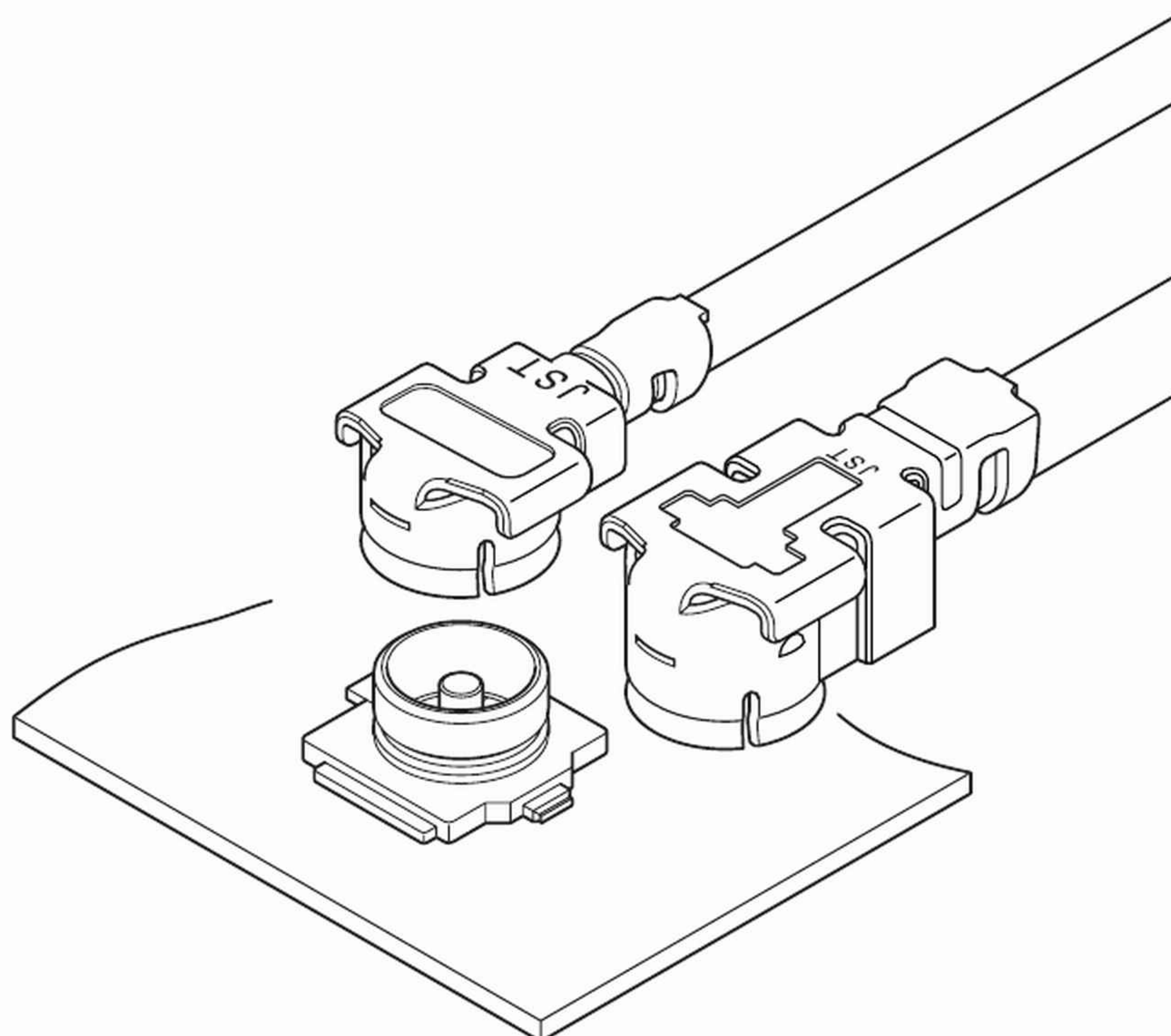


# AYU1 CONNECTOR

## Co-axial connector



Frequency from DC to 12GHz



**This is SMT type, space saving and co-axial connector, corresponding to notebook PC, thinner and lighter telecommunications apparatus, etc.**

### [Application]

**UWB, WiMAX, Wireless LAN, Bluetooth, DSRC, Mobile phones, PDA, GPS, Express, etc.**

- This connector can also be applicable the frequency of 12 GHz or more.
- Space saving and low profile design
- Easy mating and unmating connector
- Adopting extra fine diameter high frequency cable

### Specifications

- Impedance: 50  $\Omega$
- Frequency range: DC to 12 GHz
- Voltage standing wave ratio (V.S.W.R.)

