

POB Series

High Performance Miniature Push-on Coaxial Connectors



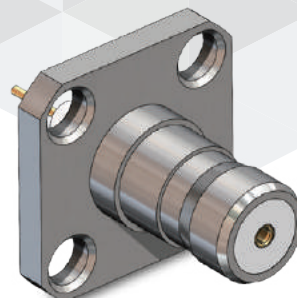
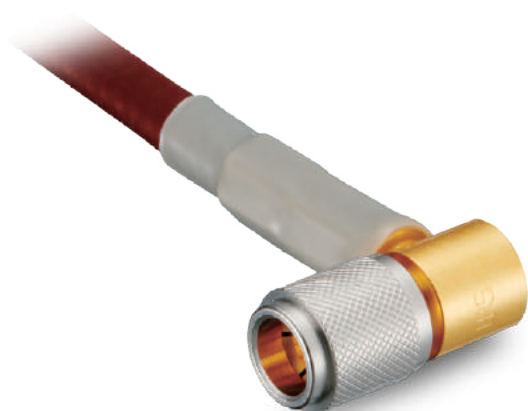
RF



SMA



Push On



Features

1. Matching the Performance of HRM Series (SMA Connector)

This POB Series is engineered for high-frequency and mechanical performance, featuring a unified transmission line structure and a stationary structure that aligns with our HRM Series (SMA connector).

Spring structure in mated portion specifically designed to ensure the electrical reference surface remains in constant contact.

Robust design of outer terminal guarantees high stability and reliability.

Spring structure designed to protect the contact section, preventing loading even if the contact part is rubbed in a partially mated state.

2. Push-On Lock Type

While the HRM Series (SMA connector) utilizes a screw lock mechanism, the POB Series features a push-on lock. The benefits of this push-on lock type include :

- Enhanced workability through reduced detachment time.
- Can be used without tool (hand-operated), allowing for closer component mounting.

These features enable more flexible PCB layout designs.

3. Unification with HRM Series

The POB Series closely aligns with our HRM Series (SMA connector) to ease the transition and combined use for customers.

Features unified with the HRM Series include :

- Mounting methods and dimensions
- Weight, size, and electrical length
- Types of cables applicable
- Connection methods and termination tools

4. RoHS2 Compliant

Applications

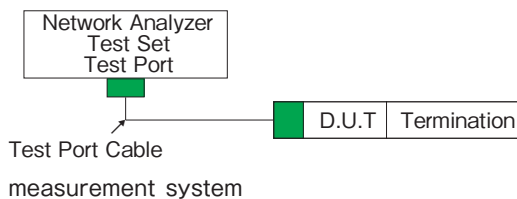
Cable or Radio Communication Equipment, Broadcasting Equipment, Radar Systems, and Electronic Measuring Devices

Product Specifications

Nominal Characteristic Impedance	50 Ω	Operating Temperature	-55 to +85°C
Rated Voltage	330V AC	Operating Relative Humidity	85% Max.
Rated Frequency	0 to 12.4GHz		

Items	Specifications	Conditions
Contact Resistance	4m Ω Max.	Measured at 100mA Max.
Insulation Resistance	5000M Ω Min.	Measured at DC 500V
Withstanding Voltage	No insulation breakdown	AC 1000V for 1 min.
V.S.W.R. (Note)	See below	See below
Insertion and withdrawal forces	19.6 to 58.8N	Measured with Applicable Connector
Insertion Torque	14.7mN·m Min.	Measured with Applicable Connector
Mating Durability	Contact Resistance : 6m Ω Max.	500 times
Vibration Resistance	No electrical discontinuity of 1 μ s or more No damage, cracks, or parts dislocation	Frequency : 10 to 500Hz, Half amplitude : 0.75mm, Acceleration : 98m/s ² , 2 hours in each of the 3 axis
Shock Resistance	No electrical discontinuity of 1 μ s or less No damage, cracks, or parts dislocation	Acceleration : 980m/s ² , Duration 11ms, Wave form : Half-sine wave, 3 times in each of the 3 axis
Humidity	Insulation Resistance : 100M Ω Min. (in a high humidity environment) Insulation resistance : 1000M Ω Min. (in a dry environment) No damage, cracks, or parts dislocation	Left for 10 cycles (240 hours) in an environment with the temperature ranging from +25 to +65°C and the humidity ranging from 90 to 96%.
Heat Shock Resistance	No damage, cracks, or parts dislocation	(-65°C : 30 min. → +5 to +35°C : within 5 min. → +125°C : 30 min. → +5 to +35°C : within 5 min.) 5 cycles
Corrosion Resistance	No corrosion that impairs function.	Continuous 48 hour cycle in 5% salt water solution

