

# CWM-R SERIES - DIRECTIONAL COUPLERS

## TECHNICAL FEATURE

### FEATURES

- 0.5 to 26.5 GHz
- Ultra-Broadband
- 10, 16, 20 dB Coupling
- High-Performance Stripline
- 25 W
- SMA

### PRINCIPAL SPECIFICATIONS

Model Number	Frequency Range, GHz	Coupling, <sup>▫</sup> dB, Nom.	Frequency Sensitivity, dB, Max.	Directivity, dB, Min.	*Insertion Loss, dB, Max.	VSWR Max., Main Line	Outline Coupled Line	Ref. Dim.
CWM-20R-9.2G	0.5 - 18.0	20 ±1.0	±1.0	14	1.3	1.40:1	1.50:1	1
CWM-10R-10.2G	0.5 - 20.0	10 ±1.0	±1.0	14	1.3	1.35:1	1.35:1	1
CWM-10R-13.2G	0.5 - 26.5	10 ±1.0	±1.0	12	2.0	1.50:1	1.50:1	1
CWM-10R-16G	6.0 - 26.5	10 ±1.0	±0.5	14	1.0	1.45:1	1.45:1	3

▫Coupling is referenced to the **output**

\* Insertion Loss **above** Coupling Loss

### POWER SPECIFICATIONS

Coupled "Loss":	10 dB units:	0.46 dB
	16 dB units:	0.08 dB
	20 dB units:	0.044 dB
	30 dB units:	0.004 dB
Peak Power:		3 kW max.
Input Power (Forward):		25 Watts max.
Reflected Power:	10/16 dB units:	5 Watts max.
	20/30 dB units:	50 Watts max.

### GENERAL SPECIFICATIONS

Impedance:	50 Ω nom.
Operating Temp:	- 55° to +85°C
Available Options:	
Connectors:	TNC & N type available
Frequencies:	Available to 65 GHz.
Higher Power :	With N connectors
Coupling:	30 dB available

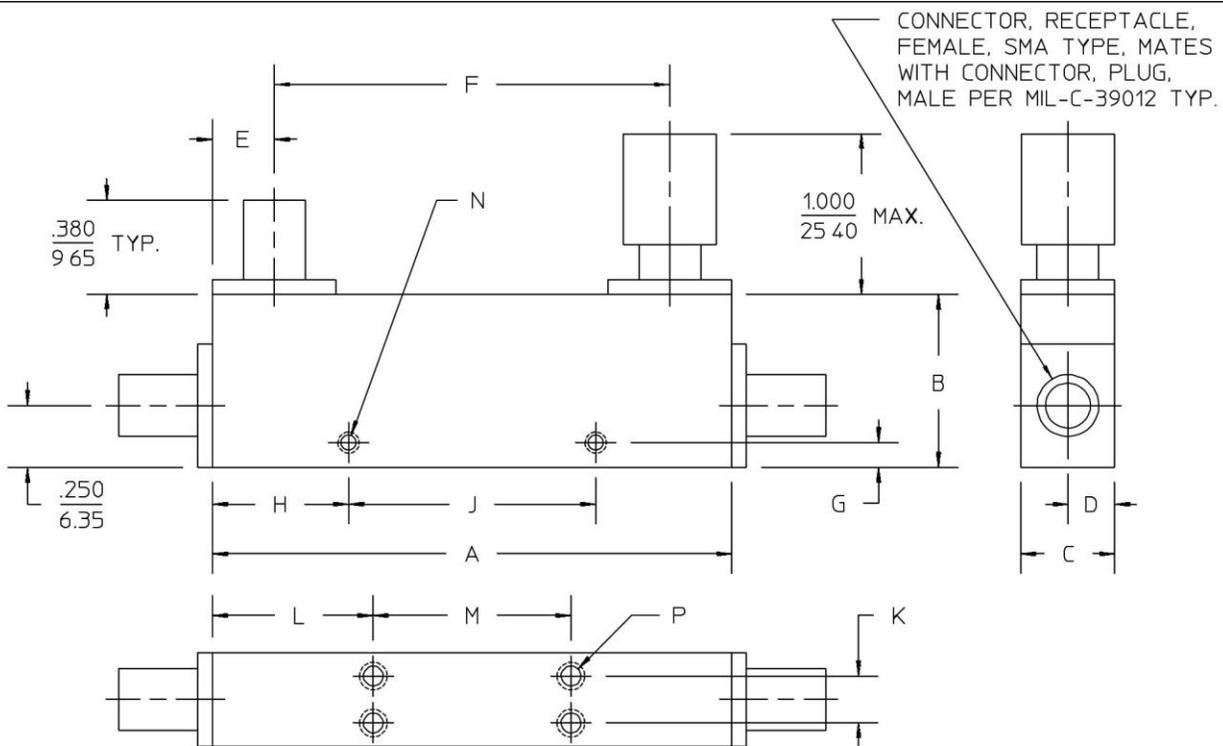
#### General Notes:

1. The CWM-R series of directional couplers consists of three port devices utilizing stripline technology in a connectorized package. Each unit is a multi-section quarter wave coupler designed to cover a very broad band of frequencies. They are ideally suited for monitoring forward or reflected power in EW and similar wideband systems with minimal perturbation to the main line signal.
2. Similar directional couplers may be custom ordered with coupling values up to 35 dB and covering frequency bands up to 26.5 GHz.
3. These units comply with MIL-C-15370 and may be supplied screened for compliance with additional specifications you designate for military and aerospace applications requiring the highest reliability.

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## PACKAGE OUTLINE



OUTLINE	A	B	C	D	E	F	G	H	J	K	L	M
1	$\frac{4.400}{111.76}$	$\frac{.700}{17.78}$	$\frac{.500}{12.70}$	$\frac{.250}{6.35}$	$\frac{.250}{6.35}$	$\frac{3.900}{99.06}$	—	—	—	$\frac{.300}{7.62}$	$\frac{1.000}{25.40}$	$\frac{2.400}{60.96}$
2	$\frac{2.400}{60.96}$	$\frac{.700}{17.78}$	$\frac{.520}{13.21}$	$\frac{.250}{6.35}$	$\frac{.250}{6.35}$	$\frac{1.900}{48.26}$	$\frac{.350}{8.89}$	$\frac{.660}{16.76}$	$\frac{1.080}{27.43}$	$\frac{.300}{7.62}$	$\frac{.800}{20.32}$	$\frac{.800}{20.32}$
3	$\frac{1.060}{26.92}$	$\frac{.625}{15.88}$	$\frac{.380}{9.65}$	$\frac{.190}{4.83}$	$\frac{.250}{6.35}$	$\frac{.560}{14.22}$	$\frac{.120}{3.05}$	$\frac{.530}{13.46}$	—	—	—	—

OUTLINE	N	P	WT. OZ. (G)
1	—	#4-40 UNC-2B X .250 (6.35) DEEP 4 HOLES BOTH SIDES	3.0 (85)
2	#2-56 UNC-2B X .078 (1.98) DEEP 2 HOLES BOTH SIDES	#4-40 UNC-2B X .250 (6.35) DEEP 4 HOLES BOTH SIDES	1.9 (54)
3	#2-56 UNC-2B X .078 (1.98) DEEP BOTH SIDES	—	1.5 (43)

**NOTES:**

1. Tolerance on 3 place decimals  $\pm .020(.51)$  except as noted.
2. Dimensions in inches over mm
3. Weights are nominal.

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