PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

PL75 Series

Push-on Lock Coaxial Connectors

RF

75Ω

Push On

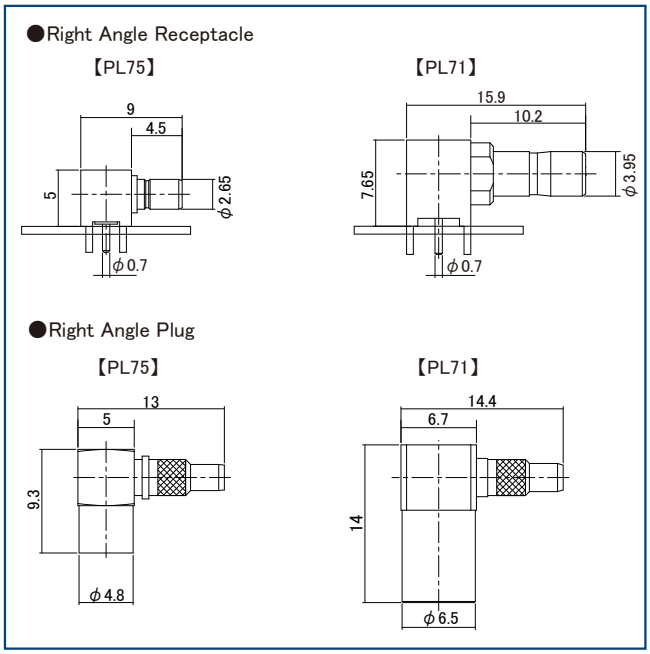
Product Page
https://www.hirose.com/en/product/series/PL75

Jul. 2024

Features

1. Ultra Compact

Compared to conventional 75Ω coaxial connectors, this connector achieves a size reduction of approximately 30% (our comparison: PL71 Series), enabling high-density mounting for small equipment. The PCB mounting height of the right angle receptacle is 5mm.



Shape Comparison between PL75 and PL71.

2. Excellent Locking Design

The connection utilizes our unique locking system designed to maintain constant contact with the electrical reference surface (Top Touch). The outer cylinder provides robust protection, ensuring high stability and reliability.

3. Impedance Matching

High-frequency characteristics range from 0 to 3GHz, suitable for 3G-SDI broadcasting equipment.

4. Compatible cables are 1.5C type

The standard compatible cable is the 1.5C type. When combined with our BNC (75) Series, a complete line connection from interface connection to internal wiring is possible.

5. RoHS Compliant

In consideration of environmental issues, this product does not contain substances prohibited by the RoHS Directive.

Applications

3G-SDI, Broadcasting Equipment, for Connecting Video Equipment

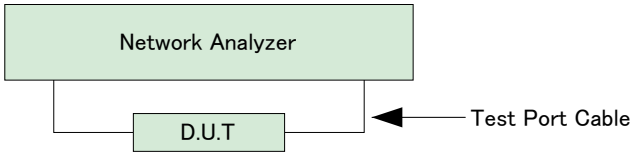
Product Specifications

Characteristic Impedance	75Ω	Operating Temperature	-30 to +85℃
Rated Frequency	0 to 3GHz	Operating Relative Humidity	95% Max.