Note : Some products may have different specifications from those shown above.



Note 1 : The cable connector is measured with the connector attached to the applicable cable.

Note 2 : Board type connector is mounted to a 50 Ω board and measurements is conducted with connector attached.

Note 3 : Receptacle is measured with the measuring adapter installed.

Materials / Finish

Component	Material	Finish
Shell	Brass	Gold Plating
Outer Shell	Brass	Nickel Plating
Male Center Contact	Brass	Gold Plating
Female Center Contact	Beryllium Copper	Gold Plating
Crimp Sleeve	Copper	Nickel Plating
Insulator	PTFE	—
Boot	Heat Shrink Tube	—

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.

POB - **[]** - **[]**

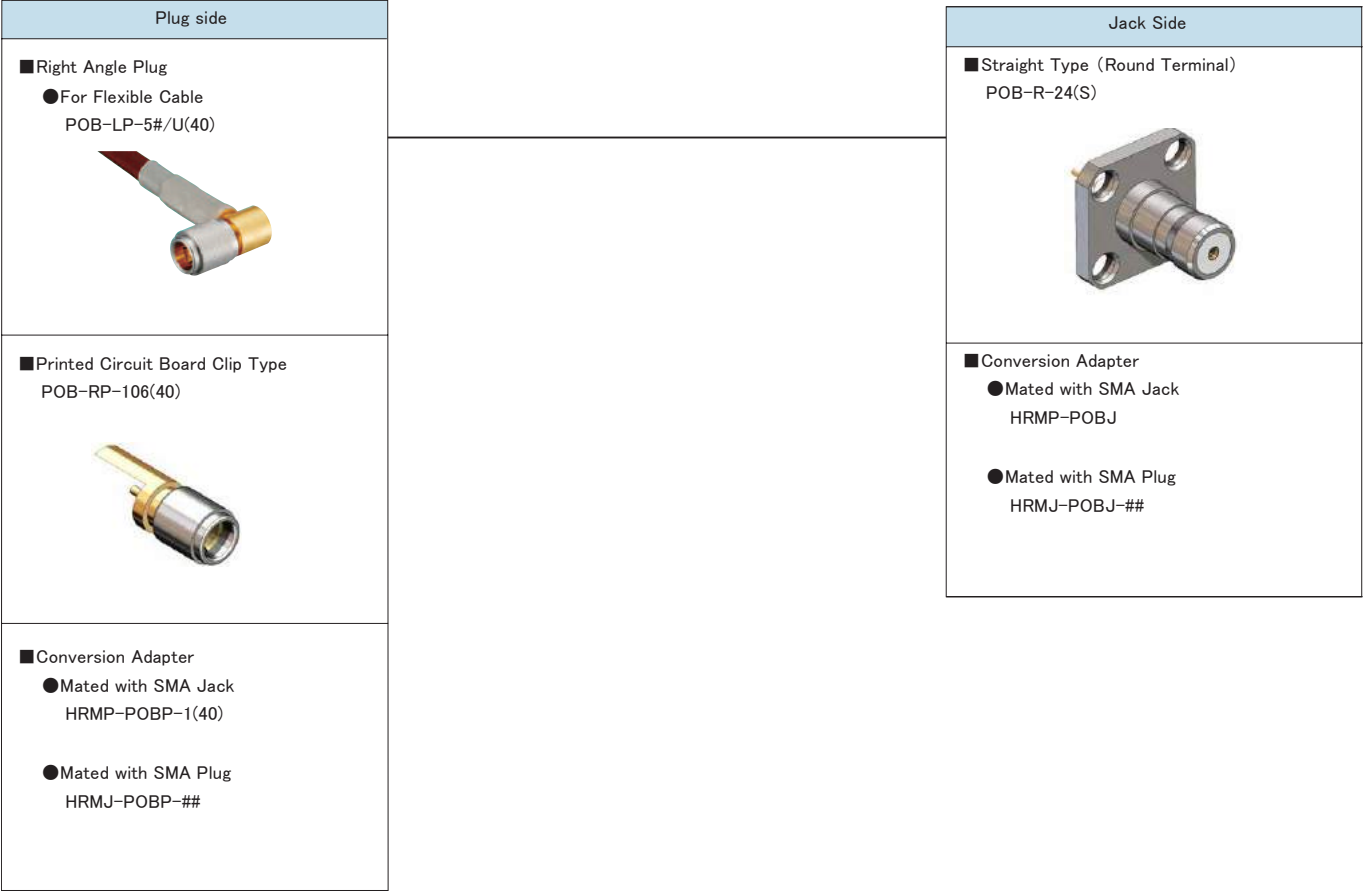
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2

