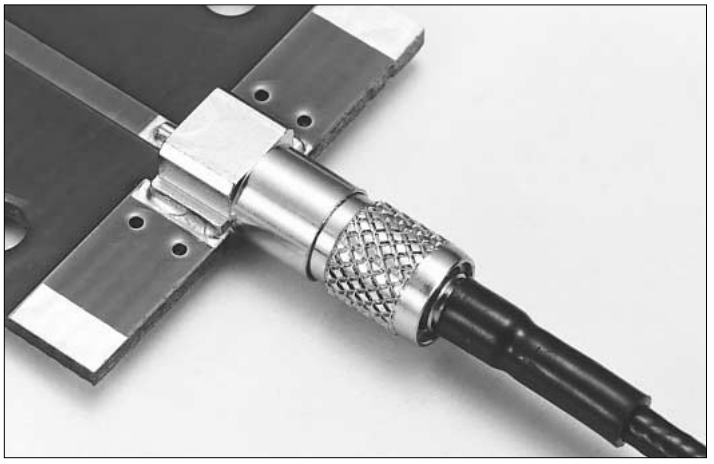
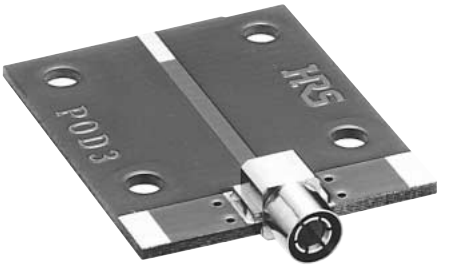
Push-Pull Complete Locking Coaxial Connectors (PC Card Type Ⅱ Mountable)

POD3 Series





Board Mounting Example

■Features

1. Excellent push-pull complete locking method for ease of operation

The connector coupling portion uses a Hirose Electric original push-pull complete locking system.

1) A sure lock is obtained by holding the connector outside tube portion and just giving it a light push.
2) Positive lock prevents easy disconnection.

To remove the connector, just hold the connector outside tube portion and pull for a simple release of the lock

2. Type Ⅱ PC Card Mountable

The receptacle thickness is 3.9 mm which permits mounting to the back side of a type II card.

(Note) that at the time of card mounting, use of 0.3mm offset of the board mounting surface from the card center line will result in the same card center axis and connector center axis.

3. High Degree of Matching

The top-touch system used for the coupling method achieves high frequency performance from 0 to 3 GHz with a V.S.W.R. of 1.3 or less.

4. Ultra-Miniature

As a complete locking type, this series achieves a size reduction of approximately 50% in the direction of the diameter as compared to our original POD1 Series.

5. Accommodates Ultra-Fine Cable

These connectors accommodate the use of ultra-fine coaxial Teflon cable which permits high-density wiring inside equipment.

ϕ1.48 (single-layer shielded cable)
····CO-6F FH-SB manufactured by Hitachi Cable, Ltd.
····DFS111-UL1979 manufactured by Junkosha Co., Ltd.

■Applications

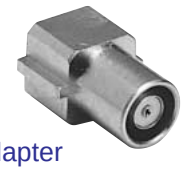
Wireless LAN cards, GPS cards, and miniature wireless communications devices.

■Function Diagrams

Jack Side

■Jack
POD3-J-DFS111

■Receptacle
POD3-R-1



■Conversion Adapter
(Coupling portion: SMA side jack - POD3 side jack)
HRMJ-POD3J

Plug Side

■Plug Receptacle
POD3-PR-1

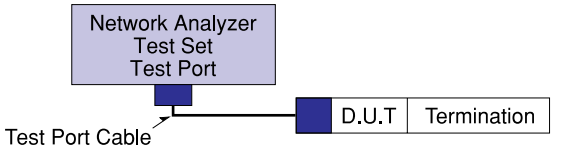
■Conversion Adapter
(Coupling portion: SMA side jack - POD3 side plug)
HRMJ-POD3P

■ Product Specifications

Ratings	Nominal characteristic impedance	50 ohms	Operating temperature Operating humidity	-30C° to +85C° 95% max.
	Voltage	100 V AC		
	Frequency	DC to 3 GHz		

Item	Specification	Condition
1. Contact resistance	Inner : 10 mΩ max. Outside: 5 mΩ max.	100 mA max.
2. Insulation resistance	500 MΩ min.	250 V DC
3. Withstanding voltage	No flashover or insulation breakdown.	300 V AC / 1 minute
4. V.S.W.R.(*)	1.3 max.	DC to 3 GHz
5. Female contact retention	0.2 N min.	Measured with a ϕ0.3 pin gauge
6. Insertion and withdrawal force (plug)	1.96 N min.	With corresponding connector
7. Durability (Insertion/withdrawal)	Contact resistance: Amount of change 10 mΩ max.	250 cycles
8. Vibration	No electrical discontinuity of 1μs or more No damage, cracks, or parts looseness.	Frequency: 10 to 500 Hz, single amplitude of 0.75 mm or acceleration of 98 m/s²(peak), 2 hours in each of the 3 directions.
9. Shock	No electrical discontinuity of 1μs or more No damage, cracks, or parts looseness.	Acceleration of 490 m/s², 11 ms duration, sine half-wave waveform, 10 cycles in each of the 3 axis
10. Humidity (Steady state)	Insulation resistance 100 MΩ min. (at high humidity) 500 MΩ min. (when dry) No damage, cracks, or parts looseness.	240 hours at temperature of 25℃ to 65℃ and humidity of 90% to 96%
11. Temperature cycle	No damage, cracks, or parts looseness.	Temperature: -55°C → 5 to 35°C → 85°C → 5 to 35°C Time: 30 min → Within 5 min → 30 min. → Within 5 min Cycles: 5
12. Salt spray	No marked corrosion	Exposed to density 5% salt water for 48 hours

*Voltage standing wave ratio (V.S.W.R.) measuring system.
The above voltage standing wave ratio (V.S.W.R.) standard value is measured in the measuring system as shown below.



