

RF DIRECTIONAL COUPLERS

380 - 2700 MHz

RSA Series

Product Features

Fiplex RSA Series of RF Directional Couplers are passive devices designed to provide unequal power distribution to the output ports.

Due to the internal configuration, these devices have a low VSWR value in all ports (less than 1.3:1, based on 50 ohms characteristic impedance) and low incidental insertion loss.

Standard coupling values are 6dB, 10dB, 15dB, 20dB and 30dB, other power ratios available upon request.



RF Coupler



Specification	RSA2-B2x	RSA2-BW2x	RSA2-W2x
Frequency range	380-520 MHz	380-2700 MHz	698-2690 MHz
Number of coupled ports	1	1	1
Input power	200 W	200 W	200 W
Insertion loss, max ("x")			
"K"	1.6 dB	1.8 dB	1.7 dB
"J"	0.8 dB	0.7 dB	0.7 dB
"I"		0.6 dB	0.4 dB
"H"		0.4 dB	0.3 dB
"G"	0.8 dB	0.3 dB	0.2 dB
"C"		TBD	TBD
Coupling values ("x")			
"K"	6 dB	6 dB	6 dB
"J"	10 dB	10 dB	10 dB
"I"		15 dB	15 dB
"H"		20 dB	20 dB
"G"	30 dB	30 dB	30 dB
"C"		Customized	
Coupling flatness	+/-1.0 dB	+/-1.0 dB (for 6dB coupl) +/- 1.2 dB (for 10dB coupl) +/- 1.5 dB (for 15 and 20dB coupl) +/- 2.0 dB (for 30dB coupl)	+/-1.0 dB
VSWR	Better than 1.30:1	Better than 1.30:1	Better than 1.25:1
Directivity	Better than 20dB	Better than 20dB	Better than 20dB
PIM	150dBc min (2x 20W)	150dBc min (2x 20W)	150dBc min (2x 20W)
Connectors	N(f)	N(f)	N(f)
Environmental	IP65	IP54	IP65
Temp. Range, storage		-40° to 185° F • -40° to +85° C	
Temp. Range, operation		-40° to 185° F • -40° to +85° C	

Specification	RSA2-B2x	RSA2-BW2x	RSA2-W2x
Dimension (excluding connectors)	0.8x1.5x5.6 in	8.8x1.5x0.6 in	6.1x1.8x0.8 in
	19.6 x 37.5 x 143.5mm	224 x 40 x 16 mm	155 x 47 x 22 mm
MTBF	>1,000,000 hours	>1,000,000 hours	>1,000,000 hours

DOC 5C045.12 -26062017
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