

**MODEL:** SD4-4-B | **DESCRIPTION:** SD 4.0 CARD CONNECTOR**FEATURES**

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

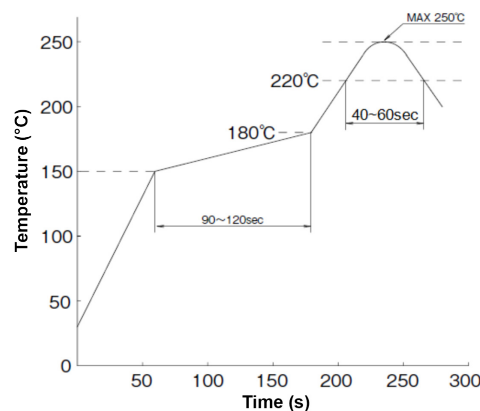
**SPECIFICATIONS**

| 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:

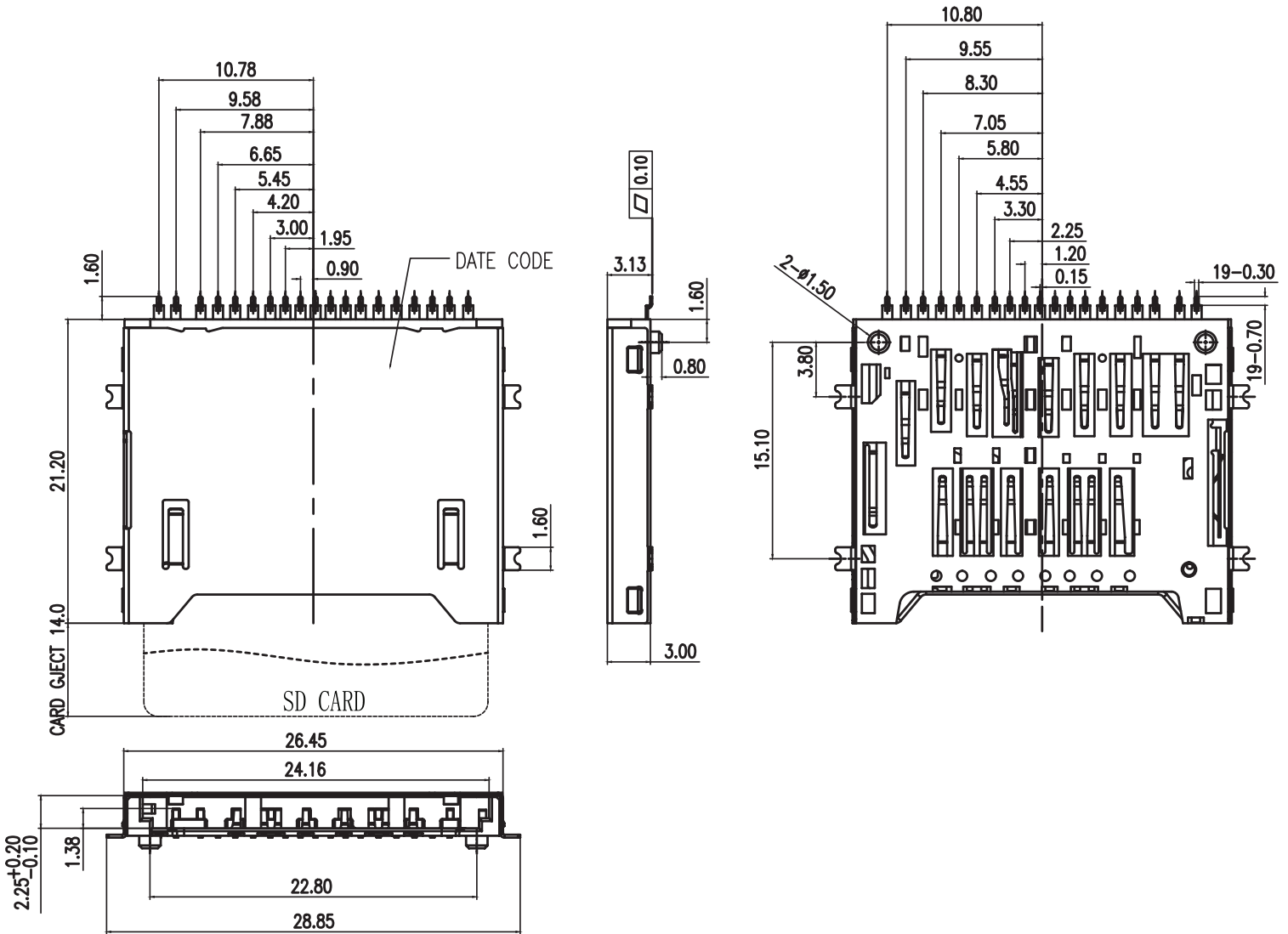
X.X ±0.30 mm

X.XX ±0.20 mm

X.XXX ±0.10 mm

unless otherwise specified

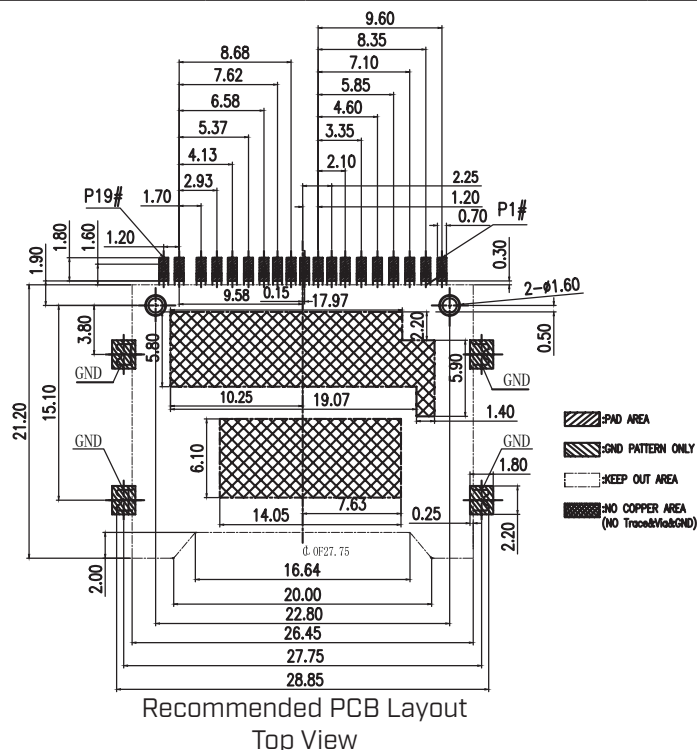
| DESCRIPTION       | MATERIAL                     | PLATING/COLOR  |
|-------------------|------------------------------|--|
| housing           | LCP 30% GF<br>[UL94V-0]      | black  |
| contact terminals | phosphor bronze<br>t=0.15 mm | contact area: gold<br>flash over nickel<br>solder area: matte<br>tin over nickel |
| cover             | SUS304 t=0.20 mm             | gold flash over<br>nickel  |



## MECHANICAL DRAWING (CONTINUED)

units: mm  
PCB tolerance:  $\pm 0.05$  mm

| PIN CONNECTIONS   |                 |                |        |                               |                |      |                        |
|-------------------|-----------------|----------------|--------|-------------------------------|----------------|------|------------------------|
| CONNECTOR<br>PIN# | SD CARD<br>PIN# | SD MODE        |        |                               | UHS-II MODE    |      |                        |
|                   |                 | SIGNAL<br>NAME | TYPE   | DESCRIPTION                   | SIGNAL<br>NAME | TYPE | DESCRIPTION            |
| P1                | 10              | -              | -      | NOT USED                      | VSS3           | S    | SUPPLY VOLTAGE GROUND  |
| P2                | 9               | DAT2           | I/O/PP | DATA LINE [BIT 2]             | -              | -    | NOT USED               |
| P3                | 11              | -              | -      | NOT USED                      | DO+            | LVDS | DO+                    |
| P4                | 1               | CD/DAT3        | I/O/PP | CARD DETECT/DATA LINE [BIT 3] | -              | -    | NOT USED               |
| P5                | 12              | -              | -      | NOT USED                      | DO-            | LVDS | DO-                    |
