

## Typical Performance Data

| FREQ. | INSERTION LOSS |        |        | INPUT RETURN LOSS |        |        | OUTPUT RETURN LOSS |        |        |
|-------|----------------|--------|--------|-------------------|--------|--------|--------------------|--------|--------|
| (MHz) | (dB)           |        |        | (dB)              |        |        | (dB)               |        |        |
|       | @-40°C         | @+25°C | @+85°C | @-40°C            | @+25°C | @+85°C | @-40°C             | @+25°C | @+85°C |
| 10    | 92.01          | 92.45  | 90.64  | 0.00              | 0.00   | 0.00   | 0.00               | 0.00   | 0.00   |
| 20    | 82.06          | 81.24  | 83.40  | 0.00              | 0.00   | 0.00   | 0.01               | 0.01   | 0.01   |
| 40    | 79.78          | 78.98  | 78.98  | 0.01              | 0.01   | 0.01   | 0.01               | 0.01   | 0.01   |
| 60    | 77.18          | 75.18  | 73.66  | 0.01              | 0.01   | 0.01   | 0.01               | 0.01   | 0.01   |
| 80    | 72.99          | 73.35  | 73.90  | 0.01              | 0.01   | 0.01   | 0.01               | 0.01   | 0.01   |
| 100   | 70.98          | 71.34  | 71.29  | 0.01              | 0.01   | 0.02   | 0.00               | 0.01   | 0.02   |
| 120   | 70.27          | 70.93  | 70.97  | 0.02              | 0.02   | 0.02   | 0.01               | 0.02   | 0.02   |
| 140   | 70.06          | 68.95  | 70.49  | 0.01              | 0.01   | 0.02   | 0.00               | 0.02   | 0.02   |
| 150   | 68.64          | 68.95  | 69.18  | 0.01              | 0.01   | 0.02   | 0.00               | 0.01   | 0.02   |
| 175   | 68.05          | 68.73  | 67.78  | 0.01              | 0.02   | 0.02   | 0.01               | 0.02   | 0.03   |
| 200   | 67.28          | 67.30  | 68.05  | 0.01              | 0.02   | 0.03   | 0.01               | 0.03   | 0.03   |
| 400   | 80.71          | 78.22  | 79.79  | 0.06              | 0.08   | 0.09   | 0.06               | 0.09   | 0.10   |
| 600   | 48.11          | 47.82  | 47.56  | 0.14              | 0.18   | 0.20   | 0.15               | 0.20   | 0.22   |
| 650   | 42.88          | 42.48  | 42.27  | 0.17              | 0.22   | 0.24   | 0.19               | 0.24   | 0.27   |
| 700   | 37.75          | 37.38  | 37.17  | 0.22              | 0.27   | 0.29   | 0.23               | 0.29   | 0.32   |
| 750   | 32.79          | 32.42  | 32.19  | 0.27              | 0.33   | 0.37   | 0.28               | 0.35   | 0.39   |
| 760   | 31.79          | 31.46  | 31.18  | 0.29              | 0.34   | 0.38   | 0.29               | 0.37   | 0.40   |
| 770   | 30.83          | 30.46  | 30.19  | 0.30              | 0.36   | 0.40   | 0.30               | 0.38   | 0.42   |
| 780   | 29.83          | 29.48  | 29.20  | 0.32              | 0.38   | 0.42   | 0.32               | 0.40   | 0.44   |
| 800   | 27.88          | 27.52  | 27.25  | 0.35              | 0.41   | 0.46   | 0.35               | 0.43   | 0.47   |
| 820   | 25.93          | 25.56  | 25.28  | 0.38              | 0.46   | 0.51   | 0.38               | 0.47   | 0.52   |
| 840   | 23.97          | 23.61  | 23.32  | 0.43              | 0.51   | 0.57   | 0.42               | 0.52   | 0.57   |
| 850   | 22.99          | 22.64  | 22.34  | 0.46              | 0.54   | 0.60   | 0.44               | 0.54   | 0.60   |
| 860   | 22.02          | 21.66  | 21.36  | 0.48              | 0.57   | 0.64   | 0.47               | 0.57   | 0.64   |
| 870   | 21.04          | 20.70  | 20.38  | 0.52              | 0.61   | 0.68   | 0.50               | 0.61   | 0.68   |
| 880   | 20.08          | 19.73  | 19.40  | 0.55              | 0.65   | 0.73   | 0.54               | 0.65   | 0.72   |
| 900   | 18.13          | 17.79  | 17.46  | 0.64              | 0.76   | 0.85   | 0.62               | 0.74   | 0.83   |
