

## 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    | 0.03           | 0.04   | 0.05    | 50.14             | 46.98  | 44.16   | 50.72              | 46.44  | 44.22   |
| 100   | 0.06           | 0.09   | 0.11    | 41.12             | 38.82  | 37.35   | 40.73              | 38.19  | 36.66   |
| 200   | 0.08           | 0.12   | 0.16    | 36.78             | 36.60  | 36.05   | 35.09              | 34.66  | 34.12   |
| 300   | 0.10           | 0.15   | 0.20    | 35.09             | 35.77  | 35.72   | 32.38              | 32.53  | 32.52   |
| 400   | 0.12           | 0.18   | 0.24    | 34.92             | 35.65  | 35.91   | 30.81              | 30.87  | 30.86   |
| 500   | 0.14           | 0.20   | 0.27    | 34.76             | 35.86  | 36.65   | 29.47              | 29.54  | 29.40   |
| 600   | 0.15           | 0.22   | 0.29    | 34.12             | 36.13  | 38.01   | 28.29              | 28.37  | 28.21   |
| 700   | 0.16           | 0.24   | 0.32    | 33.08             | 35.85  | 38.83   | 27.19              | 27.31  | 27.17   |
| 800   | 0.18           | 0.26   | 0.34    | 32.21             | 34.71  | 37.57   | 26.35              | 26.32  | 26.15   |
| 900   | 0.19           | 0.28   | 0.37    | 31.34             | 33.01  | 34.76   | 25.70              | 25.42  | 25.16   |
| 1000  | 0.20           | 0.30   | 0.39    | 30.08             | 31.12  | 32.06   | 24.99              | 24.58  | 24.23   |
| 1200  | 0.23           | 0.34   | 0.44    | 27.21             | 27.68  | 28.00   | 23.50              | 23.01  | 22.56   |
| 1400  | 0.26           | 0.38   | 0.50    | 24.63             | 24.83  | 24.82   | 22.16              | 21.59  | 21.08   |
| 1600  | 0.30           | 0.43   | 0.55    | 22.26             | 22.55  | 22.48   | 20.83              | 20.41  | 19.92   |
| 1800  | 0.34           | 0.47   | 0.61    | 20.34             | 20.68  | 20.73   | 19.74              | 19.44  | 19.12   |
| 2000  | 0.38           | 0.53   | 0.67    | 18.90             | 19.32  | 19.55   | 18.88              | 18.76  | 18.68   |
| 2200  | 0.43           | 0.58   | 0.73    | 17.86             | 18.37  | 18.80   | 18.19              | 18.32  | 18.48   |
| 2400  | 0.47           | 0.63   | 0.79    | 17.28             | 17.83  | 18.39   | 17.84              | 18.08  | 18.46   |
| 2600  | 0.51           | 0.68   | 0.85    | 17.10             | 17.61  | 18.25   | 17.79              | 18.08  | 18.59   |
| 2800  | 0.55           | 0.74   | 0.93    | 17.38             | 17.78  | 18.39   | 18.07              | 18.37  | 18.88   |
| 3000  | 0.59           | 0.80   | 1.01    | 18.08             | 18.30  | 18.80   | 18.66              | 18.88  | 19.36   |
| 3200  | 0.64           | 0.87   | 1.10    | 18.99             | 19.20  | 19.53   | 19.37              | 19.66  | 20.21   |
| 3500  | 0.76           | 1.01   | 1.28    | 20.82             | 20.90  | 21.05   | 20.72              | 21.18  | 22.05   |
| 3700  | 0.86           | 1.15   | 1.46    | 21.50             | 21.37  | 21.26   | 21.68              | 22.30  | 23.20   |
| 3800  | 0.93           | 1.23   | 1.57    | 21.36             | 21.11  | 20.76   | 22.12              | 22.80  | 23.53   |
