

## Typical Performance Data

| FREQ. | INSERTION LOSS |        |         | INPUT RETURN LOSS |        |         | OUTPUT RETURN LOSS |        |         |
|-------|----------------|--------|---------|-------------------|--------|---------|--------------------|--------|---------|
| (MHz) | (dB)           |        |         | (dB)              |        |         | (dB)               |        |         |
|       | @-55°C         | @+25°C | @+125°C | @-55°C            | @+25°C | @+125°C | @-55°C             | @+25°C | @+125°C |
| 10    | 0.10           | 0.13   | 0.18    | 39.29             | 36.19  | 33.80   | 38.80              | 35.85  | 33.51   |
| 20    | 0.12           | 0.16   | 0.20    | 38.08             | 34.93  | 32.60   | 36.70              | 33.99  | 31.87   |
| 16    | 0.11           | 0.15   | 0.19    | 38.47             | 35.37  | 33.04   | 37.50              | 34.69  | 32.51   |
| 40    | 0.15           | 0.20   | 0.25    | 37.45             | 33.84  | 31.15   | 33.35              | 31.06  | 29.18   |
| 60    | 0.19           | 0.24   | 0.29    | 38.80             | 34.30  | 30.81   | 30.58              | 28.83  | 27.18   |
| 80    | 0.22           | 0.27   | 0.33    | 42.01             | 36.08  | 31.18   | 28.23              | 26.99  | 25.61   |
| 100   | 0.25           | 0.31   | 0.37    | 45.55             | 39.74  | 32.32   | 26.19              | 25.39  | 24.27   |
| 120   | 0.28           | 0.34   | 0.41    | 40.20             | 44.23  | 33.56   | 24.50              | 23.99  | 23.15   |
| 140   | 0.31           | 0.38   | 0.46    | 34.93             | 40.08  | 34.38   | 23.10              | 22.81  | 22.20   |
| 160   | 0.35           | 0.42   | 0.50    | 31.12             | 34.69  | 33.87   | 21.97              | 21.88  | 21.46   |
| 180   | 0.38           | 0.46   | 0.55    | 28.36             | 31.08  | 32.22   | 21.12              | 21.18  | 20.90   |
| 200   | 0.42           | 0.50   | 0.60    | 26.42             | 28.70  | 30.45   | 20.57              | 20.72  | 20.57   |
| 220   | 0.46           | 0.55   | 0.65    | 25.17             | 27.21  | 29.12   | 20.37              | 20.58  | 20.51   |
| 240   | 0.51           | 0.60   | 0.70    | 24.49             | 26.37  | 28.27   | 20.54              | 20.76  | 20.76   |
| 260   | 0.55           | 0.64   | 0.75    | 24.32             | 26.06  | 27.90   | 21.19              | 21.42  | 21.45   |
| 280   | 0.59           | 0.70   | 0.81    | 24.68             | 26.34  | 28.20   | 22.52              | 22.76  | 22.75   |
| 300   | 0.64           | 0.75   | 0.88    | 25.69             | 27.34  | 29.34   | 25.00              | 25.22  | 25.09   |
| 320   | 0.70           | 0.81   | 0.95    | 27.26             | 29.00  | 31.42   | 30.08              | 30.33  | 29.73   |
| 340   | 0.76           | 0.89   | 1.03    | 28.09             | 29.78  | 32.60   | 38.11              | 54.36  | 41.24   |
| 360   | 0.85           | 0.98   | 1.14    | 25.66             | 26.99  | 29.03   | 27.00              | 28.48  | 29.34   |
| 380   | 0.96           | 1.10   | 1.27    | 21.86             | 22.99  | 24.49   | 21.12              | 22.02  | 22.76   |
| 400   | 1.11           | 1.26   | 1.43    | 18.61             | 19.64  | 20.90   | 17.54              | 18.27  | 18.91   |
| 420   | 1.31           | 1.45   | 1.63    | 16.20             | 17.13  | 18.24   | 15.22              | 15.84  | 16.40   |
| 440   | 1.54           | 1.69   | 1.88    | 14.71             | 15.50  | 16.47   | 13.98              | 14.43  | 14.88   |
| 460   | 1.80           | 1.96   | 2.17    | 14.43             | 14.93  | 15.68   | 13.99              | 14.11  | 14.36   |
| 480   | 2.10           | 2.29   | 2.53    | 16.40             | 16.15  | 16.43   | 16.18              | 15.45  | 15.17   |
| 490   | 2.33           | 2.51   | 2.75    | 18.91             | 17.99  | 17.79   | 18.63              | 17.07  | 16.25   |
| 500   | 2.68           | 2.81   | 3.04    | 19.66             | 20.24  | 19.96   | 19.46              | 18.74  | 17.59   |
| 630   | 46.01          | 41.25  | 37.74   | 0.82              | 1.05   | 1.34    | 2.56               | 3.10   | 3.76    |
| 730   | 49.47          | 49.83  | 50.19   | 0.50              | 0.67   | 0.85    | 1.28               | 1.57   | 1.91    |
| 770   | 49.29          | 49.83  | 50.34   | 0.43              | 0.59   | 0.76    | 0.97               | 1.20   | 1.46    |
| 810   | 48.61          | 49.15  | 49.70   | 0.38              | 0.53   | 0.69    | 0.76               | 0.94   | 1.15    |
| 830   | 48.29          | 48.77  | 49.30   | 0.36              | 0.50   | 0.66    | 0.69               | 0.85   | 1.04    |
| 900   | 47.72          | 47.96  | 48.29   | 0.29              | 0.43   | 0.58    | 0.50               | 0.61   | 0.76    |
| 830   | 48.29          | 48.77  | 49.30   | 0.36              | 0.50   | 0.66    | 0.69               | 0.85   | 1.04    |
| 1100  | 52.93          | 52.11  | 51.63   | 0.20              | 0.32   | 0.45    | 0.29               | 0.36   | 0.45    |
| 1200  | 62.86          | 59.70  | 58.00   | 0.17              | 0.29   | 0.41    | 0.26               | 0.32   | 0.40    |
| 1300  | 60.72          | 64.52  | 68.02   | 0.15              | 0.27   | 0.39    | 0.24               | 0.30   | 0.37    |
| 1400  | 52.80          | 54.36  | 55.84   | 0.14              | 0.26   | 0.37    | 0.23               | 0.28   | 0.35    |
| 1500  | 49.18          | 50.18  | 51.11   | 0.15              | 0.26   | 0.37    | 0.22               | 0.27   | 0.33    |
| 1600  | 47.05          | 47.80  | 48.47   | 0.15              | 0.26   | 0.37    | 0.21               | 0.26   | 0.32    |
| 1700  | 45.67          | 46.27  | 46.78   | 0.16              | 0.27   | 0.38    | 0.20               | 0.26   | 0.32    |
| 1800  | 44.78          | 45.26  | 45.68   | 0.17              | 0.27   | 0.39    | 0.20               | 0.25   | 0.31    |
| 1900  | 44.22          | 44.62  | 44.94   | 0.17              | 0.28   | 0.41    | 0.20               | 0.25   | 0.31    |
| 2000  | 43.90          | 44.21  | 44.48   | 0.18              | 0.28   | 0.42    | 0.19               | 0.25   | 0.30    |
| 2200  | 43.74          | 43.98  | 44.13   | 0.18              | 0.30   | 0.45    | 0.18               | 0.24   | 0.30    |
| 2400  | 44.17          | 44.34  | 44.43   | 0.18              | 0.32   | 0.48    | 0.16               | 0.23   | 0.29    |
| 2600  | 45.10          | 45.18  | 45.22   | 0.19              | 0.33   | 0.52    | 0.14               | 0.22   | 0.29    |
| 2800  | 46.67          | 46.64  | 46.59   | 0.21              | 0.35   | 0.55    | 0.14               | 0.22   | 0.29    |
| 3000  | 49.16          | 48.91  | 48.73   | 0.22              | 0.37   | 0.58    | 0.13               | 0.22   | 0.30    |
| 3200  | 53.96          | 53.08  | 52.43   | 0.23              | 0.38   | 0.58    | 0.12               | 0.22   | 0.31    |
| 3400  | 63.61          | 63.81  | 61.27   | 0.25              | 0.40   | 0.59    | 0.12               | 0.22   | 0.32    |
| 3600  | 46.60          | 49.84  | 52.88   | 0.29              | 0.43   | 0.61    | 0.15               | 0.24   | 0.35    |
| 3800  | 29.35          | 33.13  | 38.40   | 0.42              | 0.51   | 0.65    | 1.30               | 0.76   | 0.55    |
| 4000  | 41.76          | 40.36  | 37.87   | 0.44              | 0.56   | 0.72    | 0.17               | 0.30   | 0.51    |
| 4500  | 38.47          | 36.70  | 37.48   | 2.33              | 4.56   | 5.28    | 0.12               | 0.26   | 0.43    |
| 5000  | 32.45          | 32.20  | 32.57   | 1.06              | 2.08   | 4.23    | 0.16               | 0.31   | 0.50    |
| 5500  | 31.69          | 32.21  | 32.70   | 0.34              | 0.63   | 1.12    | 0.21               | 0.37   | 0.57    |
| 6000  | 28.85          | 29.57  | 30.43   | 0.41              | 0.66   | 1.12    | 0.33               | 0.48   | 0.67    |
| 8500  | 22.22          | 23.11  | 24.05   | 0.66              | 1.02   | 1.61    | 1.88               | 1.87   | 1.98    |