Item	Standards	Condition
Contact Resistance	15mΩ Max. (Center) 6mΩ Max. (External)	Measured at 100mA Max.
Insulation Resistance	1,000MΩ Min.	Measured at 250V DC
Withstanding Voltage	No dielectric breakdown	250V AC for 1 min.
V.S.W.R. *	1.3 Max.	0 to 3GHz
Insertion and Withdrawal Forces	4.9N Min.	Measured with a Compatible Connector
Mating Durability	Contact Resistance : 19mΩ Max. (Center) 10mΩ Max. (External) No damage, cracks or part dislocation.	500 times
Vibration Resistance	No electrical discontinuity of 1μs or more No damage, cracks or part dislocation.	Frequency 10 to 500Hz, Half amplitude 0.75mm, Acceleration 98m/s^2 2 hours each in 3-axis direction
Shock Resistance	No electrical discontinuity of 1μs or more No damage, cracks or part dislocation.	Acceleration 490m/s^2, Duration 11ms, Sine halfwave : 3times each in 3 axial both directions
Humidity Resistance	Insulation Resistance : 10MΩ Min. (in a high humidity environment) 1,000MΩ Min. (in a dry environment) No damage, cracks or part dislocation.	Temperature +40℃ , Humidity 90 to 95%, for 96 hours
Thermal Shock	No damage, cracks or part dislocation.	(-30℃ : 30 min. → +5 to +35℃ : 5 min. → +85℃ : 30 min. → +5 to +35℃ : within 5 min) 5 cycles
Corrosion Resistance	No corrosion that impairs function.	5% salt water solution for 48 consecutive hours

Note 1 : Information contained in this catalog represents general requirements for this Series.
Contact us for the drawings and specifications for a specific part number shown.
Note 2 : Ratings and standards may vary by products.

* V.S.W.R. Measurement System
The above V.S.W.R. specification values were measured using the measurement system shown below.



Note : Cable type connectors were measured with PL75 and BNC(75) of the harness product of a suitable 10cm cable.

Materials / Finish

Component	Material	Finish
Shell	Brass	Gold Plating
Male Center Contact	Phosphorous Bronze	Gold Plating
Female Center Contact	Beryllium Copper	Gold Plating
Insulator	PTFE	-
Outer Tube	Brass	Nickel Plating

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

PL75 - [ ] - [ ]
❶ ❷ ❸

❶ Series Name	PL75	❸ Compatible Cable or PCB Mounting Method	1.5CV : 1.5CCA-EXBV(LF) 1.5CW : 1.5C-QEW.CW PC : PCB DIP Mounting Type
❷ Connector Type	P : Straight Plug LP: Right Angle Plug R : Straight Receptacle LR: Right Angle Receptacle		

Functional Diagram

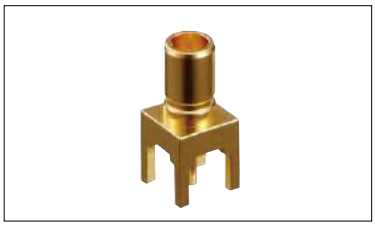
Plug

■Straight Plug
PL75-P-1.5CV

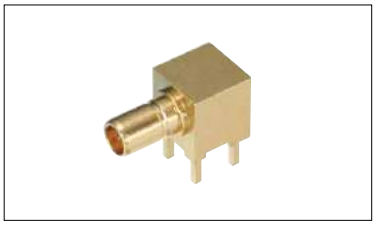
■Right Angle Plug
PL75-LP-1.5CV
PL75-LP-1.5CW

Receptacle

■Straight Receptacle
PL75-R-PC

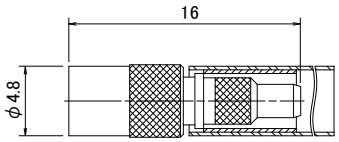


■Right Angle Receptacle
PL75-LR-PC



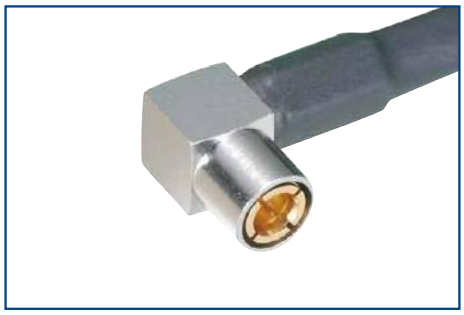
Plug

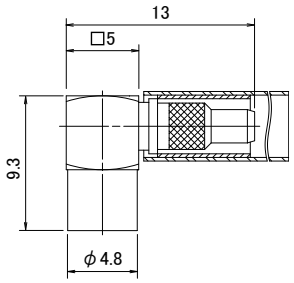
●Straight



Part No.	HRS No.	Compatible Cable	Purchase Unit
PL75-P-1.5CV	CL0334-0078-0-00	1.5CCA-EXBV(LF)	20pcs per bag