| 4000  | 1.13           | 1.49   | 1.90    | 19.87             | 19.16  | 18.35   | 21.80              | 21.91  | 21.47   |
| 4360  | 2.18           | 2.88   | 3.77    | 10.87             | 9.98   | 9.17    | 11.97              | 11.18  | 10.54   |
| 4400  | 2.45           | 3.25   | 4.27    | 9.69              | 8.84   | 8.07    | 10.82              | 10.08  | 9.53    |
| 4600  | 5.15           | 6.71   | 8.71    | 4.64              | 4.22   | 3.94    | 6.17               | 5.94   | 5.95    |
| 4800  | 11.21          | 13.69  | 16.60   | 1.95              | 2.04   | 2.19    | 3.74               | 3.94   | 4.19    |
| 5000  | 20.39          | 23.41  | 26.83   | 1.09              | 1.35   | 1.59    | 2.59               | 2.84   | 3.05    |
| 5200  | 31.61          | 35.06  | 38.95   | 0.84              | 1.10   | 1.32    | 1.87               | 2.07   | 2.24    |
| 5400  | 44.73          | 48.71  | 52.93   | 0.74              | 0.98   | 1.17    | 1.36               | 1.55   | 1.70    |
| 5500  | 51.80          | 55.37  | 57.97   | 0.70              | 0.93   | 1.12    | 1.18               | 1.36   | 1.51    |
| 5800  | 58.06          | 57.06  | 55.92   | 0.58              | 0.82   | 1.02    | 0.80               | 0.97   | 1.14    |
| 6000  | 55.48          | 54.89  | 54.57   | 0.51              | 0.77   | 1.01    | 0.64               | 0.82   | 1.00    |
| 6100  | 54.75          | 54.73  | 54.67   | 0.48              | 0.74   | 1.02    | 0.58               | 0.76   | 0.95    |
| 6300  | 55.10          | 55.61  | 56.30   | 0.42              | 0.72   | 1.05    | 0.50               | 0.68   | 0.89    |
| 6600  | 59.47          | 61.39  | 63.79   | 0.35              | 0.68   | 1.09    | 0.41               | 0.60   | 0.83    |
| 6800  | 67.41          | 68.94  | 66.11   | 0.30              | 0.65   | 1.09    | 0.37               | 0.57   | 0.82    |
| 7000  | 63.15          | 60.60  | 58.11   | 0.27              | 0.63   | 1.08    | 0.35               | 0.56   | 0.82    |
| 7200  | 56.03          | 54.92  | 53.72   | 0.25              | 0.61   | 1.04    | 0.34               | 0.55   | 0.83    |
| 7400  | 52.12          | 51.45  | 50.75   | 0.24              | 0.59   | 1.00    | 0.33               | 0.55   | 0.84    |
| 7600  | 49.42          | 49.02  | 48.64   | 0.25              | 0.57   | 0.95    | 0.33               | 0.55   | 0.86    |
| 7800  | 47.39          | 47.16  | 46.95   | 0.26              | 0.57   | 0.91    | 0.33               | 0.56   | 0.87    |
| 8000  | 45.80          | 45.65  | 45.56   | 0.27              | 0.55   | 0.87    | 0.34               | 0.57   | 0.88    |
| 8200  | 44.49          | 44.41  | 44.33   | 0.27              | 0.54   | 0.84    | 0.34               | 0.58   | 0.89    |
| 8400  | 43.37          | 43.33  | 43.27   | 0.25              | 0.52   | 0.82    | 0.35               | 0.59   | 0.90    |
| 8600  | 42.37          | 42.36  | 42.27   | 0.22              | 0.49   | 0.81    | 0.36               | 0.60   | 0.90    |
| 8800  | 41.50          | 41.46  | 41.36   | 0.19              | 0.48   | 0.82    | 0.37               | 0.60   | 0.90    |
