

MODEL: SD7-1-B | DESCRIPTION: SD 7.0 CARD CONNECTOR

FEATURES

- SD 7.0 card connector
- push in, pull out
- card detect switch
- write protect
- surface mount
- 21 pin
- 2.95 mm profile



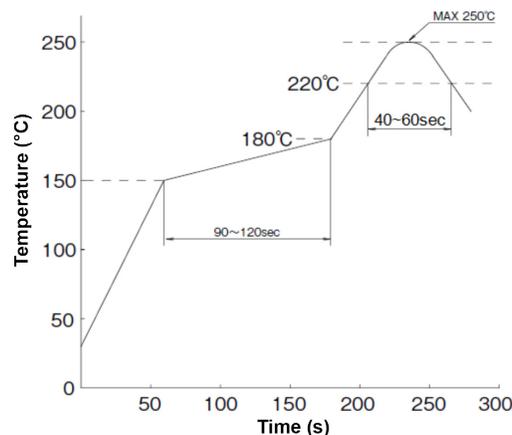
SPECIFICATIONS

| 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 | | 500 | | Vac |
| insertion force | at a rate of 25 mm/min | | | 40 | N |
| withdrawal force | at a rate of 25 mm/min | 0.5 | | 40 | N |
| life | | | 5,000 | | cycles |
| operating temperature | | -25 | | 85 | °C |
| flammability rating | UL94V-0 | | | | |
| RoHS | yes | | | | |

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

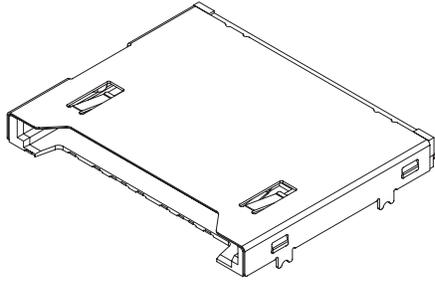
SOLDERABILITY

| 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 |

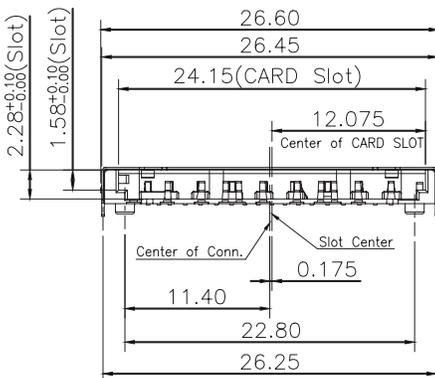
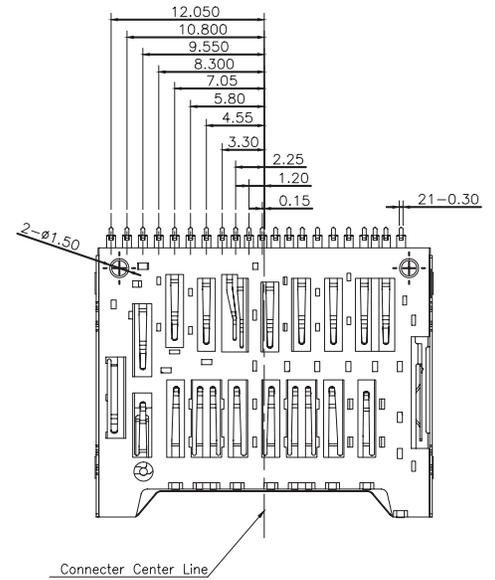
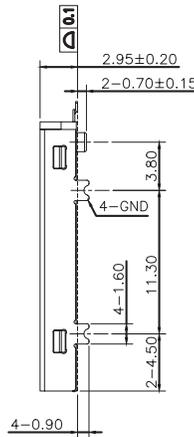
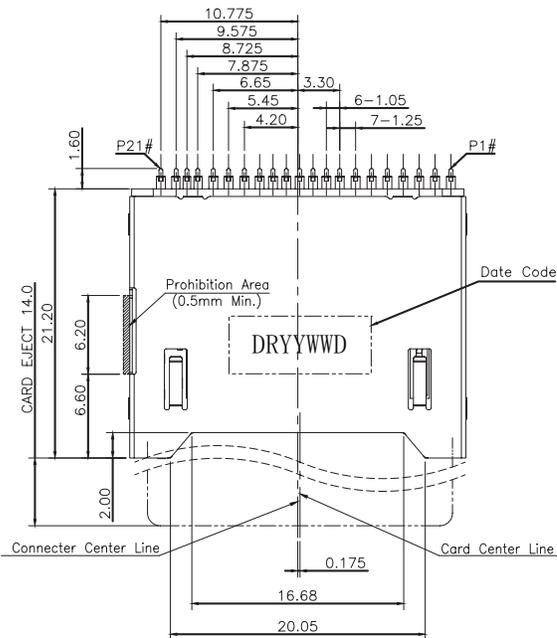