●Right Angle

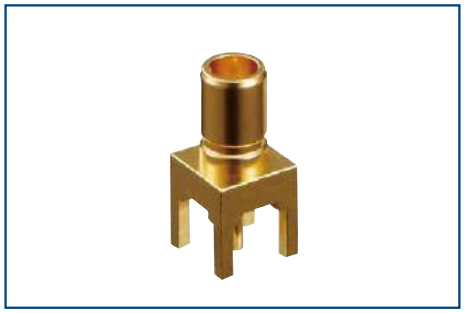


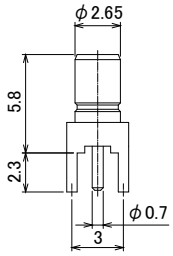


Part No.	HRS No.	Conpatible Cable	Purchase Unit
PL75-LP-1.5CV	CL0334-0076-4-00	1.5CCA-EXBV(LF)	20pcs per bag
PL75-LP-1.5CW	CL0334-0080-1-00	1.5C-QEW.CW	

Receptacle

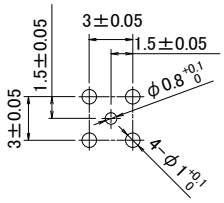
●Straight



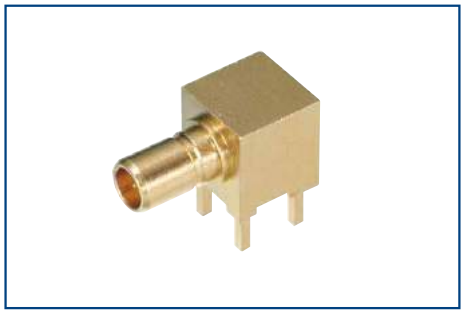


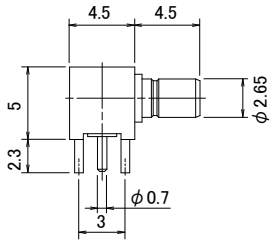
Part No.	HRS No.	Purchase Unit
PL75-R-PC	CL0334-0081-4-00	20pcs per bag

■PCB Mounting Pattern



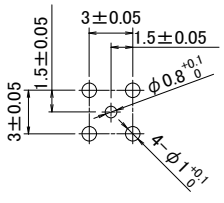
●Right Angle





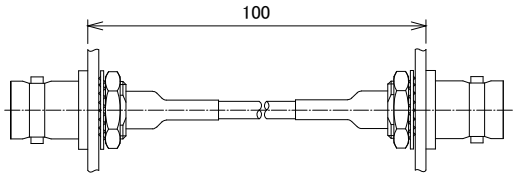
Part No.	HRS No.	Purchase Unit
PL75-LR-PC	CL0334-0075-1-00	20pcs per bag

