

**MODEL:** UJ31-CH-G1-SMT-TR | **DESCRIPTION:** USB RECEPTACLE**FEATURES**

- USB Type C receptacle
- USB 3.2 Gen 2
- 10 Gbit/s data transfer speed
- reflow solder compatible
- tape & reel packaging

**SPECIFICATIONS**

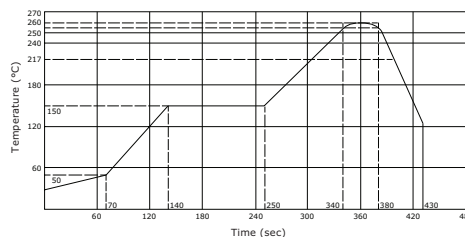
| parameter                       | conditions/description                   | min | typ    | max  | units  |
|---------------------------------|------------------------------------------|-----|--------|------|--------|
| USB standard                    | USB 3.2 Gen 2                            |     |        |      |        |
| rated input voltage             |                                          |     |        | 20   | Vac    |
| 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           | between adjacent contacts                | 100 |        |      | MΩ     |
| voltage withstand               | 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 500 ± 50 cycles per hour    |     | 10,000 |      | cycles |
| operating temperature           |                                          | -25 |        | 85   | °C     |
| flammability rating             | UL94V-0                                  |     |        |      |        |
| RoHS                            | yes                                      |     |        |      |        |

Note: 1. When measured at 20 mV / 100 mA.  
2. All specifications measured at 10-35°C, humidity at 45-85%, under standard atmospheric pressure, unless otherwise noted.

**SOLDERABILITY**

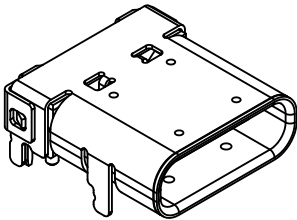
| parameter                      | conditions/description                                                                                   | min | typ | max | units |
|--------------------------------|----------------------------------------------------------------------------------------------------------|-----|-----|-----|-------|
| reel storage                   | at relative humidity <80%                                                                                |     |     | 40  | °C    |
| reflow soldering <sup>3</sup>  | see reflow profile                                                                                       | 255 | 260 | 265 | °C    |
| drying conditions <sup>4</sup> | parts in reel: bake at 40°C ±5°C for 72 hours<br>parts removed from reel: bake at 40°C ±5°C for 10 hours |     |     |     |       |

Note: 3. It is recommended to reflow solder within 72 hours from opening vacuum packaging at a temperature <30°C & relative humidity <60%.  
4. When exceeding floor life by >72 hours.

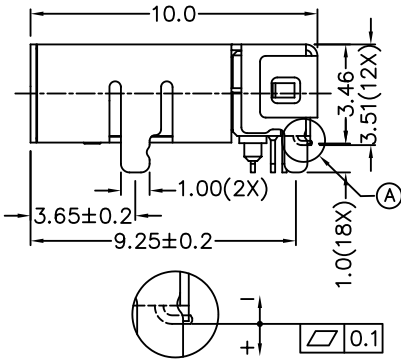
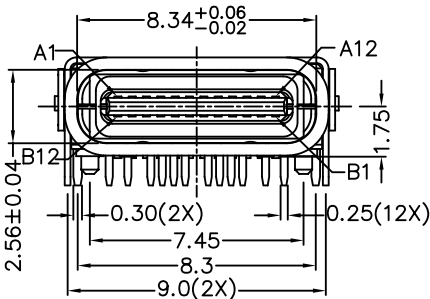
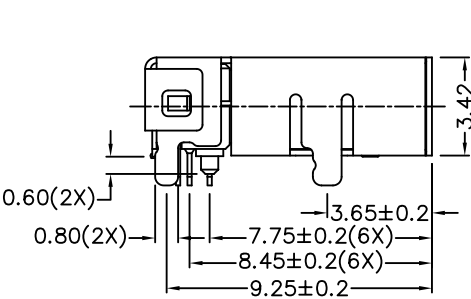


