

Directional Coupler

DBTC-10-4-75+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +25°C

| FREQUENCY (MHz) | INSERTION LOSS (dB) | COUPLING LOSS (dB) | DIRECTIVITY (dB) | RETURN LOSS | | |
|--------------------|---------------------------|--------------------------|---------------------|-------------|-------------|-------|
| | | | | IN | (dB) OUT | CPL |
| 5.0 | 1.53 | 10.24 | 20.26 | 16.21 | 22.03 | 16.09 |
| 10.0 | 1.51 | 10.24 | 20.48 | 16.48 | 23.17 | 16.36 |
| 15.0 | 1.49 | 10.23 | 20.70 | 16.75 | 24.29 | 16.63 |
| 20.0 | 1.50 | 10.24 | 20.70 | 16.76 | 24.36 | 16.64 |
| 25.0 | 1.50 | 10.25 | 20.69 | 16.77 | 24.43 | 16.64 |
| 50.0 | 1.52 | 10.27 | 20.64 | 16.81 | 24.47 | 16.64 |
| 75.0 | 1.52 | 10.29 | 20.61 | 16.90 | 24.55 | 16.66 |
| 100.0 | 1.53 | 10.31 | 20.64 | 17.00 | 24.61 | 16.68 |
| 150.0 | 1.53 | 10.32 | 20.57 | 17.16 | 24.44 | 16.53 |
| 200.0 | 1.52 | 10.34 | 20.46 | 17.25 | 24.02 | 16.30 |
| 250.0 | 1.51 | 10.36 | 20.37 | 17.34 | 23.50 | 15.98 |
| 300.0 | 1.51 | 10.38 | 20.24 | 17.48 | 22.86 | 15.61 |
| 350.0 | 1.50 | 10.40 | 20.07 | 17.56 | 22.23 | 15.21 |
| 400.0 | 1.50 | 10.42 | 19.96 | 17.58 | 21.64 | 14.81 |
| 450.0 | 1.49 | 10.45 | 19.73 | 17.66 | 21.13 | 14.41 |
| 475.0 | 1.49 | 10.46 | 19.73 | 17.76 | 20.92 | 14.21 |
| 500.0 | 1.49 | 10.48 | 19.44 | 17.82 | 20.71 | 14.03 |
| 550.0 | 1.49 | 10.51 | 19.26 | 17.92 | 20.38 | 13.68 |
| 600.0 | 1.49 | 10.54 | 19.18 | 18.08 | 20.17 | 13.39 |
| 650.0 | 1.50 | 10.58 | 18.96 | 18.40 | 20.04 | 13.13 |
| 700.0 | 1.50 | 10.61 | 18.82 | 18.77 | 20.02 | 12.90 |
| 750.0 | 1.49 | 10.64 | 18.78 | 19.03 | 20.03 | 12.68 |
| 800.0 | 1.49 | 10.68 | 18.82 | 19.44 | 20.18 | 12.48 |
| 850.0 | 1.48 | 10.72 | 18.97 | 20.08 | 20.45 | 12.33 |
| 900.0 | 1.48 | 10.75 | 18.90 | 20.71 | 20.79 | 12.20 |
| 950.0 | 1.48 | 10.81 | 18.42 | 21.22 | 21.18 | 12.05 |
| 1000.0 | 1.48 | 10.87 | 18.00 | 21.76 | 21.55 | 11.90 |
| 1050.0 | 1.48 | 10.92 | 17.57 | 22.33 | 22.01 | 11.72 |
| 1100.0 | 1.48 | 10.99 | 17.01 | 22.90 | 22.56 | 11.56 |
| 1150.0 | 1.48 | 11.06 | 16.28 | 23.36 | 23.12 | 11.39 |
| 1200.0 | 1.50 | 11.17 | 15.11 | 23.66 | 23.59 | 11.19 |
| 1250.0 | 1.51 | 11.25 | 14.06 | 23.79 | 23.96 | 10.94 |
| 1300.0 | 1.54 | 11.35 | 13.10 | 23.61 | 24.38 | 10.69 |
| 1350.0 | 1.57 | 11.43 | 12.12 | 23.35 | 24.55 | 10.43 |
| 1400.0 | 1.61 | 11.53 | 11.22 | 23.27 | 24.61 | 10.15 |
| 1450.0 | 1.65 | 11.61 | 10.68 | 22.96 | 24.41 | 9.82 |
| 1500.0 | 1.69 | 11.70 | 10.33 | 22.32 | 24.10 | 9.51 |
| 1600.0 | 1.82 | 11.90 | 9.45 | 21.61 | 22.91 | 8.94 |
| 1700.0 | 1.97 | 12.12 | 9.05 | 20.56 | 21.26 | 8.38 |
| 1800.0 | 2.18 | 12.36 | 9.23 | 19.85 | 19.51 | 7.90 |
| 1900.0 | 2.36 | 12.69 | 9.29 | 18.87 | 17.69 | 7.52 |
| 2000.0 | 2.49 | 13.04 | 9.82 | 18.26 | 16.15 | 7.19 |
| 2100.0 | 2.58 | 13.47 | 9.59 | 17.33 | 14.74 | 6.95 |
| 2200.0 | 2.59 | 13.92 | 9.21 | 16.47 | 13.30 | 6.81 |
| 2300.0 | 2.52 | 14.47 | 7.88 | 15.53 | 11.95 | 6.71 |
| 2400.0 | 2.58 | 14.97 | 6.56 | 14.87 | 10.94 | 6.65 |
| 2500.0 | 2.98 | 15.25 | 5.19 | 14.35 | 10.15 | 6.67 |
| 2750.0 | 4.47 | 15.73 | 4.30 | 13.82 | 8.70 | 6.78 |
| 3000.0 | 5.84 | 15.71 | 6.68 | 13.01 | 7.71 | 6.89 |
| 3250.0 | 5.29 | 15.46 | 9.29 | 12.77 | 7.54 | 6.71 |
| 3500.0 | 4.33 | 17.47 | 3.04 | 11.61 | 6.59 | 6.43 |
| 3750.0 | 6.56 | 18.26 | 0.25 | 10.96 | 6.27 | 6.26 |
| 4000.0 | 9.64 | 15.96 | 3.42 | 10.95 | 5.72 | 6.33 |



