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# 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

RoHS

## SPECIFICATIONS

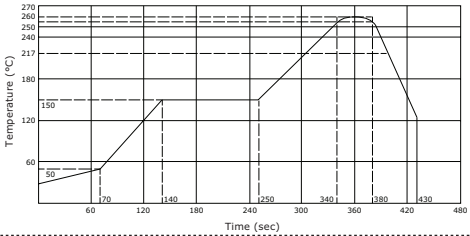
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| USB standard | USB 3.2 Gen 2 | | | | |
| rated input voltage | | | | 20 | Vac |
| rated input current | as per EIA-364-70, Method B<br>power pins collectively (A4, A9, B4, B9)<br>GND pins collectively (A1, A12, B1, B12)<br>VCONN pins individually (A5, B5)<br>all other signal pins individually | | | <br>5.0<br>6.25<br>1.25<br>0.25 | <br>A<br>A<br>A<br>A |
| contact resistance[1] | 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

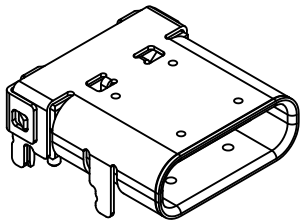
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| reel storage | at relative humidity <80% | | | 40 | °C |
| reflow soldering[3] | see reflow profile | 255 | 260 | 265 | °C |
| drying conditions[4] | parts in reel: bake at 40°C ±5°C for 72 hours<br>parts removed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

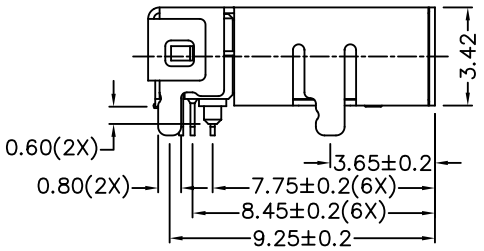


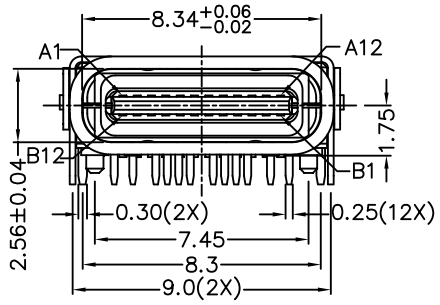
## MECHANICAL DRAWING

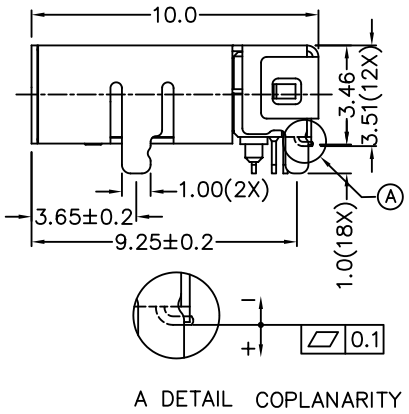
units: mm
tolerance:
X.X ±0.2 mm
X.XX ±0.10 mm
X.XXX ±0.050 mm

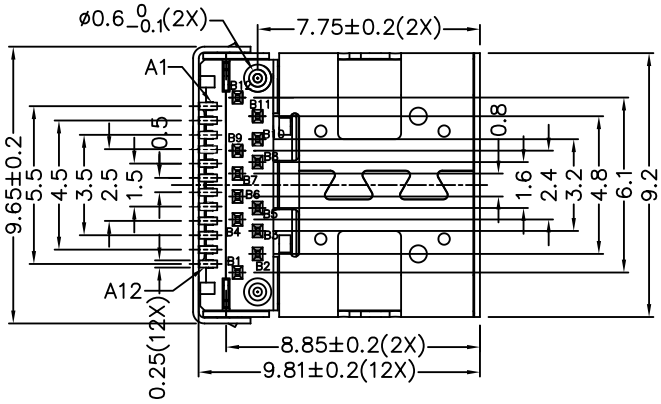


| | MATERIAL | PLATING |
|---|---|---|
| contact terminals | copper alloy | contact: gold flash<br>solder: gold flash |
| shell | brass | nickel |
| cover shell | stainless steel | nickel |
| inner ground cover shell | stainless steel | |
| mid plate | stainless steel | nickel |
| insulator | PA10T |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



