

Suspended substrate stripline

Band Pass Filter

ZBSS-6G-S+

Typical Performance Data

| FREQ. (MHz) | INSERTION LOSS | | | INPUT RETURN LOSS | | | OUTPUT RETURN LOSS | | |
|--------------------|----------------|--------|--------|-------------------|--------|--------|--------------------|--------|--------|
| | (dB) | | | (dB) | | | (dB) | | |
| | @-40°C | @+25°C | @+85°C | @-40°C | @+25°C | @+85°C | @-40°C | @+25°C | @+85°C |
| 10 | 104.75 | 108.23 | 102.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50 | 103.16 | 104.32 | 101.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 120.46 | 115.56 | 126.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200 | 125.30 | 118.60 | 118.49 | 0.01 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 |
| 300 | 120.66 | 116.29 | 116.73 | 0.01 | 0.00 | 0.01 | 0.00 | 0.02 | 0.03 |
| 400 | 111.76 | 113.96 | 125.98 | 0.01 | 0.00 | 0.02 | 0.02 | 0.04 | 0.05 |
| 500 | 119.47 | 119.40 | 125.92 | 0.01 | 0.01 | 0.02 | 0.05 | 0.07 | 0.09 |
| 600 | 117.47 | 124.64 | 116.04 | 0.01 | 0.01 | 0.03 | 0.08 | 0.11 | 0.12 |
| 700 | 124.92 | 123.37 | 113.20 | 0.00 | 0.02 | 0.04 | 0.12 | 0.15 | 0.17 |
| 800 | 129.20 | 112.57 | 120.59 | 0.00 | 0.03 | 0.04 | 0.16 | 0.20 | 0.22 |
| 900 | 131.31 | 116.04 | 117.50 | 0.01 | 0.04 | 0.05 | 0.20 | 0.24 | 0.27 |
| 1000 | 124.59 | 132.80 | 119.56 | 0.01 | 0.04 | 0.06 | 0.23 | 0.28 | 0.31 |
| 1100 | 112.16 | 125.71 | 119.40 | 0.02 | 0.06 | 0.08 | 0.25 | 0.30 | 0.33 |
| 1200 | 118.19 | 116.98 | 122.74 | 0.03 | 0.07 | 0.09 | 0.26 | 0.32 | 0.34 |
| 1500 | 114.95 | 118.45 | 114.25 | 0.07 | 0.11 | 0.13 | 0.25 | 0.31 | 0.34 |
| 1800 | 114.64 | 111.31 | 118.04 | 0.12 | 0.17 | 0.19 | 0.23 | 0.30 | 0.33 |
| 2000 | 100.21 | 100.90 | 102.01 | 0.16 | 0.21 | 0.24 | 0.27 | 0.34 | 0.38 |
| 2200 | 87.08 | 86.57 | 86.33 | 0.20 | 0.27 | 0.30 | 0.36 | 0.44 | 0.48 |
| 2500 | 66.09 | 65.69 | 65.50 | 0.29 | 0.37 | 0.41 | 0.57 | 0.67 | 0.72 |
| 2800 | 46.30 | 45.91 | 45.74 | 0.43 | 0.52 | 0.57 | 0.71 | 0.84 | 0.90 |
| 3000 | 33.31 | 32.92 | 32.75 | 0.57 | 0.69 | 0.76 | 0.75 | 0.88 | 0.96 |
| 3200 | 19.66 | 19.24 | 19.06 | 0.93 | 1.12 | 1.22 | 1.01 | 1.20 | 1.31 |
| 3300 | 12.45 | 12.04 | 11.88 | 1.55 | 1.85 | 2.01 | 1.67 | 1.99 | 2.16 |
| 3450 | 3.61 | 3.59 | 3.60 | 6.59 | 7.47 | 7.90 | 7.50 | 8.63 | 9.21 |
| 4000 | 0.94 | 1.10 | 1.18 | 25.82 | 26.81 | 27.31 | 28.41 | 30.44 | 31.66 |
| 4500 | 0.77 | 0.91 | 0.98 | 22.69 | 23.09 | 23.23 | 21.11 | 21.45 | 21.57 |
| 5000 | 0.68 | 0.81 | 0.88 | 25.97 | 26.90 | 27.23 | 24.03 | 24.62 | 24.84 |
