

**MODEL:** UJ31-CH-3-MSMT-TR-67 | **DESCRIPTION:** USB RECEPTACLE**FEATURES**

- IP67 waterproof
- mid surface mount
- USB 3.2 Gen 2
- 10 Gbit/s data transfer speed
- reflow solder compatible

**SPECIFICATIONS**

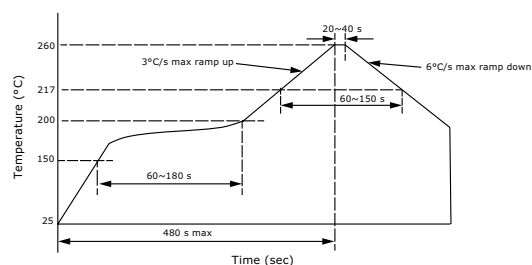
| parameter                       | conditions/description                            | min | typ    | max  | units  |
|---------------------------------|---------------------------------------------------|-----|--------|------|--------|
| USB standard                    | USB 3.2 Gen 2                                     |     |        |      |        |
| rated input voltage             |                                                   |     |        | 20   | Vdc    |
| rated input current             | as per EIA-364-70, Method B                       |     |        |      |        |
|                                 | power pins collectively [A4, A9, B4, B9]          |     |        | 5.0  | A      |
|                                 | GND pins collectively [A1, A12, B1, B12]          |     |        | 6.25 | A      |
|                                 | VCONN pins individually [A5, B5]                  |     |        | 1.25 | A      |
|                                 | all other signal pins individually                |     |        | 0.25 | A      |
| contact resistance <sup>1</sup> | between terminals and mating plug                 |     |        | 40   | mΩ     |
| insulation resistance           | at 250 Vdc for 1 minute between adjacent contacts | 100 |        |      | MΩ     |
| voltage withstand               | at 60 Hz for 1 minute between adjacent contacts   | 100 |        |      | Vac    |
| insertion force                 | at a rate of 12.5 mm/min                          | 5   |        | 20   | N      |
| withdrawal force                | at a rate of 12.5 mm/min                          | 8   |        | 20   | N      |
| life                            | at a rate of 200 max cycles per hour              |     | 10,000 |      | cycles |
| operating temperature           |                                                   | -40 |        | 80   | °C     |
| storage temperature             |                                                   | -40 |        | 85   | °C     |
| flammability rating             | UL94V-0                                           |     |        |      |        |
| RoHS                            | yes                                               |     |        |      |        |
| IP level                        | IP67                                              |     |        |      |        |

Note: 1. When measured at 20 mV max / 100 mA.

