

RoHS Compliant

# COAXIAL CONNECTORS

2008

CAT.NO.COAX-007A-E.FEB.2008



COAXIAL  
CONNECTORS

**Japan Aviation Electronics Industry, Ltd.**

- FREQUENCY RANGE TO 3GHz
- THREADED COUPLING (7/16-28UNEF)

# TNC Series

TNC series middle size coaxial connectors conform to the general purpose standards (IEC60169-17) , designed with threaded coupling. Applicable frequencies : from DC up to 3GHz. High performance with a VSWR (voltage standing wave ratio) of 1.2 or less.

- A wide variety of products enable various mounting styles.
- Environmental middle size connectors with rugged vibration proof construction.
- A high degree of reliability provides stable electric continuity and high frequency performance.
- Applications : Base Station for Mobile Communications, Communications Equipment, Measuring Instruments



## SPECIFICATIONS

|                          |   |
|--------------------------|---|
| Characteristic Impedance | 50 Ω  |
| Frequency Range          | DC to 3GHz  |
| D. W. Voltage            | AC500Vr.m.s. (1minute)  |
| Insulation Resistance    | 500 megohms min. (DC500V)   |
| Contact Resistance       | Center Contacts : 10 milliohms max.<br>Outer Contacts : 10 milliohms max. |
| V. S. W. R.              | 1.2 max. (DC to 3GHz)   |
| Applicable Cables        | 1.5D-V, 1.5D-W, 2.5D-V, UT85  |

## MATERIALS/FINISHES

| Description         | Materials/Finishes  |
|---------------------|---|
| Contacts            | Copper Alloy/Gold Plated over Nickel  |
| Insulator           | PTFE  |
| Shell               | Copper Alloy/Nickel Plated  |
| Hexagon Nut         | Copper Alloy/Nickel Plated  |
| Toothed Lock Washer | Stainless Steel   |
| O-ring              | NBR and Silicon Rubber (Black)  |
| C-ring              | Copper Alloy/Nickel Plated  |
| Sleeve              | Copper Alloy/Nickel Plated<br>TNCA003DB2 : Copper Alloy/<br>Gold Plated over Nickel |
| Gasket              | Silicon Rubber (Brick Red)  |
| Ferrule             | Copper Alloy/Nickel Plated  |

Products applicable up to about 3 GHz are available. For detail, please consult us.

In addition to independent cable application type, we also harness products which satisfy your specification are available. Refer to pages 109 to 111 for details.

### Guide to Operation Manuals

When using any of these products, please confirm the following operation manuals.

- For 1.5D-V and 1.5D-W cables : JAHL-2050-1
- For 2.5D-V cables : JAHL-2050-2
- For 0.085 inch Semi-flexible cables : JAHL-2050-3

# TNC Series

## TYPES AND COMBINATIONS

### Receptacle

● Bulkhead · Straight  
P/N : TNCV001D00



● Through-hole Solder · Straight  
P/N : TNCR001D00



### Jack

● Bulkhead · Straight  
P/N : TNCK00\*D\*\*



● Panel Mount · Straight  
P/N : 4 Hole Mount · TNCH00\*D\*\*



### Dust Cap (For Receptacle & Jack)



See page 41

### Plug

● Straight  
P/N : TNCA00\*D\*\*



● Right-angle  
P/N : TNCB00\*D\*\*



### Adapter



Various adapters are available.  
See pages 93 to 107.

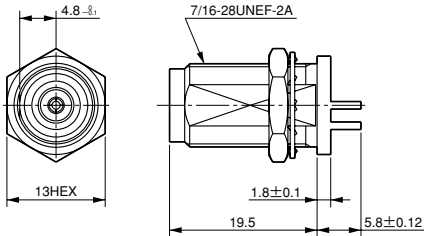
RECEPTACLE

Bulkhead Type · Through-hole Solder Type

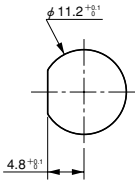
Interchangeable with PLUG (40 Page)

Dimensions in millimeters

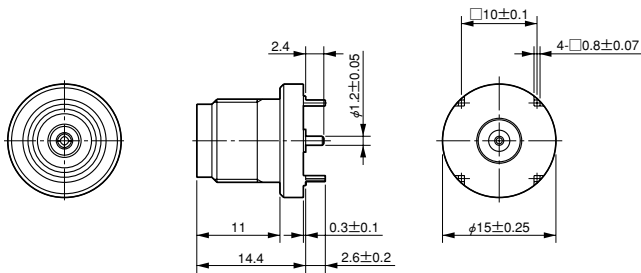
Bulkhead · Straight  
Part Number : TNCV001D00



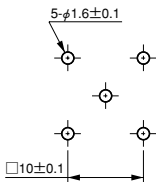
PANEL MOUNTING HOLE PATTERNS (REF.)  
(PANEL THICKNESS : 1 to 4mm)



Through-hole Solder · Straight  
Part Number : TNCR001D00



PC BOARD LAYOUT · MOUNTING SIDE (REF.)



