

## MODEL: MSD4-1-A | DESCRIPTION: MICRO SD 4.0 CARD CONNECTOR

### FEATURES

- Micro SD 4.0 card connector
- push in, auto eject out
- card detect switch
- gold flash
- surface mount
- UL94V-0



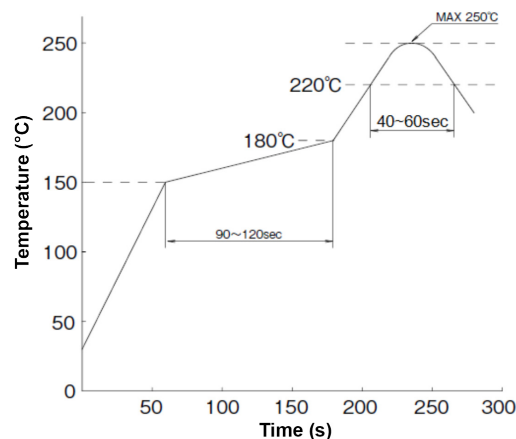
### SPECIFICATIONS

| parameter                       | conditions/description                  | min   | typ   | max | units  |
|---------------------------------|-----------------------------------------|-------|-------|-----|--------|
| rated voltage                   |                                         |       |       | 30  | V      |
| rated current                   |                                         |       |       | 0.5 | A      |
| contact resistance <sup>1</sup> |                                         |       |       | 100 | mΩ     |
| insulation resistance           | at 500 Vdc, between adjacent circuits   | 1,000 |       |     | MΩ     |
| voltage withstand               | for 1 minute, between adjacent circuits |       | 100   |     | Vac    |
| insertion force                 | at a rate of 25 mm/min                  |       |       | 10  | N      |
| withdrawal force                | at a rate of 25 mm/min                  | 0.5   |       |     | N      |
| life                            |                                         |       | 5,000 |     | cycles |
| operating temperature           |                                         | -40   |       | 85  | °C     |
| flammability rating             | UL94V-0                                 |       |       |     |        |
| RoHS                            | yes                                     |       |       |     |        |

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

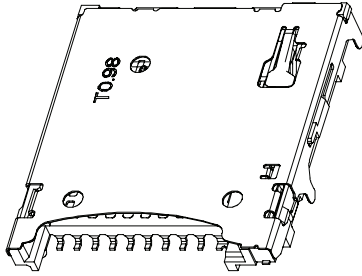
### SOLDERABILITY

| parameter        | conditions/description                                                                                     | min | typ | max | units |
|------------------|------------------------------------------------------------------------------------------------------------|-----|-----|-----|-------|
| reel storage     | at relative humidity 40-70%<br>reel opened: use within 1 month<br>reel unopened: up to 15 month shelf life | 16  | 22  | 28  | °C    |
| reflow soldering | see reflow profile                                                                                         |     |     | 250 | °C    |