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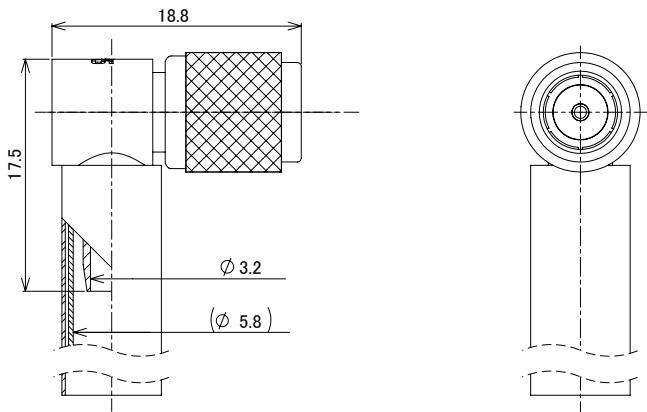
1 Series Name	POB	3 1)For Plug, Jack ·· Applicable Cable 2)For Receptacle, Plug Receptacle	55/U : RG-55/U, RG-142B/U 58/U : RG-58/U 1.5DW : 1.5D-2W Identification No.
2 Connector Type	LP : Right Angle Plug R : Straight Receptacle RP : Plug Receptacle		

Functional Diagram



Plug

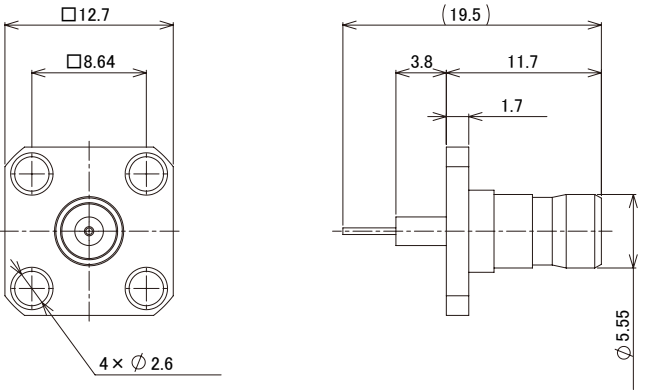
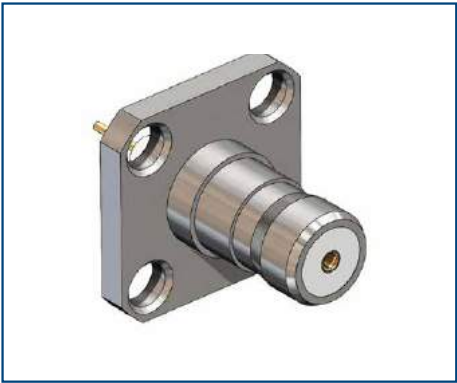
● Right Angle Plug (For Flexible Cable)