| 950   | 13.29          | 12.97  | 12.63  | 1.01              | 1.18   | 1.33   | 0.97               | 1.14   | 1.28   |
| 970   | 11.40          | 11.10  | 10.77  | 1.27              | 1.48   | 1.67   | 1.20               | 1.41   | 1.58   |
| 1000  | 8.68           | 8.42   | 8.12   | 1.87              | 2.17   | 2.44   | 1.77               | 2.05   | 2.29   |
| 1050  | 4.82           | 4.68   | 4.51   | 3.92              | 4.47   | 4.98   | 3.69               | 4.18   | 4.64   |
| 1080  | 3.16           | 3.11   | 3.04   | 6.15              | 6.93   | 7.63   | 5.76               | 6.44   | 7.04   |
| 1100  | 2.37           | 2.38   | 2.36   | 8.18              | 9.14   | 9.98   | 7.61               | 8.40   | 9.09   |
| 1120  | 1.81           | 1.87   | 1.89   | 10.67             | 11.83  | 12.82  | 9.82               | 10.72  | 11.48  |
| 1150  | 1.30           | 1.40   | 1.46   | 15.28             | 16.83  | 18.04  | 13.68              | 14.65  | 15.46  |
| 1200  | 0.93           | 1.05   | 1.13   | 23.62             | 24.75  | 25.49  | 19.89              | 20.49  | 21.15  |
| 1220  | 0.85           | 0.98   | 1.05   | 24.41             | 24.51  | 24.91  | 21.30              | 21.62  | 22.28  |
| 1250  | 0.78           | 0.90   | 0.97   | 23.40             | 23.12  | 23.59  | 22.15              | 22.34  | 23.19  |
| 1300  | 0.69           | 0.80   | 0.86   | 22.32             | 22.37  | 22.98  | 22.97              | 23.58  | 24.89  |
| 1400  | 0.56           | 0.67   | 0.73   | 22.89             | 22.85  | 22.81  | 25.21              | 25.87  | 26.17  |
| 1500  | 0.51           | 0.61   | 0.67   | 19.99             | 19.55  | 19.21  | 20.75              | 20.43  | 20.14  |
| 1600  | 0.51           | 0.60   | 0.66   | 16.61             | 16.39  | 16.26  | 16.82              | 16.67  | 16.59  |
| 1700  | 0.51           | 0.61   | 0.66   | 14.77             | 14.63  | 14.64  | 14.81              | 14.71  | 14.74  |
| 1750  | 0.52           | 0.61   | 0.66   | 14.17             | 14.07  | 14.13  | 14.17              | 14.11  | 14.17  |
| 1800  | 0.52           | 0.62   | 0.66   | 13.76             | 13.70  | 13.80  | 13.74              | 13.71  | 13.81  |
| 1850  | 0.52           | 0.61   | 0.66   | 13.44             | 13.43  | 13.55  | 13.43              | 13.42  | 13.56  |
| 2000  | 0.50           | 0.59   | 0.63   | 13.07             | 13.28  | 13.47  | 13.08              | 13.25  | 13.41  |
| 2200  | 0.44           | 0.52   | 0.56   | 13.78             | 14.11  | 14.34  | 13.78              | 14.02  | 14.18  |
| 2500  | 0.31           | 0.40   | 0.44   | 16.68             | 17.12  | 17.51  | 16.62              | 16.91  | 17.15  |
| 2600  | 0.27           | 0.36   | 0.41   | 18.19             | 18.70  | 19.20  | 18.02              | 18.39  | 18.72  |
| 2700  | 0.24           | 0.33   | 0.37   | 20.13             | 20.80  | 21.50  | 19.80              | 20.37  | 20.81  |
| 2800  | 0.21           | 0.31   | 0.36   | 22.52             | 23.62  | 24.66  | 21.96              | 22.90  | 23.50  |
| 3000  | 0.18           | 0.27   | 0.33   | 30.01             | 35.38  | 39.49  | 27.45              | 30.05  | 30.25  |
| 3200  | 0.17           | 0.28   | 0.34   | 27.12             | 27.40  | 26.96  | 25.65              | 25.77  | 25.24  |
| 3500  | 0.22           | 0.33   | 0.38   | 17.91             | 18.36  | 18.61  | 17.72              | 17.97  | 18.03  |
| 4000  | 0.44           | 0.55   | 0.60   | 11.92             | 12.14  | 12.40  | 11.87              | 12.01  | 12.16  |
| 4250  | 0.60           | 0.71   | 0.77   | 10.06             | 10.30  | 10.45  | 10.01              | 10.20  | 10.28  |
| 4500  | 0.78           | 0.90   | 0.98   | 8.72              | 8.84   | 8.88   | 8.67               | 8.78   | 8.79   |