MECHANICAL DRAWING

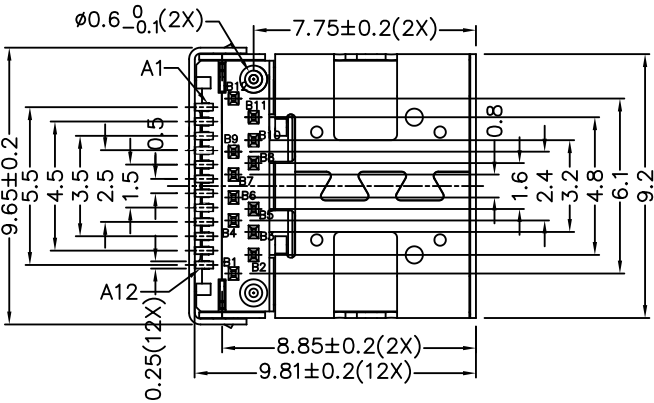
units: mm  
tolerance:  
X.X  $\pm 0.2$  mm  
X.XX  $\pm 0.10$  mm  
X.XXX  $\pm 0.050$  mm



|                          | MATERIAL        | PLATING                                   |
|--------------------------|-----------------|-------------------------------------------|
| contact terminals        | copper alloy    | contact: gold flash<br>solder: gold flash |
| shell                    | brass           | nickel                                    |
| cover shell              | stainless steel | nickel                                    |
| inner ground cover shell | stainless steel |                                           |
| mid plate                | stainless steel | nickel                                    |
| insulator                | PA10T           |                                           |



