

## 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 |
| 1     | 0.01           | 0.01   | 0.01   | 56.84             | 56.42  | 55.94  | 56.15              | 55.97  | 55.22  |
| 10    | 0.01           | 0.01   | 0.02   | 37.01             | 38.05  | 38.96  | 37.10              | 38.11  | 39.01  |
| 22    | 0.02           | 0.03   | 0.03   | 30.12             | 31.04  | 31.94  | 30.31              | 31.16  | 31.99  |
| 34    | 0.03           | 0.04   | 0.04   | 26.42             | 27.20  | 27.99  | 26.60              | 27.28  | 28.03  |
| 40    | 0.04           | 0.04   | 0.05   | 25.06             | 25.75  | 26.48  | 25.25              | 25.85  | 26.53  |
| 55    | 0.05           | 0.06   | 0.06   | 22.47             | 22.94  | 23.49  | 22.65              | 23.04  | 23.56  |
| 61    | 0.06           | 0.07   | 0.07   | 21.64             | 22.02  | 22.50  | 21.83              | 22.14  | 22.58  |
| 70    | 0.07           | 0.08   | 0.09   | 20.57             | 20.81  | 21.17  | 20.77              | 20.93  | 21.27  |
| 100   | 0.11           | 0.13   | 0.14   | 17.95             | 17.71  | 17.70  | 18.14              | 17.84  | 17.83  |
| 100   | 0.11           | 0.13   | 0.14   | 17.95             | 17.71  | 17.70  | 18.14              | 17.84  | 17.83  |
| 202   | 0.32           | 0.39   | 0.45   | 12.58             | 11.98  | 11.43  | 12.79              | 12.20  | 11.68  |
| 301   | 0.59           | 0.67   | 0.74   | 9.82              | 9.65   | 9.35   | 10.19              | 10.03  | 9.76   |
| 400   | 0.79           | 0.89   | 0.94   | 9.19              | 9.21   | 9.17   | 10.27              | 10.50  | 10.66  |
| 600   | 23.45          | 24.05  | 24.59  | 0.22              | 0.31   | 0.34   | 0.37               | 0.46   | 0.51   |
| 680   | 47.57          | 46.86  | 46.45  | 0.19              | 0.28   | 0.31   | 0.30               | 0.36   | 0.41   |
| 700   | 44.76          | 44.83  | 44.94  | 0.19              | 0.28   | 0.31   | 0.29               | 0.36   | 0.41   |
| 800   | 43.89          | 43.51  | 43.11  | 0.22              | 0.33   | 0.38   | 0.31               | 0.38   | 0.44   |
| 840   | 45.65          | 46.08  | 46.33  | 0.24              | 0.37   | 0.42   | 0.32               | 0.40   | 0.47   |
| 1000  | 13.45          | 13.04  | 12.68  | 0.66              | 0.93   | 1.08   | 0.70               | 0.90   | 1.06   |
| 1020  | 10.98          | 10.61  | 10.31  | 0.89              | 1.20   | 1.39   | 0.91               | 1.16   | 1.35   |
| 1040  | 8.77           | 8.46   | 8.22   | 1.23              | 1.60   | 1.82   | 1.25               | 1.55   | 1.77   |
| 1060  | 6.84           | 6.61   | 6.43   | 1.74              | 2.18   | 2.44   | 1.74               | 2.11   | 2.37   |
| 1080  | 5.21           | 5.05   | 4.95   | 2.44              | 2.96   | 3.26   | 2.43               | 2.88   | 3.18   |
| 1090  | 4.49           | 4.38   | 4.31   | 2.89              | 3.44   | 3.75   | 2.87               | 3.35   | 3.66   |
| 1100  | 3.86           | 3.78   | 3.75   | 3.39              | 3.98   | 4.30   | 3.37               | 3.89   | 4.20   |
| 1120  | 2.81           | 2.81   | 2.83   | 4.60              | 5.25   | 5.57   | 4.56               | 5.13   | 5.46   |
| 1140  | 2.02           | 2.09   | 2.15   | 6.05              | 6.73   | 7.03   | 6.00               | 6.61   | 6.91   |
| 1160  | 1.45           | 1.57   | 1.65   | 7.74              | 8.41   | 8.65   | 7.68               | 8.27   | 8.53   |
| 1180  | 1.06           | 1.21   | 1.31   | 9.63              | 10.24  | 10.38  | 9.55               | 10.08  | 10.27  |
| 1200  | 0.79           | 0.96   | 1.06   | 11.68             | 12.19  | 12.19  | 11.59              | 12.02  | 12.10  |
