



9 Waveguide Rotary Joint

9.1 Waveguide Single Channel Rotary Joint

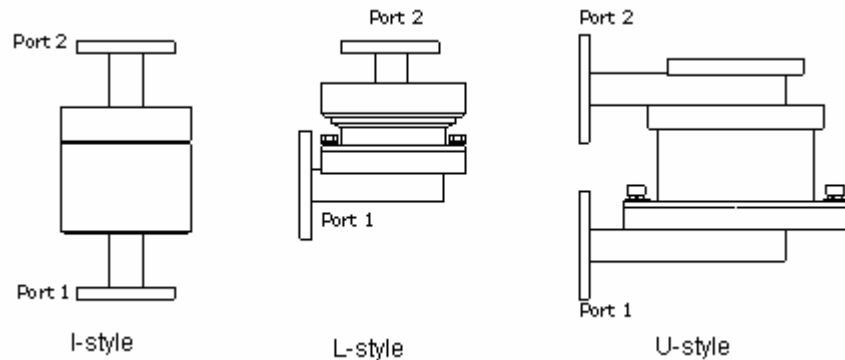


Rotary Joints (rotary couplers) are used to transmit microwave energy from stationary lines to rotating lines. The rotary joint is an electro-mechanical device with RF performance dependent upon rigorous electrical and mechanical design. Available styles are defined by physical geometry as follows:

I-style - Two in-line arms both collinear with the axis of rotation.

L-style - One arm is perpendicular to the axis of rotation.

U-style - Both arms are perpendicular to the axis of rotation.



【Specifications】

Model No	Freq Range (GHz)	Operating Bandwidth (MHz)	VSWR (Max)	VSWR WOW	IL(dB) (Max)	IL WOW (dB)	WG Type		Material
							IEC	EIA	
HD-32WRJI	2.60-3.95	200	1.20	0.05	0.3	0.1	R32	WR284	Al/Cu
HD-32WRJL	2.60-3.95	200	1.20	0.05	0.3	0.1	R32	WR284	Al/Cu
HD-32WRJU	2.60-3.95	200	1.20	0.05	0.3	0.1	R32	WR284	Al/Cu
HD-40WRJI	3.22-4.90	200	1.20	0.05	0.3	0.1	R40	WR229	Al/Cu
HD-40WRJL	3.22-4.90	200	1.20	0.05	0.3	0.1	R40	WR229	Al/Cu
HD-40WRJU	3.22-4.90	200	1.20	0.05	0.3	0.1	R40	WR229	Al/Cu
HD-48WRJI	3.94-5.99	200	1.20	0.05	0.3	0.1	R48	WR187	Al/Cu



HD-48WRJL	3.94-5.99	200	1.20	0.05	0.3	0.1	R48	WR187	Al/Cu
HD-48WRJU	3.94-5.99	200	1.20	0.05	0.3	0.1	R48	WR187	Al/Cu
HD-58WRJI	4.64-7.05	300	1.25	0.05	0.25	0.1	R58	WR159	Al/Cu
HD-58WRJL	4.64-7.05	300	1.25	0.05	0.25	0.1	R58	WR159	Al/Cu
HD-58WRJU	4.64-7.05	300	1.25	0.05	0.25	0.1	R58	WR159	Al/Cu
HD-70WRJI	5.38-8.17	700	1.25	0.05	0.25	0.1	R70	WR137	Al/Cu
HD-70WRJL	5.38-8.17	700	1.25	0.05	0.25	0.1	R70	WR137	Al/Cu
HD-70WRJU	5.38-8.17	700	1.25	0.05	0.25	0.1	R70	WR137	Al/Cu
HD-84WRJI	6.57-9.99	300	1.20	0.05	0.3	0.1	R84	WR112	Al/Cu
HD-84WRJL	6.57-9.99	300	1.20	0.05	0.3	0.1	R84	WR112	Al/Cu
HD-84WRJU	6.57-9.99	300	1.20	0.05	0.3	0.1	R84	WR112	Al/Cu
HD-100WRJI	8.20-12.4	300	1.20	0.05	0.3	0.1	R100	WR90	Al/Cu
HD-100WRJL	8.20-12.4	300	1.20	0.05	0.3	0.1	R100	WR90	Al/Cu
HD-100WRJU	8.20-12.4	300	1.20	0.05	0.3	0.1	R100	WR90	Al/Cu
HD-120WRJI	9.84-15.0	500	1.25	0.05	0.3	0.1	R120	WR75	Al/Cu
HD-120WRJL	9.84-15.0	500	1.25	0.05	0.3	0.1	R120	WR75	Al/Cu
HD-120WRJU	9.84-15.0	500	1.25	0.05	0.3	0.1	R120	WR75	Al/Cu
HD-140WRJI	11.9-18.0	1000	1.3	0.05	0.4	0.1	R140	WR62	Al/Cu
HD-140WRJL	11.9-18.0	1000	1.3	0.05	0.4	0.1	R140	WR62	Al/Cu
HD-140WRJU	11.9-18.0	1000	1.3	0.05	0.4	0.1	R140	WR62	Al/Cu
HD-180WRJI	14.5-22.0	1000	1.3	0.05	0.4	0.1	R180	WR51	Al/Cu
HD-180WRJL	14.5-22.0	1000	1.3	0.05	0.4	0.1	R180	WR51	Al/Cu
HD-180WRJU	14.5-22.0	1000	1.3	0.05	0.4	0.1	R180	WR51	Al/Cu
HD-220WRJI	17.6-26.7	2000	1.4	0.05	1.0	0.1	R220	WR42	Al/Cu
HD-220WRJL	17.6-26.7	2000	1.4	0.05	1.0	0.1	R220	WR42	Al/Cu
HD-220WRJU	17.6-26.7	2000	1.4	0.05	1.0	0.1	R220	WR42	Al/Cu
HD-260WRJI	21.7-33.0	2000	1.4	0.05	1.0	0.1	R260	WR34	Al/Cu
HD-260WRJL	21.7-33.0	2000	1.4	0.05	1.0	0.1	R260	WR34	Al/Cu
HD-260WRJU	21.7-33.0	2000	1.4	0.05	1.0	0.1	R260	WR28	Al/Cu
HD-320WRJI	26.3-40.0	2000	1.4	0.05	1.0	0.1	R320	WR28	Al/Cu
HD-320WRJL	26.3-40.0	2000	1.4	0.05	1.0	0.1	R320	WR28	Al/Cu
HD-320WRJU	26.3-40.0	2000	1.4	0.05	1.0	0.1	R320	WR28	Al/Cu