	Cable type	DC to 3 GHz	3 to 6 GHz	6 to 12 GHz
Harness	$\phi$ 0.81 (Single shield SA)	1.3 max.	1.3 max.	1.4 max.
	$\phi$ 1.13 (Single & Double shields TA)	1.3 max.	1.4 max.	1.4 max.
Base		1.3 max.	1.4 max.	1.5 max.

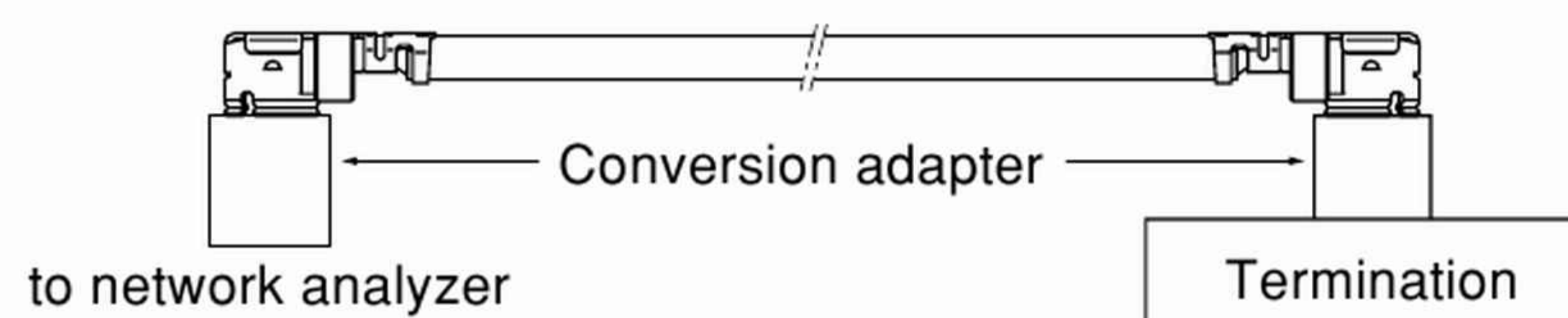
- Insertion loss (dB/m)

	Cable type	3 GHz	6 GHz	12 GHz
Harness	$\phi$ 0.81 (Single shield SA)	5.8	9.4	14.9
	$\phi$ 1.13 (Single shields TA)	3.4	6.4	7.7
	$\phi$ 1.13 (Double shields TA)	2.9	4.1	6.1
Base		—	—	—

Note: The specified values in above tables were measured by network analyzer as shown in the figure below.

