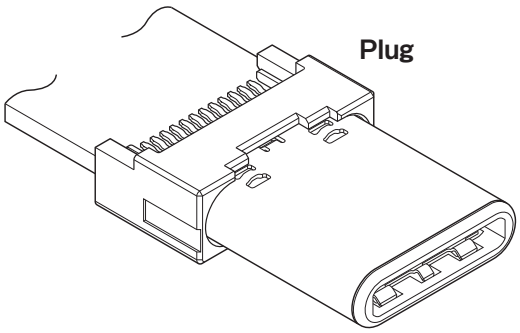
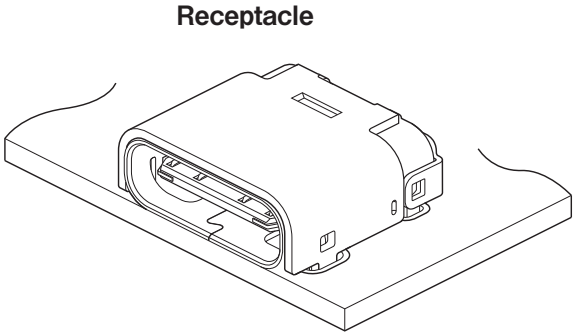
# UBC CONNECTOR

**USB (Universal Serial Bus) standard-compliant connector**




The UBC connector is an USB Type-C compliant interface connector capable of supplying up to 100 W of power.
The receptacle is USB4 compliant with a data transmission rate of up to 40 Gbps.
Reversible structure that can be inserted regardless of front or back orientation of the plug.

- Up to 10,000 high durability mating cycles
- Halogen-free

Plug
- The housing cover prevents hot molding materials from flowing inside the connector during the injection overmold operation in the wire harness manufacturing process.

Receptacle
- Providing a robust, double-shell structure (single shell is also available)
- Connector leads are based on a hybrid through-hole and SMT soldering design

## ■ Specifications

- Current rating:
  1.25 A DC/Pin Vbus (A4, A9, B4, B9)
  GND (A1, A12, B1, B12)
  CC1 (A5)
  CC2 (B5)
  0.25 A DC/Pin Other circuits
- Voltage rating: 20 V AC
- Temperature range: −25℃ to +85℃
  (including temperature rise in applying electrical current)
- Contact resistance:
  Initial value/ 40 mΩ max.
  After environmental tests/ 50 mΩ max.
- Insulation resistance: 100 MΩ min.
- Withstanding voltage:
  There shall be no breakdown or flashover while applying 100 VAC for one minute.

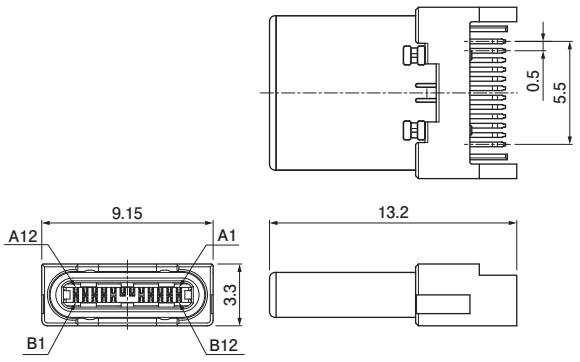
* Please refer to the "Handling Precautions for Terminals and Connectors" on our website (listed in the "Technical Documents" column on the Product Information page) before use.
* RoHS2 compliance
* Dimensional unit: mm
* Contact JST for details.



JST

## Plug

TID No. : 5200000193




Note: A1, A12, B1, B12 are circuit numbers.

| Model No. | Q'ty/box |
|---|---|
| UBC-P-514-7B(HF) | 3,888 |

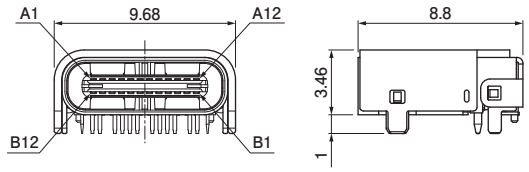
| Material and Surface finish, etc. | |
|---|---|
| Housing | PA (Heat resistance), black |
| Contact A | Copper alloy, selective gold-plated, selective tin-plated |
| Contact B | |
| Shell | Stainless steel |
| Ground bar | |
| Lock | Stainless steel, tin-plated |
| Center ground plate | Stainless steel |
| Cover housing | PA (Heat resistance), black |
| Polyimide tape | Polyimide |