Part No.	HRS No.	Applicable Cable	ϕ A	Purchase Unit
POB-LP-55/U(40)	CL0326-0028-7-40	RG-55/U, RG-142B/U	5.80	20pcs per bag
POB-LP-58/U(40)	CL0326-0027-4-40	RG-58/U	5.20	

Receptacle (4 Screw Type)

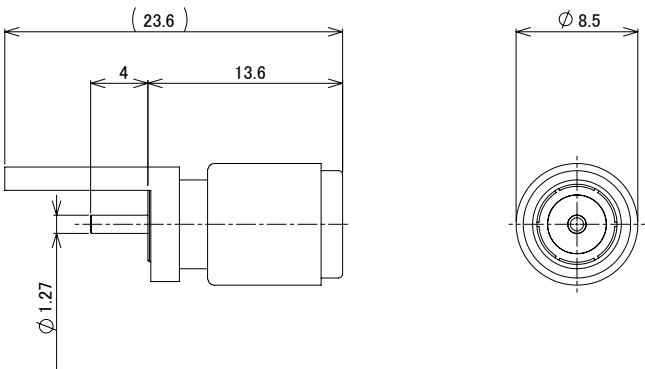
● Straight Type (Round Terminal)



Part No.	HRS No.	Purchase Unit
POB-R-24(S)	CL0326-0105-6-00	20pcs per bag

Plug Receptacle

● Printed Circuit Board Clip Type

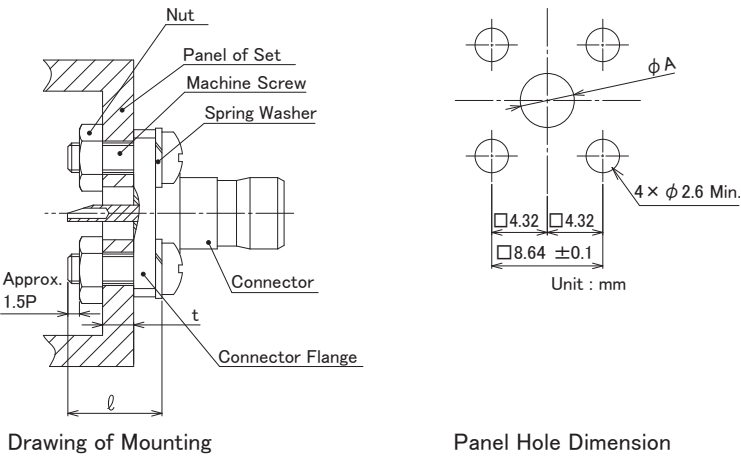


Part No.	HRS No.	Purchase Unit
POB-RP-106(40)	CL0326-0096-7-40	20pcs per bag

Dimensions for Mounting onto the Set

1.When the connector flange is mounted on the outside of the set

1. When mounted with plain hole

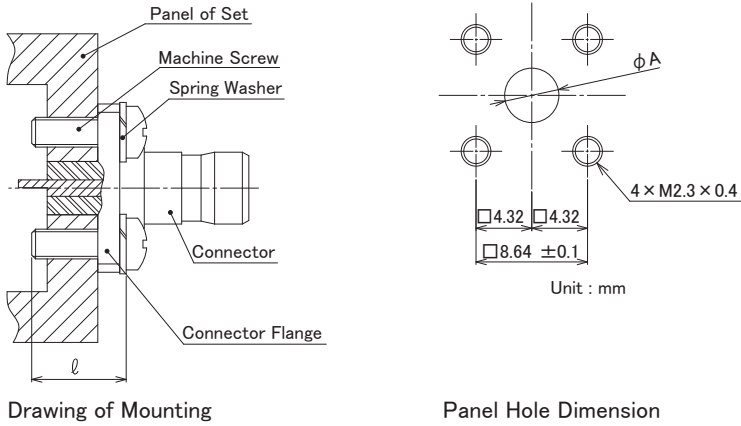


● Parts for Mounting

Part Name	Type	Length (ℓ)
Machine Screw	M2.3 × 0.4 Pan-headed Small Screw or Round Small Screw	t+4.7mm Min. (Note 2)
Nut	For M2.3 × 0.4	—
Spring Washer	For M2.3	—
Flat Washer (Note 1)	For M2.3	—

Note 1 : Mount between nut and panel when it is wished to prevent peeling of the panel coating.
Note 2 : The length will be t+5.2mm or more when a flat washer is used.

