

# Ceramic Low Pass Filter

**LFCG-4800+**

## 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             | 0.05           | 0.05   | 0.07    | 59.63             | 47.28  | 49.12   | 48.00              | 53.62  | 44.39   |
| 100            | 0.04           | 0.05   | 0.07    | 54.02             | 48.27  | 45.82   | 50.80              | 46.04  | 43.37   |
| 200            | 0.04           | 0.06   | 0.08    | 40.87             | 40.93  | 40.98   | 39.17              | 39.19  | 38.58   |
| 250            | 0.04           | 0.06   | 0.09    | 40.27             | 42.01  | 42.52   | 37.96              | 38.88  | 38.74   |
| 300            | 0.05           | 0.07   | 0.10    | 37.72             | 39.04  | 39.12   | 35.20              | 36.26  | 36.58   |
| 350            | 0.05           | 0.08   | 0.11    | 36.54             | 38.41  | 39.07   | 34.46              | 35.15  | 35.19   |
| 400            | 0.05           | 0.08   | 0.12    | 37.81             | 38.96  | 39.29   | 34.46              | 34.67  | 34.89   |
| 500            | 0.06           | 0.09   | 0.13    | 37.51             | 39.07  | 40.51   | 33.57              | 33.15  | 32.90   |
| 550            | 0.06           | 0.10   | 0.14    | 37.02             | 38.59  | 39.72   | 32.84              | 32.53  | 32.27   |
| 600            | 0.06           | 0.10   | 0.15    | 37.14             | 39.52  | 42.02   | 32.31              | 31.98  | 31.67   |
| 650            | 0.07           | 0.11   | 0.15    | 38.82             | 41.81  | 44.11   | 32.40              | 32.25  | 31.90   |
| 700            | 0.07           | 0.11   | 0.16    | 38.18             | 41.28  | 44.33   | 31.68              | 31.52  | 31.26   |
| 750            | 0.07           | 0.12   | 0.17    | 39.12             | 43.36  | 48.11   | 31.86              | 31.61  | 31.36   |
| 780            | 0.08           | 0.12   | 0.18    | 38.94             | 42.93  | 46.13   | 31.47              | 31.26  | 31.09   |
| 800            | 0.08           | 0.13   | 0.18    | 38.35             | 42.08  | 45.62   | 30.98              | 30.81  | 30.63   |
| 820            | 0.08           | 0.13   | 0.18    | 37.96             | 41.78  | 46.90   | 30.73              | 30.49  | 30.33   |
| 850            | 0.09           | 0.13   | 0.19    | 38.15             | 42.59  | 51.88   | 30.70              | 30.37  | 30.17   |
| 900            | 0.09           | 0.14   | 0.20    | 39.29             | 44.47  | 63.65   | 30.31              | 30.01  | 29.77   |
| 920            | 0.09           | 0.14   | 0.20    | 38.76             | 43.45  | 58.19   | 30.00              | 29.64  | 29.43   |
| 960            | 0.10           | 0.15   | 0.21    | 37.64             | 41.55  | 49.13   | 29.81              | 29.36  | 29.11   |
| 1000           | 0.10           | 0.15   | 0.21    | 37.62             | 41.14  | 45.96   | 29.76              | 29.34  | 29.05   |
| 1020           | 0.10           | 0.15   | 0.22    | 37.57             | 41.07  | 45.41   | 29.51              | 29.10  | 28.85   |
| 1050           | 0.10           | 0.15   | 0.22    | 36.77             | 40.00  | 44.14   | 29.05              | 28.65  | 28.46   |
| 1090           | 0.10           | 0.16   | 0.22    | 35.59             | 37.93  | 41.02   | 28.86              | 28.54  | 28.30   |
| 1150           | 0.11           | 0.17   | 0.24    | 35.29             | 37.38  | 40.00   | 28.00              | 27.75  | 27.59   |
| 1200           | 0.12           | 0.18   | 0.24    | 33.74             | 35.31  | 37.56   | 27.69              | 27.39  | 27.22   |
| 1250           | 0.12           | 0.18   | 0.25    | 32.75             | 34.03  | 35.86   | 27.47              | 27.26  | 27.10   |
| 1400           | 0.13           | 0.19   | 0.27    | 28.86             | 29.98  | 30.94   | 25.91              | 25.91  | 25.73   |
| 1500           | 0.14           | 0.21   | 0.28    | 26.63             | 27.48  | 28.17   | 25.13              | 25.12  | 24.88   |
| 1550           | 0.14           | 0.21   | 0.29    | 26.02             | 26.78  | 27.38   | 24.70              | 24.63  | 24.39   |
