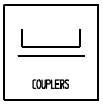
CTM-M-G Series DIRECTIONAL COUPLERS

0.5 to 18 GHz / Multi-Octave Bandwidths / 6, 10 & 20 dB Coupling / 50 W / Stripline / SMA / Rev. 08/16/99



PRINCIPAL SPECIFICATIONS

Model Number	Frequency Range, GHz	Coupling¤, dB, Nom.	Frequency Sensitivity, dB, Nom.	Directivity, dB, Min.	*Insertion Loss, dB, Max.	VSWR Max. Main Line	VSWR Max. Coupled Line	Outline Ref. Dim.
CTM-6M-1.25G	0.5 - 2.0	6 ±1.0	± 0.75	23	0.35	1.20:1	1.20:1	1
CTM-10M-1.25G		10 ±1.0	± 0.75	23	0.35	1.20:1	1.20:1	2
CTM-20M-1.25G		20 ±1.0	± 0.75	23	0.35	1.20:1	1.20:1	2
CTM-6M-2.5G	1.0 - 4.0	6 ±1.0	± 0.50	23	0.35	1.20:1	1.20:1	3
CTM-10M-2.5G		10 ±1.0	± 0.50	23	0.35	1.20:1	1.20:1	3
CTM-20M-2.5G		20 ±1.0	± 0.50	23	0.40	1.20:1	1.20:1	4
CTM-6M-5G	2.0 - 8.0	6 ±1.0	± 0.30	20	0.50	1.25:1	1.25:1	5
CTM-10M-5G		10 ±1.0	± 0.40	20	0.35	1.25:1	1.25:1	5
CTM-20M-5G		20 ±1.0	± 0.40	20	0.40	1.25:1	1.25:1	6
CTM-6M-8G	4.0 - 12.4	6 ±1.0	± 0.30	17	0.50	1.30:1	1.30:1	7
CTM-10M-8G		10 ±1.0	± 0.40	17	0.50	1.30:1	1.30:1	7
CTM-20M-8G		20 ±1.0	± 0.40	17	0.50	1.30:1	1.30:1	8
CTM-10M-12G	7.0 - 18.0	10 ±1.25	± 0.75	15	0.60	1.35:1	1.40:1	9
CTM-20M-12G	6.0 - 18.0	20 ±1.25	± 0.60	15	0.60	1.35:1	1.40:1	9

¤Coupling is referenced to the **input**

* Insertion Loss above Coupling Loss

POWER SPECIFICATIONS

Coupled Power "Loss":		
	6 dB units:	1.25 dB
	10 dB units:	0.46 dB
	20 dB units:	0.044 dB
Peak Power:		3 kW max.
CW Input Power (Forward):		50 Watts max.
Reflected Power:	6 dB units:	2 Watts max.
	10 dB units:	5 Watts max.
	20 dB units:	50 Watts max.

GENERAL SPECIFICATIONS

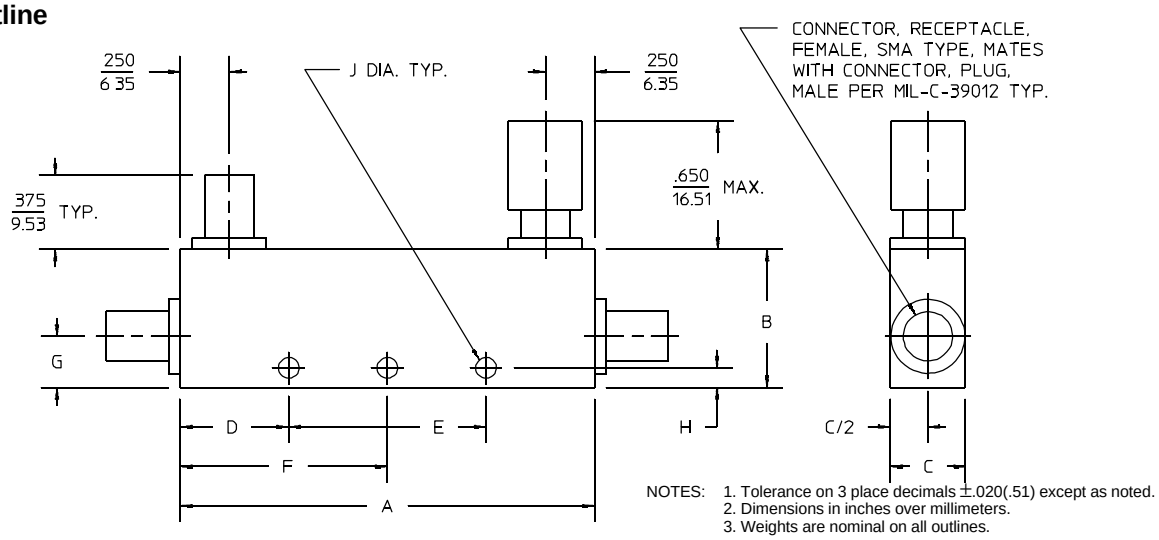
Impedance:	50 Ω nom.
Operating Temp:	– 55° to +85°C
SMA Connectors:	Female, to meet the interface requirements of MIL-C-39012
Other connectors:	TNC and N type optionally available. Inquire at factory.

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

COUPLERS

Package Outline



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.

OUTLINE	A	B	C	D	E	F	G	H	J	WT. OZ. (G)
1	3.600 91.44	.530 13.46	.380 9.65	.500 12.70	2.600 66.04	—	.220 5.59	.075 1.91	.105 2.67	1.41 (40)
2	3.600 91.44	.600 15.24	.380 9.65	.500 12.70	2.600 66.04	—	.220 5.59	.075 1.91	.105 2.67	1.59 (45)
3	2.900 73.66	.680 17.27	.380 9.65	.450 11.43	2.000 50.80	—	.340 8.64	.150 3.81	.149 3.78	1.45 (41)
4	2.900 73.66	.600 15.24	.380 9.65	.450 11.43	2.000 50.80	—	.220 5.59	.075 1.91	.105 2.67	1.41 (40)
5	1.780 45.21	.680 17.27	.380 9.65	.450 11.43	.875 22.23	—	.340 8.64	.150 3.81	.149 3.78	1.02 (29)
6	1.880 47.75	.600 15.24	.380 9.65	.440 11.18	1.000 25.40	—	.220 5.59	.075 1.91	.105 2.67	1.02 (29)
7	1.220 30.99	.550 13.97	.380 9.65	.420 10.67	.375 9.53	—	.220 5.59	.075 1.91	.105 2.67	.78 (22)
8	1.220 30.99	.600 15.24	.380 9.65	.420 10.67	.375 9.53	—	.220 5.59	.075 1.91	.105 2.67	.85 (24)
9	1.000 25.40	.500 12.70	.380 9.65	—	—	.500 12.70	.220 5.59	.075 1.91	.105 2.67	.67 (19)

General Notes:

1. The CTM series directional couplers are miniature three port devices utilizing stripline technology in a connectorized package. Each is a multi-section quarter wave coupler designed to cover a broad bandwidth. They are ideally suited to monitor forward or reflected power with minimal perturbation to the main line signal, signal sampling, control loops and test signal injection devices in BITE.

2. A variety of models may be custom ordered with coupling values up to 30 dB and covering frequency bands up to 18 GHz.

3. These units comply with MIL-C-15370 and may be supplied screened for compliance with additional specifications you designate for military and space applications requiring the highest reliability.

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