*Typical Performance Data*

| FREQ. | GROUP DELAY |        |         |
|-------|-------------|--------|---------|
| (MHz) | (nsec)      |        |         |
|       | @-55°C      | @+25°C | @+125°C |
| 10    | 1.31        | 1.31   | 1.31    |
| 13    | 1.31        | 1.30   | 1.30    |
| 16    | 1.30        | 1.29   | 1.29    |
| 19    | 1.29        | 1.29   | 1.29    |
| 20    | 1.29        | 1.28   | 1.28    |
| 40    | 1.28        | 1.28   | 1.27    |
| 60    | 1.28        | 1.27   | 1.27    |
| 80    | 1.28        | 1.27   | 1.27    |
| 100   | 1.29        | 1.28   | 1.28    |
| 120   | 1.31        | 1.29   | 1.29    |
| 140   | 1.32        | 1.31   | 1.30    |
| 160   | 1.35        | 1.33   | 1.32    |
| 180   | 1.37        | 1.35   | 1.34    |
| 200   | 1.40        | 1.38   | 1.37    |
| 220   | 1.44        | 1.42   | 1.41    |
| 240   | 1.48        | 1.46   | 1.45    |
| 260   | 1.54        | 1.51   | 1.50    |
| 280   | 1.60        | 1.57   | 1.55    |
| 300   | 1.67        | 1.64   | 1.62    |
| 320   | 1.76        | 1.73   | 1.70    |
| 340   | 1.87        | 1.82   | 1.79    |
| 360   | 1.99        | 1.94   | 1.90    |