUTPUT* (-dBc) |           |           |
|-----------------|-----------|-----------|-----------|----------------------|-------------------------|-----------|-----------|
| X1 OUTPUT       | X2 OUTPUT | X3 OUTPUT | X4 OUTPUT | X3 OUTPUT            | X1 OUTPUT               | X2 OUTPUT | X4 OUTPUT |
| 1800            | 3600      | 5400      | 7200      | 16.25                | 8.54                    | 54.27     | 35.30     |
| 1823            | 3645      | 5468      | 7290      | 15.77                | 8.72                    | 54.46     | 34.91     |
| 1845            | 3690      | 5535      | 7380      | 16.02                | 8.35                    | 61.87     | 35.28     |
| 1868            | 3735      | 5603      | 7470      | 15.78                | 8.51                    | 58.38     | 35.35     |
| 1890            | 3780      | 5670      | 7560      | 15.58                | 8.40                    | 58.39     | 34.95     |
| 1913            | 3825      | 5738      | 7650      | 15.36                | 8.54                    | 73.74     | 36.08     |
| 1935            | 3870      | 5805      | 7740      | 15.35                | 8.30                    | 64.42     | 37.22     |
| 1958            | 3915      | 5873      | 7830      | 15.13                | 8.36                    | 63.55     | 35.88     |
| 1980            | 3960      | 5940      | 7920      | 14.53                | 8.82                    | 65.42     | 39.07     |
| 2003            | 4005      | 6008      | 8010      | 14.36                | 8.72                    | 59.34     | 40.36     |
| 2025            | 4050      | 6075      | 8100      | 14.39                | 8.60                    | 60.31     | 36.95     |
| 2048            | 4095      | 6143      | 8190      | 14.37                | 8.59                    | 59.80     | 40.11     |
| 2070            | 4140      | 6210      | 8280      | 13.99                | 8.79                    | 56.10     | 43.57     |
| 2093            | 4185      | 6278      | 8370      | 14.10                | 8.59                    | 55.41     | 44.53     |
| 2115            | 4230      | 6345      | 8460      | 14.35                | 8.29                    | 52.55     | 44.46     |
| 2138            | 4275      | 6413      | 8550      | 14.10                | 8.42                    | 52.55     | 45.41     |
| 2160            | 4320      | 6480      | 8640      | 13.85                | 8.42                    | 55.67     | 48.42     |
| 2183            | 4365      | 6548      | 8730      | 13.92                | 8.09                    | 55.01     | 54.03     |
| 2205            | 4410      | 6615      | 8820      | 14.05                | 7.94                    | 50.29     | 52.76     |
| 2228            | 4455      | 6683      | 8910      | 13.99                | 7.78                    | 54.10     | 51.91     |
| 2250            | 4500      | 6750      | 9000      | 13.87                | 7.85                    | 59.72     | 54.66     |
| 2273            | 4545      | 6818      | 9090      | 14.23                | 7.40                    | 55.01     | 55.13     |
| 2295            | 4590      | 6885      | 9180      | 14.66                | 6.92                    | 57.57     | 49.52     |
| 2318            | 4635      | 6953      | 9270      | 14.49                | 7.00                    | 55.21     | 51.11     |
| 2340            | 4680      | 7020      | 9360      | 14.42                | 6.85                    | 53.21     | 58.16     |
| 2363            | 4725      | 7088      | 9450      | 14.53                | 6.63                    | 50.60     | 57.99     |
| 2385            | 4770      | 7155      | 9540      | 14.78                | 6.42                    | 53.04     | 56.19     |
| 2408            | 4815      | 7223      | 9630      | 14.61                | 6.45                    | 51.55     | 63.16     |
| 2430            | 4860      | 7290      | 9720      | 14.67                | 6.29                    | 47.19     | 59.35     |
| 2453            | 4905      | 7358      | 9810      | 14.99                | 6.00                    | 47.47     | 51.08     |
| 2475            | 4950      | 7425      | 9900      | 15.59                | 5.40                    | 48.89     | 52.07     |
| 2498            | 4995      | 7493      | 9990      | 15.65                | 5.27                    | 48.59     | 52.97     |
| 2520            | 5040      | 7560      | 10080     | 15.35                | 5.31                    | 44.49     | 48.68     |
| 2543            | 5085      | 7628      | 10170     | 14.92                | 5.45                    | 46.10     | 44.62     |
| 2565            | 5130      | 7695      | 10260     | 15.25                | 5.10                    | 46.33     | 44.61     |
| 2588            | 5175      | 7763      | 10350     | 15.26                | 5.02                    | 47.64     | 45.69     |
| 2610            | 5220      | 7830      | 10440     | 14.87                | 5.17                    | 46.68     | 45.13     |
| 2633            | 5265      | 7898      | 10530     | 15.15                | 4.87                    | 46.14     | 43.86     |
| 2655            | 5310      | 7965      | 10620     | 15.45                | 4.47                    | 48.51     | 44.40     |
| 2678            | 5355      | 8033      | 10710     | 15.67                | 4.22                    | 43.17     | 46.99     |
| 2700            | 5400      | 8100      | 10800     | 15.51                | 4.58                    | 47.05     | 45.92     |

\* Harmonic Output below power level of X3 Output.