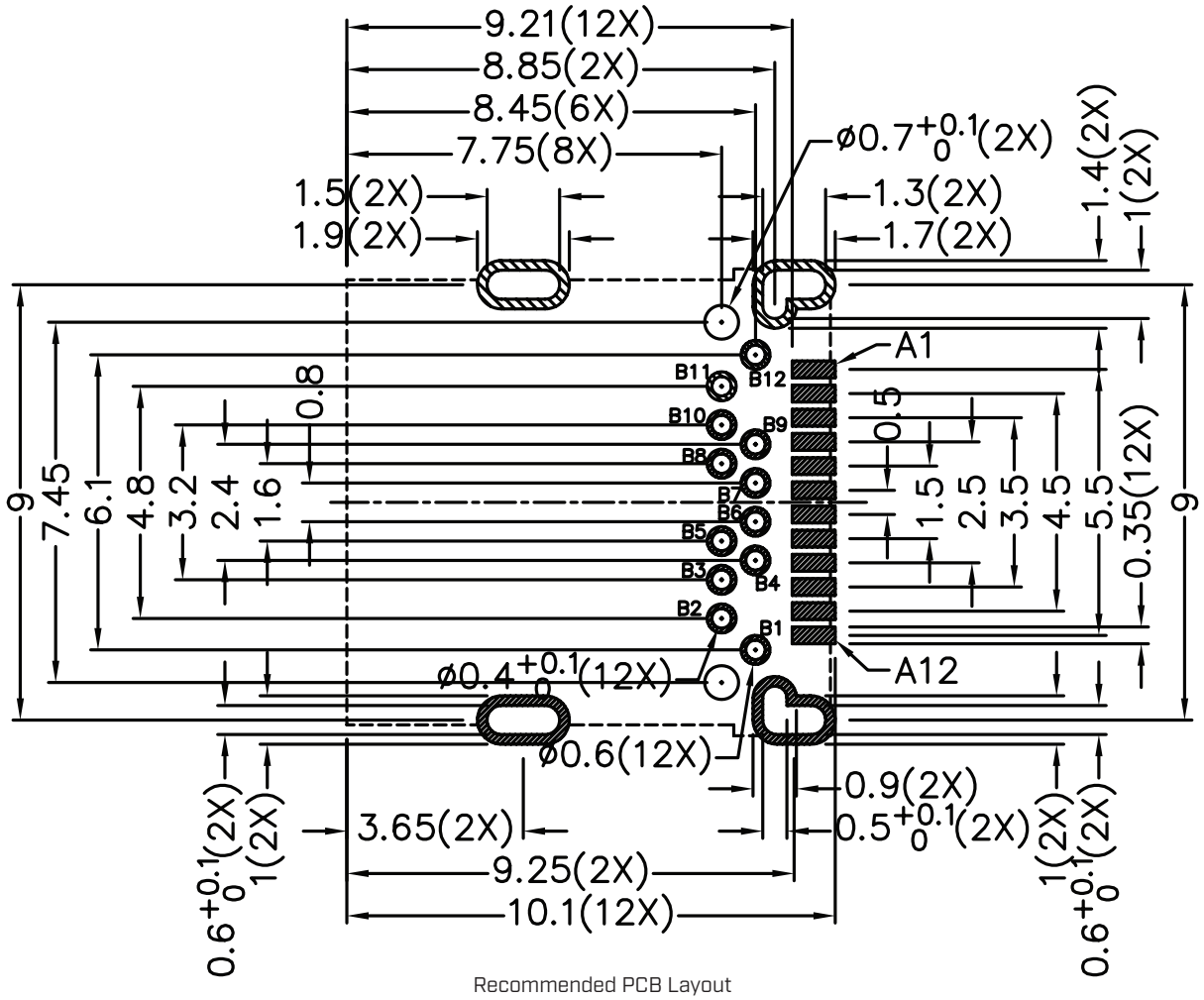



## MECHANICAL DRAWING (CONTINUED)

units: mm
PCB tolerance: ±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 | $V_{BUS}$ | FIRST | B9 | $V_{BUS}$ | 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 | $V_{BUS}$ | FIRST | B4 | $V_{BUS}$ | FIRST |
| A10 | SSRXn2 | SECOND | B3 | SSTXn2 | SECOND |
| A11 | SSRXp2 | SECOND | B2 | SSTXp2 | SECOND |
| A12 | GND | FIRST | B1 | GND | FIRST |
| SHELL | | GND | SHELL | | GND |

