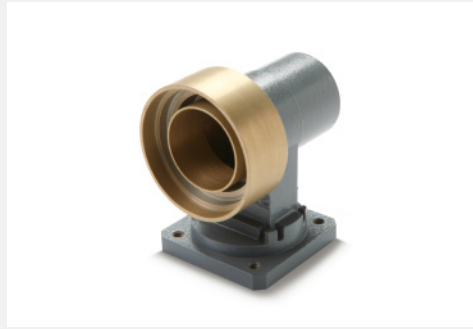


## Waveguide Rotary Joints

Aerospace | Defence | Space



Our custom designed waveguide rotary joints can be offered as pressurised and non-pressurised, single, or multi-channel, with a selection of waveguide or coaxial connections and I-type, L-type, or U-type geometrical layout. Sizes are offered from WR137 to WR28 with any combination of interfaces required by the customer.

We have designed rotating joints for long-life use, with dust seals and internal pressure seals. Our designs can operate over a wide temperature range, and provide high rotational stability. Our design team can also fulfill any custom design requirements to suit your system needs.

Many of our rotary joints can be found integrated within the weather radar systems of commercial airliners. To discuss how Sylatech's waveguide design, engineering, and manufacturing capability can assist your project, contact us today.

### Sylatech's waveguide rotary joint offering:

- Available as pressurised or non-pressurised
- Single or multi-channel
- I-type, L-type, or U-type geometrical layout
- WR137 to WR28 with any combination of features.

### Slotted Waveguide Antenna Arrays

Sylatech's slotted waveguide antenna arrays come with monopulse, dual-polarised, and linear feeds. Feeds are typically low mass and low profile. Large format antennas to 1200mm x 900mm are achievable. All manufacturing is undertaken in-house.

### Power Dividers & Combiners

Sylatech's custom design waveguide power combiners are ideal for TWT replacement applications available in configurations 1:2 to 1:128. Designed to suit end-fed slotted waveguide antenna arrays. Sylatech's tee designs are optimised to eliminate the need for fitment of extra irises or complicated shortcuts.

# Waveguide Rotary Joints Specifications

Part #	Frequency	Waveguide Size	Description	Return Loss	Ave Power
RJS14001	5.85 - 6.725 GHz	WR137	I-style single channel waveguide rotary joint	17.70 dB min	6.6 kW
RJS15003	9.90 - 10.50 GHz	WR112	I-style single channel waveguide rotary joint	20.83 dB min	3 kW
RJS15004	9.90 - 10.50 GHz	WR112	U-style single channel waveguide rotary joint	20.83 dB min	3 kW
RJS16001	8.50 - 9.60 GHz	WR90	U-style single channel waveguide rotary joint	23.13 dB min	200 W
RJS16002	9.30 - 9.45 GHz	WR90	L-style single channel waveguide rotary joint	32.25 dB min	-
RJS17002	13.75 - 14.50 GHz	WR75	I-style single channel waveguide rotary joint	20.83 dB min	750 W
RJS17003	10.70 - 14.50 GHz	WR75	I-style single channel waveguide rotary joint	20.83 dB min	750 W
RJS17004	12.75 - 14.50 GHz	WR75	L-style single channel waveguide rotary joint	20.83 dB min	700 W
RJS22002	34.50 - 35.50 GHz	WR28	U-style single channel waveguide rotary joint	23.13 dB min	240 W