

*Typical Performance Data*

| FREQ.<br>(MHz) | INSERTION LOSS |        |         | INPUT RETURN LOSS |        |         | OUTPUT RETURN LOSS |        |         |
|----------------|----------------|--------|---------|-------------------|--------|---------|--------------------|--------|---------|
|                | (dB)           |        |         | (dB)              |        |         | (dB)               |        |         |
|                | @-55°C         | @+25°C | @+125°C | @-55°C            | @+25°C | @+125°C | @-55°C             | @+25°C | @+125°C |
| 10             | 0.21           | 0.29   | 0.37    | 33.39             | 29.63  | 28.25   | 33.39              | 29.78  | 28.30   |
| 20             | 0.24           | 0.32   | 0.40    | 29.89             | 27.71  | 26.06   | 29.62              | 27.46  | 25.90   |
| 30             | 0.27           | 0.35   | 0.43    | 27.48             | 25.73  | 23.99   | 27.14              | 25.42  | 23.78   |
| 40             | 0.30           | 0.37   | 0.45    | 26.39             | 24.23  | 22.89   | 25.92              | 23.92  | 22.58   |
| 50             | 0.32           | 0.40   | 0.48    | 25.37             | 23.26  | 21.87   | 24.98              | 22.89  | 21.63   |
| 60             | 0.34           | 0.43   | 0.51    | 24.55             | 22.62  | 21.05   | 24.02              | 22.10  | 20.75   |
| 80             | 0.39           | 0.48   | 0.57    | 24.26             | 22.01  | 20.49   | 23.03              | 21.18  | 19.80   |
| 100            | 0.43           | 0.53   | 0.63    | 24.39             | 22.16  | 20.37   | 22.70              | 20.90  | 19.50   |
| 120            | 0.48           | 0.59   | 0.69    | 25.46             | 22.92  | 21.05   | 22.58              | 21.04  | 19.61   |
| 140            | 0.54           | 0.65   | 0.76    | 26.45             | 24.03  | 21.99   | 22.58              | 21.32  | 20.04   |
| 160            | 0.62           | 0.74   | 0.85    | 26.35             | 24.51  | 22.85   | 21.93              | 21.20  | 20.18   |
| 180            | 0.72           | 0.85   | 0.97    | 23.80             | 23.13  | 22.23   | 20.49              | 20.18  | 19.64   |
| 200            | 0.89           | 1.02   | 1.15    | 19.68             | 19.85  | 19.86   | 17.67              | 17.87  | 17.80   |
| 220            | 1.20           | 1.32   | 1.46    | 14.60             | 15.37  | 15.98   | 13.56              | 14.20  | 14.64   |
| 240            | 1.93           | 1.97   | 2.06    | 9.60              | 10.60  | 11.51   | 9.03               | 9.92   | 10.65   |
| 260            | 3.54           | 3.38   | 3.32    | 5.60              | 6.52   | 7.41    | 5.27               | 6.10   | 6.88    |
| 280            | 6.40           | 5.95   | 5.65    | 3.11              | 3.78   | 4.48    | 2.89               | 3.51   | 4.12    |
| 300            | 10.33          | 9.60   | 9.08    | 1.85              | 2.30   | 2.79    | 1.71               | 2.11   | 2.54    |
| 320            | 14.89          | 13.96  | 13.26   | 1.27              | 1.58   | 1.93    | 1.17               | 1.45   | 1.76    |
| 350            | 22.65          | 21.41  | 20.43   | 0.89              | 1.11   | 1.35    | 0.84               | 1.03   | 1.25    |
| 380            | 32.81          | 30.73  | 29.19   | 0.72              | 0.90   | 1.09    | 0.69               | 0.85   | 1.02    |
| 400            | 44.09          | 40.07  | 37.30   | 0.64              | 0.80   | 0.97    | 0.63               | 0.78   | 0.93    |
