SAN-12I12I-S1

WR-12 Inline Rotary Joint, 60 to 90 GHz, Rectangular Waveguide

SAN-12I12I-S1 is a E-band, Inline rotary joint that covers the frequency range of 60 to 90 GHz. This high-power rotary joint allows for mechanical rotation while providing consistently low insertion loss. The rotary joint incorporates a high precision bearing and propriety mechanical design to ensure smooth mechanical rotation as well as low amplitude and phase variation. Due to the contactless mechanical design, the rotary joint has high power handling capacity. The panel mount design of the joint also allows for easy equipment integration. The rotary joint is equipped with two WR-12 rectangular waveguides with UG-387/U anti-cocking flanges.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	60 GHz		90 GHz
Insertion Loss		1.7 dB	
Insertion Loss Variation Over Rotation		0.2 dB	
Return Loss		20 dB	
Return Loss Variation Over Rotation		2.5 dB	
Phase Variation Over Rotation		3°	
Power Handling		100 W (CW)	250 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Waveguide Size	WR-12 Rectangular Waveguide with UG-387/U Anti-Cocking Flange
Material	Aluminum 6061-T6, Stainless Steel
Finish	Gold Plated
Rotating Speed	60 rpm
Degree of Protection	IP40
Weight	18 oz
Outline	AN-R12I-R12I-A

ECCN

EAR99

FEATURES

- Full Band Operation
- Low Insertion Loss
- High Return Loss
- High Power Handling
- Low Amplitude and Phase Variation During Rotation
- In-line Port Configuration
- No Contact Mechanism

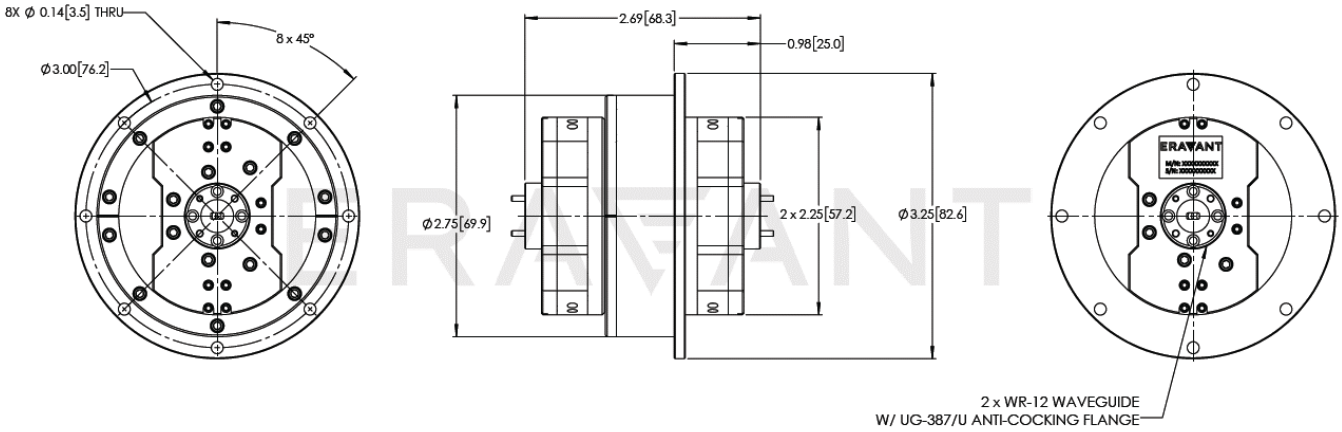
APPLICATIONS

- Radar System
- Test Equipment
- Sub-assemblies
- Antenna Range
- Communication System

SUPPLEMENTAL DETAILS

Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- The product presented in this datasheet is at a preliminary design stage. Final electrical and mechanical specifications may differ than what is presented.
- The datasheet product photo used is not representative of the final product.
- Other mechanical configurations with other frequency bands are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.