

MIL Standard SMP Compatible Push-on Lock Coaxial Connectors

PO40G Series



Overview

Continuing demand for higher transmission speeds in the communication systems created a need for development of high reliability small coaxial cable/connector systems. Drawing on it's extensive experience in the development and manufacturing of coaxial connectors, Hirose Electric has developed PO40G line of connectors, capable of fulfilling this need.

Features

1. Supports 18 GHz

High quality and manufacturing standards assure high performance levels for frequencies of up to 18 GHz. Contact nearest HRS office if higher frequencies coaxial connector of the same configuration are needed.

2. High mated retention forces

The built-in locking mechanism assures secure plug / receptacle retention force, needed for high frequency performance.

3. Compatible with MIL standard SMP

Applications

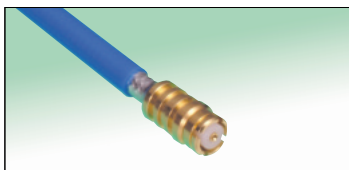
Communication equipment, transmission stations, measurement and instrumentation devices, medical diagnostic stations.

Mating Diagrams

Jack Side

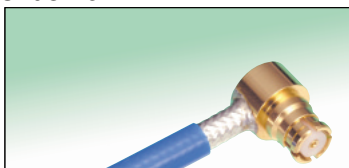
■ Straight

PO40G-J-***



■ Right-angle

PO40G-LJ-***



■ In-line adapter (jack to jack)

PO40G-A-JJ-645



■ Conversion adapters

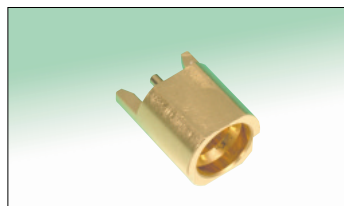
PO40G jack -- SMA jack
HRMJ-PO40GJ-***



Plug Side

■ PCB edge mount plug receptacle

PO40G-LPR (LD) -SMT



■ Conversion adapter

PO40G plug -- SMA plug
HRMP-PO40GP-18G



■Product Specifications

Ratings	Nominal characteristic impedance: 50ohms Frequency range: DC to 18GHz	Operating temperature range: - 50℃ to +125℃ Operating humidity: 95% max.
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Item	Specification	Conditions
1. Contact resistance	Center : 6 m ohms max. Outer : 6 m ohms max.	100 mA max.
2. Insulation resistance	1000 M Ω min.	500 V DC
3. Withstanding voltage	No flashover or insulation breakdown.	500 V AC / 1 minute
4. Return loss	20dB min.	DC to 18GHz
5. Center contact holding force	0.2N min.	Measured with a 0.35 dia. gauge
6. Durability (mating/un-mating, with corresponding plug)	Contact resistance Center : 12 m ohms max. Outer : 12 m ohms max.	500 cycles
7. Humidity	Insulation resistance: 100 M ohms min. (high humidity) Insulation resistance: 1000 M ohms min. (dry)	240 hours (10 cycles) at temperature of 10℃ to 65℃, RH 90% to 98%
8. Temperature cycle	No damage, cracks or parts dislocation.	Temperature: - 65℃ → +125℃ Time: 30 → 30 (Minutes) 5cycles
9. Salt spray test	No corrosion	5% salt water solution, 48 hours

■Material and Finishes

Part		Material	Finish
Shell	Plug external spring portion	Beryllium copper	Gold plated
	Receptacle, shell body, remaining components	Stainless steel	Gold plated, passivated
Center contact	Pin	Phosphor bronze	Gold plated
	Socket	Beryllium copper	Gold plated
Insulator		PTFE (Polytetrafluoroethylene)	Color: White