A DETAIL COPLANARITY

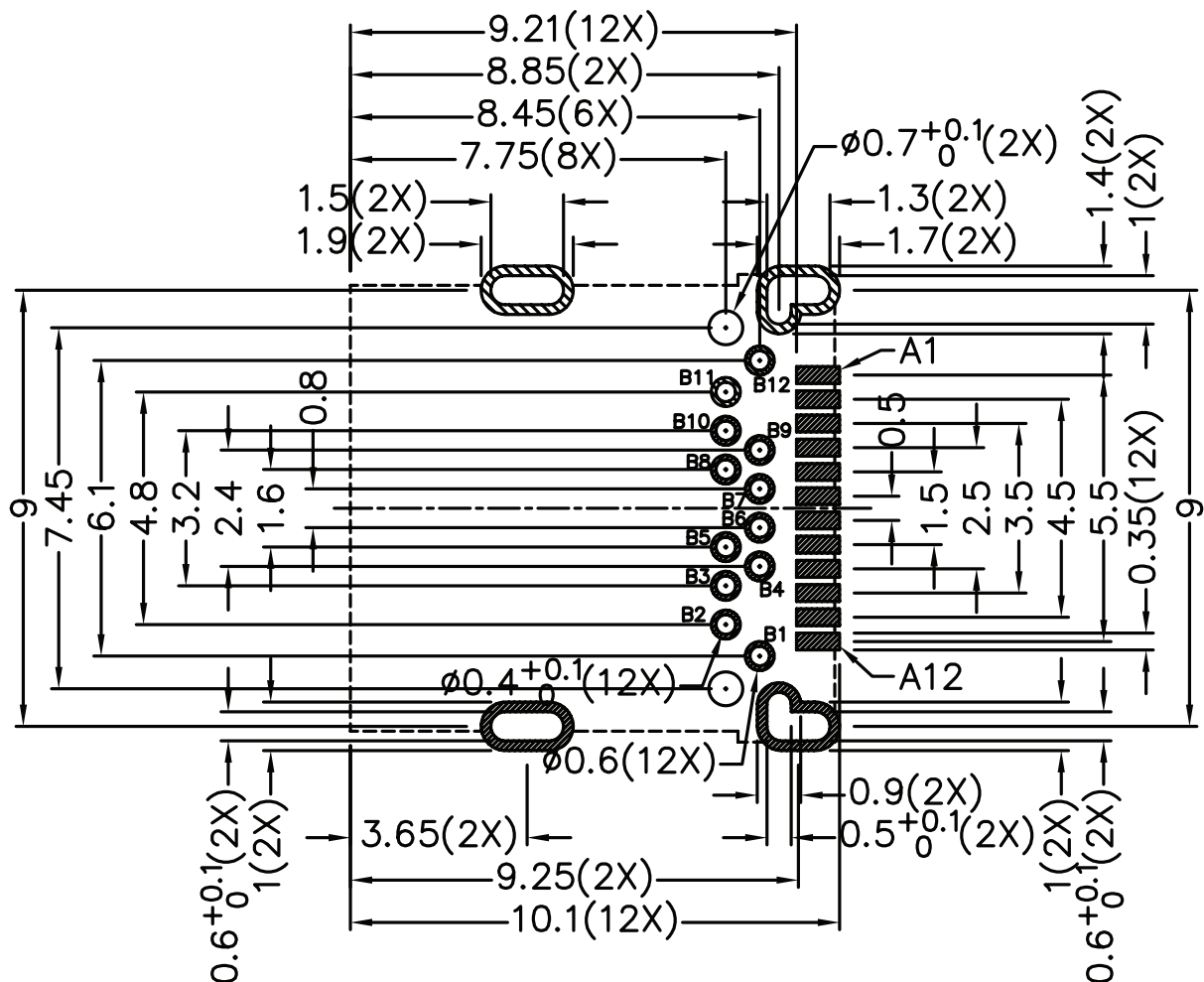


## MECHANICAL DRAWING (CONTINUED)

units: mm

PCB tolerance:  $\pm 0.05$  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             |

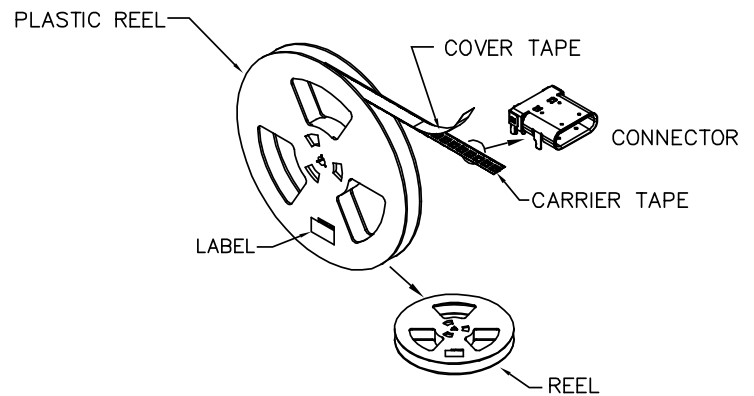
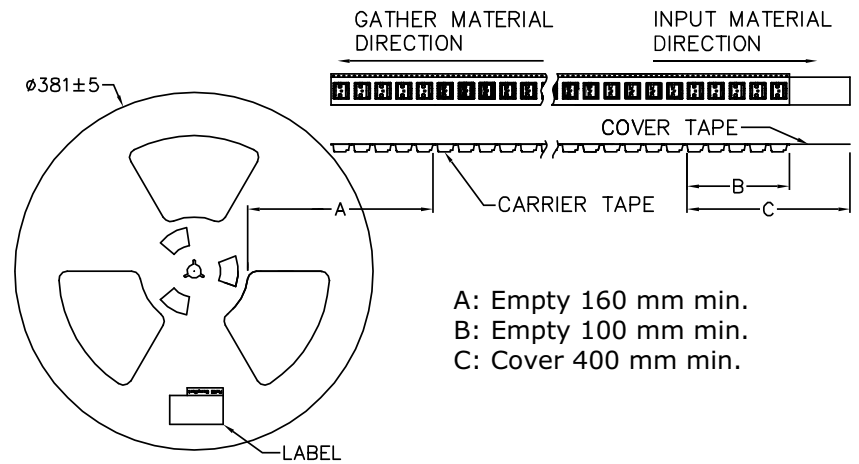
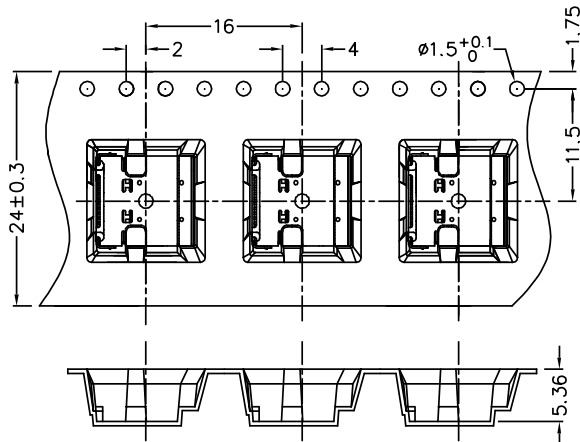
Recommended PCB Layout  
Top View

## PACKAGING

units: mm

Reel Size:  $\varnothing 381$  mm

Reel QTY: 1,050 pcs per reel



REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 12/19/2017 |
| 1.01 | updated datasheet                 | 01/30/2018 |
| 1.02 | brand update                      | 01/28/2020 |
| 1.03 | updated USB standard              | 04/06/2022 |
| 1.04 | logo, datasheet style update      | 08/05/2022 |
| 1.05 | 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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