| P6                | 2               | CMD            | PP     | COMMAND/RESPONSE              | -              | -    | NOT USED               |
| P7                | CD              | CD             | -      | CARD DETECT SWITCH            | CD             | -    | CARD DETECT SWITCH     |
| P8                | 3               | VSS1           | S      | SUPPLY VOLTAGE GROUND         | VSS1           | S    | SUPPLY VOLTAGE GROUND  |
| P9                | 13              | -              | -      | NOT USED                      | VSS4           | S    | SUPPLY VOLTAGE GROUND  |
| P10               | 14              | -              | -      | NOT USED                      | VDD2           | S    | SUPPLY VOLTAGE (1.8 V) |
| P11               | 4               | VDD            | S      | SUPPLY VOLTAGE                | VDD1           | S    | SUPPLY VOLTAGE (3.3 V) |
| P12               | 15              | -              | -      | NOT USED                      | D1-            | LVDS | D1-                    |
| P13               | 5               | CLK            | I      | CLOCK                         | -              | -    | NOT USED               |
| P14               | 16              | -              | -      | NOT USED                      | D1+            | LVDS | D1+                    |
| P15               | 6               | VSS2           | S      | SUPPLY VOLTAGE GROUND         | VSS2           | S    | SUPPLY VOLTAGE GROUND  |
| P16               | 17              | -              | -      | NOT USED                      | VSS5           | S    | SUPPLY VOLTAGE GROUND  |
| P17               | 7               | DAT0           | I/O/PP | DATA LINE [BIT 0]             | RCLK+          | I    | RCLK+                  |
| P18               | 8               | DAT1           | I/O/PP | DATA LINE [BIT 1]             | RCLK-          | I    | RCLK-                  |
| P19               | WP              | WP             | -      | WRITE PROTECT                 | WP             | -    | WRITE PROTECT          |
| GND               | -               | -              | -      | COVER GROUND                  | -              | -    | COVER GROUND           |



