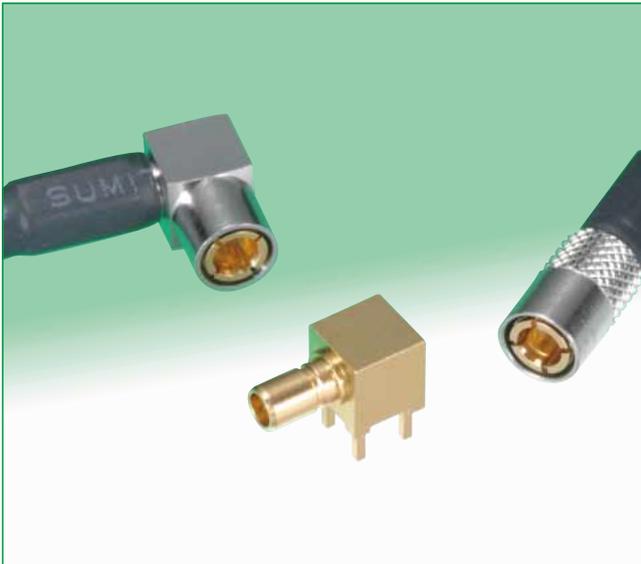


# Ultra-Miniature Push-on Lock Coaxial Connectors for Digital Broadcasting Applications

PL75 Series

75Ω up to 3GHz



## PL75 and PL71 Size Comparison

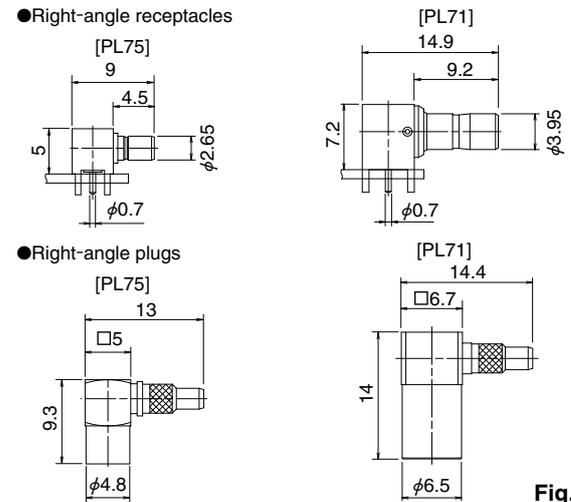


Fig.1

## Features

### 1. Further reduction in size

The size is reduced by approximately 30% when compared with PL71 Series, 75 Ohm connectors. Low mounted profile: 5mm.

### 2. Superior locking mechanism

Our exclusive locking method keeps the mating part in constant contact with the electric reference plane (Top Touch), ensuring high contact stability and reliability. The construction is protected by the outer shell.

### 3. Reliable at high frequencies

The high-frequency performance of the PL75 Series is very reliable, with V.S.W.R. characteristics of a maximum of 1.3 at DC, and up to 3 GHz, which is suitable for 3G-SDI broadcasting equipment.

### 4. Applicable cable: 1.5C type

By using together with Hirose's BNC(75) Series connectors, 75Ω total system lines from the interface connections to the internal wiring system is available.

### 5. RoHS compliant

All materials and substances used to produce this product comply with RoHS standards.

## Mating Chart

Plugs	
<p>■ Straight</p> <p>PL75-P-1.5CV</p> 	
<p>■ Right-angle</p> <p>PL75-LP-1.5CV</p>	<p>PL75-LP-1.5CW</p> 

Fig.2

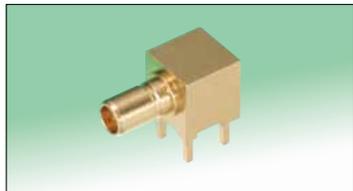
Receptacle	
<p>■ Straight</p> <p>PL75-R-PC</p> 	
<p>■ Right-angle</p> <p>PL75-LR-PC</p> 	