**SOLDERABILITY**

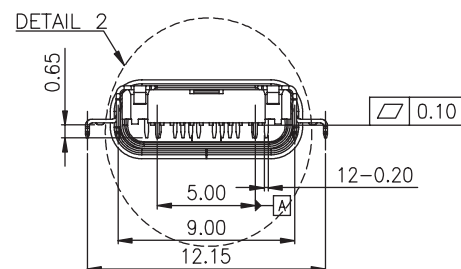
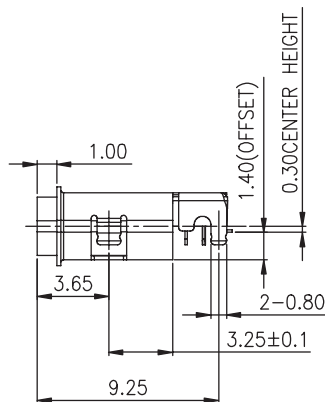
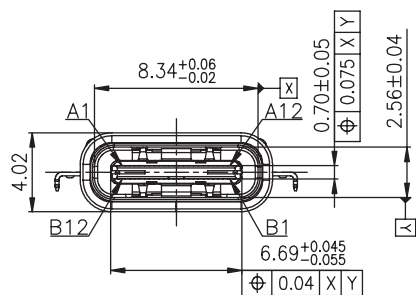
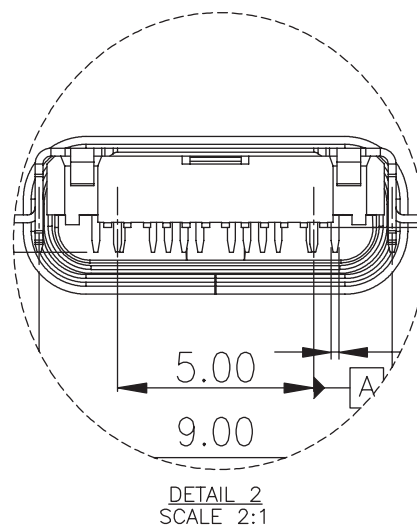
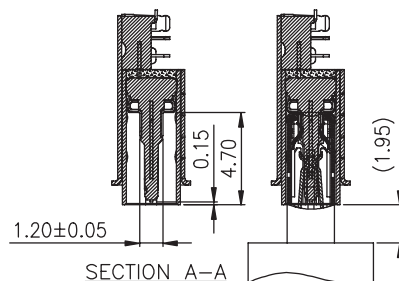
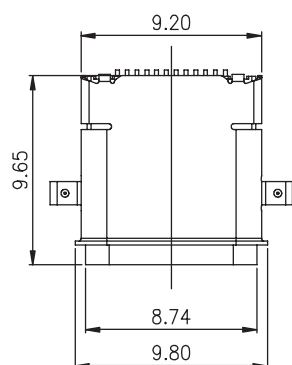
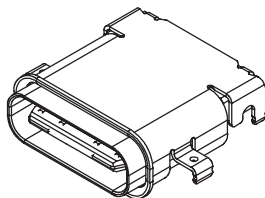
| parameter                     | conditions/description    | min | typ | max | units |
|-------------------------------|---------------------------|-----|-----|-----|-------|
| reel storage                  | at relative humidity <60% |     |     | 30  | °C    |
| reflow soldering <sup>2</sup> | see reflow profile        | 255 | 260 | 265 | °C    |

Note: 2. It is recommended to reflow solder within 72 hours from opening vacuum packaging at a temperature <30°C & relative humidity <60%.

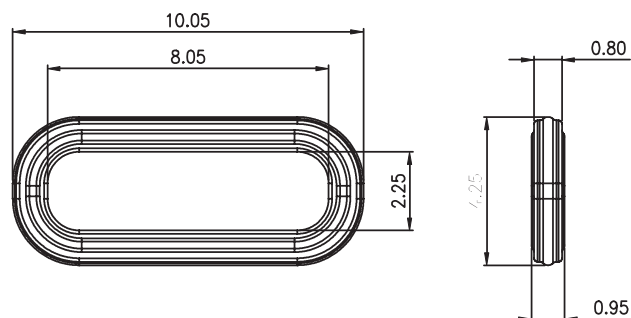
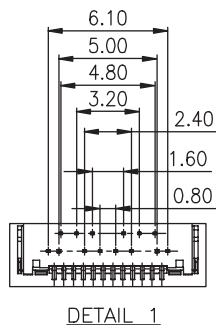
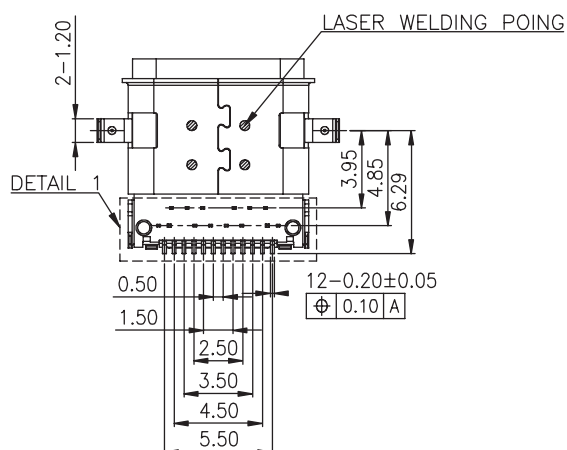