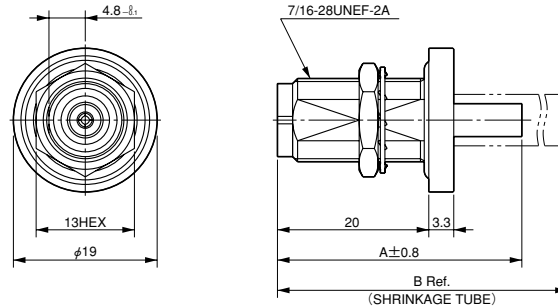
# TNC Series

## JACK Bulkhead Type

Interchangeable with PLUG (40 Page)

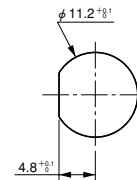
Dimensions in millimeters

### ■Straight



(Note) The picture on the above shows the TNCK001D37.  
The shapes of other models vary slightly.

PANEL MOUNTING HOLE PATTERNS (REF.)  
(PANEL THICKNESS : 2 to 5mm)



### ■Part Number/Dimensions

| Cable Type (Equivalent) | Part Number | A  | B Ref. |
|-------------------------|-------------|----|--------|
| 1.5D-2V                 | TNCK001D37  | 9  | —      |
| 1.5D-2W                 | TNCK004D37  | 9  | 19.9   |
| 2.5D-V                  | TNCK002D13  | 10 | —      |

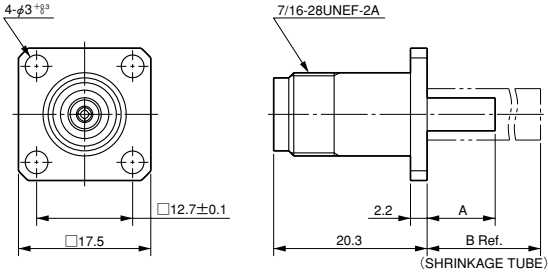
(Note) Procedure for wire connection... See pages 113 to 120

**JACK**  
Panel Mount Type

Interchangeable with PLUG (40 Page)

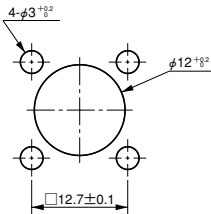
Dimensions in millimeters

**Straight · Four-hole Mount**



(Note) The picture on the above shows the TNCH001D37.  
The shapes of other models vary slightly.

PANEL MOUNTING HOLE PATTERNS (REF.)

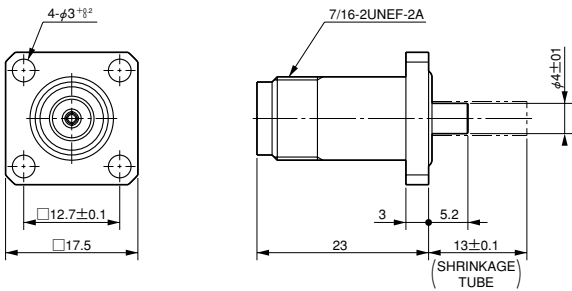


**Part Number/Dimensions**

| Cable Type (Equivalent) | Part Number | A  | B Ref. |
|-------------------------|-------------|----|--------|
| 1.5D-2V                 | TNCH001D37  | 9  | —      |
| 1.5D-2W                 | TNCH005D37  | 9  | 20     |
| 2.5D-2V                 | TNCH002D13  | 10 | —      |

(Note) Procedure for wire connection...See pages 113 to 120

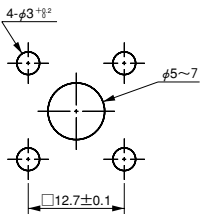
**Straight · Four-hole Mount  
Waterproof**  
Part Number : TNCH003DB2



Applicable Cables : 0.085inch Semi-flexible Cable Equivalent

(Note) Procedure for wire connection...See pages 113 to 120

PANEL MOUNTING HOLE PATTERNS (REF.)



