

MODEL: UJ31-CH-G2-SMT-TR | **DESCRIPTION:** USB RECEPTACLE**FEATURES**

- USB Type C receptacle
- USB 3.1
- 10 Gbit/s data transfer speed
- reflow solder compatible
- tape & reel packaging

**SPECIFICATIONS**

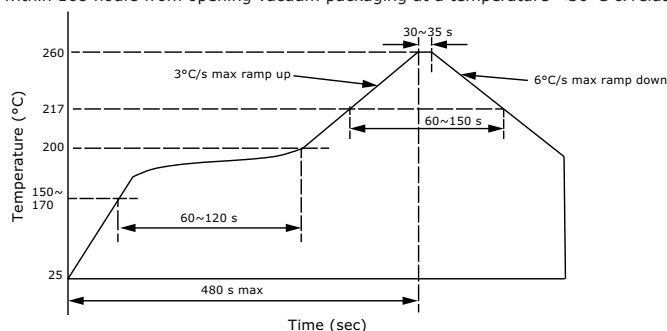
| parameter | conditions/description | min | typ | max | units |
|---------------------------------|---|-----|--------|------|--------|
| rated input voltage | | | | 20 | Vdc |
| rated input current | as per EIA-364-70, Method B | | | | |
| | power pins collectively (A4, A9, B4, B9) | | | 5.0 | A |
| | 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 ¹ | between terminals and mating plug | | | 40 | mΩ |
| insulation resistance | at 100 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 | | -25 | | 80 | °C |
| storage temperature | | -40 | | 85 | °C |
| flammability rating | UL94V-0 | | | | |
| RoHS | yes | | | | |

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

SOLDERABILITY

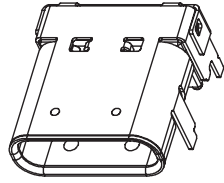
| parameter | conditions/description | min | typ | max | units |
|-------------------------------|---------------------------|-----|-----|-----|-------|
| reel storage | at relative humidity <60% | | | 30 | °C |
| reflow soldering ² | see reflow profile | 255 | 260 | 265 | °C |

Note: 2. It is recommended to reflow solder within 168 hours from opening vacuum packaging at a temperature <30°C & relative humidity <60%.