【Ordering Information】

Example Part No: HD-100 WRJL P M A

HengDa Microwave ——— |
 WG Type : R100 ——— |
 Product Type : Rotary Joint ——— |
 WRJI (I-style),
 WRJL (L-style),
 WRJU (U-style)

Material : A=Aluminum C=Copper
 Port 2 Flange Type : FBM
 Port 1 Flange Type : FBP

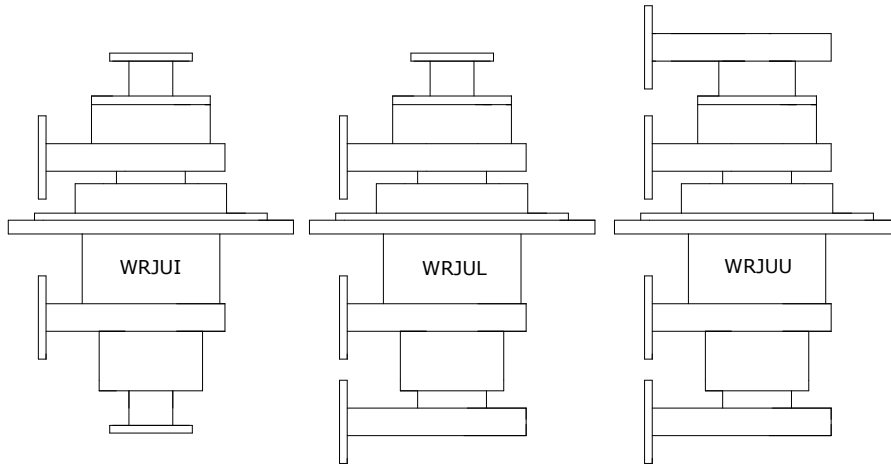


- Flange type: Multiple types available - see HengDa Microwave Flanges page
- Finish: Corrosion protection plus black top coat

9.2 Waveguide Double Channel Rotary Joint



HengDa Microwave offers a standard product line of Rotary Joints covering waveguide sizes WR28 thru WR284. Rotary Joints (rotary couplers) are used to transmit microwave energy from stationary lines to rotating lines. The rotary joint is an electro-mechanical device with RF performance dependent upon rigorous electrical and mechanical design. Available styles are defined by physical geometry as follows:



【Specifications】

Model No	Freq Range (GHz)	Operating Bandwidth (MHz)	VSWR (Max)	VSWR WOW	IL(dB) (Max)	IL WOW (dB)	Max. ISO (dB) in two channels	WG Type		Material
								IEC	EIA	
HD-32WRJUI	2.60-3.95	60	1.30	0.10	0.6	0.10	50	R32	WR284	Al/Cu
HD-32WRJUL	2.60-3.95	100	1.30	0.10	0.3	0.10	50	R32	WR284	Al/Cu
HD-32WRJUU	2.60-3.95	100	1.30	0.10	0.3	0.10	50	R32	WR284	Al/Cu
HD-40WRJUI	3.22-4.90	100	1.30	0.10	0.3	0.10	50	R40	WR229	Al/Cu
HD-40WRJUL	3.22-4.90	100	1.30	0.10	0.3	0.10	50	R40	WR229	Al/Cu