Directional Coupler

DBTC-10-4-75+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = -40°C

| FREQUENCY (MHz) | INSERTION LOSS (dB) | COUPLING LOSS (dB) | DIRECTIVITY (dB) | RETURN LOSS (dB) | | |
|--------------------|---------------------------|--------------------------|---------------------|---------------------|-------|-------|
| | | | | IN | OUT | CPL |
| 5.0 | 1.76 | 10.39 | 18.53 | 13.90 | 16.35 | 13.58 |
| 10.0 | 1.55 | 10.23 | 19.07 | 15.74 | 20.04 | 15.24 |
| 15.0 | 1.33 | 10.07 | 19.62 | 17.57 | 23.73 | 16.90 |
| 20.0 | 1.32 | 10.06 | 19.72 | 17.95 | 25.14 | 17.26 |
| 25.0 | 1.30 | 10.05 | 19.82 | 18.34 | 26.55 | 17.62 |
| 50.0 | 1.29 | 10.06 | 20.06 | 19.30 | 28.78 | 18.53 |
| 75.0 | 1.29 | 10.07 | 20.09 | 19.53 | 29.36 | 18.77 |
| 100.0 | 1.29 | 10.09 | 20.12 | 18.95 | 29.40 | 18.31 |
| 150.0 | 1.30 | 10.09 | 20.09 | 18.48 | 28.43 | 17.31 |
| 200.0 | 1.31 | 10.11 | 20.10 | 18.97 | 27.14 | 17.39 |
| 250.0 | 1.31 | 10.12 | 19.98 | 18.09 | 25.95 | 16.43 |
| 300.0 | 1.31 | 10.14 | 19.93 | 17.93 | 24.57 | 15.61 |
| 350.0 | 1.31 | 10.16 | 19.81 | 17.73 | 23.31 | 15.28 |
| 400.0 | 1.31 | 10.18 | 19.76 | 17.11 | 22.07 | 14.45 |
| 450.0 | 1.31 | 10.20 | 19.63 | 17.01 | 21.01 | 13.92 |
| 475.0 | 1.30 | 10.20 | 19.63 | 16.96 | 20.59 | 13.73 |
| 500.0 | 1.31 | 10.23 | 19.42 | 16.84 | 20.16 | 13.50 |
| 550.0 | 1.31 | 10.26 | 19.35 | 16.89 | 19.50 | 12.98 |
| 600.0 | 1.32 | 10.27 | 19.37 | 17.08 | 19.08 | 12.70 |
| 650.0 | 1.32 | 10.30 | 19.26 | 17.33 | 18.82 | 12.46 |
| 700.0 | 1.32 | 10.31 | 19.29 | 17.85 | 18.77 | 12.33 |
| 750.0 | 1.31 | 10.34 | 19.31 | 18.45 | 18.85 | 12.27 |
| 800.0 | 1.31 | 10.35 | 19.46 | 19.55 | 19.20 | 12.27 |
| 850.0 | 1.30 | 10.36 | 19.70 | 20.77 | 19.75 | 12.39 |
| 900.0 | 1.30 | 10.38 | 19.67 | 22.24 | 20.42 | 12.47 |
| 950.0 | 1.29 | 10.41 | 19.14 | 23.92 | 21.22 | 12.59 |
| 1000.0 | 1.29 | 10.45 | 18.46 | 25.63 | 22.13 | 12.60 |
| 1050.0 | 1.27 | 10.50 | 17.75 | 26.07 | 23.36 | 12.43 |
| 1100.0 | 1.27 | 10.54 | 16.93 | 24.51 | 24.85 | 12.25 |
| 1150.0 | 1.27 | 10.60 | 16.06 | 22.79 | 26.51 | 11.76 |
| 1200.0 | 1.28 | 10.69 | 14.73 | 20.98 | 28.07 | 11.21 |
| 1250.0 | 1.29 | 10.76 | 13.61 | 20.05 | 28.99 | 10.65 |
| 1300.0 | 1.31 | 10.84 | 12.58 | 19.06 | 29.70 | 10.00 |
| 1350.0 | 1.33 | 10.93 | 11.55 | 17.98 | 29.21 | 9.41 |
| 1400.0 | 1.36 | 11.02 | 10.62 | 17.75 | 28.47 | 8.90 |
| 1450.0 | 1.38 | 11.09 | 10.10 | 17.90 | 27.41 | 8.49 |
| 1500.0 | 1.42 | 11.16 | 9.79 | 18.44 | 26.23 | 8.17 |
| 1600.0 | 1.52 | 11.35 | 8.99 | 18.56 | 23.51 | 7.78 |
| 1700.0 | 1.66 | 11.57 | 8.75 | 20.58 | 20.61 | 7.90 |
| 1800.0 | 1.88 | 11.79 | 9.15 | 22.21 | 18.40 | 8.17 |
| 1900.0 | 2.07 | 12.10 | 9.40 | 28.98 | 16.60 | 8.56 |
| 2000.0 | 2.21 | 12.41 | 10.23 | 27.54 | 15.57 | 8.42 |
| 2100.0 | 2.28 | 12.77 | 9.93 | 20.17 | 14.74 | 7.67 |
| 2200.0 | 2.26 | 13.23 | 9.24 | 16.15 | 13.58 | 6.63 |
| 2300.0 | 2.16 | 13.79 | 7.58 | 13.10 | 12.15 | 5.45 |
| 2400.0 | 2.21 | 14.27 | 6.12 | 11.30 | 10.97 | 4.65 |
| 2500.0 | 2.63 | 14.65 | 4.65 | 9.68 | 9.99 | 4.32 |
| 2750.0 | 4.21 | 15.32 | 4.00 | 9.44 | 8.06 | 5.51 |
| 3000.0 | 5.82 | 15.17 | 7.16 | 13.90 | 6.95 | 8.85 |
| 3250.0 | 5.17 | 14.90 | 9.85 | 17.59 | 6.93 | 7.24 |
| 3500.0 | 3.80 | 17.17 | 1.38 | 9.30 | 6.12 | 3.70 |
| 3750.0 | 5.97 | 17.85 | 0.94 | 5.87 | 6.17 | 2.96 |
| 4000.0 | 8.97 | 15.03 | 3.25 | 5.70 | 5.92 | 4.83 |