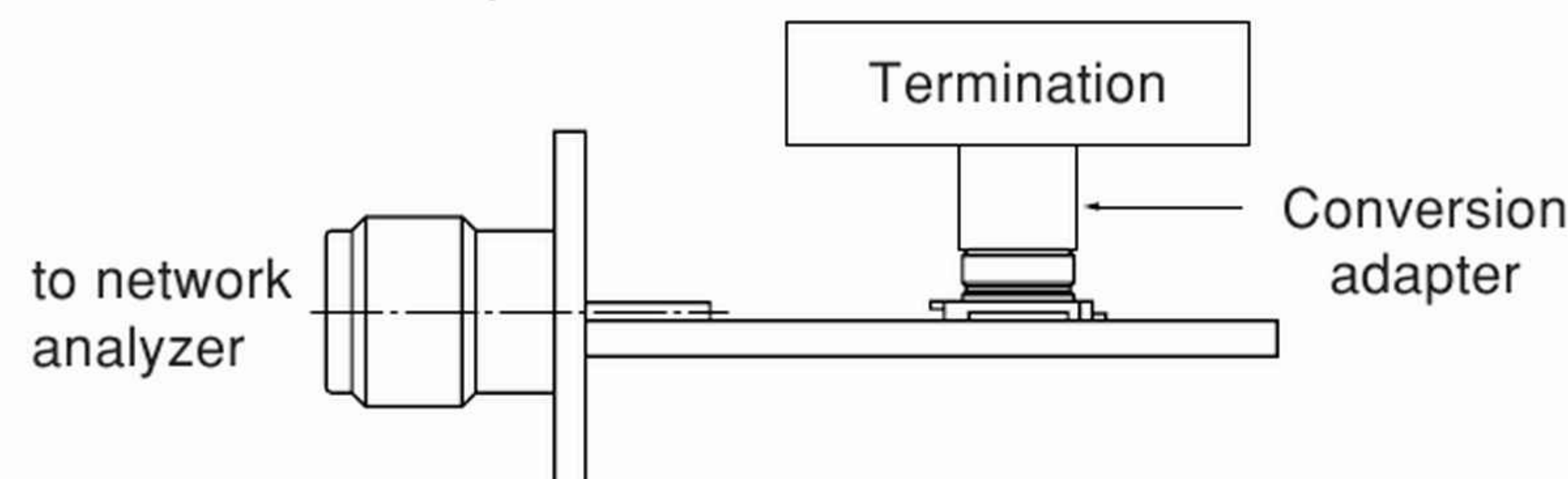
### [Harness]

Harness: Both end harness assembly with harness of 5,000 mm  
SMA conversion adapter: AYU1-AP-PP



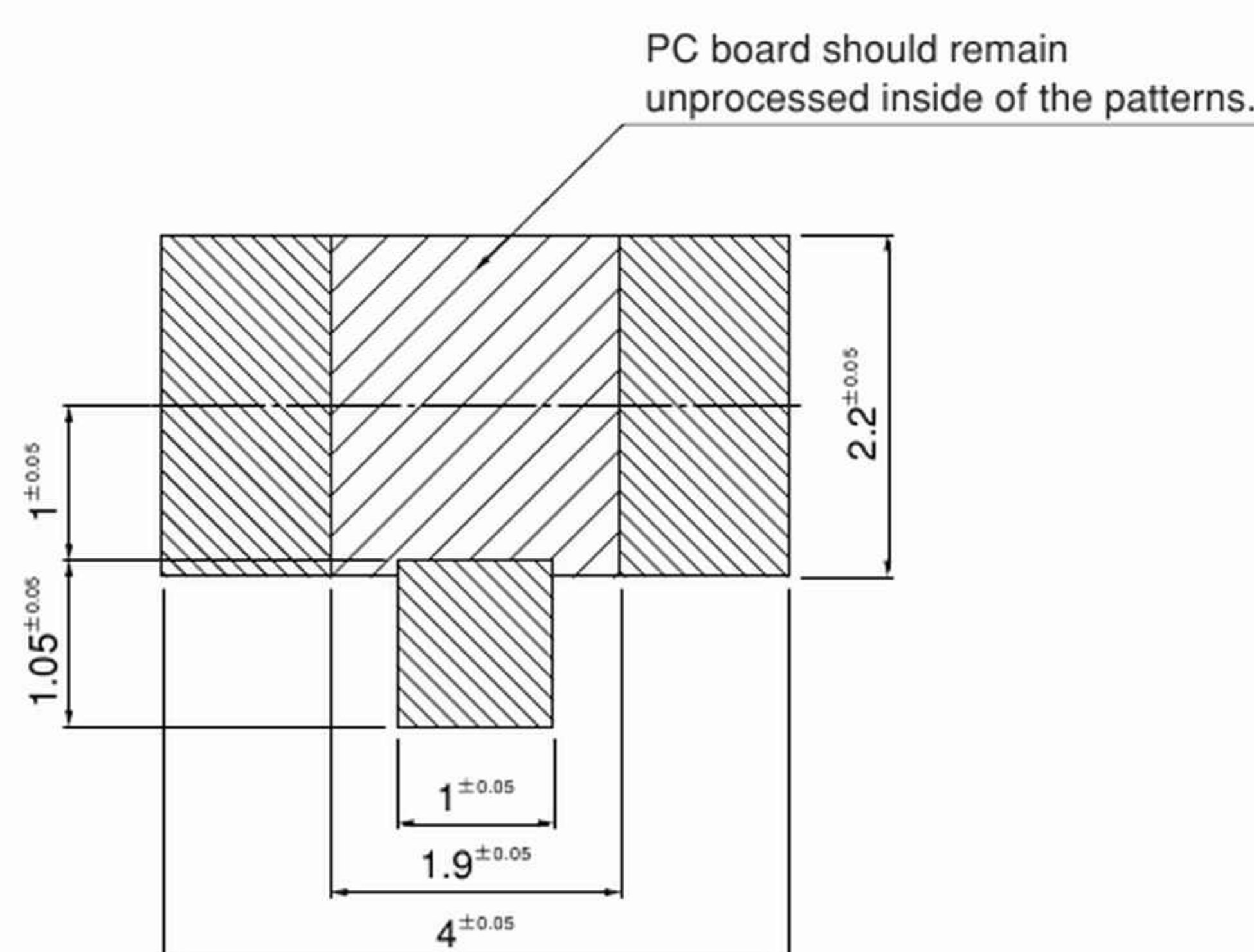
### [Base]