■PCB Mounting Pattern

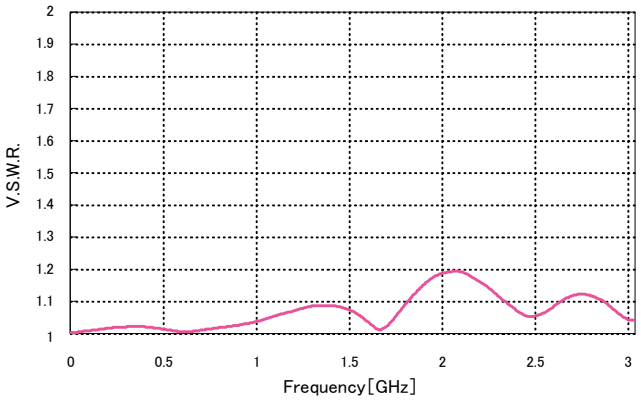


High Frequency Characteristics of 75Ω Hirose Product Series

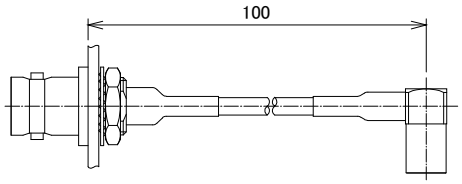
●BNC(75) Series



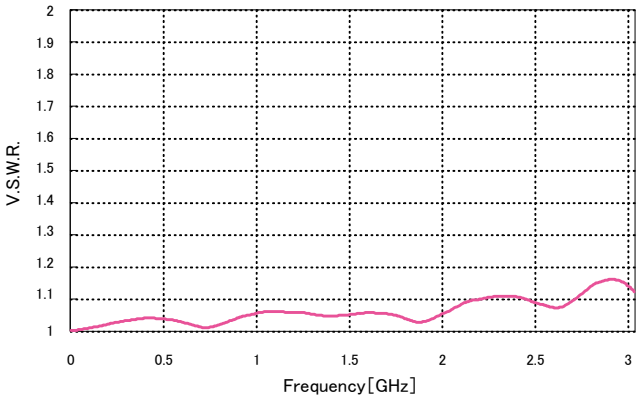
BNC(75)-BPJ-1.5CV-# BNC(75)-BPJ-1.5CV-#



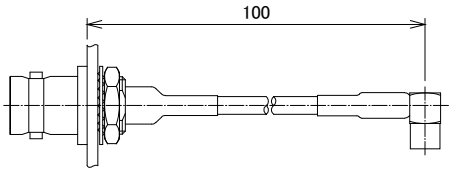
●PL71 Series



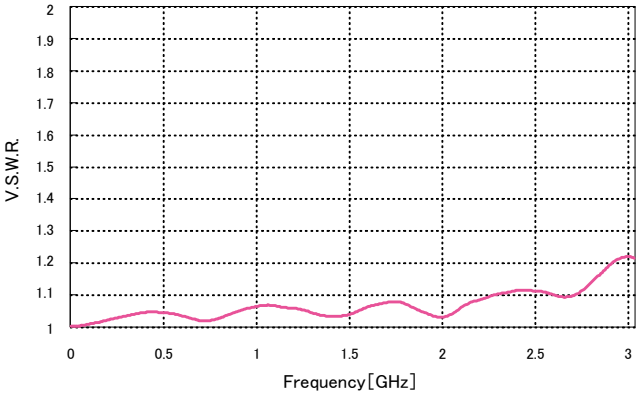
BNC(75)-BPJ-1.5CV-# PL71-LP-1.5C(40)



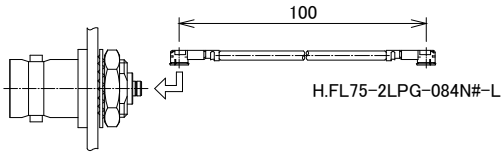
●PL75 Series



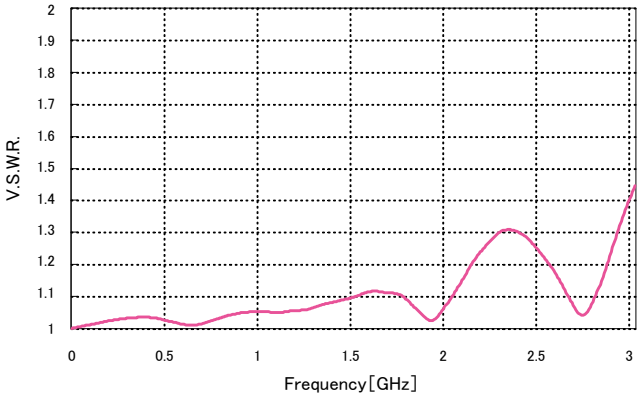
BNC(75)-BPJ-1.5CV-# PL75-LP-1.5CV



●H.FL75 Series



BNC(75)J-H.FLJ-BPA(40)



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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