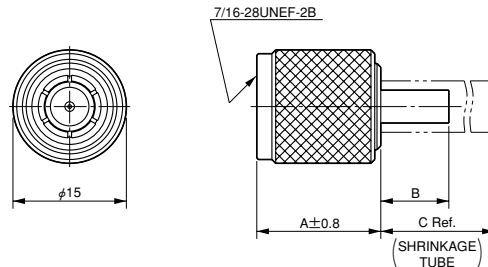
TNC Series

PLUG

Interchangeable with RECEPTACLE (37 Page) & JACK (38, 39 Page)

Dimensions in millimeters

Straight



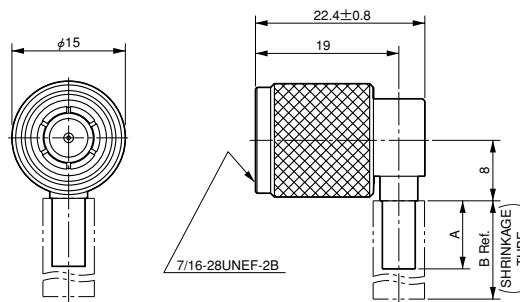
(Note) The picture on the above shows the TNCA001D37. The shapes of other models vary slightly.

Part Number/Dimensions

| Cable Type (Equivalent)  | Part Number | A ± 0.8 | B  | C Ref. |
|--------------------------|-------------|---------|----|--------|
| 1.5D-2V                  | TNCA001D37  | 16.4    | 9  | —      |
| 1.5D-2W                  | TNCA005D37  | 16.4    | 9  | 20     |
| 2.5D-2V                  | TNCA002D13  | 16      | 10 | —      |
| 0.085 inch Semi-flexible | TNCA003DB2  | 17.6    | 5  | 13     |

(Note) Procedure for wire connection...See pages 113 to 120

Right-angle



(Note) The picture on the above shows the TNCB001D37. The shapes of other models vary slightly.

Part Number/Dimensions

| Cable Type (Equivalent) | Part Number | A  | B Ref. |
|-------------------------|-------------|----|--------|
| 1.5D-2V                 | TNCB001D37  | 9  | —      |
| 1.5D-2W                 | TNCB003D37  | 9  | 20     |
| 2.5D-2V                 | TNCB002D13  | 10 | —      |

(Note) Procedure for wire connection...See pages 113 to 120

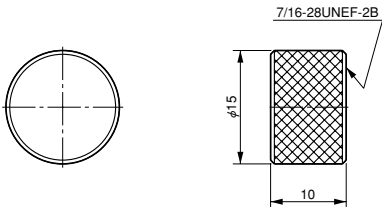
■ DUST CAP (For Receptacle & Jack)

Dimensions in millimeters

■ Without Chain  
Part Number : TNC001Z00



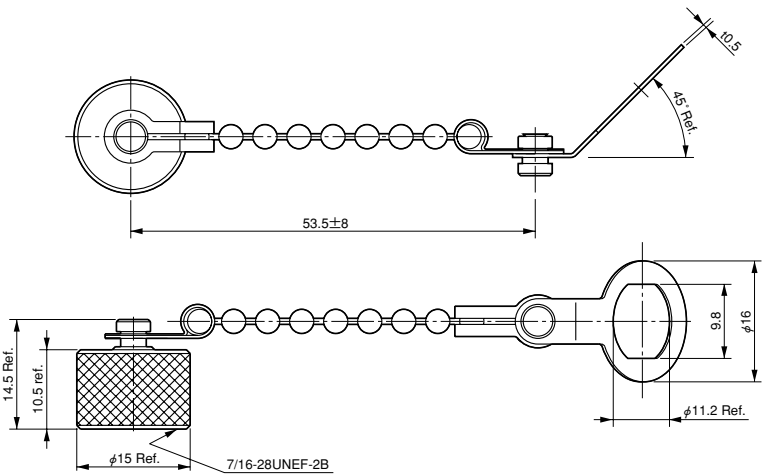
● Material : Copper Alloy



■ With Chain  
Part Number : TNC000003-R



● Material : Copper Alloy





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## Before placing an order

- ①The values specified in this catalogue are only for reference. The products and specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.  
For purchase, a product specification must be agreed upon.
- ②Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.
- ③The products presented in this catalogue are designed for the uses recommended below.  
We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

**(1)Applications that require consultation:**

- (i)Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:  
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
- (ii)We may separately give you our support with a quality assurance program that you specify, when you think of a use such as:  
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

**(2)Recommended applications include:**

Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

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<http://www.jae-connector.com>

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