Base: AYU1-1P-02676-120  
SMA conversion adapter: AYU1-AP-JJ



- Temperature range: - 25°C to + 85°C  
(including temperature rise in applying electrical current)
- Withstanding voltage: 200 VAC/minute
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.
- \* Compliant with RoHS.

### PC board layout

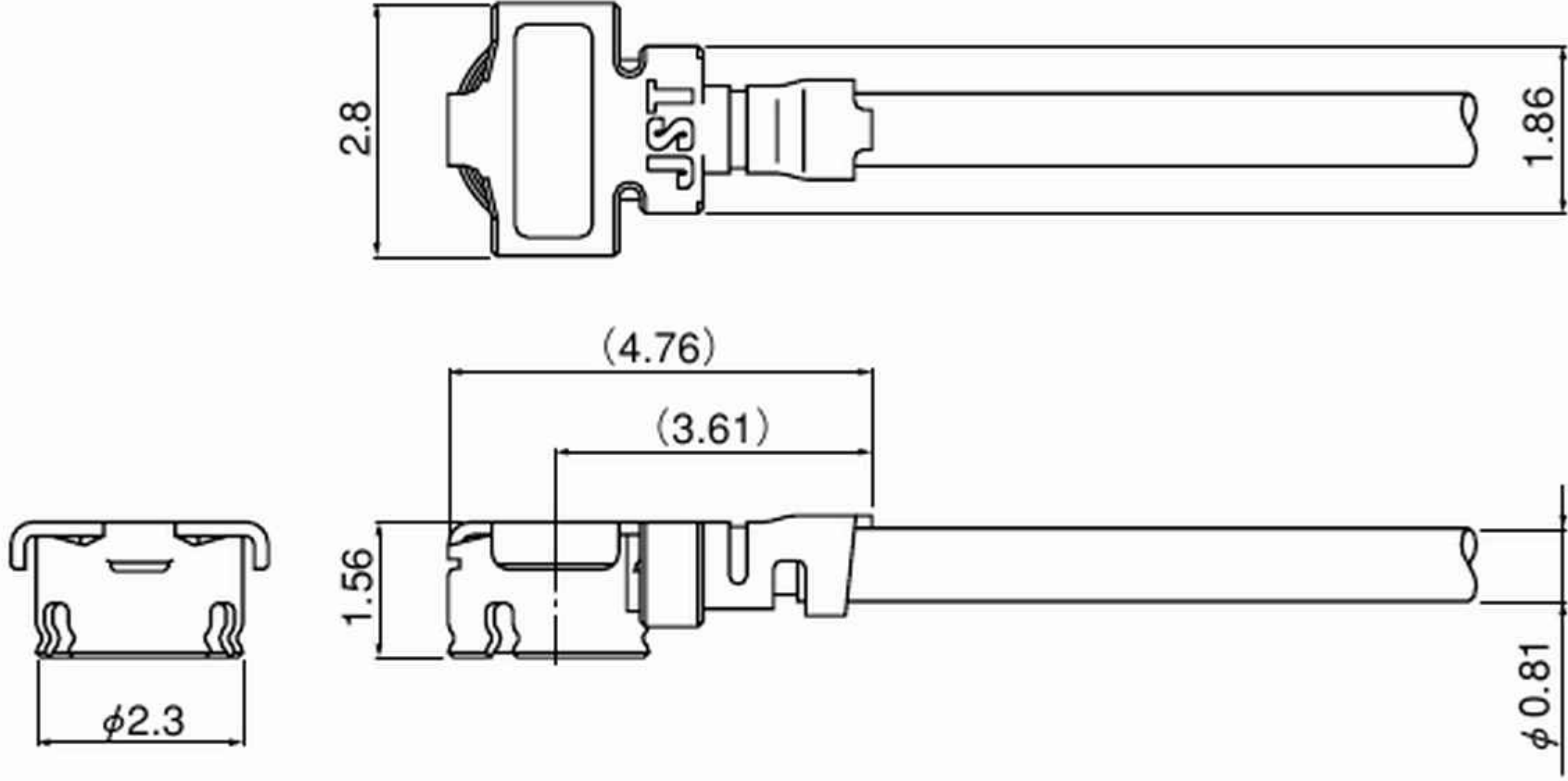
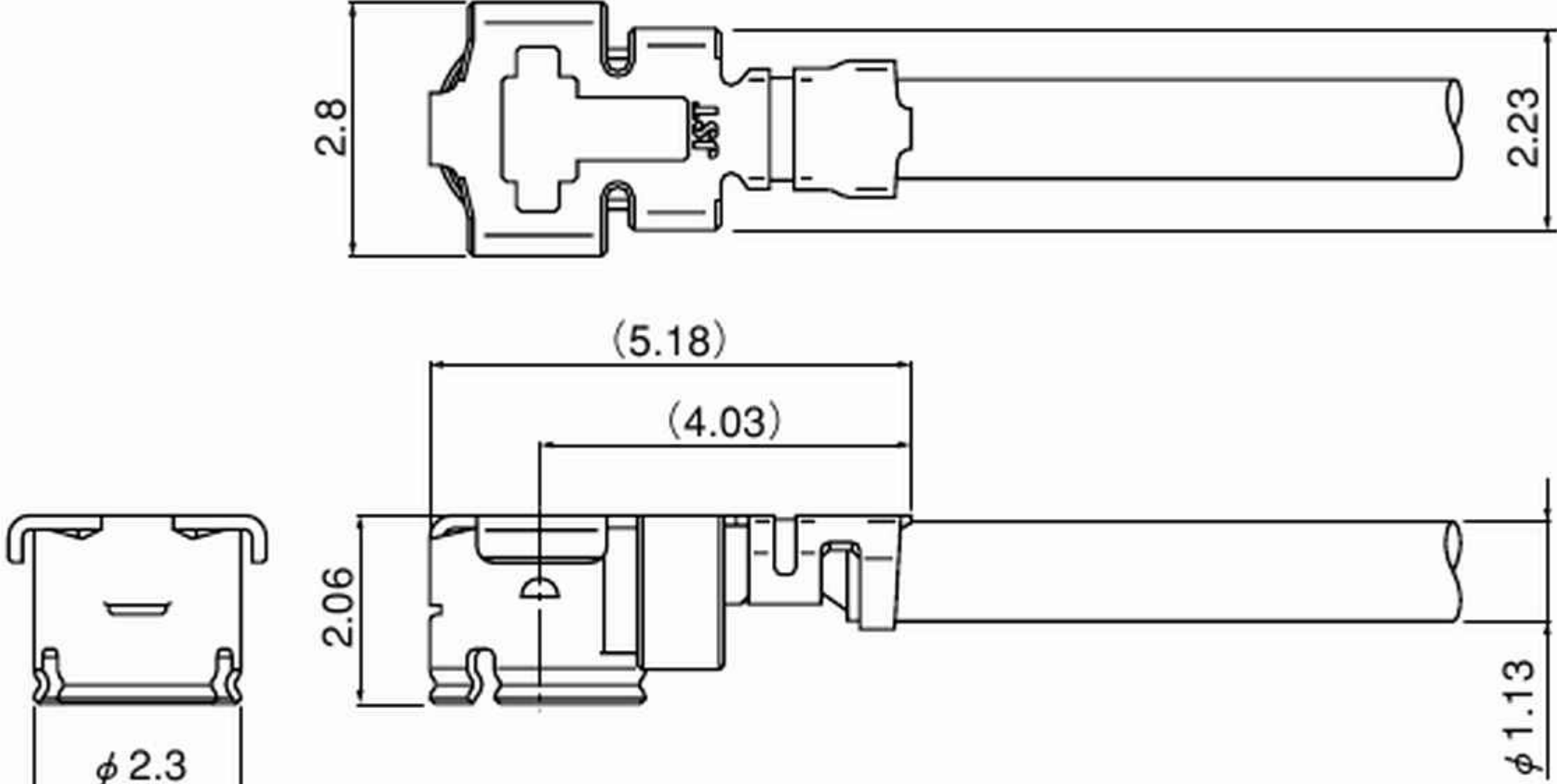