| 4800           | 0.86           | 1.04   | 1.27    | 14.00             | 14.51  | 14.99   | 14.61              | 15.17  | 15.67   |
| 4900           | 0.91           | 1.09   | 1.34    | 14.31             | 14.99  | 15.77   | 14.83              | 15.51  | 16.27   |
| 5000           | 0.95           | 1.15   | 1.42    | 15.01             | 15.92  | 17.11   | 15.62              | 16.52  | 17.68   |
| 5440           | 1.63           | 2.05   | 2.67    | 16.48             | 15.44  | 14.08   | 19.18              | 17.18  | 14.89   |
| 5500           | 1.94           | 2.45   | 3.20    | 14.09             | 13.13  | 11.96   | 15.00              | 13.46  | 11.69   |
| 5600           | 2.77           | 3.50   | 4.56    | 10.35             | 9.63   | 8.82    | 10.01              | 8.90   | 7.65    |
| 6000           | 12.72          | 14.59  | 16.82   | 2.37              | 2.43   | 2.54    | 1.53               | 1.49   | 1.47    |
| 6100           | 16.68          | 18.66  | 20.97   | 1.75              | 1.87   | 2.01    | 1.07               | 1.11   | 1.15    |
| 6200           | 20.87          | 22.91  | 25.24   | 1.34              | 1.49   | 1.63    | 0.82               | 0.90   | 0.96    |
| 6400           | 29.51          | 31.57  | 33.88   | 0.82              | 0.98   | 1.12    | 0.57               | 0.67   | 0.75    |
| 6700           | 42.43          | 44.34  | 46.36   | 0.46              | 0.62   | 0.74    | 0.37               | 0.47   | 0.57    |
| 7000           | 52.55          | 53.46  | 54.14   | 0.26              | 0.42   | 0.54    | 0.26               | 0.37   | 0.48    |
| 7200           | 55.05          | 55.16  | 55.05   | 0.18              | 0.34   | 0.46    | 0.20               | 0.31   | 0.44    |
| 7500           | 53.71          | 53.58  | 53.52   | 0.12              | 0.28   | 0.41    | 0.14               | 0.26   | 0.41    |
| 7800           | 52.73          | 52.71  | 52.80   | 0.07              | 0.24   | 0.39    | 0.13               | 0.27   | 0.46    |
| 8000           | 52.26          | 52.47  | 52.37   | 0.04              | 0.22   | 0.39    | 0.15               | 0.30   | 0.50    |
| 8100           | 51.95          | 52.28  | 52.31   | 0.05              | 0.22   | 0.40    | 0.14               | 0.29   | 0.50    |
| 8200           | 51.62          | 51.85  | 51.82   | 0.05              | 0.23   | 0.42    | 0.15               | 0.30   | 0.51    |
| 8300           | 51.76          | 51.87  | 52.22   | 0.05              | 0.23   | 0.43    | 0.15               | 0.31   | 0.53    |
| 8400           | 52.12          | 52.51  | 52.88   | 0.04              | 0.23   | 0.44    | 0.14               | 0.30   | 0.54    |
| 8500           | 52.06          | 52.40  | 52.64   | 0.03              | 0.22   | 0.44    | 0.15               | 0.30   | 0.54    |
| 8600           | 50.92          | 51.14  | 51.14   | 0.02              | 0.22   | 0.44    | 0.16               | 0.32   | 0.57    |
| 8700           | 51.09          | 51.25  | 51.33   | 0.00              | 0.21   | 0.45    | 0.13               | 0.30   | 0.59    |
| 9000           | 51.38          | 51.74  | 51.72   | 0.02              | 0.23   | 0.51    | 0.15               | 0.33   | 0.61    |
| 9300           | 49.05          | 48.53  | 48.39   | 0.05              | 0.28   | 0.58    | 0.20               | 0.37   | 0.66    |
| 10000          | 45.20          | 44.92  | 44.82   | 0.07              | 0.31   | 0.69    | 0.25               | 0.41   | 0.69    |
| 12500          | 30.14          | 30.32  | 30.43   | 0.22              | 0.46   | 0.67    | 0.10               | 0.21   | 0.31    |
| 15000          | 29.08          | 30.60  | 30.18   | 0.48              | 0.40   | 0.57    | 0.11               | 0.08   | 0.42    |
| 16000          | 28.39          | 28.41  | 28.48   | 0.11              | 0.20   | 0.66    | 0.13               | 0.12   | 0.54    |
| 18000          | 23.79          | 23.66  | 23.88   | 0.19              | 0.22   | 0.84    | 0.06               | 0.23   | 0.64    |