## MECHANICAL DRAWING

units: mm  
tolerance:  
X.  $\pm 0.30$  mm  
X.X  $\pm 0.20$  mm  
X.XX  $\pm 0.10$  mm



O-ring (P/N: OR-80)



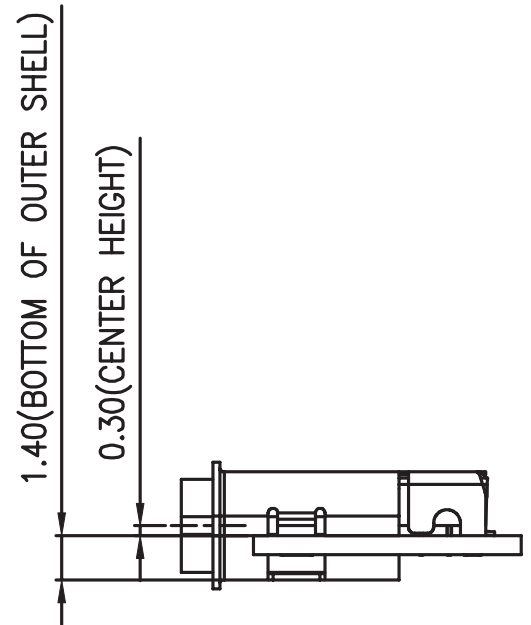
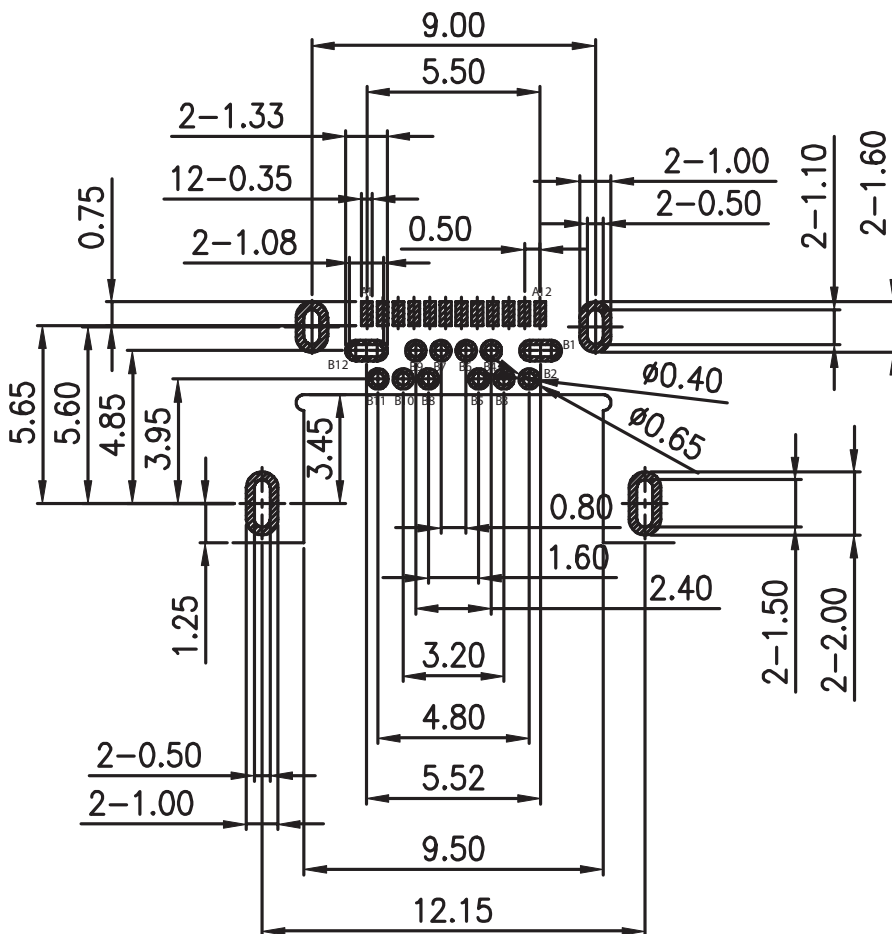
## MECHANICAL DRAWING (CONTINUED)

