

LTCC Bandpass Filter

Typical Performance Data

BFHKI-7551+

| FREQUENCY (GHz) | INSERTION LOSS (dB) | | | RETURN LOSS (dB) | | |
|--------------------|------------------------|--------|---------|---------------------|--------|---------|
| | @-55°C | @+25°C | @+125°C | @-55°C | @+25°C | @+125°C |
| 0.1 | 100.83 | 105.77 | 103.28 | 0.03 | 0.04 | 0.11 |
| 0.2 | 97.88 | 99.07 | 105.27 | 0.07 | 0.08 | 0.14 |
| 0.4 | 90.32 | 90.65 | 100.15 | 0.13 | 0.13 | 0.19 |
| 0.6 | 86.80 | 87.91 | 88.02 | 0.17 | 0.17 | 0.23 |
| 0.8 | 86.16 | 87.56 | 85.79 | 0.20 | 0.19 | 0.25 |
| 1.0 | 83.76 | 83.52 | 84.03 | 0.19 | 0.19 | 0.24 |
| 1.2 | 82.73 | 81.87 | 82.59 | 0.13 | 0.14 | 0.18 |
| 1.4 | 81.84 | 80.79 | 81.22 | 0.08 | 0.09 | 0.14 |
| 1.6 | 80.69 | 80.59 | 79.38 | 0.01 | 0.02 | 0.08 |
| 1.8 | 79.01 | 79.01 | 78.98 | -0.06 | -0.05 | 0.02 |
| 2.0 | 78.12 | 77.30 | 78.63 | -0.12 | -0.10 | -0.02 |
| 2.2 | 78.14 | 77.94 | 77.74 | -0.15 | -0.13 | -0.03 |
| 2.4 | 77.70 | 77.40 | 77.09 | -0.19 | -0.16 | -0.05 |
| 2.6 | 77.17 | 76.62 | 77.37 | -0.19 | -0.16 | -0.02 |
| 2.8 | 77.10 | 77.04 | 77.31 | -0.18 | -0.15 | 0.00 |
| 3.0 | 76.63 | 76.75 | 77.16 | -0.16 | -0.12 | 0.03 |
| 3.2 | 77.06 | 76.95 | 77.55 | -0.15 | -0.10 | 0.06 |
| 3.4 | 77.54 | 77.24 | 77.40 | -0.12 | -0.07 | 0.09 |
| 3.6 | 78.13 | 78.33 | 78.03 | -0.09 | -0.03 | 0.13 |
| 3.8 | 78.39 | 78.83 | 79.12 | -0.04 | 0.01 | 0.16 |
| 4.0 | 78.90 | 79.32 | 79.71 | 0.02 | 0.07 | 0.22 |
| 4.2 | 79.59 | 79.79 | 79.24 | 0.08 | 0.13 | 0.27 |
| 4.4 | 79.42 | 79.01 | 78.86 | 0.13 | 0.18 | 0.31 |
| 4.6 | 77.73 | 76.95 | 76.20 | 0.18 | 0.23 | 0.35 |
| 4.8 | 73.56 | 72.83 | 71.88 | 0.20 | 0.24 | 0.36 |
| 5.0 | 68.31 | 67.77 | 66.56 | 0.19 | 0.24 | 0.35 |
| 5.2 | 62.78 | 61.77 | 60.62 | 0.18 | 0.22 | 0.34 |
| 5.4 | 56.47 | 55.16 | 53.89 | 0.13 | 0.18 | 0.31 |
| 5.6 | 49.25 | 47.91 | 46.21 | 0.11 | 0.17 | 0.32 |
| 5.8 | 41.01 | 39.56 | 37.40 | 0.13 | 0.21 | 0.39 |
| 6.0 | 31.43 | 29.60 | 26.89 | 0.23 | 0.36 | 0.62 |
| 6.2 | 19.39 | 16.96 | 13.46 | 0.63 | 0.94 | 1.65 |
| 6.4 | 4.97 | 3.70 | 3.07 | 4.86 | 7.99 | 12.00 |
| 6.6 | 1.77 | 1.93 | 2.14 | 15.51 | 17.79 | 23.76 |
