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Rectangular Waveguide Hybrid Coupler

Description

We are proud to provide a wide range of rectangular waveguide hybrid coupler covering bands from 1 GHz to 110 GHz. Our hybrid couplers are featured with full band operation, deep matching with high-isolation, stable coupling level, and high-power handling capability.

Applications

- High power beamforming assembly
- Radar systems
- Satellite applications

Electrical Specifications

The frequency band as well as the matching level depend on the standard as illustrated in the table attached.

- Couplers can be provided with 3, 6, 10, 20 dB coupling.
- Directivity and Coupling sensitivity can be enhanced for partial band operation.
- Pressurized and TVAC units are available based on the client requirement.

Mechanical Specifications

Material: Aluminum 6061 / Copper / Brass

Finish: Chromate/Plated
Paint: As per request







Electrical Specifications

Model	Waveguide	Bandwidth	Coupling	Phase	Isolation	A	В	Main Arm
Number	Size		Sensitivity (±dB)	Imbalance	(dB)			VSWR
SMC-196650	WR-650	20%	0.25	±5 °	23	20.5	15	1.15
SMC-196510	WR-510	20%	0.25	±5 °	23	17	11	1.15
SMC-196430	WR-430	20%	0.25	±5 °	23	13.5	9	1.15
SMC-196340	WR-340	20%	0.25	±5 °	23	10.5	7	1.15
SMC-196284	WR-284	20%	0.25	±5 °	23	9	6	1.15
SMC-196229	WR-229	20%	0.25	±5 °	23	7.5	5	1.15
SMC-196187	WR-187	20%	0.25	±5 °	23	6	4	1.15
SMC-196159	WR-159	20%	0.25	±5 °	23	5	4	1.15
SMC-196137	WR-137	20%	0.25	±5 °	23	4.5	3	1.15
SMC-196112	WR-112	20%	0.25	±5 °	23	3.5	3	1.15
SMC-196102	WR-102	20%	0.25	±5 °	23	3.5	2	1.15
SMC-196090	WR-90	20%	0.25	±5 °	23	3	2	1.15
SMC-196075	WR-75	20%	0.25	±5 °	23	2	1.5	1.15
SMC-196062	WR-62	20%	0.25	±5 °	23	1.5	1.5	1.15
SMC-196051	WR-51	20%	0.25	±5 °	23	1.5	1	1.15
SMC-196042	WR-42	20%	0.40	±5 °	23	1	0.8	1.15
SMC-196034	WR-34	20%	0.40	±5 °	20	1	0.6	1.15
SMC-196028	WR-28	20%	0.5	±5 °	20	1	0.5	1.15
SMC-196022	WR-22	20%	0.5	±5 °	20	0.7	0.45	1.2
SMC-196019	WR-19	20%	0.5	±5 °	20	0.6	0.4	1.2
SMC-196015	WR-15	Upon	Upon	Upon	Upon	Upon	Upon	Upon
CMC 10/013	WD 12	request	request	request	request	request	request	request
SMC-196012	WR-12	Upon request	Upon request	Upon request	Upon request	Upon request	Upon request	Upon request
SMC-196010	WR-10	Upon	Upon	Upon	Upon	Upon	Upon	Upon
		request	request	request	request	request	request	request





