



**MAT INC.** Broadcast Transmission Line Systems, Filters & Combiners  
 360 Franklin Turnpike, Mahwah, NJ 07430

Phone (201) 684-0100  
 Fax (201) 684-0104

**9 3/16" 50 Ohm Rigid Coaxial Transmission Line, AM Ratings and Efficiency in Percent**

| Freq. kHz | ATTEN. in dB/100 ft | 500 ft | 1000 ft | 1500 ft | 2000 ft | 2500 ft |
|-----------|---------------------|--------|---------|---------|---------|---------|
| 535       | 0.00235             | 99.730 | 99.461  | 99.192  | 98.924  | 98.657  |
| 540       | 0.00236             | 99.729 | 99.458  | 99.188  | 98.919  | 98.651  |
| 545       | 0.00237             | 99.727 | 99.456  | 99.184  | 98.914  | 98.644  |
| 550       | 0.00238             | 99.726 | 99.453  | 99.181  | 98.909  | 98.638  |
| 555       | 0.00239             | 99.725 | 99.451  | 99.177  | 98.904  | 98.632  |
| 560       | 0.00240             | 99.724 | 99.448  | 99.173  | 98.899  | 98.626  |
| 565       | 0.00241             | 99.722 | 99.446  | 99.170  | 98.894  | 98.620  |
| 570       | 0.00242             | 99.721 | 99.443  | 99.166  | 98.890  | 98.614  |
| 575       | 0.00244             | 99.720 | 99.441  | 99.162  | 98.885  | 98.608  |
| 580       | 0.00245             | 99.719 | 99.438  | 99.159  | 98.880  | 98.602  |
| 585       | 0.00246             | 99.718 | 99.436  | 99.155  | 98.875  | 98.596  |
| 590       | 0.00247             | 99.716 | 99.434  | 99.152  | 98.870  | 98.590  |
| 595       | 0.00248             | 99.715 | 99.431  | 99.148  | 98.866  | 98.584  |
| 600       | 0.00249             | 99.714 | 99.429  | 99.144  | 98.861  | 98.578  |
| 605       | 0.00250             | 99.713 | 99.426  | 99.141  | 98.856  | 98.572  |
| 610       | 0.00251             | 99.712 | 99.424  | 99.137  | 98.852  | 98.566  |
| 615       | 0.00252             | 99.710 | 99.422  | 99.134  | 98.847  | 98.561  |
| 620       | 0.00253             | 99.709 | 99.419  | 99.130  | 98.842  | 98.555  |
| 625       | 0.00254             | 99.708 | 99.417  | 99.127  | 98.838  | 98.549  |
| 630       | 0.00255             | 99.707 | 99.415  | 99.123  | 98.833  | 98.543  |
| 635       | 0.00256             | 99.706 | 99.412  | 99.120  | 98.828  | 98.538  |
| 640       | 0.00257             | 99.705 | 99.410  | 99.117  | 98.824  | 98.532  |
| 645       | 0.00258             | 99.703 | 99.408  | 99.113  | 98.819  | 98.526  |
| 650       | 0.00259             | 99.702 | 99.406  | 99.110  | 98.815  | 98.521  |
| 655       | 0.00260             | 99.701 | 99.403  | 99.106  | 98.810  | 98.515  |
| 660       | 0.00261             | 99.700 | 99.401  | 99.103  | 98.806  | 98.509  |
| 665       | 0.00262             | 99.699 | 99.399  | 99.100  | 98.801  | 98.504  |
| 670       | 0.00263             | 99.698 | 99.397  | 99.096  | 98.797  | 98.498  |
| 675       | 0.00264             | 99.697 | 99.394  | 99.093  | 98.792  | 98.493  |
| 680       | 0.00265             | 99.696 | 99.392  | 99.089  | 98.788  | 98.487  |
| 685       | 0.00266             | 99.694 | 99.390  | 99.086  | 98.783  | 98.482  |
| 690       | 0.00267             | 99.693 | 99.388  | 99.083  | 98.779  | 98.476  |
| 695       | 0.00268             | 99.692 | 99.385  | 99.080  | 98.775  | 98.471  |
| 700       | 0.00269             | 99.691 | 99.383  | 99.076  | 98.770  | 98.465  |
| 705       | 0.00270             | 99.690 | 99.381  | 99.073  | 98.766  | 98.460  |
| 710       | 0.00271             | 99.689 | 99.379  | 99.070  | 98.761  | 98.454  |
| 715       | 0.00272             | 99.688 | 99.377  | 99.066  | 98.757  | 98.449  |
| 720       | 0.00273             | 99.687 | 99.374  | 99.063  | 98.753  | 98.444  |
| 725       | 0.00273             | 99.686 | 99.372  | 99.060  | 98.749  | 98.438  |
| 730       | 0.00274             | 99.685 | 99.370  | 99.057  | 98.744  | 98.433  |
| 735       | 0.00275             | 99.684 | 99.368  | 99.054  | 98.740  | 98.428  |
| 740       | 0.00276             | 99.682 | 99.366  | 99.050  | 98.736  | 98.422  |
| 745       | 0.00277             | 99.681 | 99.364  | 99.047  | 98.732  | 98.417  |
| 750       | 0.00278             | 99.680 | 99.362  | 99.044  | 98.727  | 98.412  |
| 755       | 0.00279             | 99.679 | 99.359  | 99.041  | 98.723  | 98.406  |
| 760       | 0.00280             | 99.678 | 99.357  | 99.038  | 98.719  | 98.401  |
| 765       | 0.00281             | 99.677 | 99.355  | 99.034  | 98.715  | 98.396  |
| 770       | 0.00282             | 99.676 | 99.353  | 99.031  | 98.711  | 98.391  |
| 775       | 0.00283             | 99.675 | 99.351  | 99.028  | 98.706  | 98.386  |
| 780       | 0.00284             | 99.674 | 99.349  | 99.025  | 98.702  | 98.380  |

