

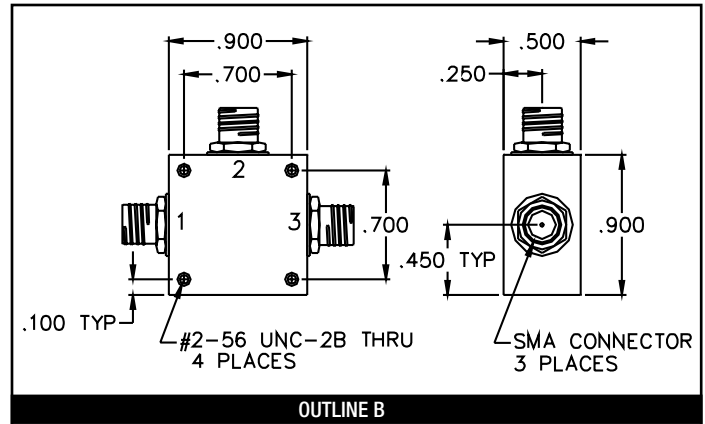
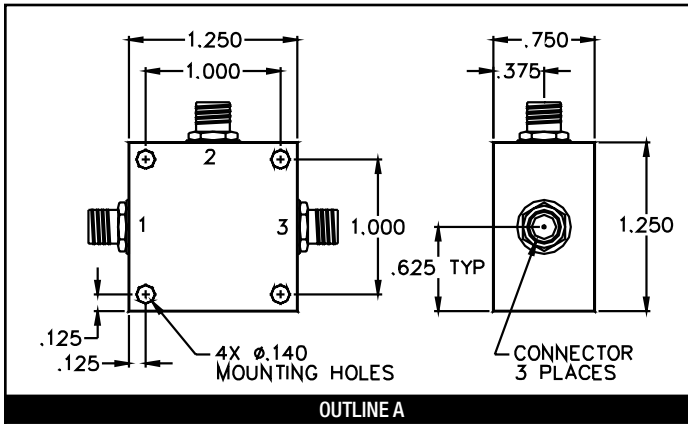
Low Frequency Directional Couplers

Connectorized, 0.01 – 2000 MHz

Features

- Multi Octave Performance
- SMA Connectors Standard
- Compact Size, Case Options
- Low VSWR
- High Directivity

MIDISCO has recently introduced a complete line of low frequency directional couplers. These units cover the frequency range of 0.01 to 2000 MHz in a total of 13 different bands. Coupling values are available from 6.5 dB to 30 dB. These couplers utilize discrete component technology to reduce size and most are available in two case options as shown below. Outline A is also available with BNC, TNC, F and N connectors.



| FREQUENCY RANGE (MHz) | COUPLING (dB) | MAINLINE LOSS (dB) MAX. | COUPLING FLATNESS (\pm dB) MAX. | DIRECTIVITY (dB) MIN. | VSWR MAX. | INPUT POWER (WATTS) MAX. ¹ | P/N |
|-----------------------|----------------|-------------------------|------------------------------------|-----------------------|-----------|---------------------------------------|---------------|
| 0.01-35 | 15.0 \pm 0.5 | 0.6 | 0.30 | 25 | 1.30:1 | 10 | MDC2020-15 |
| 0.3-50 | 10.0 \pm 0.5 | 1.2 | 0.25 | 30 | 1.20:1 | 1 | MDC2021*-10 |
| 0.3-50 | 11.5 \pm 0.5 | 1.2 | 0.25 | 30 | 1.20:1 | 1 | MDC2021*-11.5 |
| 0.3-50 | 15.0 \pm 0.5 | 1.0 | 0.25 | 25 | 1.20:1 | 2 | MDC2021*-15 |
| 0.3-50 | 20.0 \pm 0.5 | 0.4 | 0.25 | 20 | 1.20:1 | 3 | MDC2021*-20 |
| 0.3-50 | 30.0 \pm 0.5 | 0.4 | 0.25 | 20 | 1.20:1 | 3 | MDC2021*-30 |
| 10-100 | 6.5 \pm 0.5 | 2.2 | 0.25 | 30 | 1.20:1 | 1 | MDC2022*-6.5 |
| 0.5-100 | 10.0 \pm 0.5 | 0.8 | 0.25 | 30 | 1.20:1 | 1 | MDC2023*-10 |
| 0.5-100 | 11.5 \pm 0.5 | 0.8 | 0.25 | 30 | 1.20:1 | 1 | MDC2023*-11.5 |
| 0.5-100 | 15.0 \pm 0.5 | 0.5 | 0.25 | 25 | 1.20:1 | 2 | MDC2023*-15 |
| 0.5-100 | 20.0 \pm 0.5 | 0.4 | 0.25 | 25 | 1.20:1 | 3 | MDC2023*-20 |
| 0.5-100 | 30.0 \pm 0.5 | 0.4 | 0.25 | 20 | 1.20:1 | 3 | MDC2023*-30 |
| 0.5-250 | 10.0 \pm 0.5 | 1.2 | 0.30 | 25 | 1.30:1 | 1 | MDC2024*-10 |
| 0.5-250 | 11.5 \pm 0.5 | 1.0 | 0.25 | 25 | 1.30:1 | 1 | MDC2024*-11.5 |
| 0.5-250 | 15.0 \pm 0.5 | 0.7 | 0.25 | 25 | 1.30:1 | 2 | MDC2024*-15 |
| 0.5-250 | 19.5 \pm 0.5 | 0.6 | 0.30 | 25 | 1.30:1 | 10 | MDC2025-19.5 |
| 0.5-250 | 20.0 \pm 0.5 | 0.6 | 0.25 | 22 | 1.30:1 | 3 | MDC2025*-20 |
| 0.5-250 | 30.0 \pm 0.5 | 0.6 | 0.25 | 20 | 1.30:1 | 2 | MDC2025*-30 |
| 30-400 | 20.0 \pm 0.5 | 0.5 | 0.40 | 25 | 1.30:1 | 25 | MDC2026-20 |
| 5-500 | 6.5 \pm 0.5 | 2.3 | 0.50 | 20 | 1.30:1 | 1 | MDC2027*-6.5 |
| 0.5-500 | 10.0 \pm 0.5 | 1.2 | 0.40 | 25 | 1.30:1 | 1 | MDC2028*-10 |