| 4750  | 0.97           | 1.12   | 1.22   | 7.65              | 7.68   | 7.62   | 7.61               | 7.66   | 7.60   |
| 5000  | 1.11           | 1.35   | 1.48   | 7.02              | 6.72   | 6.60   | 7.00               | 6.73   | 6.61   |

*Typical Performance Data*

| FREQ.<br><br>(MHz) | GROUP DELAY |        |        |
|--------------------|-------------|--------|--------|
|                    | (nsec)      |        |        |
|                    | @-40°C      | @+25°C | @+85°C |
| 1150               | 1.70        | 1.65   | 1.61   |
| 1180               | 1.52        | 1.47   | 1.44   |
| 1200               | 1.41        | 1.37   | 1.34   |
| 1250               | 1.19        | 1.16   | 1.14   |
| 1300               | 1.05        | 1.02   | 1.00   |
| 1350               | 0.94        | 0.92   | 0.91   |
| 1400               | 0.86        | 0.84   | 0.83   |
| 1450               | 0.80        | 0.78   | 0.76   |
| 1500               | 0.74        | 0.72   | 0.71   |
| 1550               | 0.69        | 0.67   | 0.66   |
| 1600               | 0.64        | 0.63   | 0.62   |
| 1650               | 0.61        | 0.59   | 0.58   |
| 1700               | 0.57        | 0.56   | 0.55   |
| 1750               | 0.55        | 0.53   | 0.52   |
| 1800               | 0.52        | 0.50   | 0.49   |
| 1850               | 0.50        | 0.48   | 0.48   |
| 1900               | 0.48        | 0.46   | 0.46   |
| 1950               | 0.46        | 0.44   | 0.44   |
| 2000               | 0.44        | 0.43   | 0.42   |
| 2050               | 0.43        | 0.42   | 0.41   |
| 2100               | 0.42        | 0.41   | 0.40   |
| 2150               | 0.41        | 0.39   | 0.39   |
| 2200               | 0.40        | 0.38   | 0.38   |
| 2250               | 0.39        | 0.37   | 0.37   |
| 2300               | 0.38        | 0.37   | 0.36   |
| 2400               | 0.37        | 0.35   | 0.35   |
| 2450               | 0.36        | 0.35   | 0.34   |
| 2500               | 0.35        | 0.34   | 0.33   |
| 2550               | 0.35        | 0.33   | 0.33   |
| 2600               | 0.34        | 0.33   | 0.32   |
| 2650               | 0.34        | 0.32   | 0.32   |
| 2700               | 0.33        | 0.32   | 0.31   |
| 2750               | 0.33        | 0.31   | 0.31   |
| 2800               | 0.32        | 0.31   | 0.30   |
| 2850               | 0.32        | 0.31   | 0.30   |
| 2900               | 0.31        | 0.30   | 0.29   |
| 3000               | 0.31        | 0.29   | 0.29   |
| 3100               | 0.30        | 0.29   | 0.28   |
| 3200               | 0.30        | 0.28   | 0.28   |
| 3300               | 0.29        | 0.28   | 0.27   |
| 3400               | 0.29        | 0.27   | 0.27   |
| 3500               | 0.28        | 0.27   | 0.26   |
| 3600               | 0.28        | 0.27   | 0.26   |
| 3700               | 0.27        | 0.26   | 0.25   |
| 3800               | 0.27        | 0.26   | 0.25   |
| 3900               | 0.27        | 0.25   | 0.25   |
| 4000               | 0.26        | 0.25   | 0.25   |
| 4100               | 0.26        | 0.25   | 0.24   |
| 4200               | 0.26        | 0.25   | 0.24   |
| 4300               | 0.25        | 0.24   | 0.24   |
| 4350               | 0.25        | 0.24   | 0.23   |
| 4400               | 0.25        | 0.24   | 0.23   |
| 4450               | 0.25        | 0.24   | 0.23   |
| 4500               | 0.25        | 0.24   | 0.23   |
| 4550               | 0.25        | 0.24   | 0.23   |
| 4600               | 0.25        | 0.24   | 0.23   |
| 4700               | 0.25        | 0.23   | 0.23   |
| 4800               | 0.25        | 0.23   | 0.23   |
| 4900               | 0.24        | 0.23   | 0.22   |
| 5000               | 0.24        | 0.23   | 0.22   |