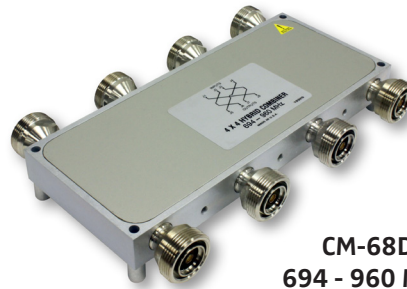


- ◆ Connects 4 inputs to 4 outputs
- ◆ Up to 30 dB Isolation, Low VSWR
- ◆ Low Specified PIM
- ◆ Indoor and Outdoor Applications
- ◆ Up to 150W/Input Continuous Avg. Power
- ◆ Same DIN Connector Spacing
- ◆ RoHS compliant



**CM-68D**  
**694 - 960 MHz**

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). For outdoor environments add the suffix 'P' to Model No. (e.g. **CM-58DP**).

Impedance:	50Ω nominal
PIM, Intermod:	-161 dBc (two 20W tones)
Environment:	-40 to +55°C
Housing Finish:	
Indoor/IP64:	Passivated Al.
Outdoor/IP67:	Painted
Connectors:	Triplate, 7-16 (f) Female standard
	Add P to Model No.

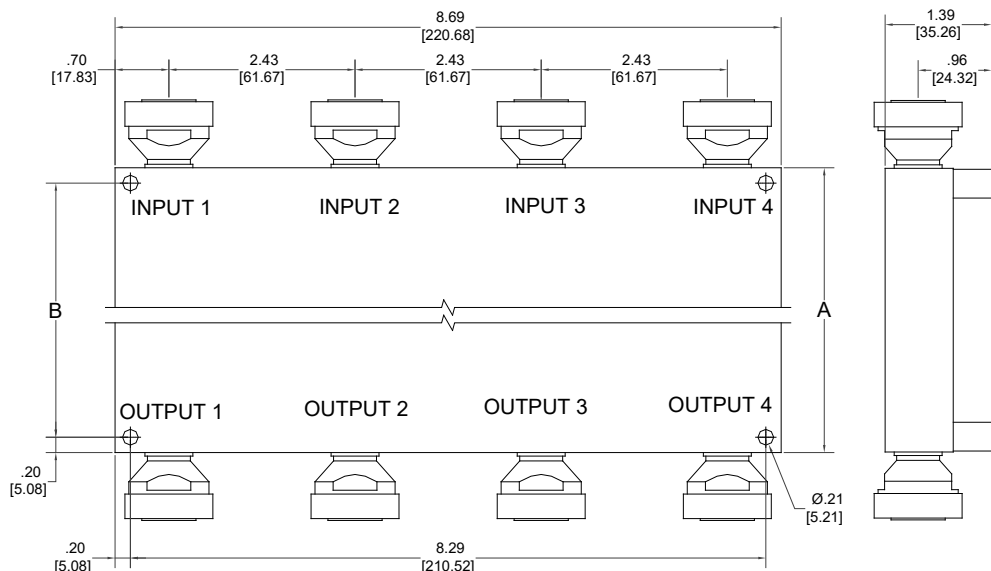
Model Number	Frequency Range, MHz	Coupling dB	Input Isolation* typical	Input Isolation* min	Return Loss, dB	Power per Input Avg.	Power per Input Peak	Weight, nom. lbs. (kg)
<b>CM-58D</b>	1710 - 2700	6.2 ± 0.8	27 dB	25 dB	>23 dB	100W	3kW	4.9 (2.2)
<b>CM-68D</b>	694 - 960	6.2 ± 0.6	32 dB	28 dB	>23 dB	150W	3kW	3.3 (1.5)
<b>CM-88D</b>	694 - 800 800 - 2600 2600 - 2700	6.0 ± 1.8 6.2 ± 1.2 6.4 ± 1.4	23 dB	20 dB	>18 dB	150W	3kW	4.9 (2.2)
<b>CM-98D</b>	350 - 380 380 - 520	6.0 ± 0.8 6.1 ± 0.6	33 dB	30 dB	>25 dB	150W	3kW	3.5 (1.6)

\*Requires all unused ports to be terminated with loads of return loss > 32dB

### DC Paths

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

Model Number	Dimensions A inches (mm)	Dimensions B inches (mm)
<b>CM-58D</b>	4.94 (125.5)	4.54 (115.3)
<b>CM-68D</b>	3.70 (93.93)	3.30 (83.77)
<b>CM-88D</b>	4.99 (126.7)	4.59 (116.6)
<b>CM-98D</b>	3.91 (99.31)	3.51 (89.20)



Note: Specifications are subject to change without prior notification.

06MAY2016