

MICROWAVE COUPLERS

Navigator



SIMPLIFICATION IS OUR INNOVATION



COUPLERS NAVIGATOR

FAMILY

Radiall offers a comprehensive range of microwave couplers from 150 MHz to 18 GHz. It includes 3dB hybrid 90° and directional couplers, octave bands and wide bands.

The offer is equipped with SMA and N connectors and is compliant with MIL-STD-202 environmental testing (MIL grade).

APPLICATIONS

- Microwave commutation matrices
- Microwave bench tests
- Ground radar
- Airborne radar
- Satcom antennas
- Electronic Warfare systems
- Automatic Test Equipment

SERIES

3 DB 90° HYBRID COUPLERS



- 150 MHz up to 18 GHz
- Octave band and wide band
- SMA and N female connector; custom design available
- Isolation

DIRECTIONAL COUPLERS



- Octave Band**
- 150 MHz up to 18 GHz
 - Octave band
 - SMA and N female connector; custom design available
 - Directivity




- Wide Band**
- 900 MHz up to 18 GHz
 - Wide band
 - SMA and N female connector; custom design available
 - Directivity

PRODUCT ORDERING

SERIES		ELECTRICAL CHARACTERISTICS						PHYSICAL CHARACTERISTICS		
Type	Part Number	Frequency (GHz)	Coupling Factor (dB)	Max Insertion Loss (dB) / Attenuation (dB)	Min Isolation (dB)	VSWR max.	Average Power (W @25 °C)	Connectors		
3 dB Hybrid Couplers	R432171000	0.15 - 0.3	3 ± 0.5	0.3	30	1.15	50	N f / N f		
	R432431000	0.25 - 0.5	3 ± 0.5	0.3	30	1.15	500	N f / N f		
	R432371000	0.5 - 1	3 ± 0.5	0.3	25	1.15	300	N f / N f		
	R432431000	1 - 2	3 ± 0.5	0.3	25	1.2	100	SMA f / SMA f		
	R432471000	1 - 2	3 ± 0.5	0.3	25	1.2	200	N f / N f		
	R432531000	2 - 4	3 ± 0.5	0.3	23	1.2	80	SMA f / SMA f		
	R432571000	2 - 4	3 ± 0.5	0.3	20	1.2	80	N f / N f		
	R432631000	4 - 8	3 ± 0.5	0.3	19	1.25	50	SMA f / SMA f		
	R433721700	7 - 12.4	3 ± 0.5	0.4	18	1.35	30	SMA f / SMA f		
	R433611700	6 - 18	3 ± 0.6	0.6	15	1.5	30	SMA f / SMA f		
R433831700	12.4 - 18	3 ± 0.7	0.6	16	1.4	30	SMA f / SMA f			
Directional Couplers ⁽¹⁾	Octave Band	R432172000	0.15 - 0.3	6 ± 0.3	2	30	1.10 / 1.10	500	N f / N f	
		R432173000	0.15 - 0.3	10 ± 0.3	1	30	1.10 / 1.10	500	N f / N f	
		R432174000	0.15 - 0.3	20 ± 0.3	0.4	30	1.10 / 1.10	500	N f / N f	
		R432175000	0.15 - 0.3	30 ± 0.3	0.4	30	1.10 / 1.10	500	N f / N f	
		R432273000	0.25 - 0.5	10 ± 0.3	1	30	1.12 / 1.12	500	N f / N f	
		R432274000	0.25 - 0.5	20 ± 0.3	0.4	30	1.12 / 1.12	500	N f / N f	
		R432275000	0.25 - 0.5	30 ± 0.3	0.4	30	1.12 / 1.12	500	N f / N f	
		R432372000	0.5 - 1	6 ± 0.3	2	25	1.15 / 1.15	300	N f / N f	
		R432373000	0.5 - 1	10 ± 0.3	1	27	1.15 / 1.15	300	N f / N f	
		R432374000	0.5 - 1	20 ± 0.3	0.4	27	1.15 / 1.15	300	N f / N f	
	R432375000	0.5 - 1	30 ± 0.3	0.4	27	1.15 / 1.15	300	N f / N f		
	R432432000	1 - 2	6 ± 1.1	1.8	23	1.20 / 1.20	100	SMA f / SMA f		
	R432433000	1 - 2	10 ± 0.3	1	23	1.15 / 1.15	100	SMA f / SMA f		
	R432434000	1 - 2	20 ± 0.3	0.4	23	1.15 / 1.15	100	SMA f / SMA f		
	R432435000	1 - 2	30 ± 0.3	0.4	23	1.15 / 1.15	100	SMA f / SMA f		
	R432472000	1 - 2	6 ± 0.3	2.25	23	1.15 / 1.15	200	N f / N f		
	R432473000	1 - 2	10 ± 0.3	1	23	1.15 / 1.15	200	N f / N f		
	R432474000	1 - 2	20 ± 0.3	0.4	23	1.15 / 1.15	200	N f / N f		
	R432475000	1 - 2	30 ± 1.1	0.4	23	1.15 / 1.15	200	N f / N f		
	R432533000	2 - 4	10 ± 0.3	1	20	1.15 / 1.15	80	SMA f / SMA f		
	R432573000	2 - 4	10 ± 0.3	0.4	20	1.15 / 1.15	100	N f / N f		
	R432534000	2 - 4	20 ± 0.3	0.4	20	1.15 / 1.15	80	SMA f / SMA f		
