

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

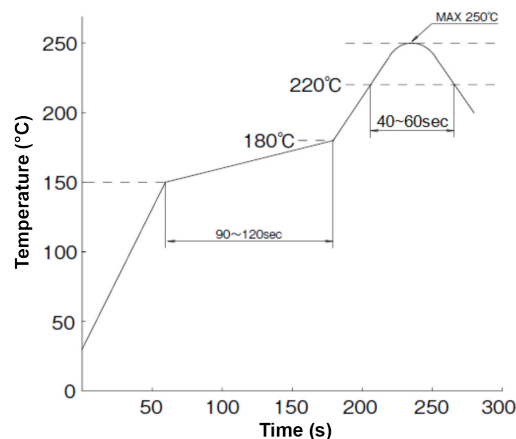

SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|---------------------------------|---|-------|-------|-----|--------|
| rated voltage | | | | 30 | V |
| rated current | | | | 0.5 | A |
| contact resistance ¹ | | | | 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.

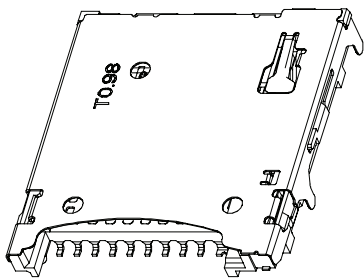
SOLDERABILITY

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

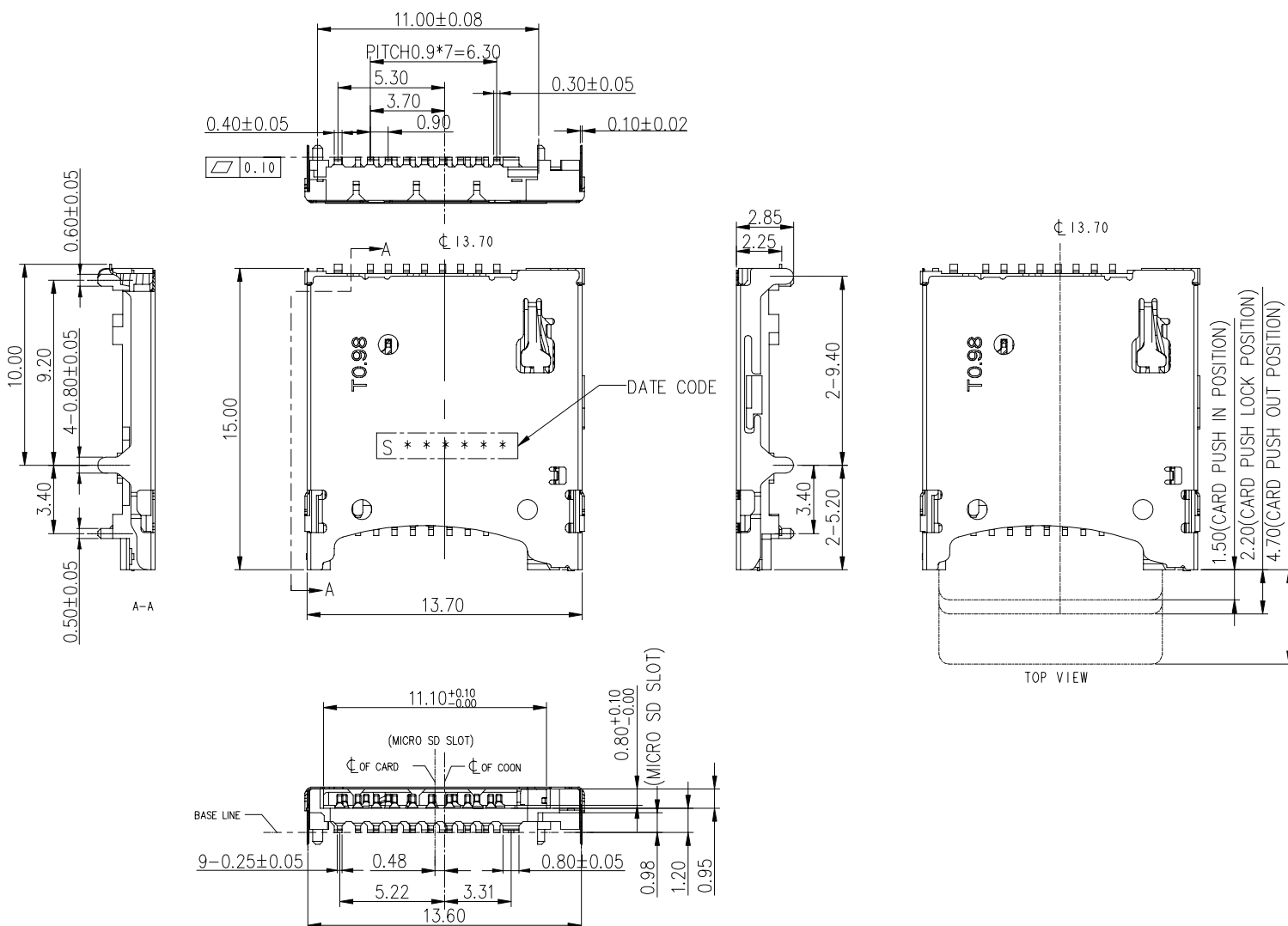