| 5500 | 0.63 | 0.76 | 0.83 | 39.31 | 37.20 | 35.57 | 34.57 | 33.50 | 32.18 |
| 5800 | 0.65 | 0.79 | 0.85 | 21.62 | 21.91 | 22.02 | 20.14 | 20.39 | 20.45 |
| 6000 | 0.68 | 0.81 | 0.87 | 19.41 | 19.91 | 20.24 | 18.32 | 18.81 | 19.08 |
| 6200 | 0.67 | 0.81 | 0.87 | 20.03 | 20.54 | 21.07 | 19.49 | 20.13 | 20.59 |
| 6500 | 0.64 | 0.78 | 0.85 | 25.59 | 25.40 | 25.94 | 28.60 | 28.71 | 29.45 |
| 7000 | 0.69 | 0.84 | 0.91 | 20.83 | 21.09 | 21.28 | 19.61 | 20.05 | 20.32 |
| 7500 | 0.73 | 0.89 | 0.96 | 22.10 | 21.91 | 22.02 | 24.51 | 24.27 | 24.27 |
| 8000 | 0.84 | 1.02 | 1.10 | 20.09 | 20.41 | 19.95 | 19.07 | 19.52 | 19.40 |
| 8700 | 3.02 | 3.49 | 3.74 | 5.74 | 5.54 | 5.40 | 5.74 | 5.49 | 5.29 |
| 9050 | 9.99 | 10.61 | 10.88 | 1.31 | 1.44 | 1.52 | 1.17 | 1.24 | 1.27 |
| 9500 | 20.48 | 21.04 | 21.24 | 0.67 | 0.83 | 0.93 | 0.31 | 0.41 | 0.46 |
| 10000 | 29.87 | 30.34 | 30.52 | 0.67 | 0.83 | 0.92 | 0.16 | 0.27 | 0.32 |
| 10500 | 37.42 | 37.86 | 38.03 | 0.63 | 0.80 | 0.87 | 0.13 | 0.24 | 0.29 |
| 11000 | 44.41 | 44.87 | 45.01 | 0.49 | 0.64 | 0.73 | 0.11 | 0.24 | 0.29 |
| 11500 | 51.42 | 51.91 | 52.05 | 0.35 | 0.50 | 0.59 | 0.09 | 0.22 | 0.29 |
| 12000 | 58.09 | 58.52 | 58.75 | 0.30 | 0.45 | 0.53 | 0.09 | 0.21 | 0.30 |
| 12400 | 62.93 | 63.30 | 63.51 | 0.29 | 0.44 | 0.51 | 0.10 | 0.21 | 0.31 |
| 13000 | 69.09 | 69.34 | 69.58 | 0.31 | 0.44 | 0.52 | 0.09 | 0.20 | 0.32 |
| 13500 | 73.20 | 73.60 | 73.75 | 0.31 | 0.45 | 0.53 | 0.07 | 0.18 | 0.32 |
| 14000 | 76.79 | 77.11 | 77.20 | 0.31 | 0.45 | 0.54 | 0.10 | 0.21 | 0.35 |
| 14500 | 79.81 | 80.11 | 80.18 | 0.28 | 0.46 | 0.54 | 0.09 | 0.19 | 0.34 |
| 15000 | 82.45 | 82.68 | 82.95 | 0.30 | 0.49 | 0.58 | 0.07 | 0.18 | 0.32 |
| 16000 | 86.24 | 87.04 | 87.31 | 0.45 | 0.64 | 0.73 | 0.06 | 0.18 | 0.31 |
| 17000 | 90.85 | 91.53 | 91.55 | 0.57 | 0.74 | 0.87 | 0.07 | 0.19 | 0.30 |
| 18000 | 97.85 | 97.76 | 97.65 | 0.37 | 0.57 | 0.67 | 0.07 | 0.19 | 0.28 |
| 19000 | 104.91 | 104.55 | 107.95 | 0.37 | 0.55 | 0.65 | 0.07 | 0.21 | 0.28 |
| 20000 | 110.08 | 112.99 | 111.53 | 0.48 | 0.65 | 0.76 | 0.09 | 0.23 | 0.30 |
| 21000 | 128.98 | 117.88 | 114.33 | 0.46 | 0.63 | 0.74 | 0.10 | 0.24 | 0.32 |
| 22000 | 113.02 | 110.97 | 114.57 | 0.25 | 0.45 | 0.56 | 0.08 | 0.24 | 0.31 |
| 23000 | 111.60 | 117.01 | 125.31 | 0.21 | 0.43 | 0.54 | 0.07 | 0.24 | 0.31 |
| 24000 | 117.07 | 111.81 | 124.26 | 0.46 | 0.67 | 0.78 | 0.08 | 0.24 | 0.32 |
| 25000 | 116.23 | 105.27 | 105.91 | 0.79 | 0.96 | 1.08 | 0.09 | 0.24 | 0.33 |
| 26500 | 86.28 | 86.34 | 86.98 | 10.92 | 11.59 | 10.51 | 0.13 | 0.28 | 0.39 |