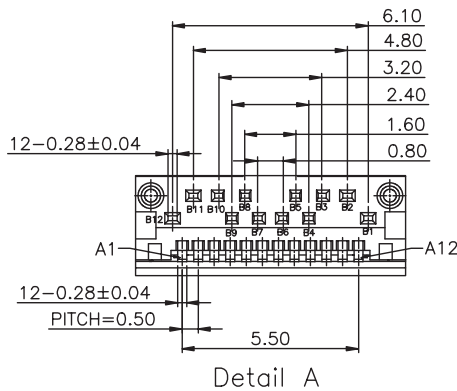
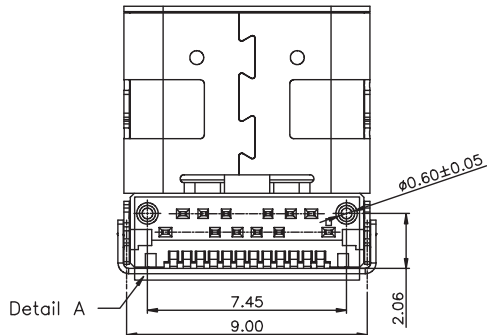
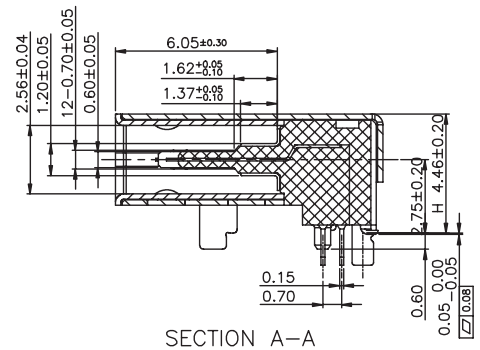
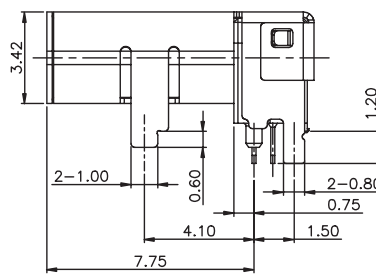
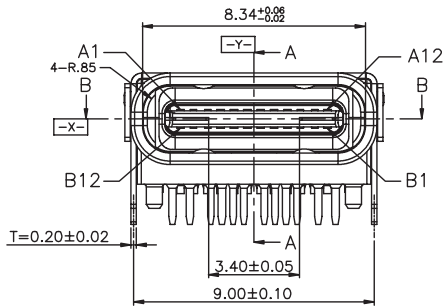
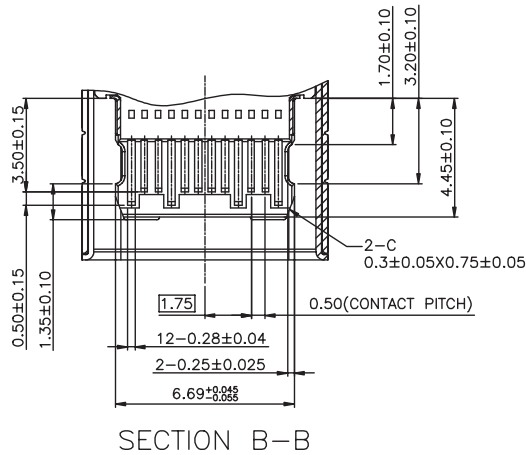
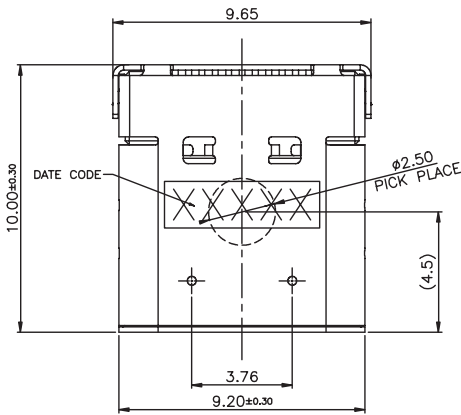


MECHANICAL DRAWING

units: mm
 tolerance:
 X.X ±0.2 mm
 X.XX ±0.15 mm



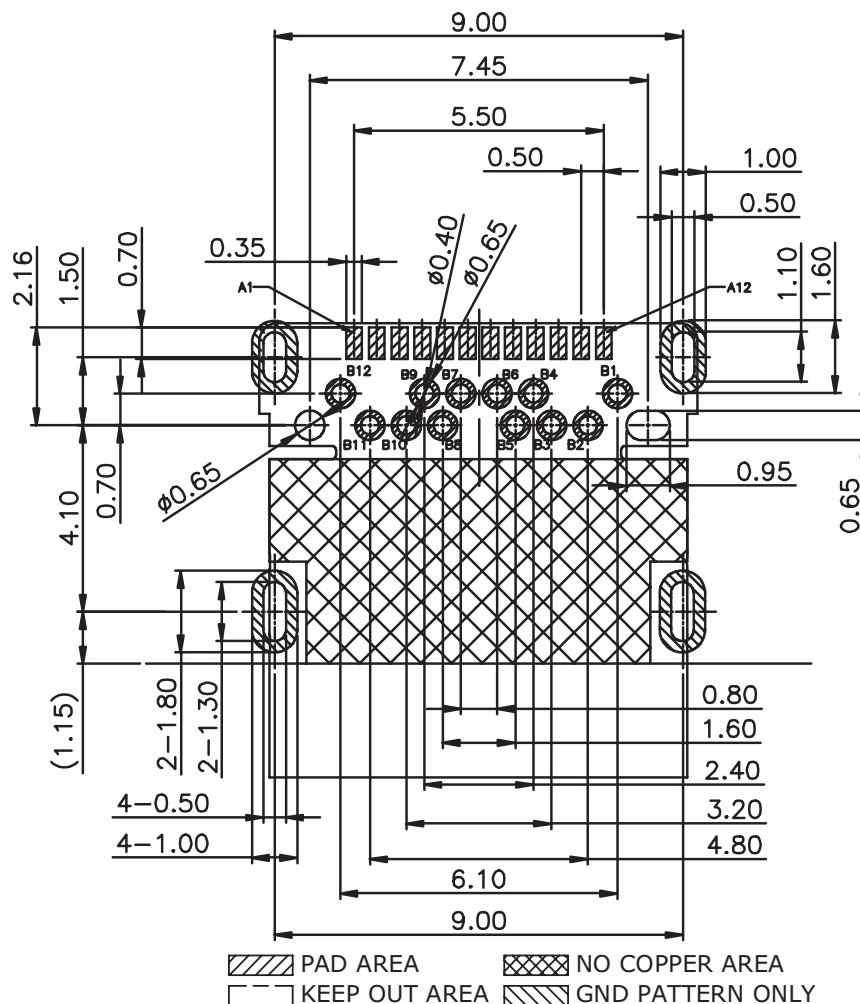
| | MATERIAL | PLATING |
|-----------------------------|-----------------|--|
| contact terminals | copper alloy | contact: gold flash solder: matte tin |
| shell | stainless steel | nickel |
| cover shell | stainless steel | nickel |
| inner ground cover shell | stainless steel | |
| mid plate | stainless steel | |
| insulator | LCP | |