MECHANICAL DRAWING

units: mm
 tolerance:
 X.X ±0.35 mm
 X.XX ±0.20 mm
 X.XXX ±0.10 mm
 unless otherwise specified

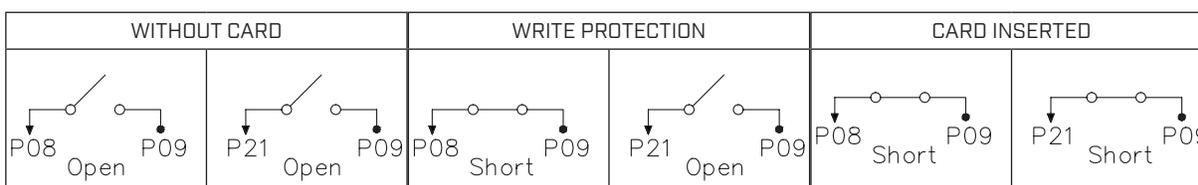


| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------------|--------------------|---|
| housing | LCP (UL94V-0) | black |
| contact terminals | C5210 t=0.15 mm | contact area: 1 μ" min gold over 50 μ" min nickel solder area: 80 μ" min matte tin over 50 μ" min nickel |
| cover | SUS304 t=0.20 mm | solder area: 50 μ" min nickel |



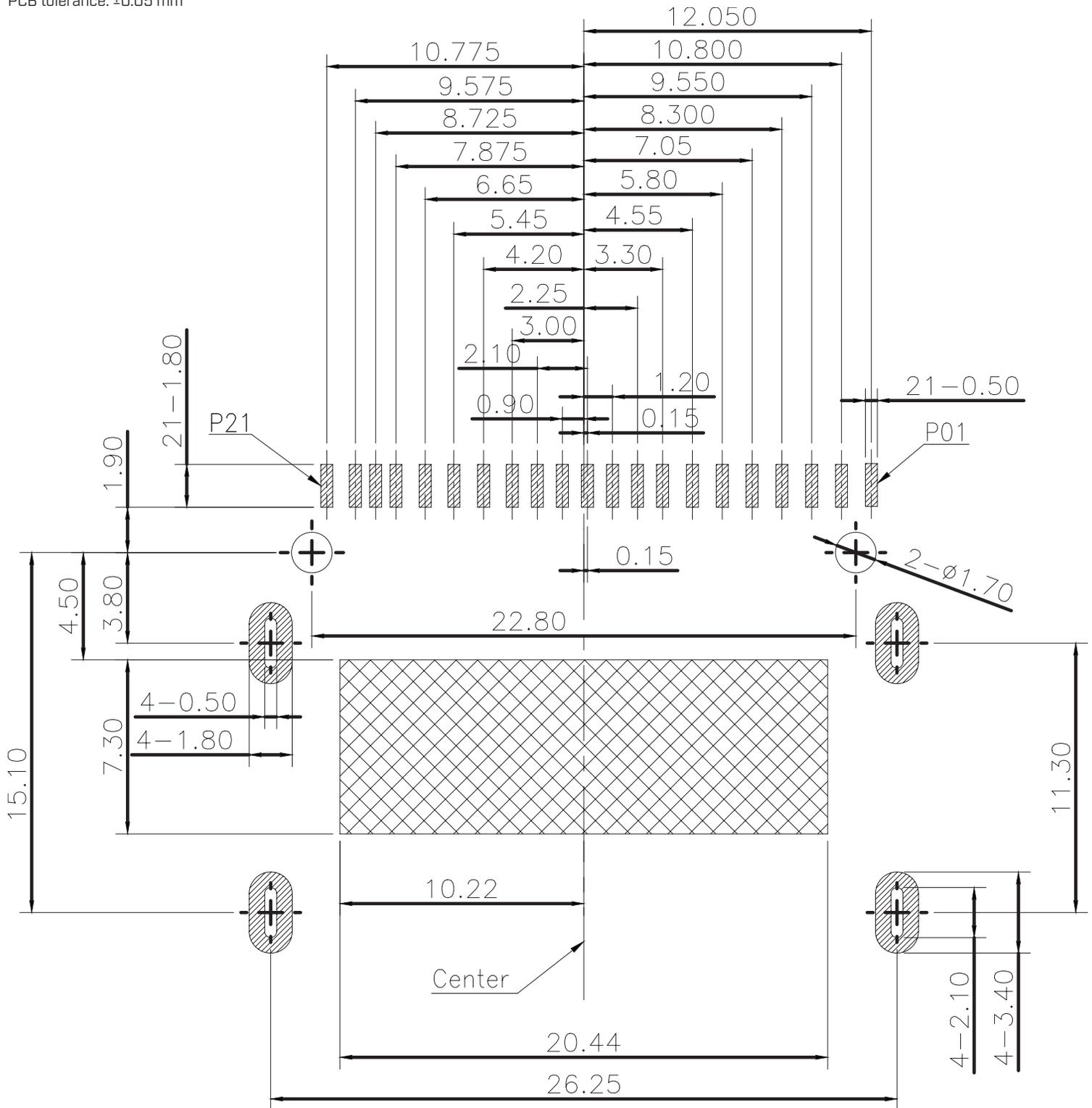
MECHANICAL DRAWING (CONTINUED)