	R432574000	2 - 4	20 ± 0.3	0.4	20	1.15 / 1.15	100	N f / N f		
	R432535000	2 - 4	30 ± 1.1	0.4	20	1.15 / 1.15	80	SMA f / SMA f		
	R432633000	4 - 8	10 ± 0.3	1	17	1.20 / 1.20	50	SMA f / SMA f		
	R432634000	4 - 8	20 ± 0.3	0.4	17	1.20 / 1.20	50	SMA f / SMA f		
	R432635000	4 - 8	30 ± 0.3	0.4	17	1.20 / 1.20	50	SMA f / SMA f		
	R433423000	0.9 - 2.1	10 ± 0.8	1	22	1.15 / 1.15	50	SMA f / SMA f		
	R433463000	0.9 - 2.1	10 ± 0.5	1	22	1.20 / 1.20	50	N f / N f		
	R433424000	0.9 - 2.1	20 ± 0.8	0.4	22	1.15 / 1.15	50	SMA f / SMA f		
	R433464000	0.9 - 2.1	20 ± 0.5	0.4	22	1.20 / 1.20	50	N f / N f		
	R433523000	1.7 - 4.2	10 ± 0.8	1	20	1.20 / 1.20	50	SMA f / SMA f		
	R433563000	1.7 - 4.2	10 ± 0.5	1	20	1.25 / 1.25	50	N f / N f		
	R433524000	1.7 - 4.2	20 ± 0.8	0.4	20	1.20 / 1.20	50	SMA f / SMA f		
R433564000	1.7 - 4.2	20 ± 0.8	0.4	20	1.25 / 1.25	50	N f / N f			
R433623000	3.7 - 8.3	10 ± 0.5	1	18	1.25 / 1.25	50	SMA f / SMA f			
R433663000	3.7 - 8.3	10 ± 0.5	1	18	1.30 / 1.30	50	N f / N f			
R433624000	3.7 - 8.3	20 ± 0.5	0.4	18	1.25 / 1.25	50	SMA f / SMA f			
R433664000	3.7 - 8.3	20 ± 0.5	0.4	18	1.30 / 1.30	50	N f / N f			
R433513700	2 - 8	10 ± 1	1	20	1.25 / 1.25	50	SMA f / SMA f			
R433514700	2 - 8	20 ± 1	0.4	20	1.25 / 1.25	50	SMA f / SMA f			
R433723700	7 - 12.4	10 ± 1	1	16	1.30 / 1.30	50	SMA f / SMA f			
R433724700	7 - 12.4	20 ± 1	0.4	16	1.30 / 1.30	50	SMA f / SMA f			
R433502000	2 - 18	6 ± 0.5	0.7	12	1.40 / 1.40	30	SMA f / SMA f			
R433503000	2 - 18	10 ± 1	1.4	12	1.35 / 1.50	20	SMA f / SMA f			
R433504000	2 - 18	20 ± 0.5	0.7	12	1.40 / 1.40	30	SMA f / SMA f			
R433612700	6 - 18	6 ± 1	2.2	15	1.40 / 1.40	50	SMA f / SMA f			
R433613700	6 - 18	10 ± 1	1.1	16	1.40 / 1.40	50	SMA f / SMA f			
R433614700	6 - 18	20 ± 1	0.6	15	1.40 / 1.40	50	SMA f / SMA f			
R433832700	12.4 - 18	6 ± 1	2.2	15	1.40 / 1.40	50	SMA f / SMA f			
R433833700	12.4 - 18	10 ± 1	1.1	15	1.35 / 1.35	50	SMA f / SMA f			
R433834700	12.4 - 18	20 ± 1	0.55	15	1.35 / 1.35	50	SMA f / SMA f			

Notes

1. All directional couplers are loaded with SMA 50 Ohms termination, VSWR max is main line / coupled line, max insertion loss includes coupling loss

An aerial night view of a city, likely Tokyo, with a network of white location pins connected by thin white lines. The city lights are visible in the background, and the sky is a deep blue. The pins are placed at various points across the city, with some larger pins in the foreground. The overall theme is navigation and connectivity.

Radiall Navigator™ is a tool designed to assist our partners and customers. Its consolidated format makes sharing information about Radiall products as easy as possible.

This Navigator serves as a supplemental guide to information available in our catalogs and on our website (www.radiall.com). We recognize that time is a very limited and valuable asset. We are confident that Radiall Navigator will help users understand our products, terminologies and references better.

SIMPLIFICATION is our INNOVATION

We advance the design and engineering process for innovators, ground-breakers and pioneers of technology. We reduce weight, improve durability and streamline installation to provide leading-edge connectors that drive product performance.

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GLOBAL PRESENCE

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