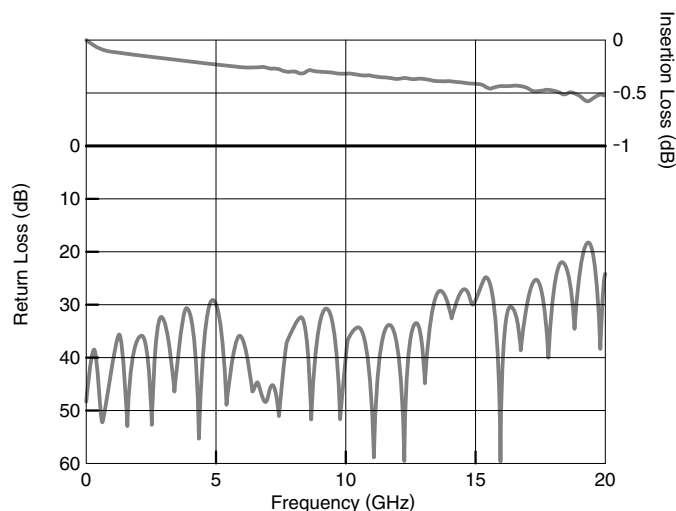
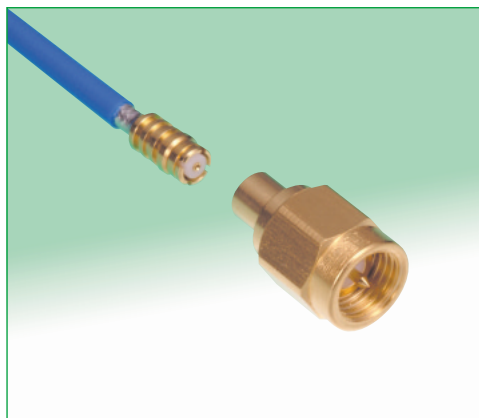
■Ordering information

PO40G - **[]** - **[]**
①
②
③

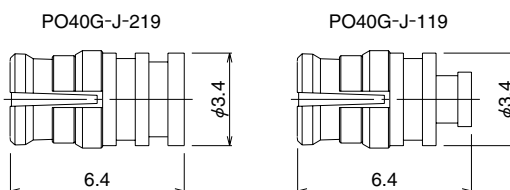
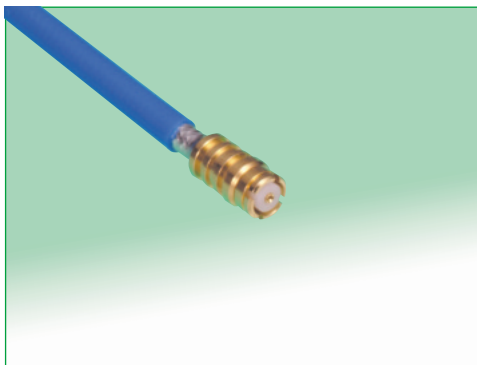
① Series name : PO40G
② Connector type J : Straight jack LJ : Right-angle jack LPR : PCB edge mount plug receptacle A : In-line adapter
③ Cable type or terminal type 119 : 0.047 in. outer dia. semi-flexible cable 219 : 0.085 in. outer dia. semi-flexible cable SMT : SMT type

■Typical Data

PO40G-J-219 double ended coaxial cable (100mm)
0.085 inch outer dia. semi-flexible cable



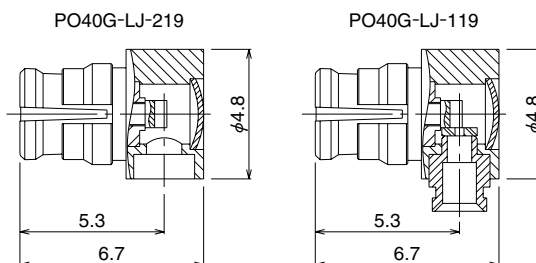
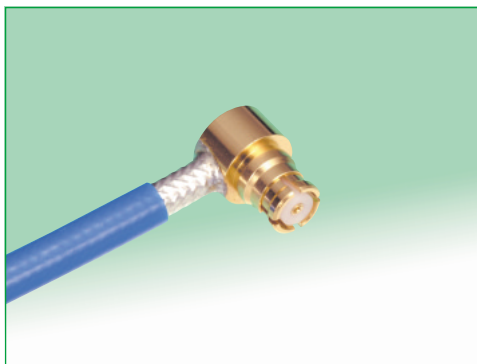
■Straight Jack (DC to 15 GHz: Return Loss 20dB min.)



Part Number	Cable type
PO40G-J-119	0.047 inch outer dia. semi-flexible cable
PO40G-J-219	0.085 inch outer dia. semi-flexible cable

* Sold only as complete cable assemblies.