| 1220  | 0.61           | 0.79   | 0.89   | 13.91             | 14.21  | 14.04  | 13.80              | 14.06  | 13.99  |
| 1240  | 0.49           | 0.67   | 0.78   | 16.29             | 16.30  | 15.88  | 16.16              | 16.16  | 15.91  |
| 1260  | 0.41           | 0.59   | 0.70   | 18.85             | 18.40  | 17.67  | 18.68              | 18.32  | 17.82  |
| 1280  | 0.36           | 0.54   | 0.64   | 21.66             | 20.47  | 19.38  | 21.44              | 20.51  | 19.71  |
| 1300  | 0.32           | 0.50   | 0.59   | 24.64             | 22.41  | 20.93  | 24.42              | 22.70  | 21.54  |
| 1320  | 0.29           | 0.47   | 0.56   | 27.81             | 24.12  | 22.28  | 27.65              | 24.84  | 23.24  |
| 1340  | 0.28           | 0.45   | 0.54   | 30.91             | 25.52  | 23.40  | 30.89              | 26.84  | 24.71  |
| 1350  | 0.27           | 0.44   | 0.53   | 32.08             | 26.07  | 23.85  | 32.40              | 27.78  | 25.36  |
| 1360  | 0.26           | 0.43   | 0.52   | 32.95             | 26.53  | 24.25  | 33.70              | 28.65  | 25.92  |
| 1380  | 0.25           | 0.42   | 0.51   | 33.44             | 27.13  | 24.81  | 35.52              | 30.15  | 26.79  |
| 1400  | 0.24           | 0.41   | 0.50   | 32.81             | 27.38  | 25.12  | 35.86              | 31.25  | 27.28  |
| 1420  | 0.24           | 0.40   | 0.49   | 32.21             | 27.37  | 25.18  | 35.83              | 31.79  | 27.35  |
| 1440  | 0.23           | 0.40   | 0.48   | 31.96             | 27.24  | 25.06  | 36.05              | 31.77  | 27.09  |
| 1460  | 0.22           | 0.39   | 0.48   | 31.75             | 26.95  | 24.78  | 36.89              | 31.31  | 26.62  |
| 1480  | 0.22           | 0.39   | 0.48   | 31.78             | 26.53  | 24.36  | 38.30              | 30.52  | 25.97  |
| 1500  | 0.21           | 0.38   | 0.47   | 31.78             | 26.02  | 23.83  | 39.32              | 29.50  | 25.23  |
| 1520  | 0.21           | 0.38   | 0.47   | 31.54             | 25.42  | 23.26  | 39.32              | 28.39  | 24.46  |
| 1540  | 0.21           | 0.38   | 0.47   | 31.20             | 24.76  | 22.61  | 37.96              | 27.27  | 23.66  |
| 1560  | 0.20           | 0.38   | 0.48   | 30.54             | 24.08  | 21.97  | 35.47              | 26.14  | 22.84  |
| 1580  | 0.20           | 0.38   | 0.48   | 29.57             | 23.39  | 21.32  | 33.13              | 25.09  | 22.05  |
| 1600  | 0.20           | 0.39   | 0.48   | 28.63             | 22.71  | 20.68  | 31.14              | 24.11  | 21.31  |
| 1625  | 0.20           | 0.39   | 0.49   | 27.22             | 21.86  | 19.93  | 29.01              | 22.99  | 20.46  |
| 1631  | 0.20           | 0.39   | 0.49   | 26.91             | 21.68  | 19.76  | 28.52              | 22.73  | 20.26  |
| 1634  | 0.20           | 0.39   | 0.49   | 26.72             | 21.57  | 19.66  | 28.28              | 22.61  | 20.15  |
| 1652  | 0.20           | 0.40   | 0.50   | 25.78             | 21.00  | 19.16  | 26.95              | 21.88  | 19.57  |
| 1661  | 0.20           | 0.40   | 0.50   | 25.32             | 20.73  | 18.91  | 26.34              | 21.52  | 19.29  |
| 1673  | 0.20           | 0.40   | 0.51   | 24.70             | 20.37  | 18.60  | 25.58              | 21.08  | 18.94  |
| 1682  | 0.21           | 0.40   | 0.51   | 24.23             | 20.10  | 18.37  | 25.05              | 20.77  | 18.69  |
| 1694  | 0.21           | 0.40   | 0.51   | 23.61             | 19.75  | 18.07  | 24.36              | 20.36  | 18.38  |
| 1700  | 0.21           | 0.41   | 0.51   | 23.33             | 19.58  | 17.92  | 24.03              | 20.17  | 18.22  |

## Typical Performance Data

| FREQ. | GROUP DELAY-1 |        |        | FREQ. | GROUP DELAY-2 |        |        |