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 | |



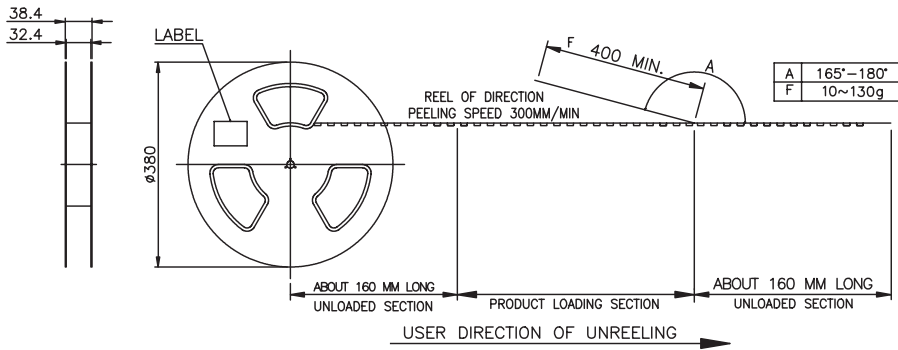
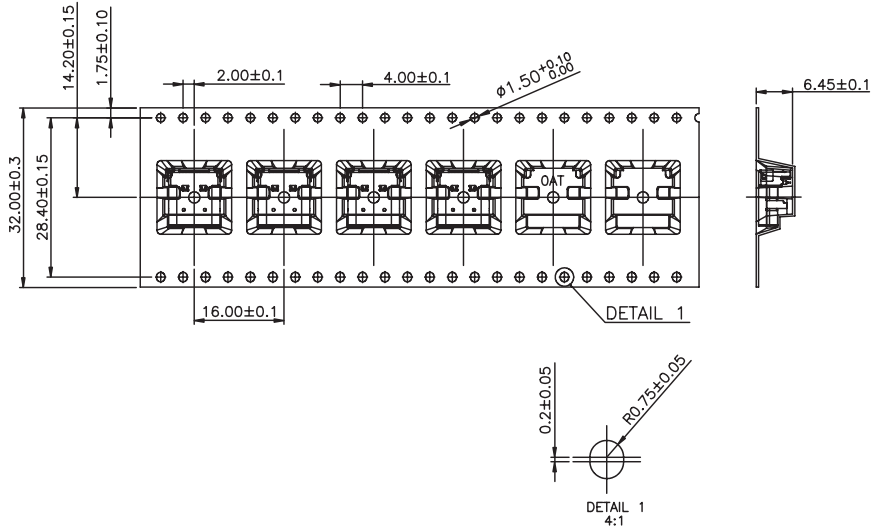
Recommended PCB Layout
Top View

PACKAGING

units: mm

Reel Size: $\varnothing 380$ mm

Reel QTY: 800 pcs per reel



REVISION HISTORY

| rev. | description | date |
|------|---|------------|
| 1.0 | initial release | 12/19/2017 |
| 1.01 | updated datasheet | 01/30/2018 |
| 1.02 | changed cover shell material to be stainless steel, removed plating from inner ground cover shell | 04/01/2019 |
| 1.03 | brand update | 02/05/2020 |

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

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