**Standard Conditions:**

**Attenuation:** Ambient Temperature 20°C (68°F), Dry Air, Sea Level Atmospheric Pressure, VSWR 1.0, 0KW

**Average Power:** Ambient Temperature 40°C (104°F), Inner Conductor Temperature 100°C (212°F), Dry Air, Sea Level Atmospheric Pressure, VSWR 1.0



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| Freq. kHz | ATTEN. in dB/100 ft | 500 ft | 1000 ft | 1500 ft | 2000 ft | 2500 ft |
|-----------|---------------------|--------|---------|---------|---------|---------|
| 785       | 0.00285             | 99.673 | 99.347  | 99.022  | 98.698  | 98.375  |
| 790       | 0.00285             | 99.672 | 99.345  | 99.019  | 98.694  | 98.370  |
| 795       | 0.00286             | 99.671 | 99.343  | 99.016  | 98.690  | 98.365  |
| 800       | 0.00287             | 99.670 | 99.341  | 99.013  | 98.686  | 98.360  |
| 805       | 0.00288             | 99.669 | 99.339  | 99.010  | 98.682  | 98.355  |
| 810       | 0.00289             | 99.668 | 99.337  | 99.007  | 98.678  | 98.350  |
| 815       | 0.00290             | 99.667 | 99.335  | 99.004  | 98.674  | 98.345  |
| 820       | 0.00291             | 99.666 | 99.333  | 99.001  | 98.670  | 98.340  |
| 825       | 0.00292             | 99.665 | 99.331  | 98.998  | 98.666  | 98.335  |
| 830       | 0.00293             | 99.664 | 99.329  | 98.995  | 98.662  | 98.330  |
| 835       | 0.00293             | 99.663 | 99.327  | 98.991  | 98.658  | 98.325  |
| 840       | 0.00294             | 99.662 | 99.325  | 98.988  | 98.654  | 98.320  |
| 845       | 0.00295             | 99.661 | 99.323  | 98.986  | 98.650  | 98.315  |
| 850       | 0.00296             | 99.660 | 99.321  | 98.983  | 98.646  | 98.310  |
| 855       | 0.00297             | 99.659 | 99.319  | 98.980  | 98.642  | 98.305  |
| 860       | 0.00298             | 99.658 | 99.317  | 98.977  | 98.638  | 98.300  |
| 865       | 0.00299             | 99.657 | 99.315  | 98.974  | 98.634  | 98.295  |
| 870       | 0.00300             | 99.656 | 99.313  | 98.971  | 98.630  | 98.290  |
| 875       | 0.00300             | 99.655 | 99.311  | 98.968  | 98.626  | 98.286  |
| 880       | 0.00301             | 99.654 | 99.309  | 98.965  | 98.622  | 98.281  |
| 885       | 0.00302             | 99.653 | 99.307  | 98.962  | 98.618  | 98.276  |
| 890       | 0.00303             | 99.652 | 99.305  | 98.959  | 98.614  | 98.271  |
| 895       | 0.00304             | 99.651 | 99.303  | 98.956  | 98.611  | 98.266  |
| 900       | 0.00305             | 99.650 | 99.301  | 98.953  | 98.607  | 98.261  |