2. When mounted with tap hole



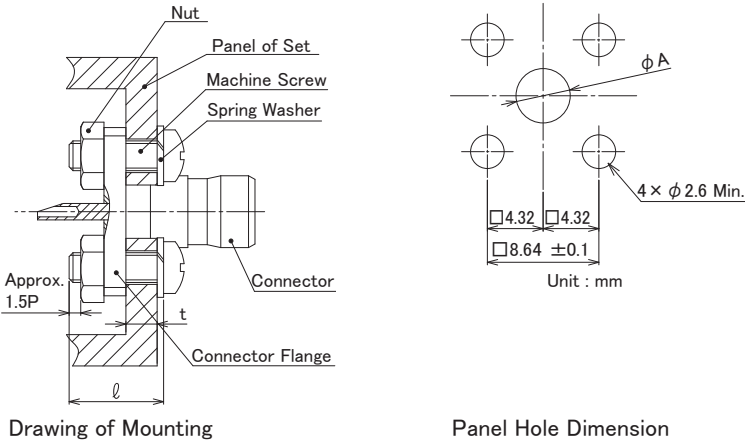
● Parts for Mounting

Parts	Type	Length (ℓ)
Machine Screw	M2.3 × 0.4 Pan-headed Small Screw or Round Small Screw	Depends on Set Design
Spring Washer	For M2.3	—

● List of ϕ A Dimensions (common to both (1) and (2))

ϕ A (mm)	Applicable Products
ϕ 2.21 Min.	POB-R-24(S)
ϕ 5.55 Min.	HRMJ-POBJ-PA(40) (when the HRM side is on the outside)
ϕ 6.35 Min.	HRMJ-POBJ-PA(40) (when the POB side is on the outside)

2.When the connector flange is mounted on the inside of the set



● Parts for Mounting

Part Name	Type	Length (ℓ)
Machine Screw	M2.3 × 0.4 Pan-headed Small Screw or Round Small Screw	t+4.7mm Min. (Note 2)
Nut	For M2.3 × 0.4	—
Spring Washer	For M2.3	—
Flat Washer (Note 1)	For M2.3	—

Note 1 : Mount between flange and panel when it is wished to prevent peeling of the panel coating.
Note 2 : The length will be t+5.2mm or more when a flat washer is used.

● List of ϕ A Dimensions

ϕ A (mm)	Applicable Products
ϕ 5.55 Min.	HRMJ-POBJ-PA(40) , POB-R-24(S) (when the POB side is on the outside)
ϕ 6.35 Min.	HRMJ-POBJ-PA(40) (when the HRM side is on the outside)

● List of Maximum Panel Thicknesses

t (mm)	Applicable Products
2.0	HRMJ-POBJ-PA(40) (when the HRM side is on the outside)
3.4	POB-R-24(S)
6.2	HRMJ-POBJ-PA(40) (when the POB side is on the outside)

List of Converter Adapter

Please check the converter adapter page for detail.

Joint 1		Joint 2		Part No.	HRS No.	Shape	
Series Name	Joint Part	Series Name	Joint Part				
POB	Plug	SMA (HRM)	Plug	HRMP-POBP-1(40)	CL0311-0169-0-40		
			Jack	HRMJ-POBP(40)	CL0311-0151-4-40		
	Jack		Plug	HRMP-POBJ	CL0311-0152-7-00		
			Jack	HRMJ-POBJ(40)	CL0311-0149-2-40		
				HRMJ-POBJ-PA(40)	CL0311-0150-1-40	Panel Attachment Type	

While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

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