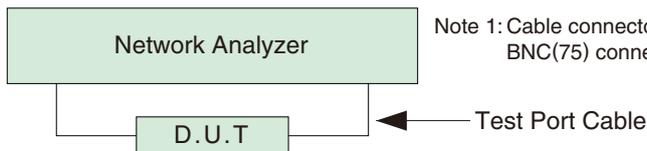
Fig.3

## Specifications

<b>Ratings</b>	Nominal characteristic impedance : 75Ω Frequency range : DC to 3 GHz	Operating temperature range : -30°C to +85°C Operating humidity : RH 95% max.
<b>Item</b>	<b>Specification</b>	<b>Conditions</b>
1. Insulation resistance	1,000 MΩ min.	250 V DC
2. Withstanding voltage	No flashover or insulation breakdown	250 V AC / 1 minute
3. Contact resistance	Center contact : 15 mΩ max. Outer shell: 6 mΩ max.	100 mA max.
4. Center contact retention force	0.2 N min.	Measured with 0.3 mm diameter pin gauge
5. V.S.W.R. *	1.3max.	DC to 3 GHz
6. Vibration	No electrical discontinuity of 1 μs or longer No damage, cracks, or parts dislocation	Frequency: 10 to 500 Hz, single amplitude of 0.75 mm, acceleration of 98m/s <sup>2</sup> , 2 hours in each of the 3 axis
7. Moisture resistance	Insulation resistance: 10 MΩ min. (high humidity) Insulation resistance: 1,000 MΩ min. (dry) No damage, cracks, or parts dislocation	96 hours at +40°C and humidity of 90% to 95%
8. Temperature cycle	Contact resistance Center contact : 19 mΩ max. Outer shell : 10 mΩ max. No damage, cracks, or parts dislocation	Temperature: -30°C → +5°C to +35°C → +85°C → +5°C to +35°C Time: 30 min. → 5 min. max. → 30 min. → 5 min. max. 5 cycles
9. Durability	Contact resistance: Center contact : 19 mΩ max. Outer shell : 10 mΩ max. No damage, cracks, or parts dislocation	500 cycles
10. Salt spray	No corrosion	5% salt water solution, 48 hours

\* V.S.W.R. Measurement System

The above V.S.W.R. standard values were measured using the measurement system shown below.



## Materials / Finishes

### Plugs

Part	Material	Finish
Shell	Brass	Gold plated
Male center contact	Phosphor bronze	Gold plated
Female center contact	Beryllium copper	Gold plated
Insulator	PTFE	—
Crimp sleeve	Brass	Nickel plated

### Receptacles

Part	Material	Finish
Shell	Brass	Gold plated
Male center contact	Phosphor bronze	Gold plated
Female center contact	Beryllium copper	Gold plated
Insulator	PTFE	—

## Ordering information

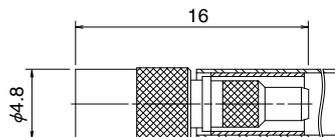
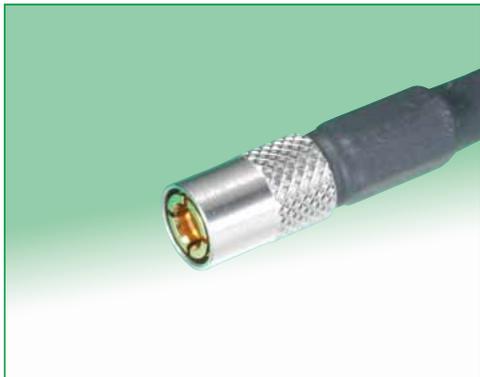
PL75 - [ ] - [ ]

①      ②      ③

①	Series name : PL75
②	Connector type P : Straight plug LP : Right-angle plug R : Straight receptacle LR : Right-angle receptacle
③	Applicable cable (plug) or board mounting (receptacle) style 1.5CV : 1.5CCA-EXBV(LF) 1.5CW : 1.5C-QEW.CW PC : DIP mounting