| 905       | 0.00306             | 99.649 | 99.299  | 98.950  | 98.603  | 98.257  |
| 910       | 0.00306             | 99.648 | 99.297  | 98.947  | 98.599  | 98.252  |
| 915       | 0.00307             | 99.647 | 99.295  | 98.945  | 98.595  | 98.247  |
| 920       | 0.00308             | 99.646 | 99.293  | 98.942  | 98.591  | 98.242  |
| 925       | 0.00309             | 99.645 | 99.291  | 98.939  | 98.588  | 98.238  |
| 930       | 0.00310             | 99.644 | 99.289  | 98.936  | 98.584  | 98.233  |
| 935       | 0.00311             | 99.643 | 99.287  | 98.933  | 98.580  | 98.228  |
| 940       | 0.00311             | 99.642 | 99.286  | 98.930  | 98.576  | 98.224  |
| 945       | 0.00312             | 99.641 | 99.284  | 98.927  | 98.573  | 98.219  |
| 950       | 0.00313             | 99.640 | 99.282  | 98.925  | 98.569  | 98.214  |
| 955       | 0.00314             | 99.639 | 99.280  | 98.922  | 98.565  | 98.210  |
| 960       | 0.00315             | 99.638 | 99.278  | 98.919  | 98.561  | 98.205  |
| 965       | 0.00315             | 99.637 | 99.276  | 98.916  | 98.558  | 98.200  |
| 970       | 0.00316             | 99.636 | 99.274  | 98.913  | 98.554  | 98.196  |
| 975       | 0.00317             | 99.636 | 99.272  | 98.911  | 98.550  | 98.191  |
| 980       | 0.00318             | 99.635 | 99.271  | 98.908  | 98.547  | 98.186  |
| 985       | 0.00319             | 99.634 | 99.269  | 98.905  | 98.543  | 98.182  |
| 990       | 0.00320             | 99.633 | 99.267  | 98.902  | 98.539  | 98.177  |
| 995       | 0.00320             | 99.632 | 99.265  | 98.900  | 98.536  | 98.173  |
| 1000      | 0.00321             | 99.631 | 99.263  | 98.897  | 98.532  | 98.168  |
| 1100      | 0.00337             | 99.613 | 99.227  | 98.843  | 98.461  | 98.080  |
| 1200      | 0.00352             | 99.596 | 99.193  | 98.792  | 98.393  | 97.995  |
| 1300      | 0.00366             | 99.579 | 99.160  | 98.743  | 98.328  | 97.914  |
| 1400      | 0.00380             | 99.563 | 99.129  | 98.696  | 98.265  | 97.836  |
| 1500      | 0.00393             | 99.548 | 99.098  | 98.651  | 98.205  | 97.761  |
| 1600      | 0.00406             | 99.533 | 99.069  | 98.607  | 98.147  | 97.689  |
| 1700      | 0.00419             | 99.519 | 99.040  | 98.564  | 98.090  | 97.618  |

**Standard Conditions:**

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**Average Power:** Ambient Temperature 40°C (104°F), Inner Conductor Temperature 100°C (212°F), Dry Air, Sea Level Atmospheric Pressure, VSWR 1.0