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

## Receptacle (On-board specification)

### Standard type

TID No. : 6916



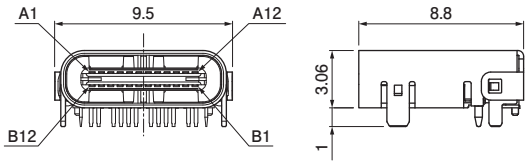

Note: A1, A12, B1, B12 are circuit numbers.

| Model No. | Q'ty/reel |
|---|---|
| UBC-R1B12-56C-7ATS(HF) | 1,000 |

| Material and Surface finish, etc. | |
|---|---|
| Contact A | Copper alloy, selective PD-NI plated selective gold-plated |
| Contact B | |
| Housing | PA (Heat resistance), black |
| EMC pad | Stainless steel |
| Mid plate | Stainless steel, selective gold-plated |
| Shell | Stainless steel, tin-plated |
| Cover shell | |

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

### Low profile type




Note: A1, A12, B1, B12 are circuit numbers.

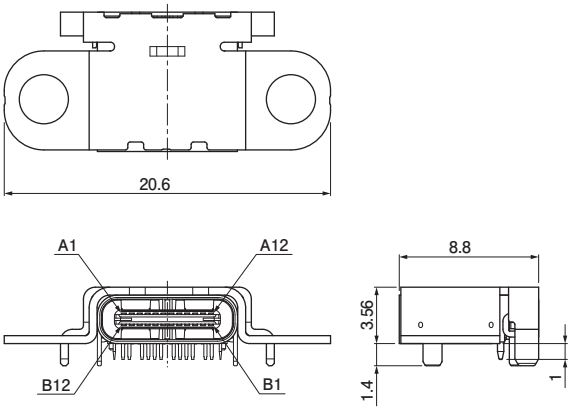
| Model No. | Q'ty/reel |
|---|---|
| UBC-R1AB12-56C-7ATS(HF) | 1,000 |

| Material and Surface finish, etc. | |
|---|---|
| Contact A | Copper alloy, selective PD-NI plated selective gold-plated |
| Contact B | |
| Housing | PA (Heat resistance), black |
| EMC pad | Stainless steel |
| Mid plate | Stainless steel, selective gold-plated |
| Shell | Stainless steel, tin-plated |

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

## Receptacle (On-board specification)

**Enhanced pry resistance type**
**TIDNo. : 7159**




Note: A1, A12, B1, B12 are circuit numbers.

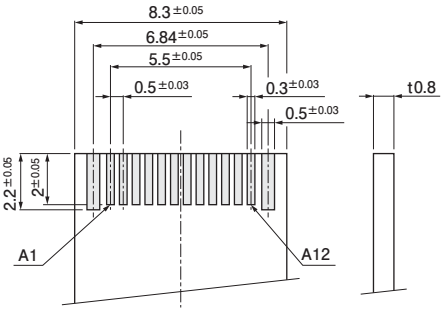
| Model No. | Q'ty/reel |
|---|---|
| UBC-R9AB12-56C-7ATS(HF) | 1,300 |

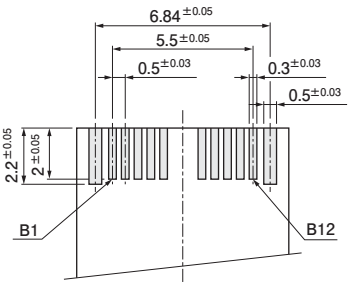
| Material and Surface finish, etc. | |
|---|---|
| Contact A | Copper alloy, selective PD-NI plated selective gold-plated |
| Contact B | |
| Housing | PA (Heat resistance), black |
| EMC pad | Stainless steel |
| Mid plate | Stainless steel, selective gold-plated |
| Shell | Stainless steel, tin-plated |
| Cover shell | Stainless steel, nickel-plated |

Note: For flame retardant grade of resin material used, please refer to the "List of Registered Overseas Standards" on our website (listed in the "Technical Documents" column on the Product Information page).