units: mm

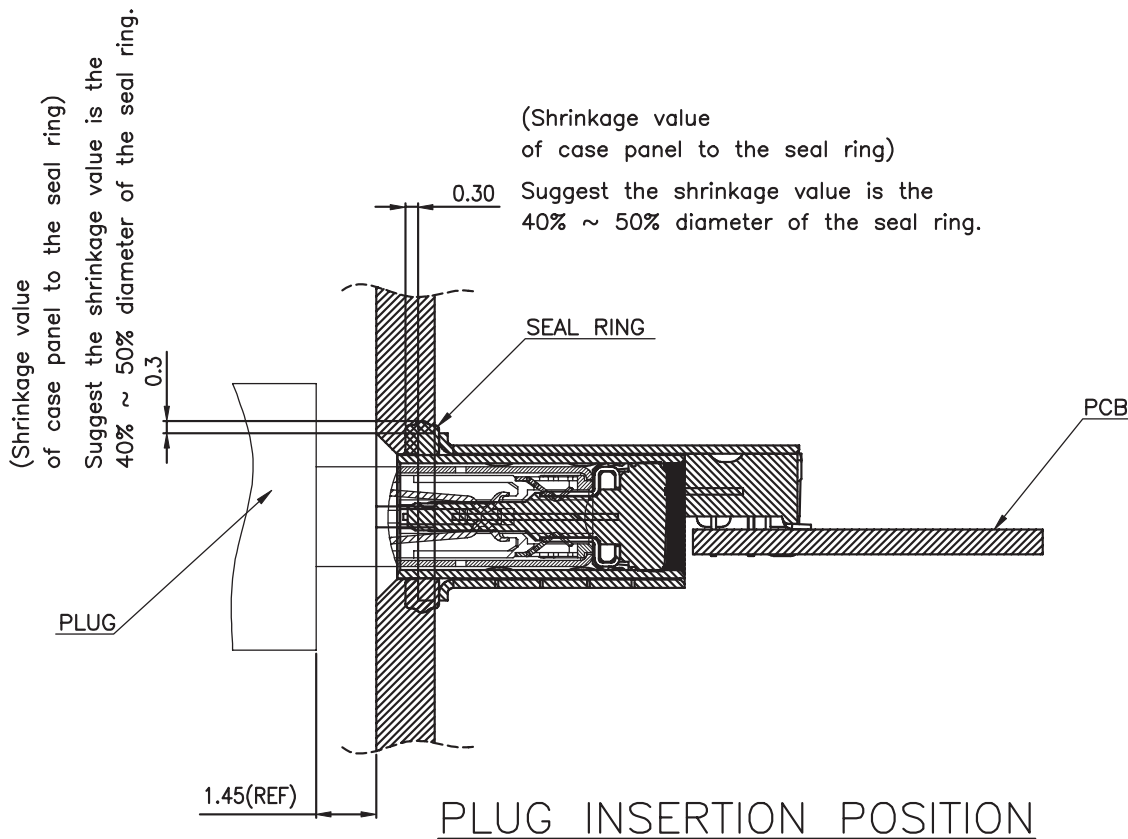
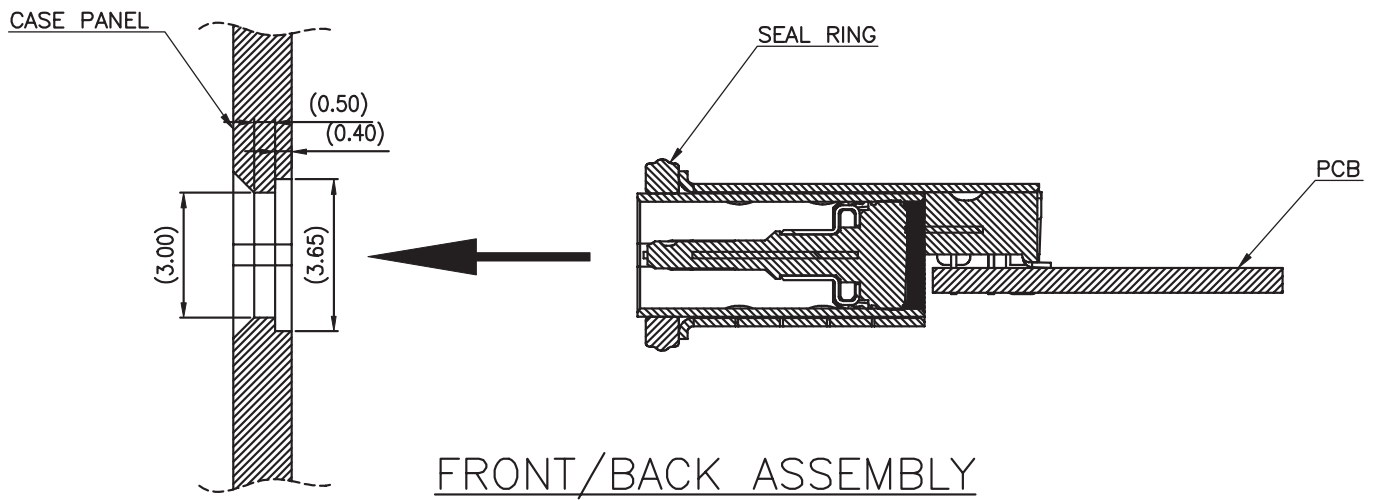
PCB tolerance:  $\pm 0.05$  mm

