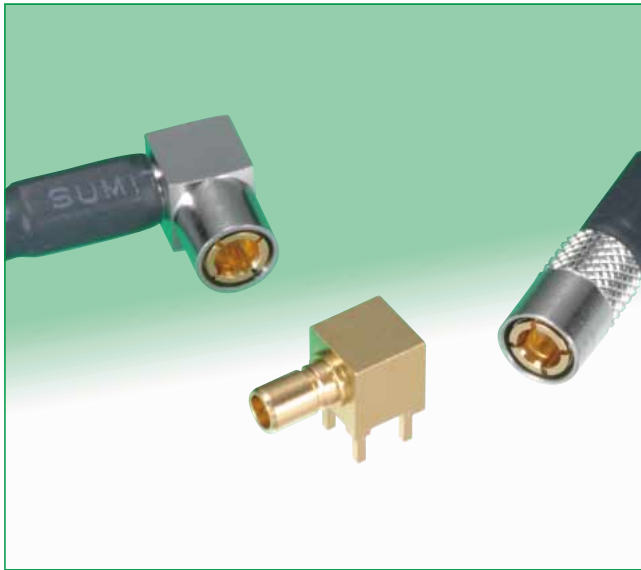


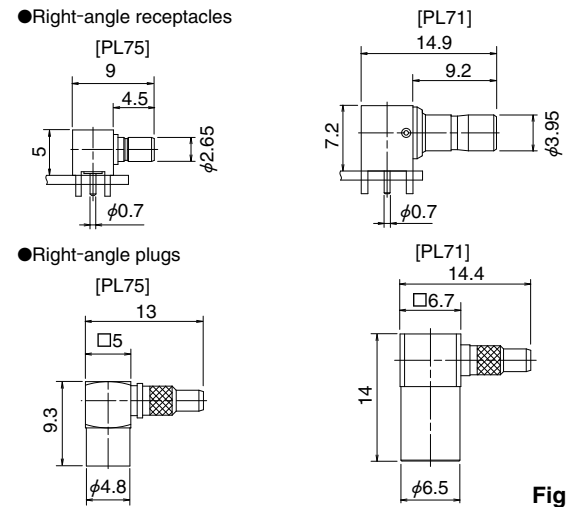
# Ultra-Miniature Push-on Lock Coaxial Connectors for Digital Broadcasting Applications

PL75 Series

75Ω up to 3GHz



## PL75 and PL71 Size Comparison



## 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

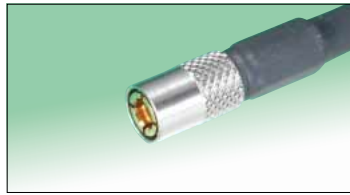
| Plugs                                                                                                                                             |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--|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

Fig.2

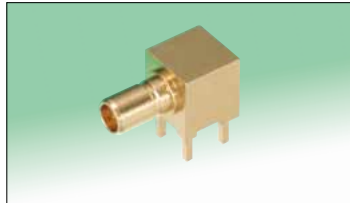
| Receptacle                                                                                                                  |  |
|-----------------------------------------------------------------------------------------------------------------------------|--|
| <p>■ Straight</p> <p>PL75-R-PC</p>  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

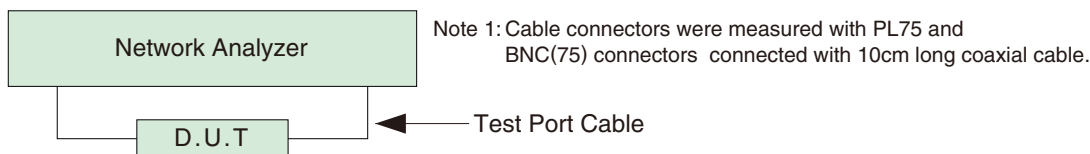
Fig.3

## Specifications

| Ratings                           | Nominal characteristic impedance : 75Ω<br>Frequency range : DC to 3 GHz                                                                    | Operating temperature range : -30°C to +85°C<br>Operating humidity : RH 95% max.                                               |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Item                              | Specification                                                                                                                              | Conditions                                                                                                                     |
| 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.<br>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<br>No damage, cracks, or parts dislocation                                                   | Frequency: 10 to 500 Hz, single amplitude of 0.75 mm,<br>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)<br>Insulation resistance: 1,000 MΩ min. (dry)<br>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.<br>Outer shell : 10 mΩ max.<br>No damage, cracks, or parts dislocation                      | Temperature: -30°C → +5°C to +35°C → +85°C → +5°C<br>to +35°C<br>Time: 30 min. → 5 min.max. → 30 min. → 5 min.max.<br>5 cycles |
| 9. Durability                     | Contact resistance: Center contact : 19 mΩ max.<br>Outer shell : 10 mΩ max.<br>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