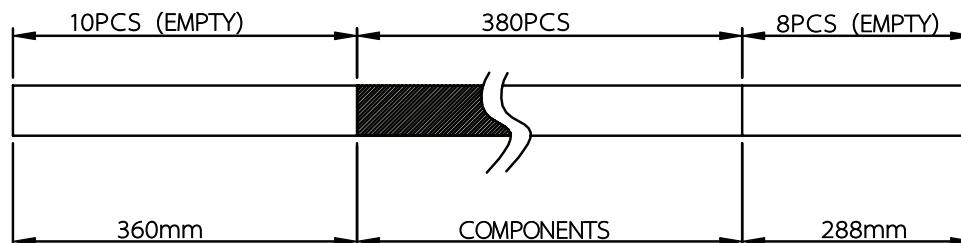
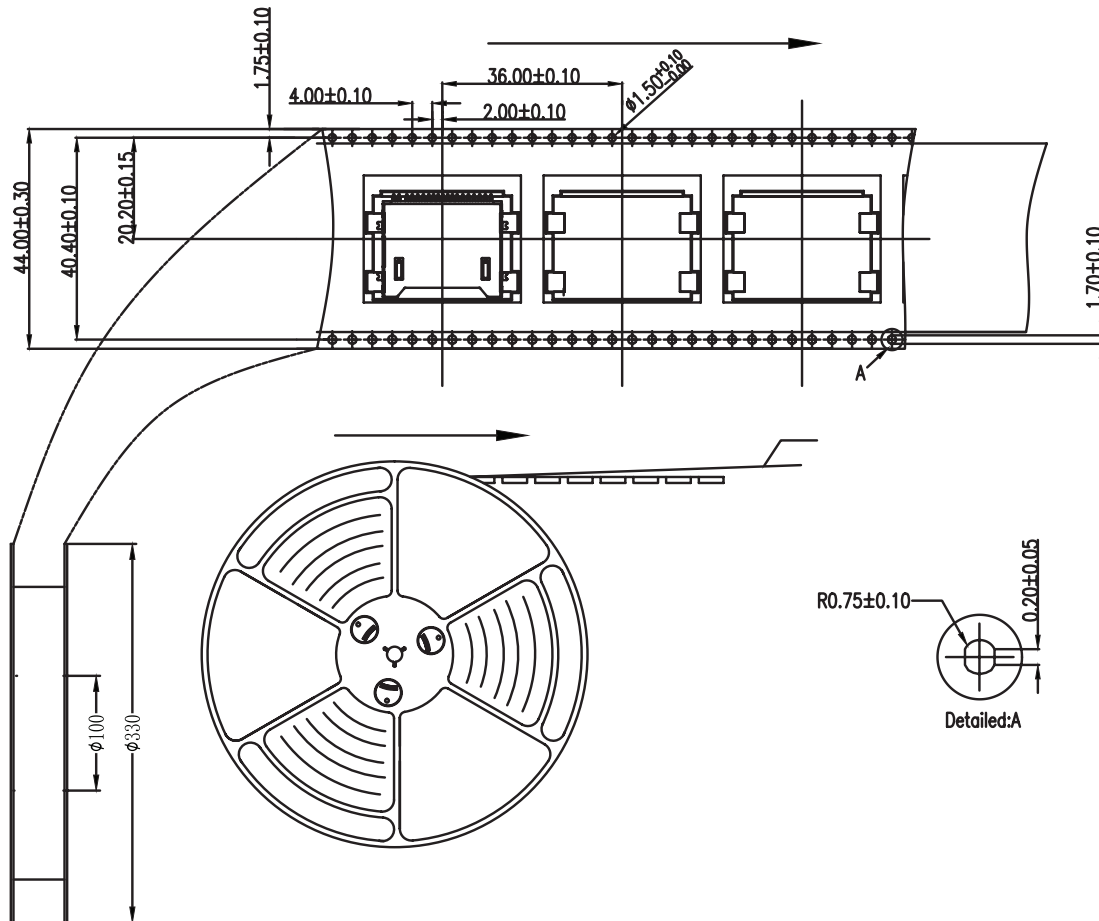
| CARD STATUS      |               |
|------------------|---------------|
| WITHOUT CARD     | CARD INSERTED |
|                  |               |
| WRITE PROTECTION |               |
| WRITE PROTECTED  | WRITE ENABLE  |
|                  |               |

## PACKAGING

units: mm

Reel Size:  $\varnothing 330$  mm

Reel QTY: 380 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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