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HD-40WRJUU	3.22-4.90	100	1.30	0.10	0.3	0.10	50	R40	WR229	Al/Cu
HD-48WRJUI	3.94-5.99	100	1.30	0.10	0.3	0.10	50	R48	WR187	Al/Cu
HD-48WRJUL	3.94-5.99	100	1.30	0.10	0.3	0.10	50	R48	WR187	Al/Cu
HD-48WRJUU	3.94-5.99	100	1.30	0.10	0.3	0.10	50	R48	WR187	Al/Cu
HD-58WRJUI	4.64-7.05	100	1.30	0.10	0.25	0.10	50	R58	WR159	Al/Cu
HD-58WRJUL	4.64-7.05	100	1.30	0.10	0.25	0.10	50	R58	WR159	Al/Cu
HD-58WRJUU	4.64-7.05	100	1.30	0.10	0.25	0.10	50	R58	WR159	Al/Cu
HD-70WRJUI	5.38-8.17	100	1.30	0.10	0.25	0.10	50	R70	WR137	Al/Cu
HD-70WRJUL	5.38-8.17	100	1.30	0.10	0.25	0.10	50	R70	WR137	Al/Cu
HD-70WRJUU	5.38-8.17	100	1.30	0.10	0.25	0.10	50	R70	WR137	Al/Cu
HD-84WRJUI	6.57-9.99	100	1.30	0.10	0.3	0.10	50	R84	WR112	Al/Cu
HD-84WRJUL	6.57-9.99	100	1.30	0.10	0.3	0.10	50	R84	WR112	Al/Cu
HD-84WRJUU	6.57-9.99	100	1.30	0.10	0.3	0.10	50	R84	WR112	Al/Cu
HD-100WRJUI	8.20-12.4	100	1.30	0.10	0.3	0.10	50	R100	WR90	Al/Cu
HD-100WRJUL	8.20-12.4	100	1.30	0.10	0.3	0.10	50	R100	WR90	Al/Cu
HD-100WRJUU	8.20-12.4	100	1.30	0.10	0.3	0.10	50	R100	WR90	Al/Cu
HD-120WRJUI	9.84-15.0	200	1.30	0.10	0.3	0.10	50	R120	WR75	Al/Cu
HD-120WRJUL	9.84-15.0	200	1.30	0.10	0.3	0.10	50	R120	WR75	Al/Cu
HD-120WRJUU	9.84-15.0	200	1.30	0.10	0.3	0.10	50	R120	WR75	Al/Cu
HD-140WRJUI	11.9-18.0	200	1.40	0.10	0.4	0.10	50	R140	WR62	Al/Cu
HD-140WRJUL	11.9-18.0	200	1.40	0.10	0.4	0.10	50	R140	WR62	Al/Cu
HD-140WRJUU	11.9-18.0	200	1.40	0.10	0.4	0.10	50	R140	WR62	Al/Cu
HD-180WRJUI	14.5-22.0	200	1.40	0.10	0.4	0.10	50	R180	WR51	Al/Cu
HD-180WRJUL	14.5-22.0	200	1.40	0.10	0.4	0.10	50	R180	WR51	Al/Cu
HD-180WRJUU	14.5-22.0	200	1.40	0.10	0.4	0.10	50	R180	WR51	Al/Cu
HD-220WRJUI	17.6-26.7	200	1.50	0.10	1.0	0.10	50	R220	WR42	Al/Cu
HD-220WRJUL	17.6-26.7	200	1.50	0.10	1.0	0.10	50	R220	WR42	Al/Cu
HD-220WRJUU	17.6-26.7	200	1.50	0.10	1.0	0.10	50	R220	WR42	Al/Cu
HD-260WRJUI	21.7-33.0	200	1.50	0.10	1.0	0.10	50	R260	WR34	Al/Cu
HD-260WRJUL	21.7-33.0	200	1.50	0.10	1.0	0.10	50	R260	WR34	Al/Cu
HD-260WRJUU	21.7-33.0	200	1.50	0.10	1.0	0.10	50	R260	WR28	Al/Cu
HD-320WRJUI	26.3-40.0	200	1.50	0.10	1.0	0.10	50	R320	WR28	Al/Cu
HD-320WRJUL	26.3-40.0	200	1.50	0.10	1.0	0.10	50	R320	WR28	Al/Cu
HD-320WRJUU	26.3-40.0	200	1.50	0.10	1.0	0.10	50	R320	WR28	Al/Cu

【Ordering Information】

Example Part No: HD- 100 WRJUL A

HengDa Microwave

Material: A=Aluminum C=Copper

WG Type: R100

Product Type: Rotary Joint



- Flange type: Multiple types available - see HD Flanges page
- Finish: Corrosion protection plus black top coat