PCB thickness: 0.60 mm

| PIN CONNECTIONS |                  |                 |       |                  |                 |
|-----------------|------------------|-----------------|-------|------------------|-----------------|
| PIN             | SIGNAL NAME      | MATING SEQUENCE | PIN   | SIGNAL NAME      | MATING SEQUENCE |
| A1              | GND              | FIRST           | B12   | GND              | FIRST           |
| A2              | SSTXp1           | SECOND          | B11   | SSRXp1           | SECOND          |
| A3              | SSTXn1           | SECOND          | B10   | SSRXn1           | SECOND          |
| A4              | V <sub>BUS</sub> | FIRST           | B9    | V <sub>BUS</sub> | FIRST           |
| A5              | CC1              | SECOND          | B8    | SBU2             | SECOND          |
| A6              | Dp1              | SECOND          | B7    | Dn2              | SECOND          |
| A7              | Dn1              | SECOND          | B6    | Dp2              | SECOND          |
| A8              | SBU1             | SECOND          | B5    | CC2              | SECOND          |
| A9              | V <sub>BUS</sub> | FIRST           | B4    | V <sub>BUS</sub> | FIRST           |
| A10             | SSRXn2           | SECOND          | B3    | SSTXn2           | SECOND          |
| A11             | SSRXp2           | SECOND          | B2    | SSTXp2           | SECOND          |
| A12             | GND              | FIRST           | B1    | GND              | FIRST           |
| SHELL           |                  | GND             | SHELL |                  | GND             |

Recommended PCB Layout  
Top View

## ASSEMBLY REFERENCE





REVISION HISTORY

| rev. | description                                                                                         | date       |
|------|-----------------------------------------------------------------------------------------------------|------------|
| 1.0  | initial release                                                                                     | 08/07/2018 |
| 1.01 | updated assembly reference details                                                                  | 05/17/2019 |
| 1.02 | changed plastic to PA46, modified plastic structure to cover exposed metal at internal contact area | 06/12/2019 |
| 1.03 | moved o-rings to be included in vacuum packaging                                                    | 07/11/2019 |
| 1.04 | brand update                                                                                        | 01/28/2020 |
| 1.05 | updated USB standard, added o-ring p/n                                                              | 04/05/2022 |
| 1.06 | logo, datasheet style update                                                                        | 08/05/2022 |
| 1.07 | CUI Devices rebranded to Same Sky                                                                   | 09/12/2024 |

The revision history provided is for informational purposes only and is believed to be accurate.



Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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