

# Cross-Guide Couplers



## General specifications

- Coupling value is 25 dB min. and 60 dB max.
- Coupling accuracy and flatness depend on frequency and bandwidth, typical values are  $\pm 0.5$  dB over 500 MHz.
- Minimum directivity is 20 dB.
- Return loss in main arm typically exceeds 26 dB.
- Return loss in secondary arm typically exceeds 19 dB (coupling-dependent).

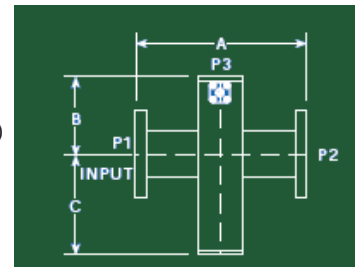
## Single Arm Cross-Guide Couplers

Part No.	Waveguide Size	Dimension (in.)		
		A	B	C
M*** - 01	284	7.50	3.75	5.00
M*** - 02	229	7.00	3.50	4.75
M*** - 03	187	6.50	3.25	4.50
M*** - 04	159	6.00	3.00	4.00
M*** - 05	137	5.25	3.00	4.00
M*** - 06	112	4.20	2.10	3.00
M*** - 07	90	4.00	2.00	2.75
M*** - 08	75	3.75	1.87	2.50
M*** - 09	62	3.50	1.75	2.37
M*** - 10	51	3.10	1.50	2.25
M*** - 11	42	2.20	1.10	1.50

## MODELS

**M0906** – 2 waveguide ports  
1 coaxial type SMA port  
1 terminated port. (WR284 n/a)

**M0907** – 2 waveguide ports,  
1 coaxial type N port,  
1 terminated port. (WR62  
WR51 & WR42 n/a)



M0906  
M0907

## Double and Triple Arm Cross-Guide Couplers

Part No.	Waveguide Size	Dimension (in.)		
		A	B	C
M*** - 01	284	7.50	3.75	5.00
M*** - 02	229	7.00	3.50	4.75
M*** - 03	187	6.50	3.25	4.50
M*** - 04	159	6.00	3.00	4.00
M*** - 05	137	5.25	3.00	4.00
M*** - 06	112	4.20	2.10	3.00
M*** - 07	90	4.00	2.00	2.75
M*** - 08	75	3.75	1.87	2.50
M*** - 09	62	3.50	1.75	2.37
M*** - 10	51	3.10	1.50	2.25
M*** - 11	42	2.20	1.10	1.50

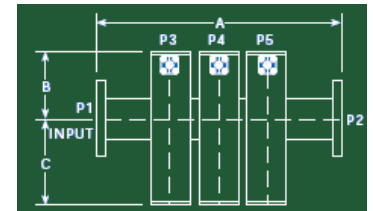
## MODELS

**M1671** – Type N Double Arm  
Coupler.  
(WR42, WR51 & WR62 n/a)

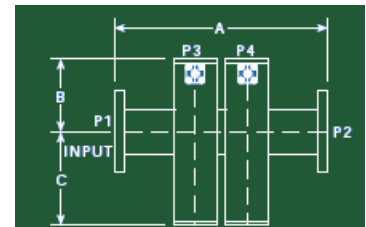
**M1672** – Type SMA Double Arm  
Coupler. (WR284 n/a)

**M1673** – Type N Triple Arm  
Coupler. (WR42, WR51 WR62 n/a)

**M1674** – Type SMA Triple Arm  
Coupler.



M1673  
M1674



M1671  
M1672

## ORDERING INFORMATION

1. Specify model number by including\*\*\* appropriate model number.
2. Specify coupling value, e.g., -25 for 25 dB min.
3. Specify coupling direction, e.g., reverse or forward, by adding R or F to coupling value.
4. Specify flange code (see page 30).
5. Specify if pressurization is required.
6. Specify frequency range.

## ORDERING EXAMPLE

PART NO.	COUPLING 1st ARM	COUPLING 2nd ARM	FLANGES P1-P2
M1671-08	25F	35R	06 - 06