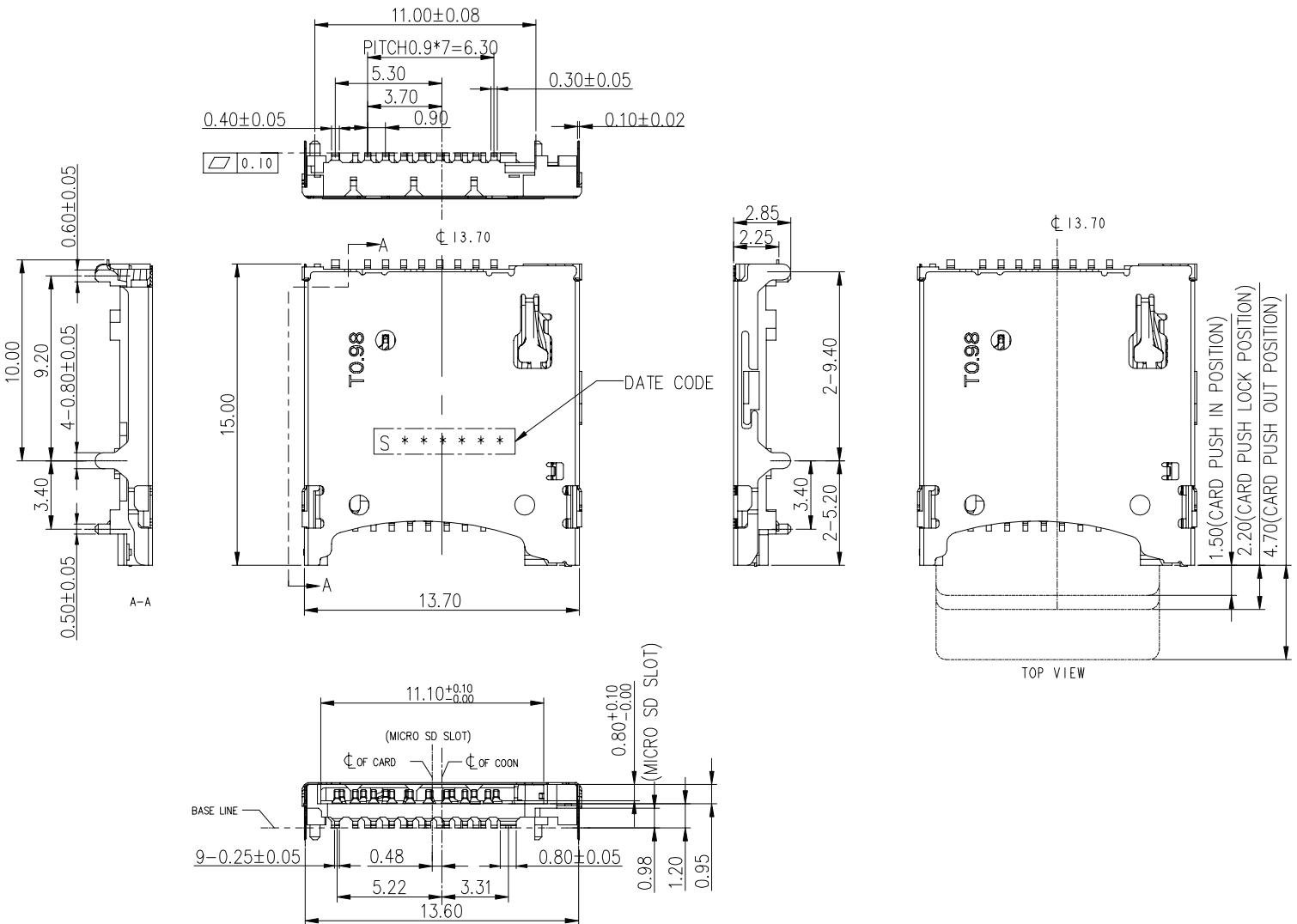


## MECHANICAL DRAWING

units: mm  
 tolerance:  
 X.X ±0.38 mm  
 X.XX ±0.25 mm  
 X.XXX ±0.10 mm  
 unless otherwise specified



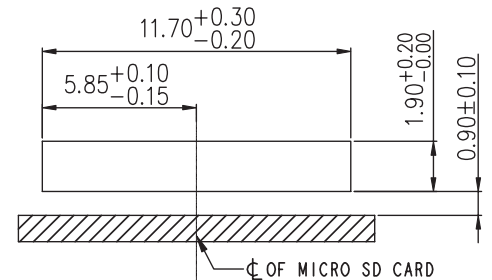
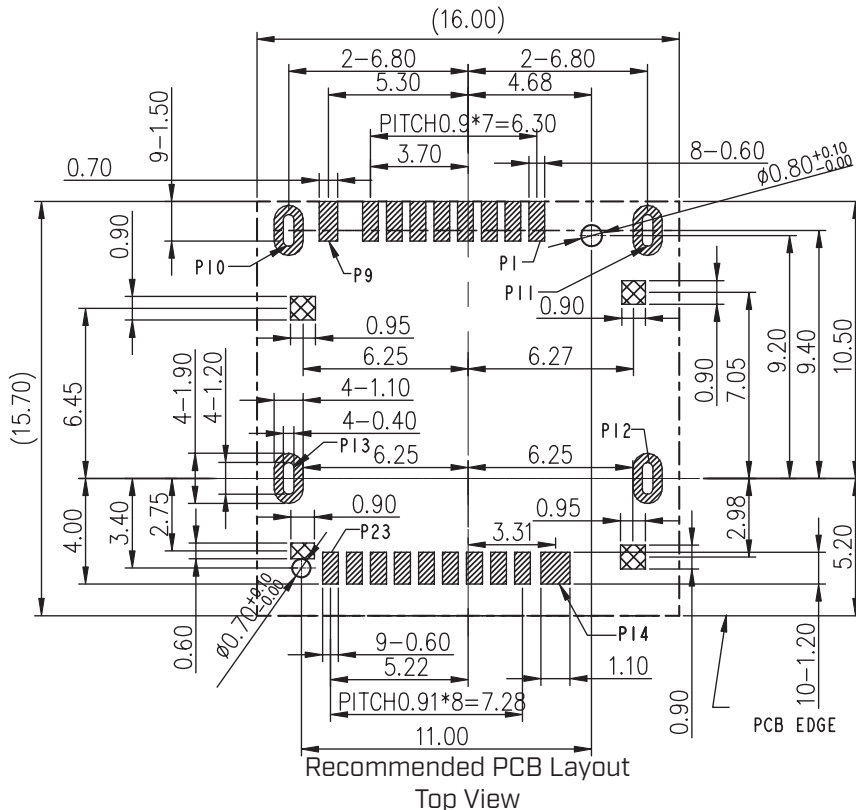
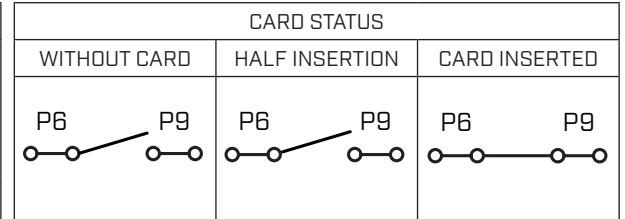
| DESCRIPTION       | MATERIAL                     | PLATING/COLOR                                                        |
|-------------------|------------------------------|----------------------------------------------------------------------|
| housing           | LCP (UL94V-0)                | black                                                                |
| contact terminals | phosphor bronze<br>t=0.10 mm | contact area: gold<br>over nickel<br>solder area: tin over<br>nickel |
| cover             | SUS304 t=0.10 mm             | nickel                                                               |