MECHANICAL DRAWING

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



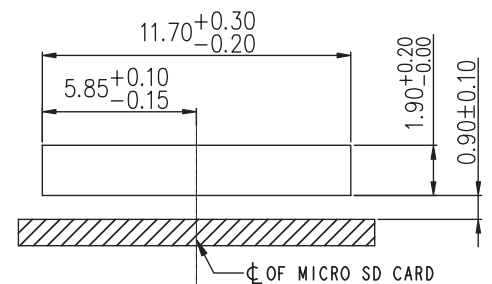
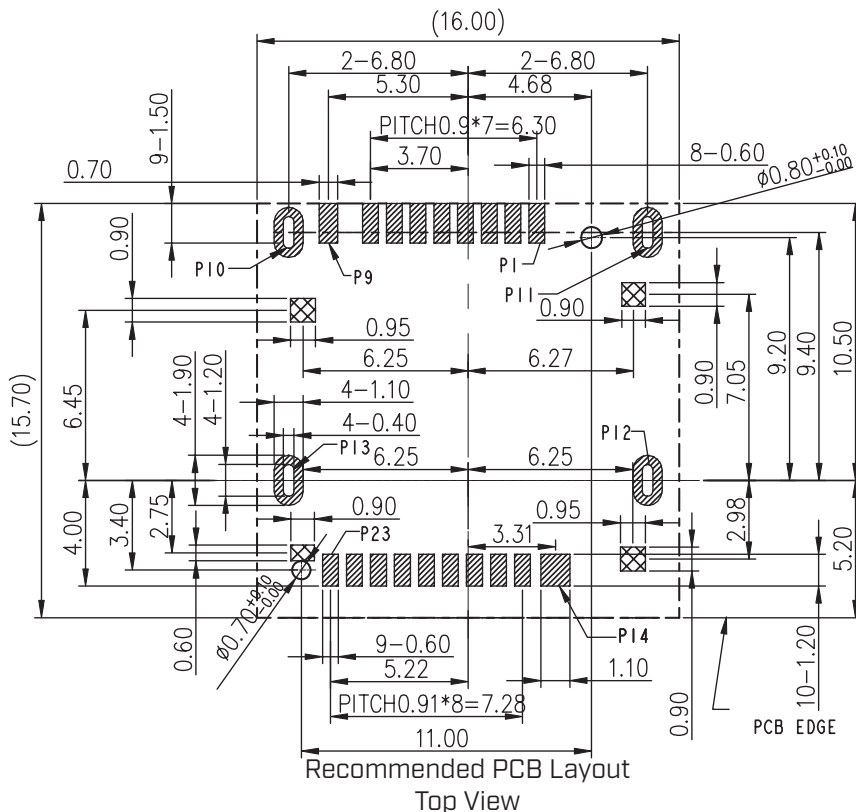
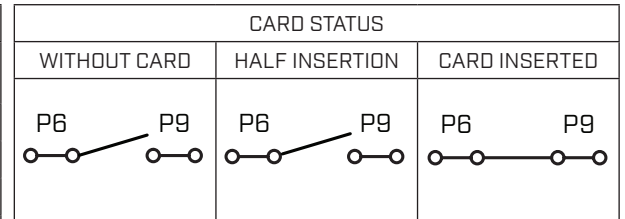
| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------------|------------------------------|--|
| housing | LCP (UL94V-0) | black |
| contact terminals | phosphor bronze t=0.10 mm | contact area: gold over nickel solder area: tin over nickel |
| cover | SUS304 t=0.10 mm | nickel |