Note: 1. Tolerances are non-cumulative:  $\pm 0.05$  mm for all centers. The dimensions above are our recommendation value.  
2. The above figure is the figure viewed from the connector mounting side.



# AYU1 CONNECTOR

## Socket (Harness assembly)

AYU1 (φ 0.81) Harness	AYU1 (φ 1.13) Harness
	
Material and Finish	
Contact: Copper alloy, nickel-undercoated, gold-plated Housing: Thermoplastic resin, UL94V-0 Shell: Copper alloy, copper-undercoated, silver-plated	

### Harness specifications

Cable type (Specifications for outer diameter and outer conductor)	Overall length L	Overall length L
	Harness model No. (Single end harness)	Harness model No. (Both end harness)
φ 0.81 (Single shielded, SA)	AYU1-1S21-SYYYY-ZZZV (LF)	AYU1-1S21-XXXXY-000V (LF)
φ 1.13 (Single shielded, TA)	AYU1-1S1C-SYYYY-ZZZV (LF)	AYU1-1S1C-XXXXY-000V (LF)
φ 1.13 (Double shielded, TA)	AYU1-1S13-SYYYY-ZZZV (LF)	AYU1-1S13-XXXXY-000V (LF)

Note 1) Type of outer conductor SA: Silver-plated annealed copper wire, TA: Tin-plated annealed copper wire

Note 2) The following alphabet and number shall be put in the model No.

X...alphabet denotes cable end treatment (D: Both end harness/same direction, R: Both end harness/reverse direction)

Y...number denotes harness length

Z...number denotes strip length

V...alphabet denotes color identification (Blank: Black, G: Gray, W: White, B: Blue)

Example 1... φ 1.13 mm (double shielded, TA) cable, connector end processing: both end harness (same direction), harness length: 251 mm, wire color: black

Model No.: AYU1-1S13-D0251-000(LF)

Example 2... φ 0.81 mm (single shielded, SA) cable, connector end processing: single end harness, harness length: 800 mm,

strip length: [inner conductor 2.0 mm, insulator 1.0 mm, outer conductor 3.0 mm], cable color: white

Model No.: AYU1-1S21-S0800-213W(LF)

Note 3) Contact JST for details about overall length and connector end processing.

