

Isolated Combiners, CM-x8D series

4 x 4 Hybrid Coupler Matrix, Combiner & Splitter Wireless Bands from 350 to 2700 MHz

- Connects 4 inputs to 4 outputs
- Up to 28 dB Isolation, Low VSWR
- ♦ Low Specified PIM, <-155 dBc
- Indoor and Outdoor Applications
- ◆ 100W Average Power Rating
- ♦ Same DIN Connector Spacing
- RoHS compliant



The 4x4 Hybrid is a matrix of four 3 dB Hybrid Couplers arranged so that signals applied to any of the four inputs will be split equally between the four outputs. This allows simple combining of multiple signals in the same wireless band to a common feeder cable, as might be required in a neutral host in-building distributed antenna system, or the decoupled combining of 4 transmitter or receiver signals equally to 4 antennas. Unused ports must be terminated externally in 50Ω , with an appropriate PIM performance. Note that the phase relationship of the outputs in these models is not consistent.

Special attention has been directed in these versions to maximize isolation in the wireless bands and minimize passive intermodulation (PIM). Units may be moisture sealed for outside applications to meet IP67. (03/11)

Impedance: 50Ω nominal Environment: $-40 \text{ to } +55^{\circ}\text{C}$, IP64

(IP67 to order) PIM, Intermod: <-155 dBc*

(two 20W tones)

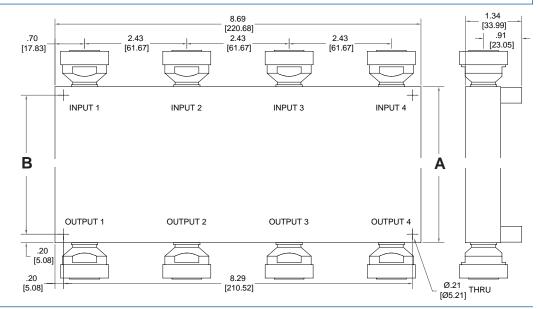
Enclosure Finish: Passivated Al.

Connectors Finish: Triplate

Mounting Wall: Female standard
Wall: Bracket supplied
Mast: Optional mast kit

*<-160dBm to special order

Model Number	Frequency Range, MHz	Coupling dB	Input Is	olation* min	Return Loss, dB	Power p Avg.	er Input Peak	Weight lbs. (kg)	Dimen A	sions B
CM-58D	1710 - 2700	6.2 ± 0.8	27 dB	25 dB	>23 dB	100W	3kW	4.9 (2.2)	4.94 (125.5)	4.54 (115.3)
CM-68D	698 - 960	6.2 ± 0.6	32 dB	28 dB	>23 dB	100W	3kW	3.3 (1.5)	3.70 (93.93)	3.30 (83.77)
CM-88D	800 - 2700 698 - 800	6.2 ± 1.2 6.2 ± 1.5	23 dB	20 dB	>18 dB	100W	3kW	4.9 (2.2)	4.99 (126.7)	4.59 (116.6)
CM-98D	380 - 520 350 - 380	6.1 ± 0.6 6.0 ± 0.8	33 dB *Re	30 dB equires all u	>25 dB inused ports t	100W to be termina	3kW ated with lo	, ,	3.91 (99.31) turn loss > 32dB	` '



All paths DC Isolated except: Input 1 to Output 1 Input 2 to Output 2 Input 3 to Output 3 Input 4 to Output 4

DC Paths