Directional Coupler

DBTC-10-4-75+

Typical Performance Data

TEST CONDITIONS: INPUT POWER =0 dBm @Temperature = +85°C

| FREQUENCY (MHz) | INSERTION LOSS (dB) | COUPLING LOSS (dB) | DIRECTIVITY (dB) | RETURN LOSS (dB) | | |
|--------------------|---------------------------|--------------------------|---------------------|---------------------|-------|-------|
| | | | | IN | OUT | CPL |
| 5.0 | 1.87 | 10.47 | 19.79 | 14.68 | 18.96 | 14.83 |
| 10.0 | 1.85 | 10.46 | 19.96 | 14.92 | 19.73 | 15.06 |
| 15.0 | 1.83 | 10.46 | 20.14 | 15.16 | 20.50 | 15.29 |
| 20.0 | 1.83 | 10.47 | 20.11 | 15.10 | 20.55 | 15.24 |
| 25.0 | 1.83 | 10.48 | 20.08 | 15.05 | 20.60 | 15.20 |
| 50.0 | 1.84 | 10.51 | 20.03 | 14.77 | 20.69 | 14.89 |
| 75.0 | 1.85 | 10.53 | 20.01 | 14.83 | 20.75 | 14.84 |
| 100.0 | 1.84 | 10.54 | 20.03 | 15.28 | 20.79 | 15.12 |
| 150.0 | 1.83 | 10.56 | 19.94 | 15.83 | 20.89 | 15.63 |
| 200.0 | 1.82 | 10.59 | 19.76 | 15.76 | 21.00 | 15.34 |
| 250.0 | 1.80 | 10.61 | 19.68 | 16.46 | 21.04 | 15.50 |
| 300.0 | 1.79 | 10.64 | 19.47 | 16.78 | 21.07 | 15.59 |
| 350.0 | 1.78 | 10.67 | 19.25 | 16.94 | 21.02 | 15.25 |
| 400.0 | 1.76 | 10.71 | 19.03 | 17.44 | 20.92 | 15.14 |
| 450.0 | 1.76 | 10.76 | 18.74 | 17.71 | 20.87 | 15.04 |
| 475.0 | 1.75 | 10.77 | 18.66 | 17.84 | 20.89 | 14.86 |
| 500.0 | 1.75 | 10.81 | 18.36 | 17.94 | 20.81 | 14.69 |
| 550.0 | 1.74 | 10.86 | 18.11 | 18.22 | 20.75 | 14.45 |
| 600.0 | 1.74 | 10.91 | 17.96 | 18.33 | 20.74 | 14.20 |
| 650.0 | 1.73 | 10.97 | 17.71 | 18.50 | 20.68 | 13.84 |
| 700.0 | 1.73 | 11.03 | 17.52 | 18.74 | 20.56 | 13.53 |
| 750.0 | 1.73 | 11.09 | 17.42 | 18.65 | 20.41 | 13.16 |
| 800.0 | 1.72 | 11.14 | 17.42 | 18.68 | 20.27 | 12.71 |
