

# Rotary Joints

## HRM-RPA Series



### Features

#### 1. Long Life

These non-contact rotary joints have a long life of  $10^3$  hours or greater (at 500 r.p.m.).

#### 2. High Performance

High frequency characteristics feature extremely low loss and a high degree of matching. V.S.W.R. 1.25 or less (HRM-RPA-JJ-3 1.5~1.7GHz)

#### 3. Low Torque Rotation

Rotation at low torque permits high speed rotation. Torque of 50 g·cm

### Product Specifications

Ratings	Frequency range (Note) Characteristic impedance Maximum Input Power (Note)	1.5 to 12.4 GHz 50 ohms 1 to 30 W	Operating temperature range Operating relative humidity	-10°C to +65°C 95% Max.
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NOTE: The frequency range and maximum usable power will depend on the model.

Item	Standard	Conditions
1. Insulation resistance	1,000 M ohms min.	100 V DC
2. Contact resistance	5 m ohms max.	Measured / 1 A DC
3. Vibration	No damage, cracks, or parts dislocation	Frequency of 10 to 500 Hz, overall amplitude of 1.5 mm, acceleration of 98 m/s <sup>2</sup> for 4 hours in each of 3 directions
4. Shock		Acceleration of 98 m/s <sup>2</sup> , sine half-wave waveform, 3 cycles in each of the 3 axis

● The test method conforms to MIL-STD-202.

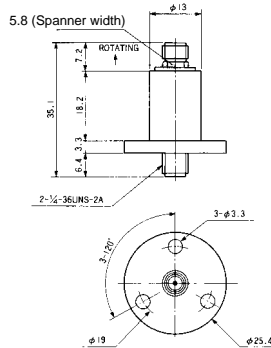
### Materials

Part	Materials	Finish
Body	Brass	Nickel plating
Insulator	PTFE	—
Female contact	Beryllium copper	Gold plating
Ball bearings	—	—

### Specifications

Part Number	HRM-RPA-JJ-3	HRM-RPA-JJ
Frequency Range (GHz)	1.5~1.7	5~12.4
V.S.W.R.(Max)	1.25	1.5
Insertion Loss (dB Max)	0.4	0.4
WOW (dB/360° Max)	0.2	0.1
V.S.W.R. Rotational (360° Max)	0.2	0.1
Rotational Speed (R·P·M)	500	500
Durability(Insertion/withdrawal) (hrs)	1,000 (at 500R·P·M)	1,000 (at 500R·P·M)
Starting Torque (mN·m Max)	510	510
Connectors	HRM-J	HRM-J
Weight (g)	30	30

### External Dimensions



### Typical Data