| 450            | 36.06          | 36.85  | 37.62   | 0.51              | 0.64   | 0.78    | 0.51               | 0.64   | 0.76    |
| 500            | 34.13          | 34.38  | 34.63   | 0.42              | 0.53   | 0.65    | 0.43               | 0.55   | 0.65    |
| 550            | 34.54          | 34.62  | 34.70   | 0.35              | 0.46   | 0.57    | 0.37               | 0.49   | 0.57    |
| 600            | 35.63          | 35.64  | 35.67   | 0.30              | 0.40   | 0.50    | 0.32               | 0.43   | 0.51    |
| 650            | 37.02          | 36.98  | 36.96   | 0.26              | 0.36   | 0.45    | 0.28               | 0.39   | 0.46    |
| 700            | 38.49          | 38.43  | 38.37   | 0.22              | 0.32   | 0.40    | 0.24               | 0.34   | 0.41    |
| 750            | 40.01          | 39.92  | 39.86   | 0.19              | 0.28   | 0.36    | 0.21               | 0.31   | 0.38    |
| 800            | 41.49          | 41.39  | 41.33   | 0.16              | 0.25   | 0.33    | 0.19               | 0.28   | 0.35    |
| 850            | 42.97          | 42.85  | 42.77   | 0.15              | 0.23   | 0.31    | 0.17               | 0.26   | 0.33    |
| 900            | 44.42          | 44.28  | 44.19   | 0.13              | 0.22   | 0.30    | 0.16               | 0.24   | 0.31    |
| 950            | 45.78          | 45.65  | 45.57   | 0.12              | 0.20   | 0.28    | 0.14               | 0.22   | 0.29    |
| 1000           | 47.12          | 46.97  | 46.88   | 0.10              | 0.18   | 0.26    | 0.12               | 0.20   | 0.27    |
| 1100           | 49.63          | 49.46  | 49.36   | 0.07              | 0.16   | 0.24    | 0.10               | 0.18   | 0.25    |
| 1200           | 51.91          | 51.73  | 51.66   | 0.06              | 0.14   | 0.22    | 0.08               | 0.16   | 0.24    |
| 1300           | 54.11          | 53.90  | 53.73   | 0.04              | 0.12   | 0.21    | 0.06               | 0.14   | 0.21    |
| 1400           | 56.04          | 55.87  | 55.72   | 0.03              | 0.11   | 0.20    | 0.05               | 0.13   | 0.20    |
| 1500           | 57.93          | 57.67  | 57.57   | 0.03              | 0.11   | 0.19    | 0.05               | 0.13   | 0.20    |
| 1600           | 59.84          | 59.58  | 59.34   | 0.02              | 0.10   | 0.18    | 0.04               | 0.12   | 0.19    |
| 1700           | 61.96          | 61.51  | 61.27   | 0.02              | 0.10   | 0.18    | 0.03               | 0.11   | 0.18    |
| 1800           | 64.47          | 63.73  | 63.28   | 0.02              | 0.10   | 0.18    | 0.03               | 0.11   | 0.18    |
| 1900           | 68.14          | 66.69  | 66.05   | 0.01              | 0.09   | 0.17    | 0.03               | 0.11   | 0.17    |
| 2000           | 75.56          | 72.19  | 69.74   | 0.02              | 0.09   | 0.17    | 0.03               | 0.11   | 0.17    |
| 2200           | 57.73          | 57.25  | 61.07   | 0.03              | 0.11   | 0.18    | 0.04               | 0.12   | 0.17    |
| 2400           | 74.19          | 70.62  | 68.58   | 0.04              | 0.11   | 0.18    | 0.05               | 0.12   | 0.18    |
| 2600           | 69.01          | 72.69  | 76.70   | 0.06              | 0.12   | 0.19    | 0.06               | 0.13   | 0.18    |
| 2800           | 62.38          | 63.75  | 65.30   | 0.08              | 0.15   | 0.21    | 0.08               | 0.15   | 0.19    |
