

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 4.9mN·m

■ 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. |
|---------|--|---|--|----------------------------|

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

| Item | Standard | Conditions |
|--------------|---|---|
| 1. Vibration | No damage, cracks, or parts dislocation | Frequency of 10 to 500 Hz, overall amplitude of 1.5 mm, acceleration of 98 m/s ² for 4 hours in each of 3 directions |
| 2. Shock | | |

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

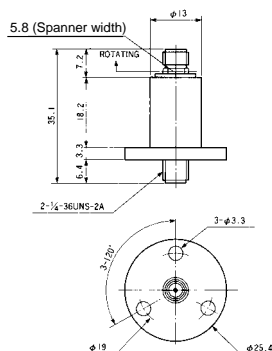
■ Materials

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

■ Specifications

| Part Number | HRM-RPA-JJ-3(40) | HRM-RPA-JJ(40) |
|--|---------------------|---------------------|
| 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) | 4.9 | 4.9 |
| Connectors | HRM-J | HRM-J |
| Weight (g) | 30 | 30 |
| RoHS | YES | |

■ External Dimensions



■ Typical Data