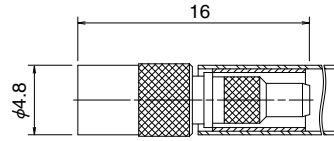
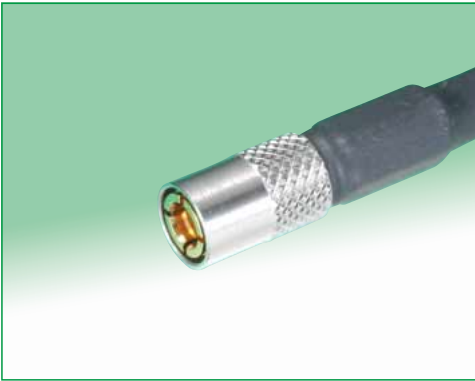
**PL75** - **[ ]** - **[ ]**

①      ②      ③

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

## Plugs

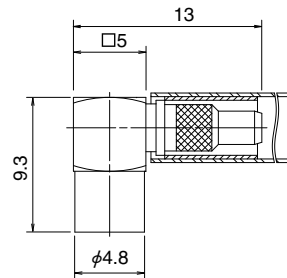
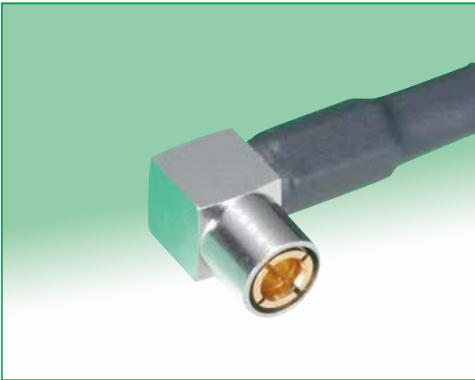
### ●Straight



All dimensions: mm

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

### ●Right angle

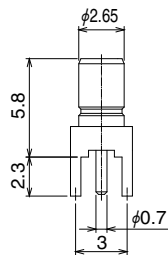


All dimensions: mm

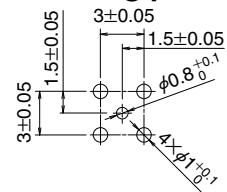
| Part No.      | HRS No.    | Applicable cable | RoHS |
|---------------|------------|------------------|------|
| PL75-LP-1.5CV | 334-0076-4 | 1.5CCA-EXBV(LF)  | Yes  |
| PL75-LP-1.5CW | 334-0080-1 | 1.5C-QEW.CW      |      |

## Receptacles

### ●Straight



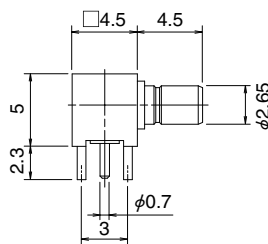
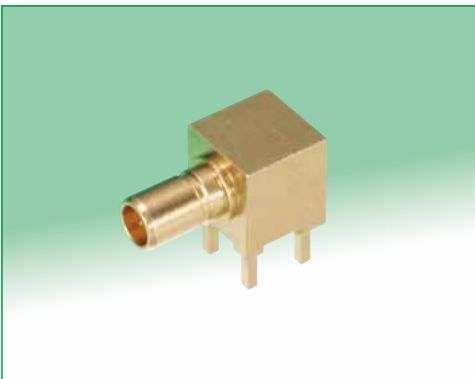
### ●PCB mounting pattern



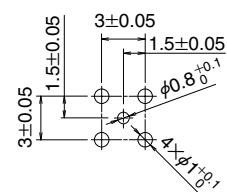
All dimensions: mm

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

### ●Right angle



### ●PCB mounting pattern

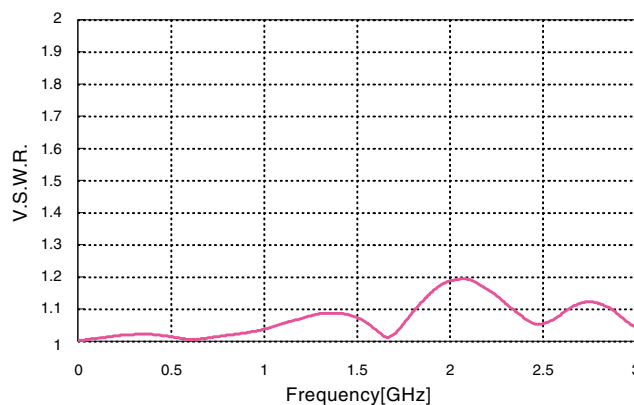
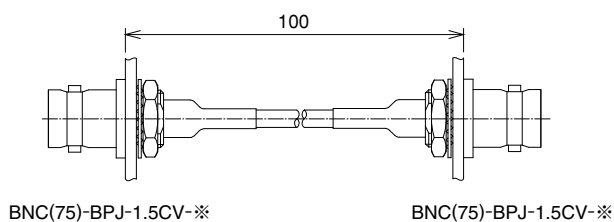