| 9000  | 40.65          | 40.62  | 40.51   | 0.16              | 0.46   | 0.84    | 0.37               | 0.61   | 0.89    |
| 9200  | 39.86          | 39.84  | 39.74   | 0.12              | 0.44   | 0.85    | 0.38               | 0.61   | 0.87    |
| 9400  | 39.10          | 39.07  | 39.01   | 0.09              | 0.42   | 0.86    | 0.39               | 0.61   | 0.85    |
| 9600  | 38.35          | 38.34  | 38.32   | 0.06              | 0.40   | 0.85    | 0.40               | 0.61   | 0.84    |
| 9800  | 37.61          | 37.62  | 37.65   | 0.04              | 0.38   | 0.83    | 0.40               | 0.61   | 0.81    |
| 10000 | 36.89          | 36.92  | 37.01   | 0.03              | 0.37   | 0.79    | 0.40               | 0.60   | 0.79    |
| 10200 | 36.16          | 36.25  | 36.38   | 0.04              | 0.36   | 0.74    | 0.40               | 0.59   | 0.76    |
| 10400 | 35.49          | 35.59  | 35.76   | 0.05              | 0.35   | 0.69    | 0.39               | 0.58   | 0.73    |
| 5800  | 58.06          | 57.06  | 55.92   | 0.58              | 0.82   | 1.02    | 0.80               | 0.97   | 1.14    |
| 18000 | 20.29          | 25.56  | 30.53   | 4.05              | 2.04   | 2.00    | 0.32               | 0.48   | 0.65    |

*Typical Performance Data*

| FREQ. | GROUP DELAY |        |         |
|-------|-------------|--------|---------|
| (MHz) | (nsec)      |        |         |
|       | @-55°C      | @+25°C | @+125°C |
| 10    | 0.31        | 0.33   | 0.32    |
| 20    | 0.31        | 0.32   | 0.32    |
| 40    | 0.31        | 0.31   | 0.32    |
| 60    | 0.31        | 0.31   | 0.32    |
| 100   | 0.31        | 0.31   | 0.32    |
| 200   | 0.30        | 0.31   | 0.31    |
| 300   | 0.30        | 0.31   | 0.31    |
| 400   | 0.30        | 0.31   | 0.31    |
| 500   | 0.30        | 0.31   | 0.31    |
| 600   | 0.30        | 0.31   | 0.31    |
| 700   | 0.30        | 0.31   | 0.31    |
| 800   | 0.31        | 0.31   | 0.31    |
| 900   | 0.31        | 0.31   | 0.31    |
| 1000  | 0.31        | 0.31   | 0.31    |
| 1100  | 0.31        | 0.31   | 0.32    |
| 1200  | 0.31        | 0.31   | 0.32    |
| 1300  | 0.31        | 0.31   | 0.32    |
| 1400  | 0.31        | 0.32   | 0.32    |
| 1500  | 0.32        | 0.32   | 0.32    |
| 1600  | 0.32        | 0.32   | 0.32    |
| 1700  | 0.32        | 0.32   | 0.33    |
| 1800  | 0.32        | 0.33   | 0.33    |
| 1900  | 0.33        | 0.33   | 0.33    |
| 2000  | 0.33        | 0.33   | 0.34    |
| 2100  | 0.33        | 0.33   | 0.34    |
| 2200  | 0.33        | 0.34   | 0.34    |
| 2300  | 0.34        | 0.34   | 0.35    |
| 2400  | 0.34        | 0.35   | 0.35    |
| 2500  | 0.35        | 0.35   | 0.36    |
| 2600  | 0.35        | 0.36   | 0.36    |
| 2700  | 0.36        | 0.36   | 0.37    |
| 2800  | 0.37        | 0.37   | 0.38    |
| 2900  | 0.37        | 0.38   | 0.38    |
| 3000  | 0.38        | 0.39   | 0.39    |
| 3100  | 0.39        | 0.40   | 0.40    |
| 3200  | 0.40        | 0.41   | 0.41    |
| 3300  | 0.41        | 0.42   | 0.43    |
| 3400  | 0.42        | 0.43   | 0.44    |
| 3500  | 0.44        | 0.45   | 0.46    |
| 3600  | 0.45        | 0.46   | 0.48    |
| 3700  | 0.47        | 0.48   | 0.50    |