



RECTANGULAR LOOP COUPLERS

310, 320, 330 SERIES

DATA SHEET No.T94

MEC waveguide loop couplers cover the frequency spectrum from WR 90 to WR 2100, and are widely used in RF circuits requiring directional power injection or extraction. These units are available as uni- or bi-directional couplers. Modifications to the standard designs are available on special request.

W/G SIZE	FREQ. RANGE (GHz)	COUPLING VALUE (dB)	WITH UNI-DIRECTIONAL CONNECTORS (FIG)		WITH BI-DIRECTIONAL CONNECTORS			
					SAME SIDE (FIG)		ONE TOP/ ONE BOTTOM (FIG)	
WR-90	8.2-12.4	20 to 70	X310	1*	X320	2*	X330	3*
WR-112	7.05-10.0	25 to 70	H310	1*	H320	2*	H330	3*
WR-137	5.85-8.2	30 to 70	J310	4	J320	5	J330	6
WR-159	4.9-7.05	30 to 70	D310	4	D320	5	D330	6
WR-187	3.95-5.85	30 to 70	G310	4	G320	5	G330	6
WR-229	3.3-4.9	35 to 70	B310	4	B320	5	B330	6
WR-284	2.6-3.95	35 to 70	S310	4	S320	5	S330	6
WR-430	1.7-2.6	40 to 70	LA310	7	LA320	8		
			LA311	4	LA321	5	LA330	6
WR-650	1.12-1.70	40 to 70	L310	7	L320	8		
			L311	4	L321	5	L330	6
WR-770	.96-1.45	45 to 70	E310	7	E320	8		
WR-975	.75-1.12	45 to 70	UA310	7	UA320	8		
WR-1150	.64-.96	55 to 70	UB310	7	UB320	8		
WR-1500	.49-.75	55 to 70	UC310	7	UC320	8		
WR-1800	.41-.625	60 to 70	UD310	7	UD320	8		
WR-2100	.35-.53	60 to 70	UE310	7	UE320	8		

ELECTRICAL DATA

Frequency: bandwidth to be specified

Coupling Value: to be specified

Coupling Sensitivity: Approximately ± 1 dB for 20% bandwidth

Directivity: 25dB for 2% of the waveguide band
20dB for 20% of the waveguide band
15dB for coupling values > 30% of the waveguide band

VSWR: main arm: 1.05 max. typical for coupling valves greater than 30 db.

Power: The main arm will handle approximately 90% of waveguide rating. The internal load in the loop will handle 5 watts average power at 25°C.

Output Connectors: WR-90 to 112 SMA female.
WR-137 to 2100 Type "N" female.

ORDERING INFORMATION

Flanges: Cover flanges supplied unless otherwise specified. Flange hole patterns are equivalent to EIA CPR standards.

Pressurization: Available pressure-tight on special request.

Materials: Aluminum alloy supplied as standard. Brass is available on special request.

To order Specify: Basic Model No. _____

Frequency Range _____

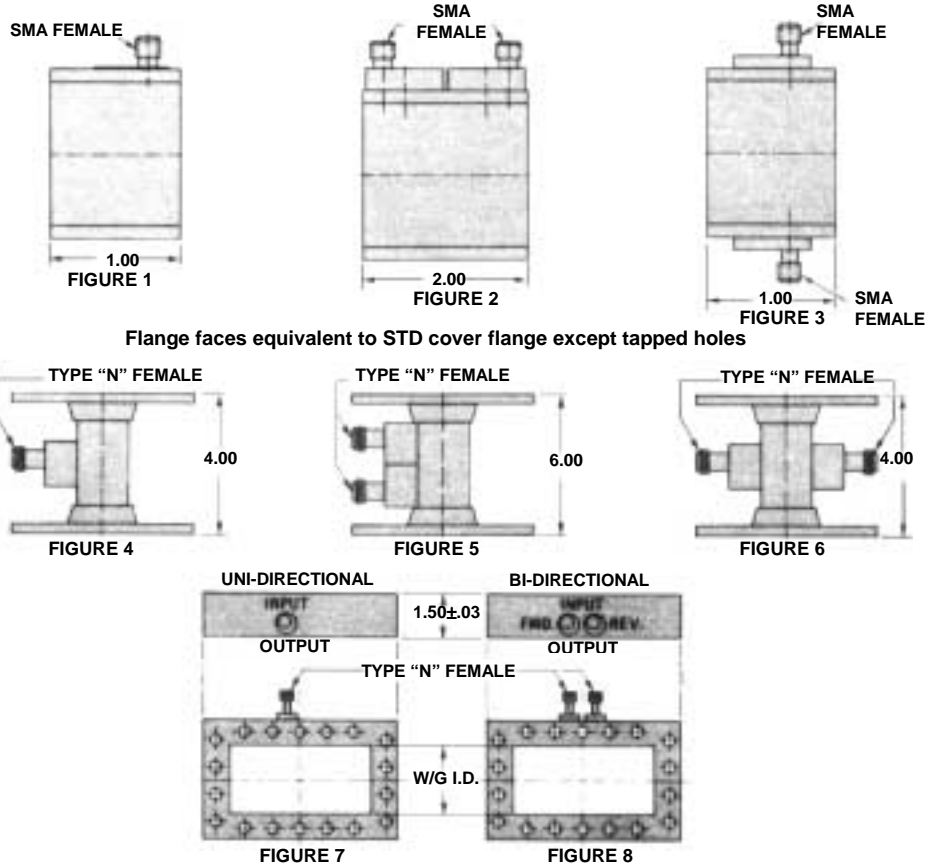
Average coupling _____

Coupling direction for each output _____

Material _____

Flange Configuration _____

Pressurization _____



*Figures 1, 2, 3 min. lengths as shown are for cover flanges. When couplers are made with other flanges, lengths are greater than shown.

Data subject to change without notice



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