*Typical Performance Data*

| FREQ.<br>(MHz) | GROUP DELAY |        |         |
|----------------|-------------|--------|---------|
|                | (nsec)      |        |         |
|                | @-55°C      | @+25°C | @+125°C |
| 10             | 0.12        | 0.15   | 0.13    |
| 50             | 0.12        | 0.14   | 0.13    |
| 100            | 0.13        | 0.13   | 0.13    |
| 200            | 0.13        | 0.13   | 0.13    |
| 300            | 0.13        | 0.13   | 0.13    |
| 400            | 0.13        | 0.13   | 0.13    |
| 500            | 0.13        | 0.13   | 0.13    |
| 600            | 0.13        | 0.13   | 0.13    |
| 700            | 0.13        | 0.13   | 0.13    |
| 800            | 0.13        | 0.13   | 0.13    |
| 900            | 0.13        | 0.13   | 0.13    |
| 1000           | 0.13        | 0.13   | 0.13    |
| 1100           | 0.13        | 0.13   | 0.13    |
| 1200           | 0.13        | 0.13   | 0.13    |
| 1300           | 0.13        | 0.13   | 0.13    |
| 1400           | 0.13        | 0.13   | 0.14    |
| 1500           | 0.13        | 0.13   | 0.14    |
| 1600           | 0.13        | 0.13   | 0.14    |
| 1700           | 0.13        | 0.14   | 0.14    |
| 1800           | 0.14        | 0.14   | 0.14    |
| 1900           | 0.14        | 0.14   | 0.14    |
| 2000           | 0.14        | 0.14   | 0.14    |
| 2100           | 0.14        | 0.14   | 0.14    |
| 2200           | 0.14        | 0.14   | 0.15    |
| 2300           | 0.15        | 0.15   | 0.15    |
| 2400           | 0.15        | 0.15   | 0.15    |
| 2500           | 0.15        | 0.15   | 0.15    |
| 2600           | 0.15        | 0.15   | 0.15    |
| 2700           | 0.15        | 0.15   | 0.16    |
| 2800           | 0.16        | 0.16   | 0.16    |
| 2900           | 0.16        | 0.16   | 0.16    |
| 3000           | 0.16        | 0.16   | 0.17    |
| 3100           | 0.16        | 0.17   | 0.17    |
| 3200           | 0.17        | 0.17   | 0.17    |
| 3300           | 0.17        | 0.17   | 0.18    |
| 3400           | 0.18        | 0.18   | 0.18    |
| 3500           | 0.18        | 0.18   | 0.19    |
| 3600           | 0.19        | 0.19   | 0.19    |
| 4000           | 0.21        | 0.21   | 0.22    |
| 4500           | 0.26        | 0.26   | 0.27    |
| 4800           | 0.30        | 0.31   | 0.32    |