■ Plugs

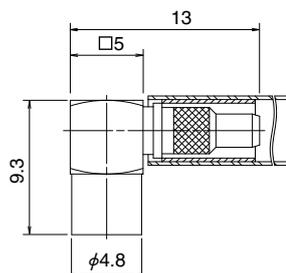
● Straight



All dimensions: mm

Part No.	HRS No.	Applicable cable	RoHS
PL75-P-1.5CV	334-0078-0	1.5CCA-EXBV(LF)	Yes

● Right angle

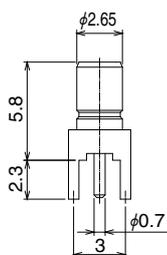


All dimensions: mm

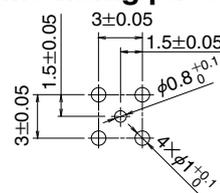
Part No.	HRS No.	Applicable cable	RoHS
PL75-LP-1.5CV	334-0076-4	1.5CCA-EXBV(LF)	Yes
PL75-LP-1.5CW	334-0080-1	1.5C-QEW.CW	

■ Receptacles

● Straight



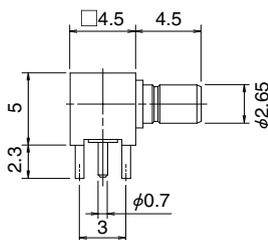
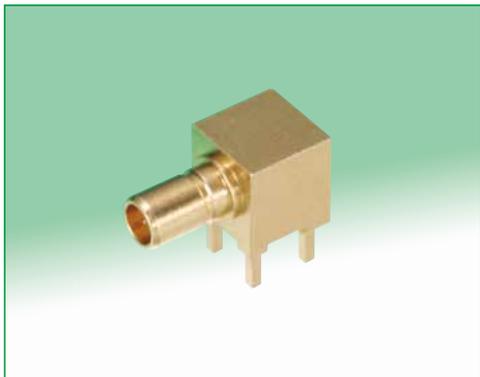
● PCB mounting pattern



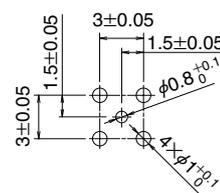
All dimensions: mm

Part No.	HRS No.	RoHS
PL75-R-PC	334-0081-4	Yes

● Right angle



● PCB mounting pattern



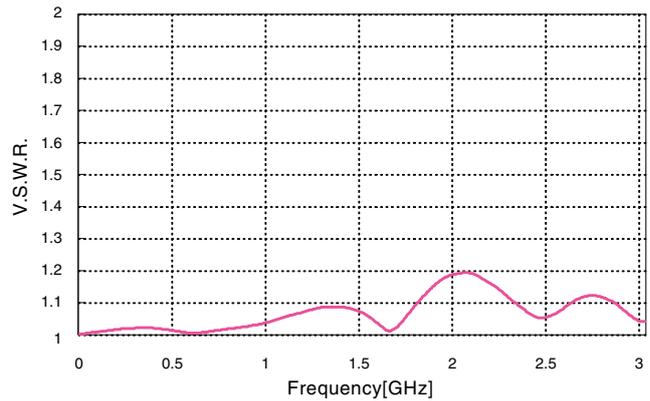
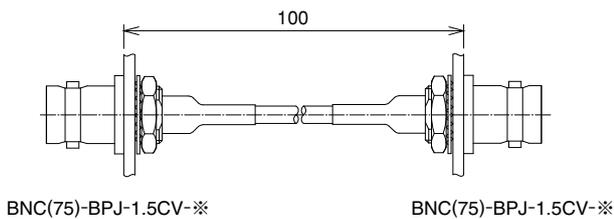
All dimensions: mm