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# Frequency Multiplier (Tripler)

# RMK-3-812+

## Typical Performance Data

Test Conditions: RF Input Power = 6 dBm @ +85°C

| FREQUENCY (MHz) |           |           |           | CONVERSION<br>LOSS<br>(dB) | HARMONIC OUTPUT*<br>(-dBc) |           |           |
|-----------------|-----------|-----------|-----------|----------------------------|----------------------------|-----------|-----------|
| X1 OUTPUT       | X2 OUTPUT | X3 OUTPUT | X4 OUTPUT |                            | X3 OUTPUT                  | X1 OUTPUT | X2 OUTPUT |
| 1800            | 3600      | 5400      | 7200      | 19.21                      | 8.19                       | 53.94     | 32.72     |
| 1823            | 3645      | 5468      | 7290      | 18.58                      | 8.38                       | 53.21     | 33.31     |
| 1845            | 3690      | 5535      | 7380      | 19.00                      | 8.03                       | 56.26     | 33.65     |
| 1868            | 3735      | 5603      | 7470      | 18.72                      | 8.18                       | 50.13     | 35.29     |
| 1890            | 3780      | 5670      | 7560      | 18.67                      | 8.04                       | 49.85     | 36.29     |
| 1913            | 3825      | 5738      | 7650      | 18.46                      | 8.21                       | 53.06     | 37.68     |
| 1935            | 3870      | 5805      | 7740      | 18.49                      | 7.92                       | 51.81     | 40.46     |
| 1958            | 3915      | 5873      | 7830      | 18.40                      | 7.83                       | 49.49     | 39.07     |
| 1980            | 3960      | 5940      | 7920      | 18.06                      | 8.01                       | 49.97     | 45.06     |
| 2003            | 4005      | 6008      | 8010      | 18.03                      | 7.74                       | 50.66     | 50.93     |
| 2025            | 4050      | 6075      | 8100      | 18.11                      | 7.52                       | 49.34     | 46.01     |
| 2048            | 4095      | 6143      | 8190      | 18.28                      | 7.33                       | 49.63     | 59.67     |
| 2070            | 4140      | 6210      | 8280      | 18.11                      | 7.34                       | 51.61     | 51.04     |
| 2093            | 4185      | 6278      | 8370      | 18.35                      | 7.05                       | 54.08     | 56.06     |
| 2115            | 4230      | 6345      | 8460      | 18.65                      | 6.72                       | 50.18     | 49.77     |
| 2138            | 4275      | 6413      | 8550      | 18.55                      | 6.69                       | 51.58     | 46.38     |
| 2160            | 4320      | 6480      | 8640      | 18.45                      | 6.58                       | 54.02     | 48.07     |
| 2183            | 4365      | 6548      | 8730      | 18.58                      | 6.19                       | 54.87     | 46.06     |
| 2205            | 4410      | 6615      | 8820      | 18.79                      | 5.95                       | 51.45     | 46.98     |
| 2228            | 4455      | 6683      | 8910      | 18.80                      | 5.80                       | 50.48     | 45.19     |
| 2250            | 4500      | 6750      | 9000      | 18.73                      | 5.88                       | 52.08     | 43.82     |
| 2273            | 4545      | 6818      | 9090      | 19.07                      | 5.47                       | 51.00     | 45.90     |
| 2295            | 4590      | 6885      | 9180      | 19.47                      | 4.99                       | 48.64     | 45.01     |
| 2318            | 4635      | 6953      | 9270      | 19.27                      | 5.09                       | 49.25     | 43.98     |
| 2340            | 4680      | 7020      | 9360      | 19.11                      | 4.86                       | 47.86     | 44.98     |
| 2363            | 4725      | 7088      | 9450      | 19.16                      | 4.55                       | 44.71     | 43.56     |
| 2385            | 4770      | 7155      | 9540      | 19.27                      | 4.40                       | 47.16     | 43.92     |
| 2408            | 4815      | 7223      | 9630      | 19.10                      | 4.42                       | 46.23     | 45.31     |
| 2430            | 4860      | 7290      | 9720      | 19.19                      | 4.33                       | 44.04     | 44.62     |
| 2453            | 4905      | 7358      | 9810      | 19.48                      | 4.14                       | 43.52     | 44.76     |
| 2475            | 4950      | 7425      | 9900      | 19.90                      | 3.72                       | 45.30     | 46.79     |
| 2498            | 4995      | 7493      | 9990      | 19.84                      | 3.75                       | 44.07     | 48.05     |
| 2520            | 5040      | 7560      | 10080     | 19.53                      | 3.86                       | 42.24     | 47.42     |
| 2543            | 5085      | 7628      | 10170     | 19.25                      | 3.82                       | 42.68     | 46.66     |
| 2565            | 5130      | 7695      | 10260     | 19.64                      | 3.38                       | 42.11     | 47.26     |
| 2588            | 5175      | 7763      | 10350     | 19.65                      | 3.32                       | 42.97     | 49.48     |
| 2610            | 5220      | 7830      | 10440     | 19.50                      | 3.18                       | 40.97     | 49.95     |
| 2633            | 5265      | 7898      | 10530     | 19.87                      | 2.81                       | 40.53     | 47.81     |
| 2655            | 5310      | 7965      | 10620     | 20.17                      | 2.33                       | 40.15     | 47.57     |
| 2678            | 5355      | 8033      | 10710     | 20.41                      | 1.82                       | 36.61     | 48.68     |
| 2700            | 5400      | 8100      | 10800     | 20.42                      | 2.42                       | 39.78     | 49.96     |

\* Harmonic Output below power level of X3 Output.



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