### Harness overall length standard tolerance

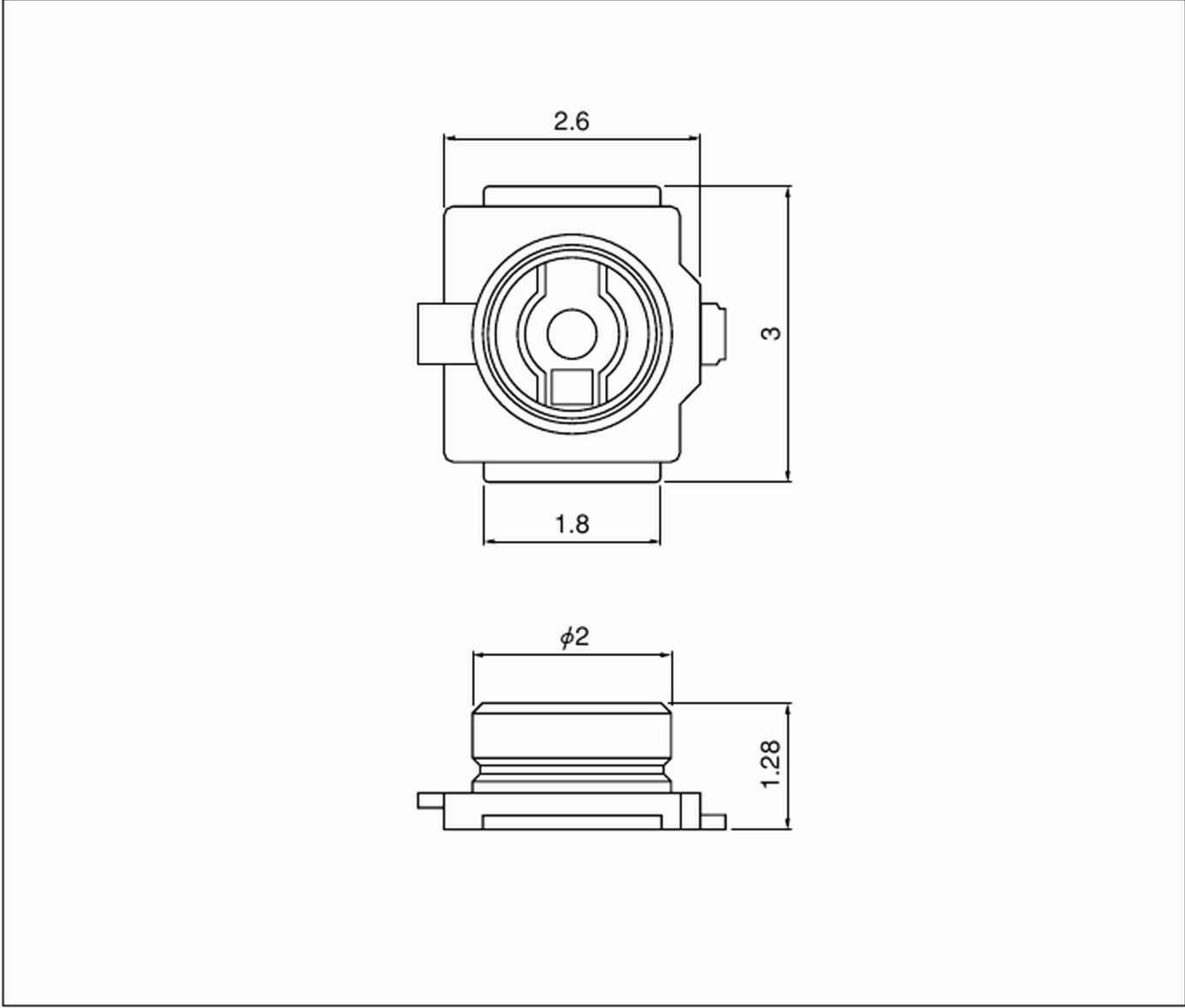
Overall length L (mm)	Standard tolerance (mm)
35≤L≤200	±4
200<L≤500	±8
500<L≤1000	±12
1000<	±1.5%

Note: The shortest length L=35 mm



# AYU1 CONNECTOR

## Base



Model No.	Material and Finish	Q'ty/reel
AYU1-1P-02676-120	Contact: Copper alloy, nickel-undercoated, selective gold-plated Housing: Heat resisting resin, UL94V-0 Shell: Copper alloy, copper-undercoated, silver-plated	5,000

RoHS compliance

## Assembly layout

AYU1 ( $\phi$ 0.81 ) Harness	AYU1 ( $\phi$ 1.13 ) Harness
<p>Technical drawing of the AYU1 ( <math>\phi</math> 0.81 ) Harness. The top view shows the connector housing and a cylindrical cable with a diameter of <math>\phi 0.81</math>. The side view shows the housing and cable. The front view shows the housing and cable with a dimension of 2.</p>	<p>Technical drawing of the AYU1 ( <math>\phi</math> 1.13 ) Harness. The top view shows the connector housing and a cylindrical cable with a diameter of <math>\phi 1.13</math>. The side view shows the housing and cable. The front view shows the housing and cable with a dimension of 2.5.</p>

### Insertion and extraction jig

Model No.: EJ-AYU1