| 3000           | 58.59          | 59.89  | 60.46   | 0.14              | 0.20   | 0.26    | 0.12               | 0.19   | 0.23    |
| 3200           | 54.71          | 55.75  | 56.83   | 0.34              | 0.34   | 0.38    | 0.25               | 0.28   | 0.31    |
| 3500           | 57.82          | 54.92  | 53.62   | 3.41              | 5.72   | 3.27    | 4.29               | 3.22   | 1.70    |
| 4000           | 49.31          | 50.15  | 50.66   | 0.18              | 0.28   | 0.40    | 0.18               | 0.28   | 0.38    |
| 4500           | 44.98          | 45.78  | 46.08   | 0.17              | 0.27   | 0.39    | 0.18               | 0.29   | 0.38    |
| 5000           | 40.69          | 41.31  | 41.92   | 0.34              | 0.44   | 0.59    | 0.34               | 0.44   | 0.57    |
| 6000           | 54.36          | 44.45  | 39.54   | 4.57              | 9.53   | 25.27   | 4.90               | 10.73  | 56.61   |
| 6400           | 46.30          | 49.45  | 52.41   | 0.88              | 1.36   | 2.15    | 0.88               | 1.39   | 2.18    |
| 7000           | 33.87          | 36.25  | 37.86   | 0.50              | 0.73   | 1.12    | 0.52               | 0.75   | 1.12    |
| 7500           | 42.04          | 41.36  | 33.66   | 0.67              | 0.88   | 1.35    | 0.62               | 0.89   | 1.44    |
| 8000           | 29.14          | 31.55  | 34.81   | 3.98              | 2.47   | 2.18    | 2.46               | 1.78   | 1.80    |
| 8500           | 19.29          | 17.24  | 19.36   | 2.11              | 4.13   | 5.46    | 2.10               | 4.40   | 6.56    |

*Typical Performance Data*

| FREQ.<br><br>(MHz) | GROUP DELAY |        |         |
|--------------------|-------------|--------|---------|
|                    | (nsec)      |        |         |
|                    | @-55°C      | @+25°C | @+125°C |
| 10                 | 1.88        | 1.85   | 1.85    |
| 15                 | 1.87        | 1.85   | 1.85    |
| 20                 | 1.87        | 1.84   | 1.85    |
| 25                 | 1.87        | 1.84   | 1.84    |
| 30                 | 1.87        | 1.84   | 1.84    |
| 35                 | 1.86        | 1.84   | 1.84    |
| 40                 | 1.86        | 1.84   | 1.84    |
| 45                 | 1.86        | 1.84   | 1.83    |
| 50                 | 1.86        | 1.85   | 1.83    |
| 55                 | 1.87        | 1.85   | 1.84    |
| 60                 | 1.87        | 1.85   | 1.84    |
| 65                 | 1.88        | 1.86   | 1.85    |
| 70                 | 1.89        | 1.87   | 1.85    |
| 75                 | 1.90        | 1.88   | 1.86    |
| 80                 | 1.91        | 1.89   | 1.87    |
| 85                 | 1.92        | 1.90   | 1.88    |
| 90                 | 1.94        | 1.91   | 1.89    |
| 95                 | 1.95        | 1.92   | 1.91    |
| 100                | 1.97        | 1.94   | 1.92    |
| 105                | 1.98        | 1.96   | 1.94    |
| 110                | 2.00        | 1.97   | 1.95    |
| 115                | 2.03        | 1.99   | 1.97    |
| 120                | 2.05        | 2.02   | 1.99    |
| 125                | 2.07        | 2.04   | 2.02    |
| 130                | 2.10        | 2.06   | 2.04    |
| 135                | 2.13        | 2.09   | 2.07    |
| 140                | 2.16        | 2.12   | 2.09    |
| 150                | 2.23        | 2.19   | 2.16    |
| 160                | 2.31        | 2.26   | 2.23    |
| 170                | 2.41        | 2.35   | 2.31    |
| 180                | 2.53        | 2.46   | 2.41    |