Note1: The cable connector is measured with double ended 10cm cable assembly.
Note2: The printed circuit board connector is mounted on the 50 ohms PCB, to which Hirose's adaptor is connected.

■Materials

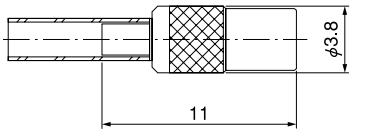
part	Material	Finish
Body	Brass/Phosphor bronze	Gold and nickel plating/Gold plating
Insulator	PTFE	————
Female inner contact	Beryllium copper	Gold plating
Male vinnerr contact	Phosphor bronze	Gold plating
Spring coil	Piano wire	Nickel plating
Heat-shrink tubing	Polyolefin	————

■ Ordering Information

POD3 – [ ] – [ ]
❶ ❷ ❸

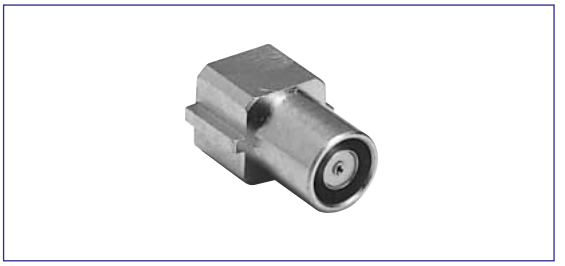
❶ Series name: POD3	❸ Applicable cable or suffix DFS111: CO-6F FH-SB manufactured by Hitachi Cable, Ltd. DFS111-UL1979 manufactured by Junkosha Co., Ltd.
❷ Connector types J : Jack R : Receptacle PR : Plug receptacle	

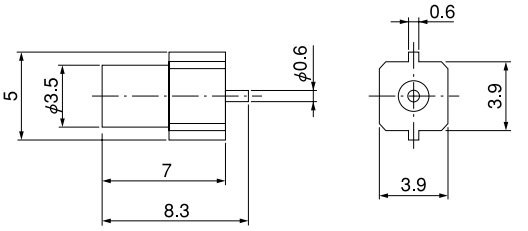
■Jack



CL No.	Part Number
327-0152-2	POD3-J-DFS111

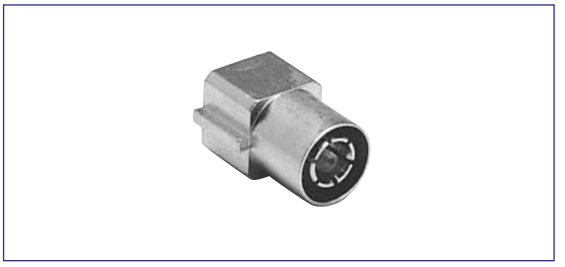
■Receptacle

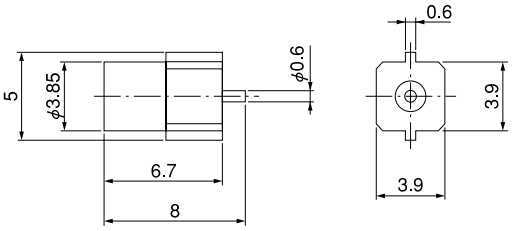




CL No.	Part Number
327-0154-8	POD3-R-1

■Plug Receptacle

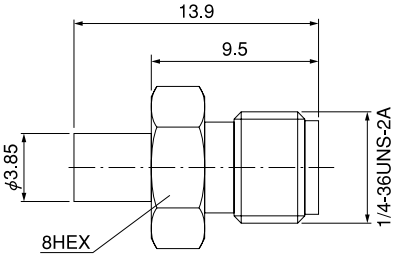




CL No.	Part Number
327-0153-5	POD3-PR-1

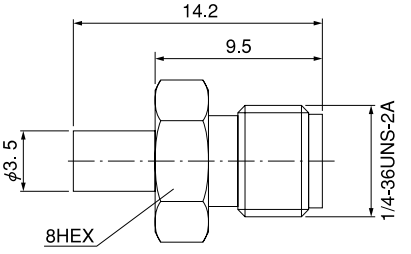
■Conversion Adapter

●SMA conversion adapter
(Coupling portion: SMA side jack - POD3 side plug)



CL No.	Part Number
311-0285-0	HRMJ-POD3P

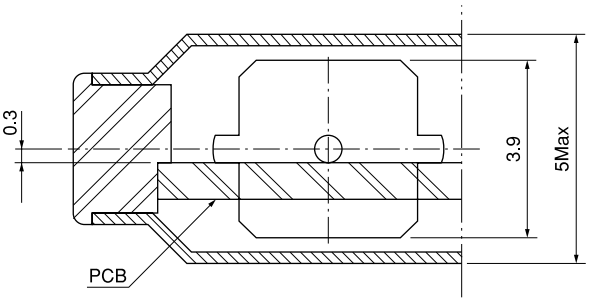
●SMA conversion adapter
(Coupling portion: SMA side jack - POD3 side jack)



CL No.	Part Number
311-0286-3	HRMJ-POD3J

■Connector Mounting Condition

The mounting reference diagram is an anticipated diagram of the condition of mounting to a frame offset 0.3 mm from the card center line.



■PCB mounting pattern