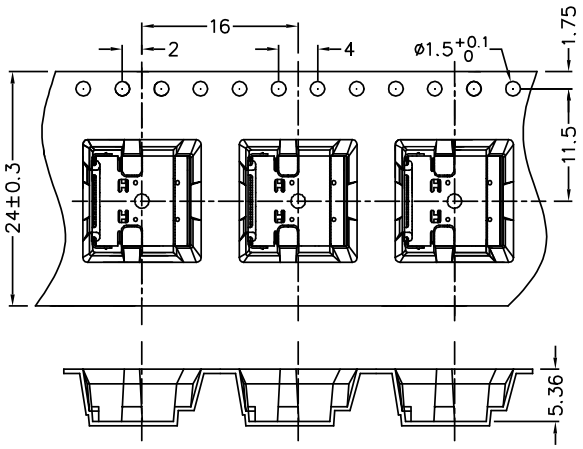


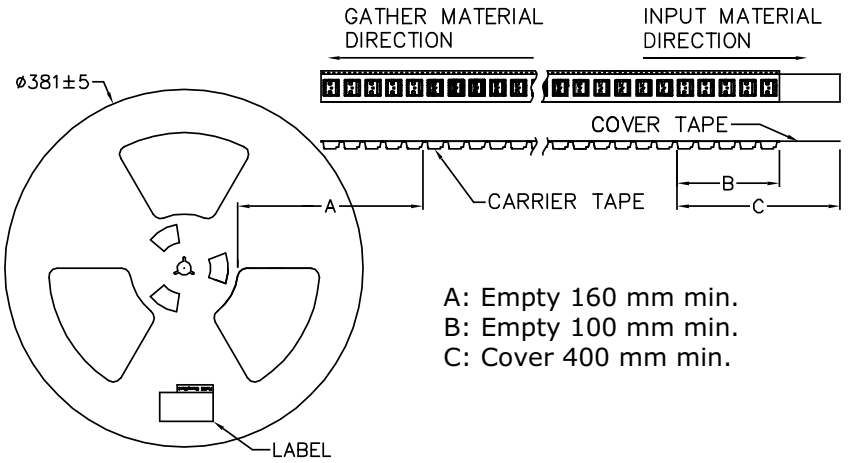

Recommended PCB Layout
Top View

## PACKAGING

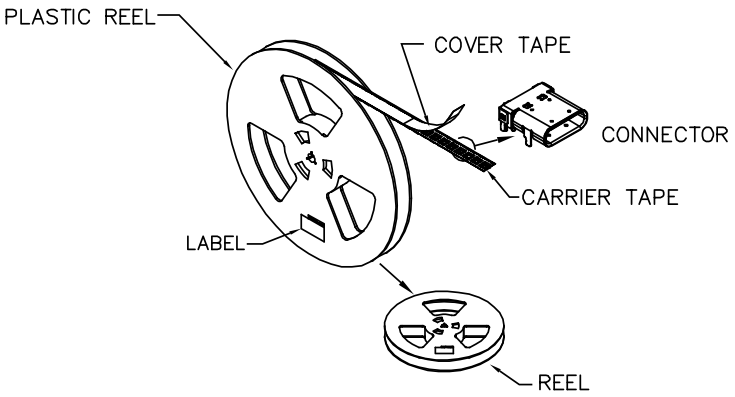
units: mm

Reel Size: Ø381 mm
Reel QTY: 1,050 pcs per reel




A: Empty 160 mm min.
B: Empty 100 mm min.
C: Cover 400 mm min.



## 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

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