All dimensions: mm

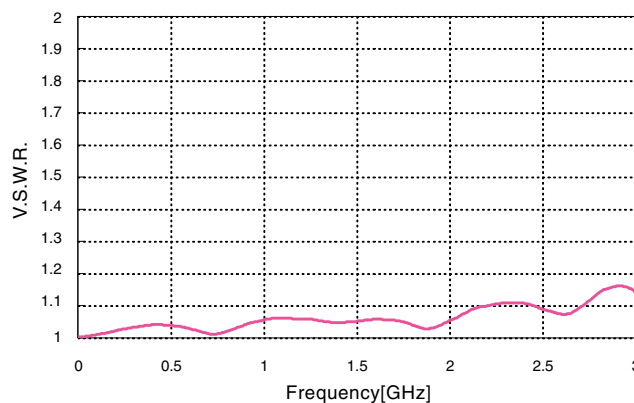
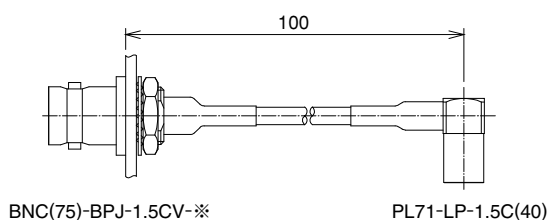
| Part No.   | HRS No.    | RoHS |
|------------|------------|------|
| PL75-LR-PC | 334-0075-1 | Yes  |

## ◆ High Frequency Characteristics of 75Ω Hirose Products

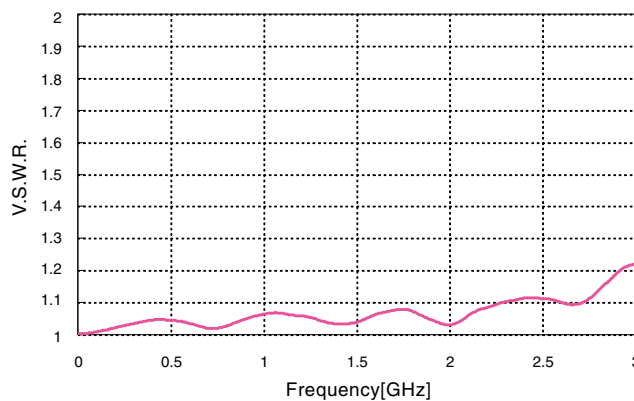
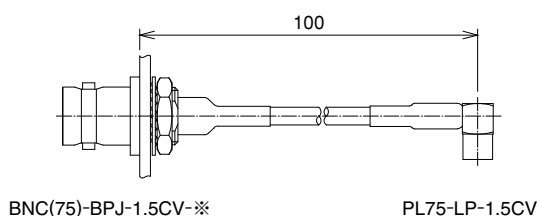
### ● BNC(75) Series



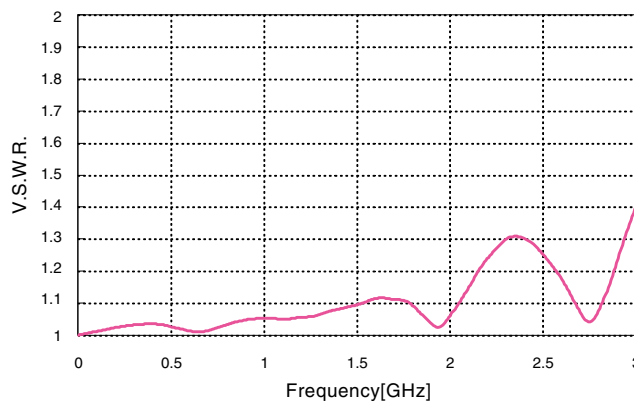
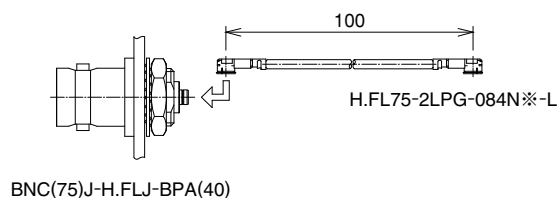
### ● PL71 Series



### ● PL75 Series



### ● H.FL75 Series



## HIROSE ELECTRIC CO.,LTD.

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN

TEL: +81-45-620-3526 Fax: +81-45-591-3726

<http://www.hirose.com>

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