## PC board layout

**Plug**

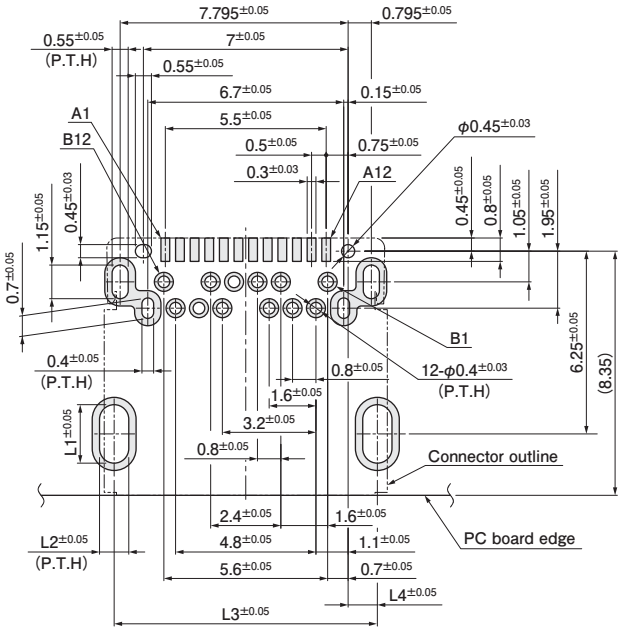



Note: 1. A1, A12, B1, B12 are circuit numbers.
2. Tolerance for the PCB pad pitch shall be ± 0.03, and shall not accumulate more than ± 0.05.
3. The above dimensions are reference values. Please contact JST for details.

## PC board layout

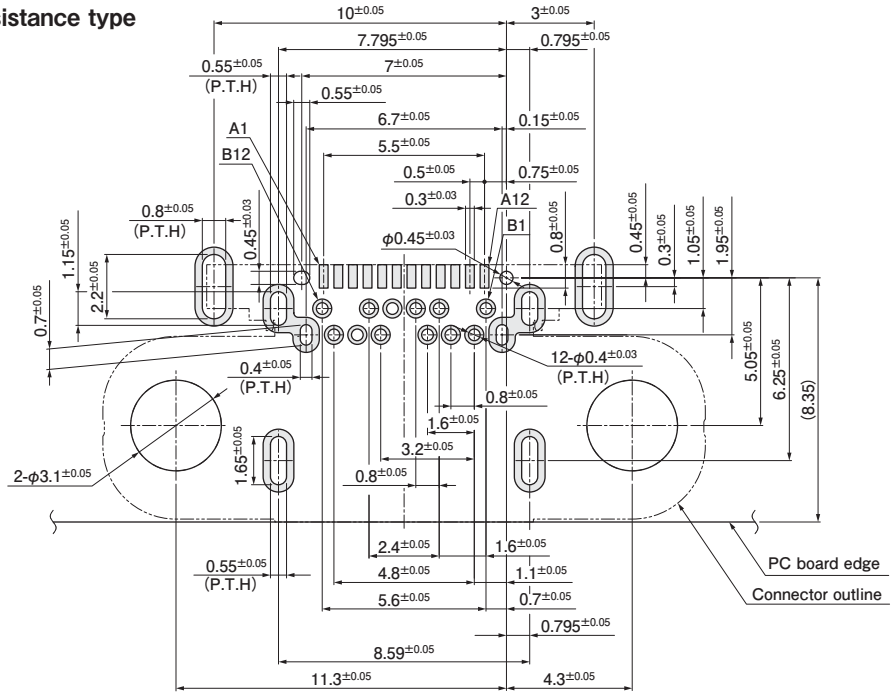
**Receptacle**
**(On-board specification)**
**Standard type,**
**Low profile type**




Recommended PC board thickness: t1.0

| Type | Model No. | Dimensions (mm) | | | |
|---|---|---|---|---|---|
| | | L1 | L2 | L3 | L4 |
| Standard type | UBC-R1B12-56C-7ATS(HF) | 2 | 1 | 9 | 1 |
| Low profile type | UBC-R1AB12-56C-7ATS(HF) | 1.65 | 0.55 | 8.59 | 0.795 |

**Receptacle**
**(On-board specification)**
**Enhanced pry resistance type**




Recommended PC board thickness: t1.0

Note: 1. A1, A12, B1, B12 are circuit numbers.
2. The PC board layout figure shown is viewed from the connector mounting surface.
3. Tolerance for the PCB pad pitch shall be ± 0.05, and shall not accumulate more than ± 0.05.
4. The above dimensions are reference values. Please contact JST for details.