Part No.	HRS No.	RoHS
PL75-LR-PC	334-0075-1	Yes

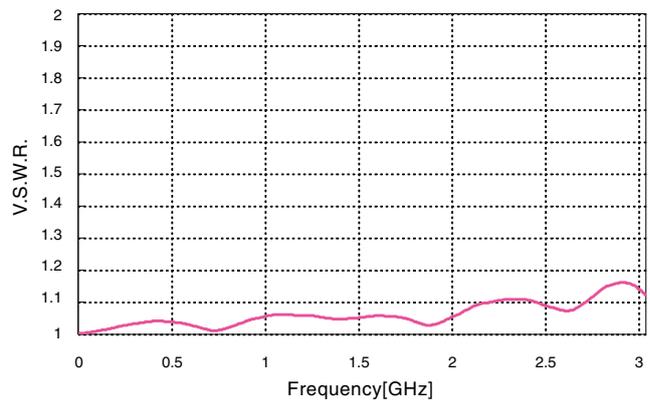
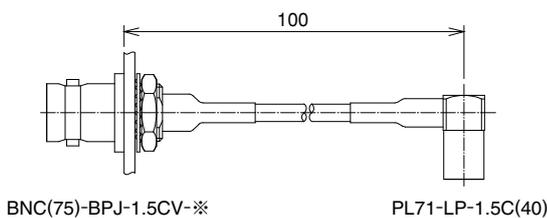
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## ◆ High Frequency Characteristics of 75Ω Hirose Products

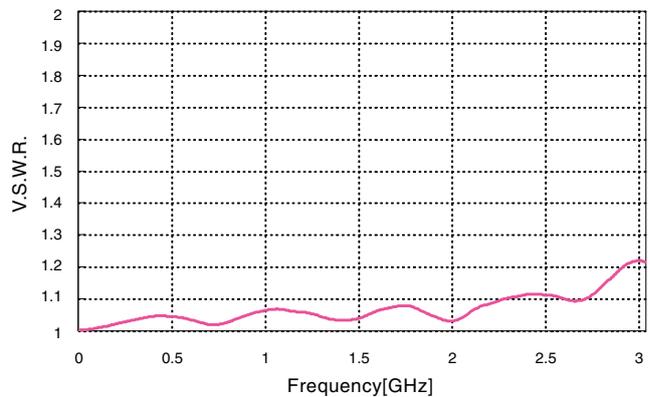
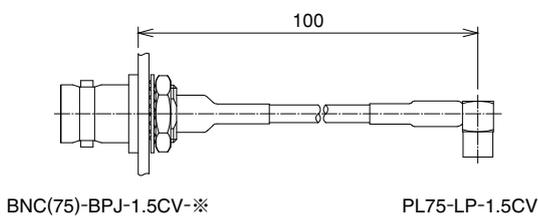
### ● BNC(75) Series



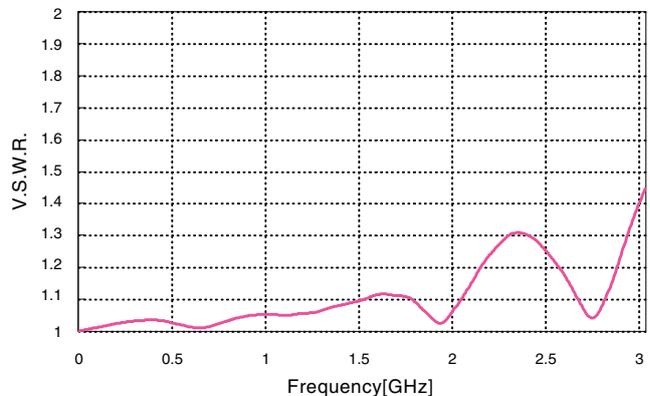
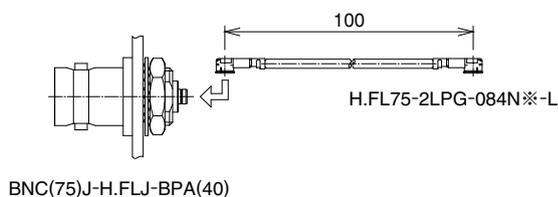
### ● PL71 Series



### ● PL75 Series



### ● H.FL75 Series



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