| 6.8 | 1.45 | 1.71 | 2.02 | 21.95 | 19.56 | 18.64 |
| 7.0 | 1.44 | 1.65 | 1.93 | 18.66 | 20.29 | 23.55 |
| 7.2 | 1.36 | 1.61 | 1.95 | 36.85 | 29.76 | 26.64 |
| 7.4 | 1.44 | 1.69 | 2.02 | 21.77 | 22.44 | 24.04 |
| 7.6 | 1.46 | 1.72 | 2.09 | 28.17 | 29.26 | 29.94 |
| 7.8 | 1.55 | 1.84 | 2.25 | 24.40 | 24.78 | 25.42 |
| 8.0 | 1.67 | 1.98 | 2.40 | 23.19 | 24.03 | 24.56 |
| 8.2 | 1.77 | 2.11 | 2.58 | 24.11 | 23.78 | 23.48 |
| 8.4 | 1.93 | 2.30 | 2.84 | 25.42 | 26.99 | 28.17 |
| 8.6 | 2.16 | 2.61 | 3.26 | 30.12 | 26.47 | 22.92 |
| 8.8 | 2.53 | 3.08 | 3.91 | 22.33 | 22.01 | 22.68 |
| 9.0 | 3.13 | 3.95 | 5.34 | 28.78 | 25.87 | 22.42 |
| 9.2 | 4.89 | 7.38 | 12.88 | 25.69 | 13.76 | 6.70 |
| 9.4 | 16.81 | 22.36 | 29.28 | 3.11 | 2.42 | 1.98 |
| 9.6 | 33.20 | 37.86 | 43.81 | 1.12 | 1.12 | 1.16 |
| 9.8 | 47.08 | 51.20 | 56.66 | 0.67 | 0.74 | 0.87 |
| 10.0 | 59.49 | 64.85 | 69.59 | 0.49 | 0.58 | 0.74 |
| 10.2 | 76.35 | 84.73 | 85.17 | 0.42 | 0.50 | 0.66 |
| 10.4 | 80.47 | 81.03 | 76.06 | 0.37 | 0.45 | 0.61 |
| 10.6 | 79.29 | 75.94 | 75.43 | 0.32 | 0.40 | 0.55 |
| 10.8 | 75.50 | 73.78 | 73.44 | 0.28 | 0.35 | 0.50 |
| 11.0 | 72.37 | 71.56 | 70.77 | 0.24 | 0.31 | 0.45 |
| 11.5 | 67.86 | 69.12 | 66.12 | 0.15 | 0.22 | 0.38 |
| 12.0 | 66.16 | 65.22 | 65.19 | 0.10 | 0.18 | 0.37 |
| 12.5 | 61.14 | 61.78 | 60.75 | 0.09 | 0.18 | 0.37 |
| 13.0 | 61.31 | 59.04 | 61.00 | 0.04 | 0.12 | 0.28 |
| 13.5 | 57.20 | 57.26 | 56.99 | -0.09 | -0.02 | 0.09 |
| 14.0 | 55.06 | 55.80 | 54.62 | -0.26 | -0.19 | -0.07 |
| 14.5 | 53.85 | 54.59 | 53.95 | -0.24 | -0.18 | 0.01 |
| 15.0 | 54.29 | 53.59 | 53.95 | 0.14 | 0.18 | 0.42 |
| 15.5 | 54.42 | 53.89 | 54.44 | 0.67 | 0.69 | 0.88 |
| 16.0 | 52.68 | 53.65 | 53.13 | 0.89 | 0.90 | 0.99 |
| 16.5 | 52.13 | 52.83 | 52.27 | 0.56 | 0.58 | 0.61 |
| 17.0 | 52.18 | 52.08 | 52.54 | -0.24 | -0.18 | -0.13 |
| 17.5 | 51.70 | 52.55 | 51.97 | -0.89 | -0.79 | -0.62 |
| 18.0 | 53.82 | 54.79 | 55.11 | -0.84 | -0.74 | -0.49 |
| 18.5 | 58.07 | 58.13 | 59.70 | -0.27 | -0.21 | 0.03 |
| 19.0 | 60.61 | 61.21 | 62.85 | 0.23 | 0.27 | 0.48 |



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