| 850.0 | 1.72 | 11.20 | 17.51 | 19.11 | 20.26 | 12.40 |
| 900.0 | 1.72 | 11.26 | 17.42 | 19.33 | 20.27 | 12.19 |
| 950.0 | 1.72 | 11.34 | 17.09 | 19.60 | 20.28 | 11.90 |
| 1000.0 | 1.72 | 11.43 | 16.79 | 19.90 | 20.26 | 11.69 |
| 1050.0 | 1.73 | 11.50 | 16.68 | 20.38 | 20.38 | 11.51 |
| 1100.0 | 1.73 | 11.59 | 16.31 | 21.35 | 20.66 | 11.33 |
| 1150.0 | 1.75 | 11.68 | 15.75 | 22.44 | 21.10 | 11.26 |
| 1200.0 | 1.77 | 11.79 | 14.85 | 23.74 | 21.60 | 11.26 |
| 1250.0 | 1.79 | 11.89 | 13.95 | 25.41 | 22.12 | 11.20 |
| 1300.0 | 1.84 | 11.98 | 13.10 | 26.96 | 22.85 | 11.17 |
| 1350.0 | 1.88 | 12.08 | 12.21 | 27.91 | 23.49 | 11.13 |
| 1400.0 | 1.92 | 12.17 | 11.37 | 28.15 | 24.21 | 11.00 |
| 1450.0 | 1.98 | 12.25 | 10.87 | 26.50 | 24.88 | 10.76 |
| 1500.0 | 2.03 | 12.34 | 10.50 | 24.45 | 25.37 | 10.47 |
| 1600.0 | 2.18 | 12.54 | 9.51 | 21.53 | 24.83 | 9.79 |
| 1700.0 | 2.32 | 12.78 | 9.09 | 19.01 | 22.55 | 8.75 |
| 1800.0 | 2.50 | 12.99 | 9.10 | 17.72 | 20.17 | 7.90 |
| 1900.0 | 2.66 | 13.34 | 9.05 | 16.48 | 17.69 | 7.25 |
| 2000.0 | 2.75 | 13.68 | 9.45 | 16.17 | 15.70 | 6.82 |
| 2100.0 | 2.82 | 14.09 | 9.36 | 15.97 | 14.24 | 6.70 |
| 2200.0 | 2.83 | 14.50 | 9.24 | 16.04 | 12.97 | 6.91 |
| 2300.0 | 2.79 | 14.99 | 8.16 | 16.35 | 11.91 | 7.32 |
| 2400.0 | 2.86 | 15.44 | 7.05 | 17.28 | 11.39 | 7.56 |
| 2500.0 | 3.24 | 15.64 | 5.69 | 17.83 | 10.96 | 7.81 |
| 2750.0 | 4.59 | 16.00 | 4.57 | 16.39 | 10.05 | 7.15 |
| 3000.0 | 5.76 | 16.01 | 6.43 | 12.44 | 8.25 | 6.18 |
| 3250.0 | 5.13 | 15.61 | 9.34 | 11.43 | 7.49 | 6.22 |
| 3500.0 | 4.13 | 17.25 | 4.05 | 11.67 | 6.71 | 7.07 |
| 3750.0 | 6.05 | 18.31 | 0.39 | 12.66 | 6.87 | 7.24 |
| 4000.0 | 9.32 | 16.35 | 3.29 | 12.92 | 6.27 | 6.34 |