Suspended substrate stripline Band Pass Filter

ZBSS-6G-S+

Typical Performance Data

| FREQ. (MHz) | GROUP DELAY | | |
|--------------------|-------------|--------|--------|
| | (nsec) | | |
| | @-40°C | @+25°C | @+85°C |
| 4000 | 0.96 | 0.96 | 0.95 |
| 4100 | 0.90 | 0.89 | 0.89 |
| 4200 | 0.84 | 0.84 | 0.84 |
| 4300 | 0.80 | 0.80 | 0.80 |
| 4400 | 0.76 | 0.76 | 0.76 |
| 4500 | 0.73 | 0.73 | 0.73 |
| 4600 | 0.71 | 0.71 | 0.71 |
| 4700 | 0.69 | 0.68 | 0.68 |
| 4800 | 0.67 | 0.66 | 0.66 |
| 4900 | 0.65 | 0.65 | 0.65 |
| 5000 | 0.63 | 0.63 | 0.63 |
| 5100 | 0.62 | 0.62 | 0.62 |
| 5200 | 0.61 | 0.61 | 0.61 |
| 5300 | 0.60 | 0.60 | 0.60 |
| 5400 | 0.59 | 0.59 | 0.59 |
| 5500 | 0.58 | 0.58 | 0.58 |
| 5600 | 0.57 | 0.57 | 0.57 |
| 5700 | 0.56 | 0.56 | 0.56 |
| 5800 | 0.56 | 0.56 | 0.56 |
| 5900 | 0.55 | 0.55 | 0.55 |
| 6000 | 0.54 | 0.54 | 0.55 |
| 6100 | 0.54 | 0.54 | 0.54 |
| 6200 | 0.54 | 0.54 | 0.54 |
| 6300 | 0.54 | 0.53 | 0.54 |
| 6400 | 0.53 | 0.53 | 0.53 |
| 6500 | 0.53 | 0.53 | 0.53 |
| 6600 | 0.53 | 0.53 | 0.53 |
| 6700 | 0.53 | 0.53 | 0.53 |
| 6800 | 0.53 | 0.53 | 0.53 |
| 6900 | 0.53 | 0.53 | 0.53 |
| 7000 | 0.53 | 0.53 | 0.53 |
| 7100 | 0.53 | 0.53 | 0.53 |
| 7200 | 0.53 | 0.53 | 0.54 |
| 7300 | 0.54 | 0.54 | 0.54 |
| 7400 | 0.54 | 0.54 | 0.54 |
| 7500 | 0.55 | 0.55 | 0.55 |
| 7600 | 0.55 | 0.55 | 0.56 |
| 7700 | 0.56 | 0.56 | 0.56 |
| 7800 | 0.57 | 0.57 | 0.57 |
| 7900 | 0.58 | 0.58 | 0.58 |
| 8000 | 0.59 | 0.60 | 0.60 |