Low Frequency Directional Couplers

Continued

| FREQUENCY RANGE (MHz) | COUPLING (dB) | MAINLINE LOSS (dB) MAX. | COUPLING FLATNESS (\pm dB) MAX. | DIRECTIVITY (dB) MIN. | VSWR MAX. | INPUT POWER (WATTS) MAX. ¹ | P/N |
|-----------------------|----------------|-------------------------|------------------------------------|-----------------------|-----------|---------------------------------------|---------------|
| 0.5-500 | 11.5 \pm 0.5 | 1.0 | 0.40 | 25 | 1.30:1 | 1 | MDC2028*-11.5 |
| 0.5-500 | 15.0 \pm 0.5 | 0.8 | 0.25 | 23 | 1.30:1 | 2 | MDC2028*-15 |
| 0.5-500 | 20.0 \pm 0.5 | 0.7 | 0.25 | 22 | 1.30:1 | 3 | MDC2028*-20 |
| 0.5-500 | 30.0 \pm 0.5 | 0.7 | 0.25 | 20 | 1.30:1 | 3 | MDC2028*-30 |
| 1-750 | 10.0 \pm 0.5 | 1.5 | 0.40 | 25 | 1.30:1 | 1 | MDC2029*-10 |
| 1-750 | 11.5 \pm 0.5 | 1.3 | 0.40 | 25 | 1.30:1 | 1 | MDC2029*-11.5 |
| 1-750 | 15.0 \pm 0.5 | 1.2 | 0.40 | 23 | 1.30:1 | 2 | MDC2029*-15 |
| 1-750 | 20.0 \pm 0.5 | 0.8 | 0.40 | 23 | 1.30:1 | 3 | MDC2029*-20 |
| 1-750 | 30.0 \pm 0.5 | 0.8 | 0.40 | 20 | 1.30:1 | 3 | MDC2029*-30 |
| 10-1000 | 6.5 \pm 0.5 | 2.5 | 0.50 | 16 | 1.50:1 | 1 | MDC2030*-6.5 |
| 5-1000 | 10.0 \pm 0.5 | 1.6 | 0.50 | 23 | 1.30:1 | 1 | MDC2031*-10 |
| 5-1000 | 11.5 \pm 0.5 | 1.6 | 0.50 | 23 | 1.30:1 | 1 | MDC2031*-11.5 |
| 5-1000 | 15.0 \pm 0.5 | 1.5 | 0.50 | 20 | 1.30:1 | 2 | MDC2031*-15 |
| 5-1000 | 20.0 \pm 0.5 | 1.2 | 0.50 | 20 | 1.30:1 | 3 | MDC2031*-20 |
| 5-1000 | 30.0 \pm 0.5 | 1.2 | 0.50 | 20 | 1.30:1 | 3 | MDC2031*-30 |
| 800-1000 | 10.5 \pm 0.5 | 0.6 | 0.50 | 20 | 1.30:1 | 50 | MDC2032-10 |
| 800-1000 | 20.0 \pm 0.5 | 0.8 | 0.50 | 20 | 1.30:1 | 50 | MDC2032-20 |
| 800-1000 | 30.0 \pm 0.5 | 1.0 | 0.20 | 20 | 1.30:1 | 50 | MDC2032-30 |
| 1-2000 | 10.0 \pm 1.0 | 2.7 | 1.00 | 18 | 1.60:1 | 1 | MDC2033*-10 |

PORT CONFIGURATION TABLE

| Housing/Model | Input | Output | Coupled |
|----------------------|-------|--------|---------|
| A,B | 1 | 3 | 2 |
| MDC2032-10, -20, -30 | 2 | 3 | 1 |

Notes

1. For a load VSWR of \neq / $<$ 1.20:1
2. Model Numbers marked with a * are available in housing A or housing B. For housing A, leave blank. For housing B, add suffix X to Model Number (ie: MDC2031X-dB).
3. SMA female connectors are standard for all models. For units in housing A, add suffix B, T, N, or F to model number as follows for optional connectors
 B = BNC; T = TNC
 N = Type N; F = Type F