

# CYK-R-M SERIES - DIRECTIONAL COUPLERS

## TECHNICAL FEATURE

### FEATURES

- 2 to 46 GHz
- Ultra-Wideband
- High Directivity
- Stripline
- 25 W
- K-Connectors

### PRINCIPAL SPECIFICATIONS

Model Number	Frequency Range, GHz	Coupling, dB, Nom.	Freq. Sensitivity, dB, Max.	Directivity, dB,		*Insertion Loss, dB, Max.	VSWR, Max.		Weight, oz.(g), Nom.	Outline Ref. Dim.
				Typ.	Min.		Main Line	Coupled Line		
CYK-16R-21G	2.0 - 40.0	16 ±1.0	±1.0	18	15	1.6	1.50:1	1.50:1	2.0 (56)	1
CYK-10R-26G	6.0 - 40.0	10 ±1.0	±1.0	18	15	1.8	1.50:1	1.50:1	1.5 (43)	2
	40.0 - 46.0		±1.5	14	12		1.70:1	1.70:1		
CYK-10R-29G	18.0 - 40.0	10 ±1.0	±1.0	19	17	1.8	1.50:1	1.50:1	1.5 (43)	2
	40.0 - 46.0		±1.5	14	12		1.70:1	1.70:1		

□ Coupling is referenced to the **output**
\* Insertion Loss **above** Coupling Loss

### POWER SPECIFICATIONS

Coupled "Loss":	12 dB units:	0.28 dB
	16 dB units:	0.11 dB
	20 dB units:	0.044 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 Temperature:	- 55° to +85°C
Options:	
Higher Frequencies:	Available
Alternate Connectors:	2.4 mm available
Others:	Check factory

### General Notes:

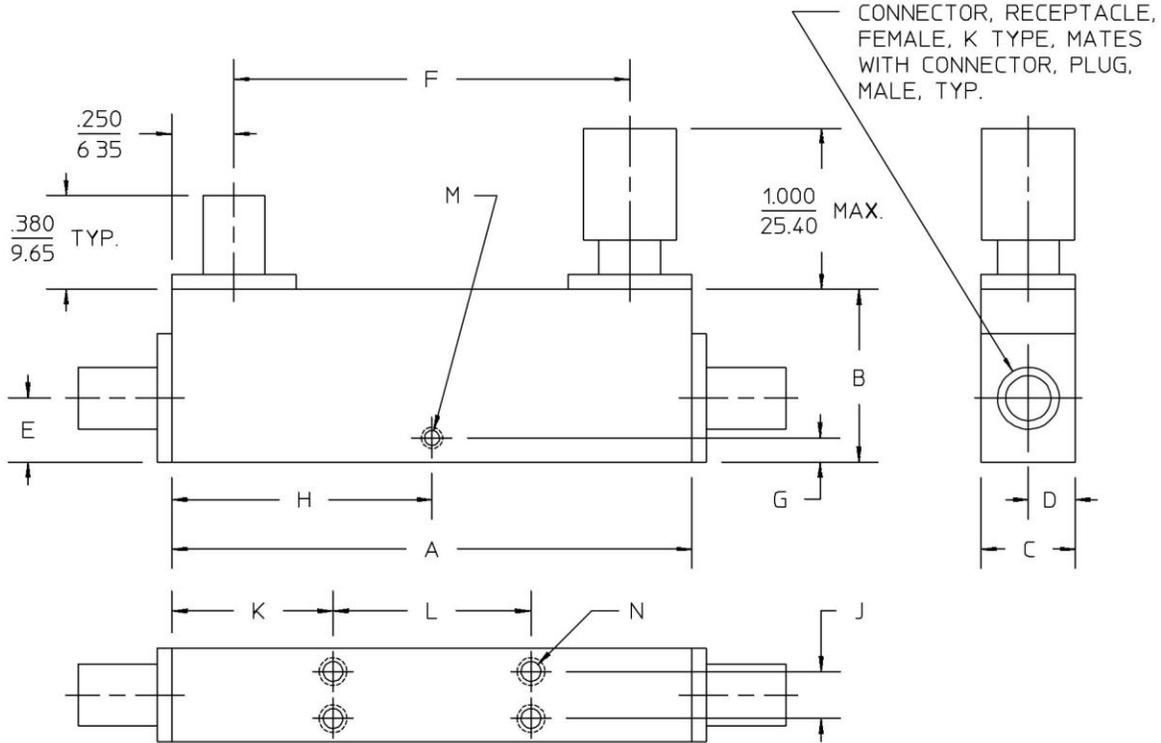
1. The CYK-R series of directional couplers consists of three port connectorized devices utilizing special stripline technology developed for very high directivity over very wide bandwidths.
2. Although the CYK-16R-21G is fully specified down to 2 GHz, it is usable down to 1 GHz with a higher coupling.
3. This series is ideally suited to precise measurement of forward or reflected power in general purpose ATE systems, as well as in EW and similar wideband systems where high directivity is essential.
4. Units with performance customized for your requirements are available. Options include coupling values up to 35 dB and with frequency coverage up to 50 GHz.
5. 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

### Package Outline



OUTLINE	A	B	C	D	E	F	G	H	J	K	L
1	$\frac{2.350}{59.69}$	$\frac{.600}{15.24}$	$\frac{.500}{12.70}$	$\frac{.250}{6.35}$	$\frac{.250}{6.35}$	$\frac{1.850}{46.99}$	—	—	$\frac{.265}{6.73}$	$\frac{.770}{19.56}$	$\frac{.800}{20.32}$
2	$\frac{1060}{26.92}$	$\frac{625}{15.88}$	$\frac{500}{12.70}$	$\frac{.250}{6.35}$	$\frac{.250}{6.35}$	$\frac{.560}{14.22}$	$\frac{.120}{3.05}$	$\frac{.530}{13.46}$	—	—	—

OUTLINE	M	N	WT OZ. (G)
1	—	#4-40 UNC-2B X .250 (6.35) DEEP 4 HOLES BOTH SIDES	2.0 (57)
2	#2-56 UNC-2B X .120 (3.05) DEEP	—	1.0 (28)

NOTES: 1. Tolerance on 3 place decimals  $\pm 0.020(.51)$  except as noted.  
2. Dimensions in inches over mm

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