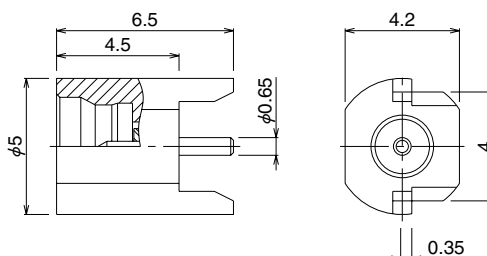
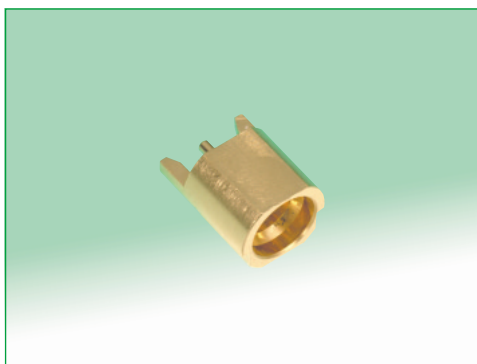
■Right-angle Jack (DC to 10 GHz: Return Loss 20dB min.)



Part Number	Cable type
PO40G-LJ-119	0.047 inch outer dia. semi-flexible cable
PO40G-LJ-219	0.085 inch outer dia. semi-flexible cable

* Sold only as complete cable assemblies.

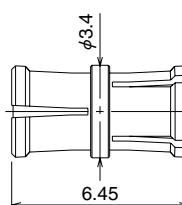
■PCB edge mount plug receptacle



Note: Mating side -- LIMITED DETENT

Part Number	CL No.
PO40G-LPR(LD)-SMT	CL338-0315-9

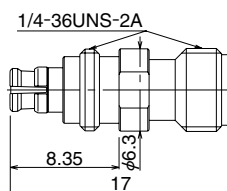
■In-line Adapter (Jack to Jack)



Part Number	CL No.
PO40G-A-JJ-645	CL338-0310-5

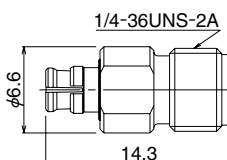
■Conversion Adapters

●SMA conversion adapter launcher type (Mating portion: PO40G jack - SMA jack)



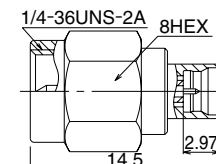
Part Number	CL No.
HRMJ-PO40GJ-BPA	CL311-0372-3

●SMA conversion adapter (Mating portion: PO40G jack - SMA jack)



Part Number	CL No.
HRMJ-PO40GJ-18G	CL311-0370-8

●SMA conversion adapter (Mating portion: PO40G plug - SMA plug)



Note: Mating side -- LIMITED DETENT

Part Number	CL No.
HRMP-PO40GP-18G	CL311-0371-0

■Connector extraction tools

Sold separately

Connector Part Number	Applicable Tool Part Number	CL No.	Notes
PO40G-LJ-***	PO40G-J-N1	CL350-0142-6	Photo (1)
PO40G-J-***	*PO40G-J-N1	CL350-0142-6	Photo (2) Note: Both tools are required.
	*PO40G-J-N2	CL350-0143-9	

Right-angle Jack (PO40G-LJ-***)

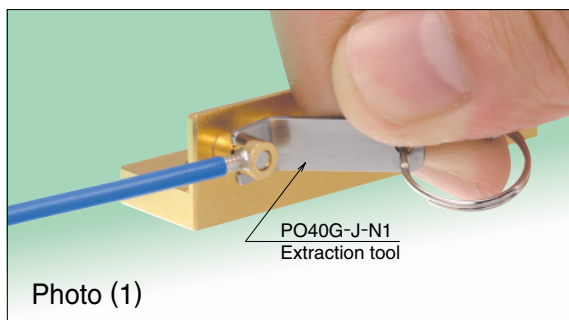


Photo (1)

Straight Jack (PO40G-J-***)

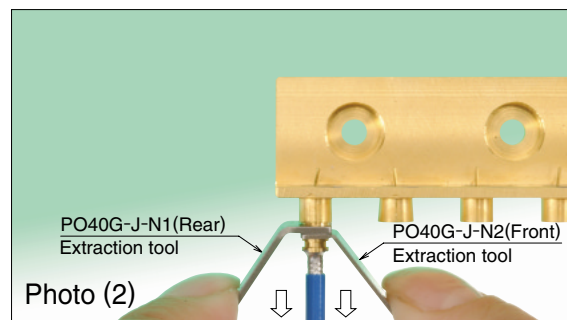


Photo (2)

Note 1: After initial release with the tool the connector can be removed with hand.

Note 2: The extraction tools must be used only with specified Hirose Electric connectors.



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