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 |

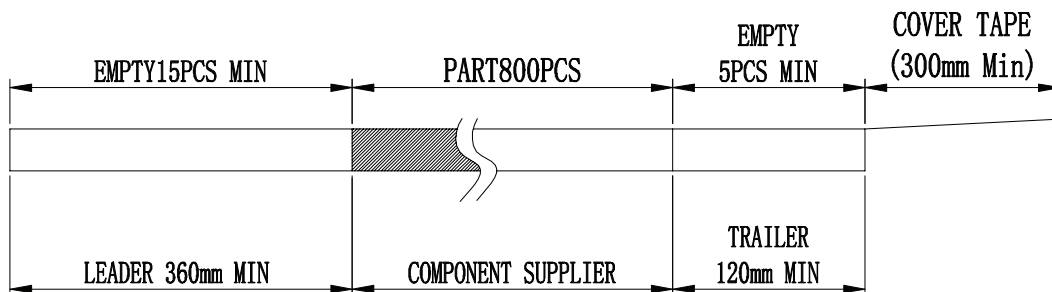
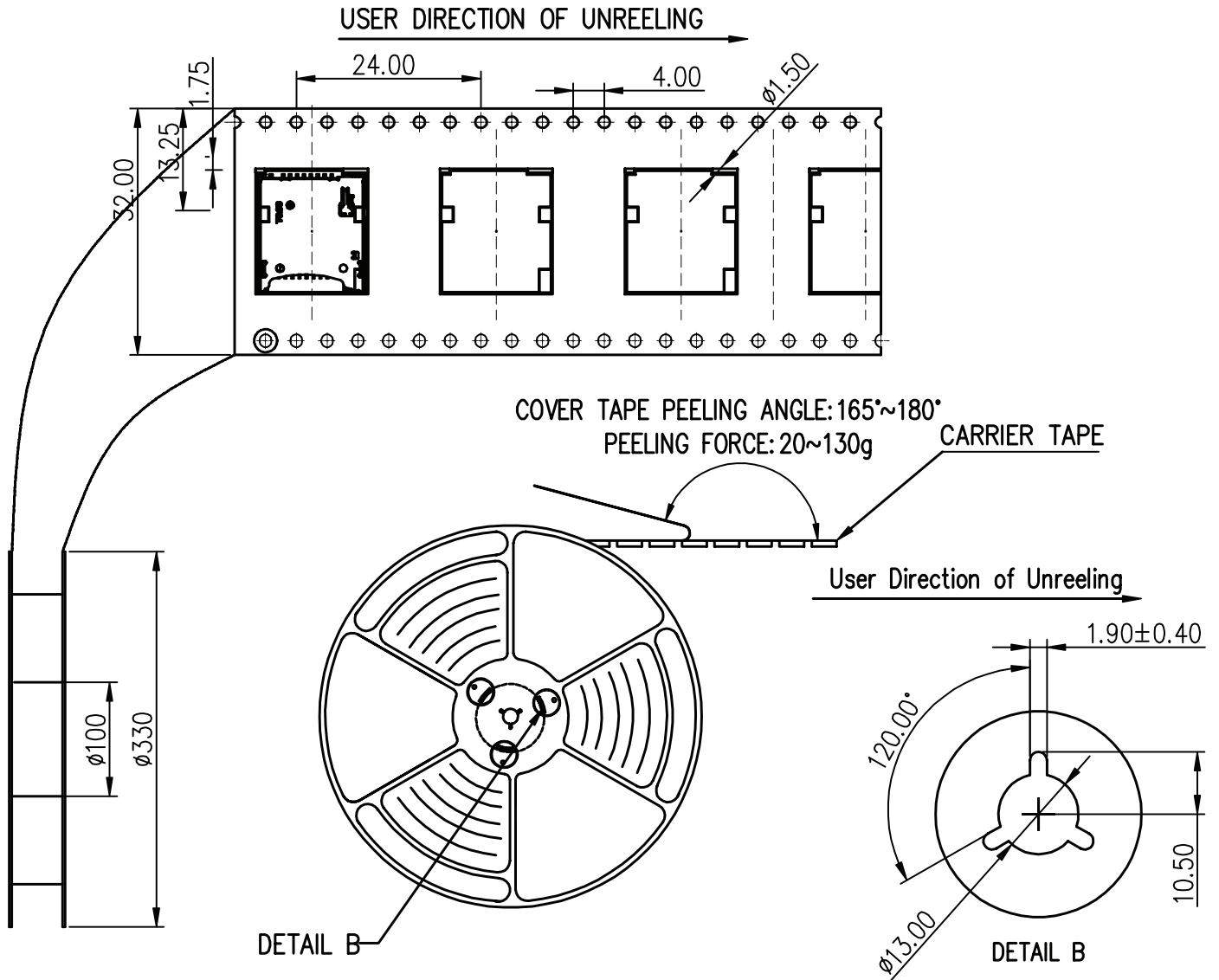


PACKAGING

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 |

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



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