## MECHANICAL DRAWING (CONTINUED)

units: mm  
PCB tolerance: ±0.05 mm

| PIN CONNECTIONS |               |             |      |                                |
|-----------------|---------------|-------------|------|--------------------------------|
| CONNECTOR PIN#  | MSD CARD PIN# | SIGNAL NAME | TYPE | DESCRIPTION                    |
| P1              | 1             | DAT2        | I/O  | DATA LINE [BIT 2]              |
| P2              | 2             | CD/DAT3     | I/O  | CARD DETECT/DATA LINE [BIT 3]  |
| P3              | 3             | CMD         | I/O  | COMMAND/RESPONSE               |
| P4              | 4             | VDD1        | S    | SUPPLY VOLTAGE (3.3 V)         |
| P5              | 5             | CLK         | I    | CLOCK                          |
| P6              | 6             | VSS         | S    | SUPPLY VOLTAGE GROUND          |
| P7              | 7             | DAT0/RCLK+  | I/O  | DATA LINE [BIT 0]/RCLK+        |
| P8              | 8             | DAT1/RCLK-  | I/O  | DATA LINE [BIT 1]/RCLK-        |
| P9              | CD            | CD          | -    | CARD DETECT SWITCH             |
| P10-P14         | GND           | -           | -    | COVER GROUND                   |
| P15             | 9             | VDD2        | S    | SUPPLY VOLTAGE (1.8 V)         |
| P16             | 17            | SWIO        | I    | SINGLE WIRE PROTOCOL INTERFACE |
| P17             | 10            | VSS         | S    | SUPPLY VOLTAGE GROUND          |
| P18             | 11            | DO+         | I/O  | UHS-II DO+                     |
| P19             | 12            | DO-         | I/O  | UHS-II DO-                     |
| P20             | 13            | VSS         | S    | SUPPLY VOLTAGE GROUND          |
| P21             | 14            | D1-         | I/O  | UHS-II D1-                     |
| P22             | 15            | D1+         | I/O  | UHS-II D1+                     |
| P23             | 16            | VSS         | S    | SUPPLY VOLTAGE GROUND          |