|-------|---------------|--------|--------|-------|---------------|--------|--------|
| (MHz) | (ns)          |        |        | (MHz) | (ns)          |        |        |
|       | @-40°C        | @+25°C | @+85°C |       | @-40°C        | @+25°C | @+85°C |
| 1     | 0.71          | 0.72   | 0.71   | 1350  | 0.71          | 0.69   | 0.68   |
| 4     | 0.71          | 0.71   | 0.71   | 1352  | 0.71          | 0.69   | 0.68   |
| 7     | 0.71          | 0.71   | 0.71   | 1356  | 0.70          | 0.68   | 0.67   |
| 10    | 0.71          | 0.71   | 0.71   | 1358  | 0.70          | 0.68   | 0.67   |
| 13    | 0.71          | 0.71   | 0.71   | 1360  | 0.69          | 0.68   | 0.66   |
| 16    | 0.71          | 0.71   | 0.70   | 1364  | 0.69          | 0.67   | 0.66   |
| 22    | 0.71          | 0.70   | 0.70   | 1366  | 0.68          | 0.67   | 0.66   |
| 25    | 0.71          | 0.70   | 0.70   | 1388  | 0.65          | 0.63   | 0.62   |
| 31    | 0.70          | 0.70   | 0.70   | 1390  | 0.65          | 0.63   | 0.62   |
| 37    | 0.70          | 0.70   | 0.70   | 1400  | 0.63          | 0.62   | 0.61   |
| 40    | 0.70          | 0.70   | 0.70   | 1410  | 0.62          | 0.60   | 0.60   |
| 49    | 0.70          | 0.70   | 0.70   | 1420  | 0.61          | 0.59   | 0.59   |
| 52    | 0.70          | 0.70   | 0.70   | 1430  | 0.60          | 0.58   | 0.58   |
| 55    | 0.70          | 0.70   | 0.70   | 1440  | 0.59          | 0.57   | 0.57   |
| 58    | 0.70          | 0.70   | 0.70   | 1450  | 0.58          | 0.56   | 0.56   |
| 61    | 0.70          | 0.70   | 0.70   | 1460  | 0.57          | 0.56   | 0.55   |
| 100   | 0.71          | 0.71   | 0.71   | 1470  | 0.56          | 0.55   | 0.54   |
| 109   | 0.72          | 0.71   | 0.71   | 1480  | 0.55          | 0.54   | 0.53   |
| 160   | 0.75          | 0.73   | 0.73   | 1490  | 0.55          | 0.53   | 0.52   |
| 175   | 0.76          | 0.74   | 0.74   | 1500  | 0.54          | 0.52   | 0.52   |
| 181   | 0.76          | 0.75   | 0.74   | 1510  | 0.53          | 0.52   | 0.51   |
| 199   | 0.78          | 0.76   | 0.75   | 1520  | 0.52          | 0.51   | 0.50   |
| 202   | 0.78          | 0.76   | 0.75   | 1530  | 0.52          | 0.50   | 0.50   |
| 220   | 0.80          | 0.78   | 0.77   | 1540  | 0.51          | 0.50   | 0.49   |
| 250   | 0.84          | 0.82   | 0.81   | 1550  | 0.51          | 0.49   | 0.49   |
| 265   | 0.86          | 0.85   | 0.84   | 1560  | 0.50          | 0.49   | 0.48   |
| 292   | 0.92          | 0.90   | 0.90   | 1570  | 0.50          | 0.48   | 0.47   |
| 301   | 0.94          | 0.93   | 0.93   | 1580  | 0.49          | 0.48   | 0.47   |
| 310   | 0.97          | 0.96   | 0.96   | 1590  | 0.49          | 0.47   | 0.46   |
| 316   | 0.98          | 0.98   | 0.98   | 1600  | 0.48          | 0.46   | 0.46   |
| 325   | 1.02          | 1.01   | 1.01   | 1610  | 0.47          | 0.46   | 0.45   |
| 334   | 1.05          | 1.05   | 1.05   | 1622  | 0.47          | 0.46   | 0.45   |
| 346   | 1.11          | 1.11   | 1.11   | 1628  | 0.47          | 0.45   | 0.45   |
| 352   | 1.14          | 1.14   | 1.15   | 1631  | 0.47          | 0.45   | 0.45   |
| 370   | 1.26          | 1.27   | 1.28   | 1634  | 0.47          | 0.45   | 0.44   |
| 373   | 1.28          | 1.29   | 1.31   | 1640  | 0.46          | 0.45   | 0.44   |
| 385   | 1.39          | 1.40   | 1.42   | 1643  | 0.46          | 0.45   | 0.44   |
| 391   | 1.45          | 1.47   | 1.48   | 1655  | 0.46          | 0.44   | 0.44   |
| 394   | 1.48          | 1.50   | 1.52   | 1685  | 0.45          | 0.43   | 0.42   |
| 397   | 1.51          | 1.53   | 1.55   | 1691  | 0.44          | 0.43   | 0.42   |
| 400   | 1.55          | 1.57   | 1.59   | 1700  | 0.44          | 0.43   | 0.42   |