

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

Rating	Frequency range (NOTE)	1.5 to 12.4 GHz	Operating temperature range	-10°C to +65°C
	Characteristic impedance	50Ω		
	Maximum usable power (NOTE)	1 to 30 W	Operating relative humidity	95% or less

NOTE: The frequency range and maximum usable power will depend on the model.

Item	Standard	Conditions
1. Insulation resistance	1,000 MΩmin.	Measured at 100 V DC
2. Contact resistance	5 mΩ max.	Measured at 1 A DC
3. Vibration resistance	No damage, cracks, or parts looseness	Frequency of 10 to 500 Hz, overall amplitude of 1.5 mm, 98 m/s ² acceleration, in 3 axial directions, 4 hours each
4. Shock resistance	No damage, cracks, or parts looseness	98 m/s ² acceleration, half sine wave, in 3 axial directions, 3 times each

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

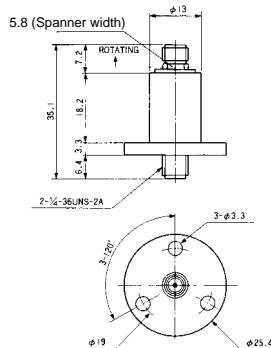
Materials

Part	Materials	Processing
External cladding	Brass	Nickel plating
Insulated seat	Teflon	—
Female contact	Beryllium copper	Gold plating
Ball bearings	—	—

Specifications

Model No.	HRM-RPA-JJ-3	HRM-RPA-JJ
(GHz)	1.5~1.7	5~12.4
Frequency Range	1.5~1.7	5~12.4
V.S.W.R.(Max)	1.25	1.5
(dB Max) insertion Loss	0.4	0.4
(dB/360° Max) WOW	0.2	0.1
(360° Max) V.S.W.R. Rotational	0.2	0.1
(R·P·M) Rotational Speed	500	500
(hrs) Life	1,000 (at 500R·P·M)	1,000 (at 500R·P·M)
(cm-g Max) Starting Torque	50	50
Connectors	HRM-J	HRM-J
(g) Weight	30	30

External Dimensions



Typical Data

