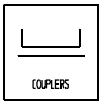
CDM-M-G Series DUAL DIRECTIONAL COUPLERS

500 MHz to 18 GHz / Stripline Octave Bandwidths / 10, 20, 30 dB Coupling / 50 W / Low Cost / SMA



PRINCIPAL SPECIFICATIONS

Model Number	Frequency Range, GHz	Nominal Coupling,¤ dB	Frequency Sensitivity, dB, Max.	Directivity dB, Min.	*Insertion Loss, dB, Max.	VSWR, Max. Main Line	VSWR, Max. Coupled Lines	Outline Ref.
CDM-10M-.75G	0.5 - 1.0	10 ±1.25	± 0.8	22	1.50	1.15:1	1.10:1	1
CDM-20M-.75G		20 ±1.25			0.50			1
CDM-30M-.75G		30 ±1.25			0.40			2
CDM-10M-1.5G	1.0 - 2.0	10 ±1.25	± 0.8	22	1.50	1.15:1	1.10:1	3
CDM-20M-1.5G		20 ±1.25			0.50			3
CDM-30M-1.5G		30 ±1.25			0.40			4
CDM-10M-3G	2.0 - 4.0	10 ±1.25	± 0.8	20	1.50	1.20:1	1.15:1	5
CDM-20M-3G		20 ±1.25			0.50			5
CDM-30M-3G		30 ±1.25			0.40			6
CDM-10M-4G	2.6 - 5.2	10 ±1.25	± 0.8	18	1.50	1.30:1	1.25:1	7
CDM-20M-4G		20 ±1.25			0.50			7
CDM-30M-4G		30 ±1.25			0.40			8
CDM-10M-6G	4.0 - 8.0	10 ±1.25	± 0.8	18	1.70	1.35:1	1.25:1	7
CDM-20M-6G		20 ±1.25			0.50			7
CDM-30M-6G		30 ±1.25			0.40			8
CDM-10M-10G	7.0 - 12.4	10 ±1.25	± 0.6	16	1.90	1.35:1	1.30:1	7
CDM-20M-10G		20 ±1.25			0.70			7
CDM-30M-10G		30 ±1.25			0.60			8
CDM-10M-12G	8.0 - 16.0	10 ±1.25	± 0.8	15	2.20	1.40:1	1.40:1	7
CDM-20M-12G		20 ±1.25			1.00			9
CDM-30M-12G		30 ±1.25			1.00			9
CDM-20M-15G	12.4 - 18.0	20 ±1.25	± 0.6	15	1.00	1.40:1	1.40:1	9
CDM-30M-15G		30 ±1.25			1.00			9

¤Coupling is referenced to the **input** and includes frequency sensitivity

* Insertion Loss **including** Coupling Loss

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POWER SPECIFICATIONS

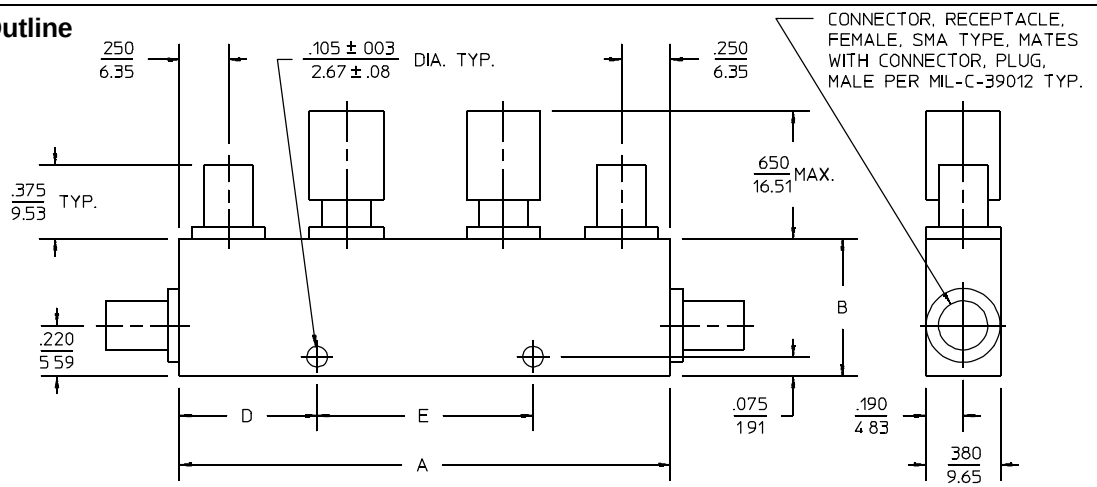
Coupled Power "Loss":		
	10 dB section:	0.46 dB
	20 dB section:	0.044 dB
	30 dB section:	0.004 dB
Peak Power:	CDM-M-12G:	2 kW max.
	CDM-M-15G:	1 kW max.
	All Others:	3 kW max.
Input Power (Forward):		50 Watts max.

GENERAL SPECIFICATIONS

Impedance:	50 Ω nom.
Operating Temperature:	– 55° to +85°C
SMA Connectors:	Female, to meet the interface rqts. of MIL-C-39012.
N type connectors:	see CDN-M series
Other frequency bands:	Available option

For further information contact ***MERRIMAC / 41 Fairfield Pl., West Caldwell, NJ, 07006 / 973-575-1300 / FAX 973-575-0531***

Package Outline



OUTLINE	A	B	D	E	WT. OZ. (G)
1	6.300 160 02	.500 12 70	.800 20 32	4.700 119 38	2.29 (65)
2	6 300 160.02	550 13.97	.800 20.32	4 700 119.38	2 47 (70)
3	3.680 93 47	.500 12 70	.420 10 67	2.820 71 63	1.59 (45)
4	3 680 93.47	550 13.97	420 10.67	2 820 71.63	1.73 (49)
5	2 420 61.47	500 12 70	.410 10.41	1 600 40.64	1.20 (34)
6	2.420 61.47	.550 13.97	.410 10.41	1.600 40.64	1.27 (36)
7	2 100 53 34	500 12 70	500 12 70	1 100 27.94	1.13 (32)
8	2.100 53 34	.550 13 97	.500 12 70	1.100 27.94	1.20 (34)
9	2 100 53.34	600 15.24	500 12.70	1 100 27.94	1.27 (36)

NOTES:
1. Tolerance on 3 place decimals ±.020(.51) except as noted.
2. Dimensions in inches over millimeters.
3. Weights are nominal on all outlines.

General Notes:

1. Units in the CDM series of dual directional couplers comprise two directional couplers back-to-back designed to monitor both forward and reflected power with minimal perturbation to the main line signal.

2. Each miniature coupler is a multi section quarter wave coupler utilizing stripline technology designed to cover an octave band of frequencies.

3. Dual directional couplers with unequal coupling values or dual in-line configuration may be custom ordered with coupling values up to 30 dB and with coverage extending over selected frequency bands up to 18 GHz.

4. Merrimac directional couplers comply with MIL-C-15370 and may be supplied screened for compliance with additional specifications you designate for military and aerospace applications requiring higher reliability

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