

# Directional Couplers

## Broadband & Multi-Octave

### Features

- Ultra-miniature
- Broadband
- SMA connectors
- High directivity
- Low VSWR
- Meets MIL environments
- 105°C operating temperature
- RF Shielded
- Stripline construction
- Type N connector models available
- Available from stock

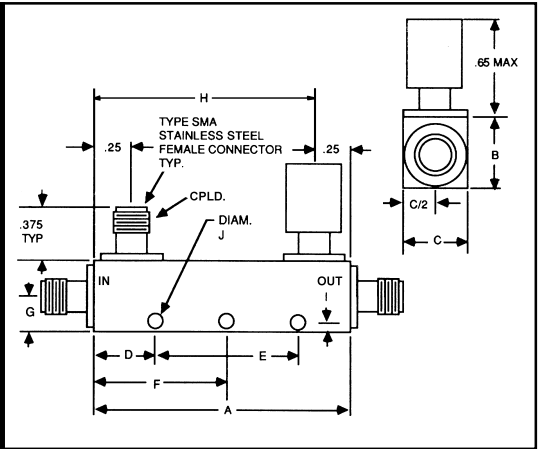
See Note on Page 61 referring to coupler port designations.

**MIDISCO Series MDC 2000 and MDC 4200** broadband and multi-octave directional couplers are designed for test and ECM equipment where more than standard frequency bandwidths are required. Each model is miniature, lightweight, and able to meet stringent environmental requirements. Construction is stripline and designed to meet MIL-E-5400 & MIL-E-16400 environments. Type N connector models available. All units are available from stock.

Outline	A	B	C	D	E	F	G	H	I	J
1	3.60	.53	.38	.5	2.60	-	.22	3.35	.075	.105
2	3.60	.60	.38	.5	2.60	-	.22	3.35	.075	.105
3	2.90	.68	.38	.45	2.00	-	.34	2.65	.15	.148
4	2.90	.60	.38	.45	2.00	-	.22	2.65	.075	.105
5	1.78	.68	.38	.45	.875	-	.34	1.53	.15	.148
6	1.78	.60	.38	.45	.875	-	.22	1.53	.075	.148
7	1.22	.54	.38	.42	.375	-	.22	.97	.075	.105
8	1.22	.60	.38	.42	.375	-	.22	.97	.075	.105
9	1.00	.50	.38	-	-	.50	.22	.75	.075	.105
10	4.40	.60	.38	.50	3.40	-	.24	4.15	.075	.105
11	3.47	.70	.38	.74	2.00	-	.26	3.22	.10	.105
12	1.36	.60	.38	.43	.50	-	.26	1.11	.09	.105
13	3.47	.70	.50	.74	2.00	-	.26	3.22	.34	(1)
14	2.10	.70	.38	.55	1.00	-	.26	1.85	.10	.105
15	2.09	.70	.50	.55	1.00	-	.26	1.84	.34	(1)
16	1.36	.66	.38	.43	.50	-	.26	1.11	.09	.105

(1) 2-56 NC-28 x .12

Dimensions in inches



Model No.	Frequency Range (GHz)	Coupling† (dB)	Freq. Sens. (dB)	Insertion Loss (dB)		Directivity (dB) min	VSWR max			Power		Outline Dwg. No.
				Excl. Cpld. Pwr.	True		Primary Line	Secondary Line	Avg. Incident (W)	Avg. Reflected (W)	Peak (kW)	
MDC2044-6		6±1.0	±0.75	0.35	2.00	23	1.20	1.20	50	2	3	1
MDC2044-10	0.5-2	10±1.0	±0.75	0.35	0.90	23	1.20	1.20	50	5	3	1
MDC2044-20		20±1.0	±0.75	0.35	0.40	23	1.20	1.20	50	50	3	2
MDC2055-6		6±1.0	±0.5	0.35	2.00	23	1.20	1.20	50	2	3	3
MDC2055-10	1-4.0	10±1.0	±0.5	0.35	0.90	23	1.20	1.20	50	5	3	3
MDC2055-20		20±1.0	±0.5	0.40	0.45	23	1.20	1.20	50	50	3	4
MDC2066-6		6±1.0	±0.3	0.50	2.20	20	1.25	1.25	50	2	3	5
MDC2066-10	2-8	10±1.0	±0.3	0.35	1.00	20	1.25	1.25	50	5	3	5
MDC2066-20		20±1.0	±0.4	0.40	0.45	20	1.25	1.25	50	50	3	6
MDC2077-6		6±1.0	±0.3	0.50	2.20	17	1.30	1.30	50	2	2	7
MDC2077-10	4-12.4	10±1.0	±0.3	0.50	1.20	17	1.30	1.30	50	5	2	7
MDC2077-20		20±1.0	±0.4	0.50	0.55	17	1.30	1.30	50	50	2	8
MDC2089-10	7-18	10±1.25	±0.75	0.60	1.10	15	1.35	1.40	50	5	1	9
MDC4245-10	0.6-4	10±1.0	±0.75	0.40	0.90	18	1.25	1.30	50	5	3	10
<b>1-12.4 12.4-18</b>												
MDC4259-10	1-18 †	10±1.0	±0.5	0.90	1.50	15	1.40	1.50	25	5	1	11
MDC4259-16		16±1.0	±0.5	0.80	0.90	15	1.40	1.50	25	20	1	13
MDC4259-20		20±1.0	±0.5	0.85	0.90	15	1.40	1.50	25	25	1	13
<b>2-12.4 12.4-18</b>												
MDC4269-6		6±1.0	±0.5	0.90	2.00	15	1.35	1.50	25	2	1	14
MDC4269-10	2-18 †	10±1.0	±0.5	0.60	1.00	15	1.35	1.50	25	5	1	14
MDC4269-16		16±1.0	±0.5	0.80	0.90	15	1.35	1.40	25	20	1	15
MDC4269-20		20±1.0	±0.5	0.80	0.90	15	1.35	1.40	25	25	1	15
<b>4-12.4 12.4-18</b>												
MDC4279-6	4-18	6±1.0	±0.5	0.90	2.00	15	1.35	1.40	25	2	1	12
MDC4279-10		10±1.0	±0.5	0.80	1.00	15	1.35	1.40	25	5	1	12
MDC4279-20		20±1.0	±0.5	0.60	0.70	15	1.40	1.40	25	25	1	16

† Indicates frequency sensitivity  
‡ Coupling relative to output power