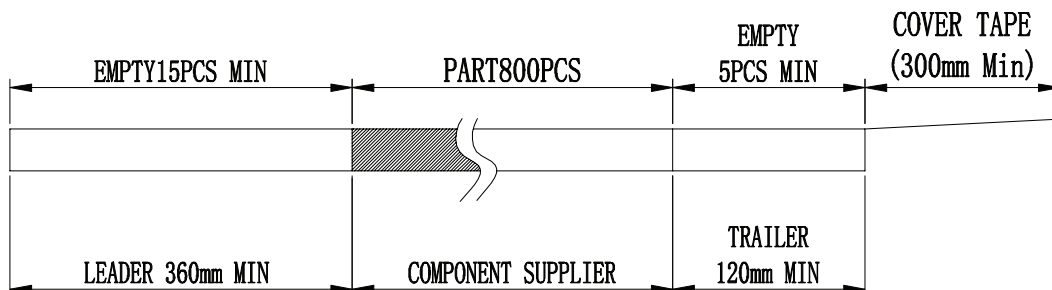
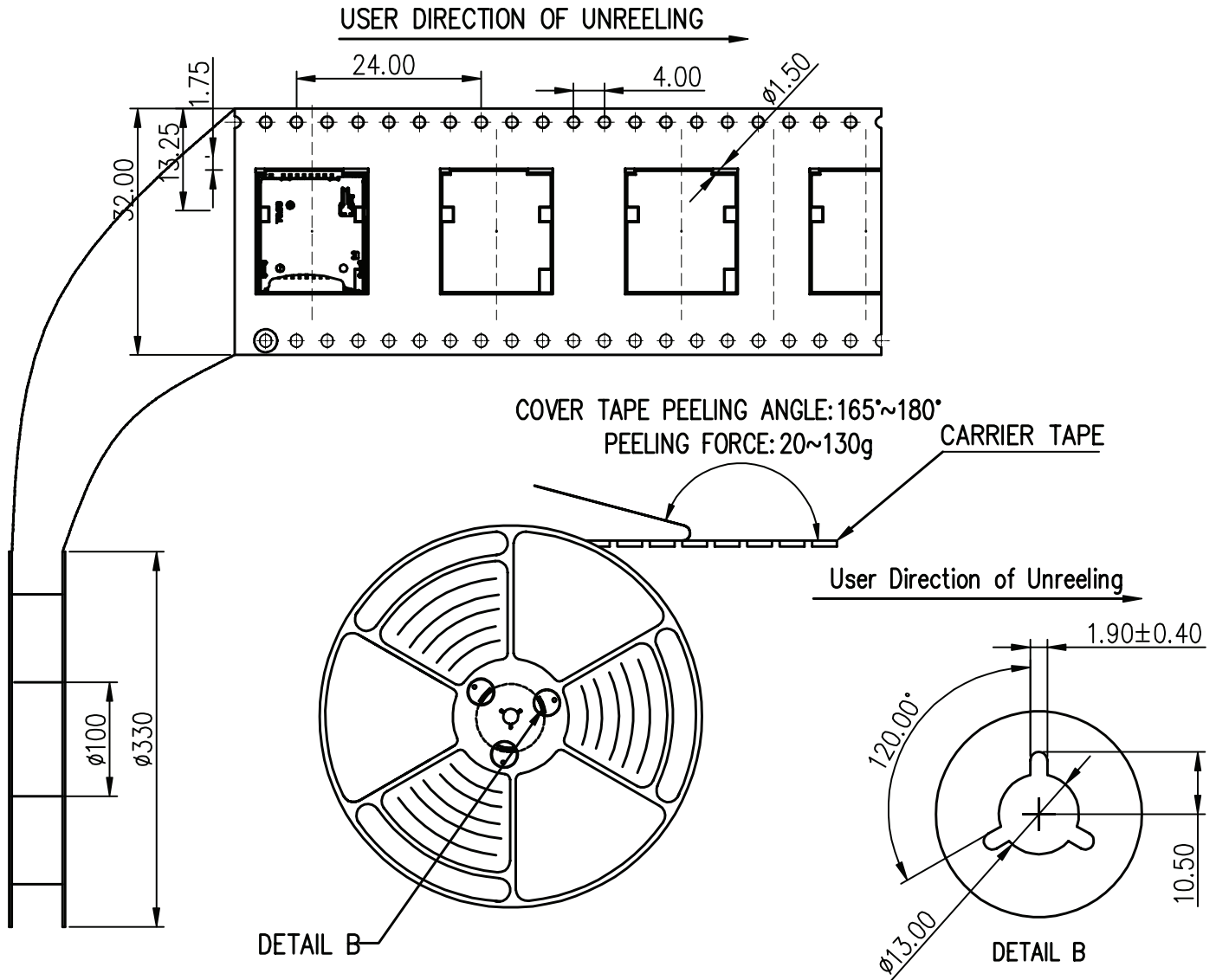


## PACKAGING

units: mm

Reel Size:  $\varnothing 330$  mm

Reel QTY: 800 pcs per reel



## REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 10/26/2023 |
| 1.01 | 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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