| PIN CONNECTIONS | | | | | | |
|-----------------|-------------|-------------------------------|-------------|------------------------|-----------------|---|
| CONNECTOR PIN# | SD MODE | | UHS-II MODE | | SD EXPRESS MODE | |
| | SIGNAL NAME | DESCRIPTION | SIGNAL NAME | DESCRIPTION | SIGNAL NAME | DESCRIPTION |
| P1 | - | NOT USED | VSS3 | SUPPLY VOLTAGE GROUND | VSS3 | SUPPLY VOLTAGE GROUND |
| P2 | - | NOT USED | - | NOT USED | RESERVED | RESERVED AREA FOR FUTURE PAD EXTENSION |
| P3 | DAT2 | DATA LINE (BIT 2) | - | NOT USED | CLKREQ# | REFERENCE CLOCK REQUEST SIGNAL. ALSO USED BY L1 PM SUB-STATES |
| P4 | - | NOT USED | DD+ | DIFFERENTIAL DATA 0+ | PCIe TX+ | PCIe TX+ |
| P5 | CD/DAT3 | CARD DETECT/DATA LINE (BIT 3) | - | NOT USED | PERST# | PE-RESET IS A FUNCTIONAL RESET |
| P6 | - | NOT USED | DD- | DIFFERENTIAL DATA 0- | PCIe TX- | PCIe TX- |
| P7 | CMD | COMMAND/RESPONSE | - | NOT USED | - | NOT USED |
| P8 | CD | CARD DETECT | CD | CARD DETECT | CD | CARD DETECT |
| P9 | VSS1 | SUPPLY VOLTAGE GROUND | VSS1 | SUPPLY VOLTAGE GROUND | VSS1 | SUPPLY VOLTAGE GROUND |
| P10 | - | NOT USED | VSS4 | SUPPLY VOLTAGE GROUND | VSS4 | SUPPLY VOLTAGE GROUND |
| P11 | - | NOT USED | VDD2 | SUPPLY VOLTAGE (1.8 V) | VDD2 | SUPPLY VOLTAGE (1.8 V) |
| P12 | VDD | SUPPLY VOLTAGE | VDD1 | SUPPLY VOLTAGE (3.3 V) | VDD1 | SUPPLY VOLTAGE (3.3 V) |
| P13 | - | NOT USED | D1- | DIFFERENTIAL DATA 1- | PCIe RX- | PCIe RX- |
| P14 | CLK | CLOCK | - | NOT USED | - | NOT USED |
| P15 | - | NOT USED | D1+ | DIFFERENTIAL DATA 1+ | PCIe RX+ | PCIe RX+ |
| P16 | VSS2 | SUPPLY VOLTAGE GROUND | VSS2 | SUPPLY VOLTAGE GROUND | VSS2 | SUPPLY VOLTAGE GROUND |
| P17 | - | NOT USED | VSS5 | SUPPLY VOLTAGE GROUND | VSS5 | SUPPLY VOLTAGE GROUND |
| P18 | DAT0 | DATA LINE (BIT 0) | RCLK+ | RCLK+ | REFCLK+ | REFCLK+ |
| P19 | - | NOT USED | - | NOT USED | VDD3 | SUPPLY VOLTAGE (1.2 V)-TBD |
| P20 | DAT1 | DATA LINE (BIT 1) | RCLK- | RCLK- | REFCLK- | REFCLK- |
| P21 | WP | WRITE PROTECT | WP | WRITE PROTECT | WP | WRITE PROTECT |



MECHANICAL DRAWING (CONTINUED)

units: mm
PCB tolerance: ± 0.05 mm



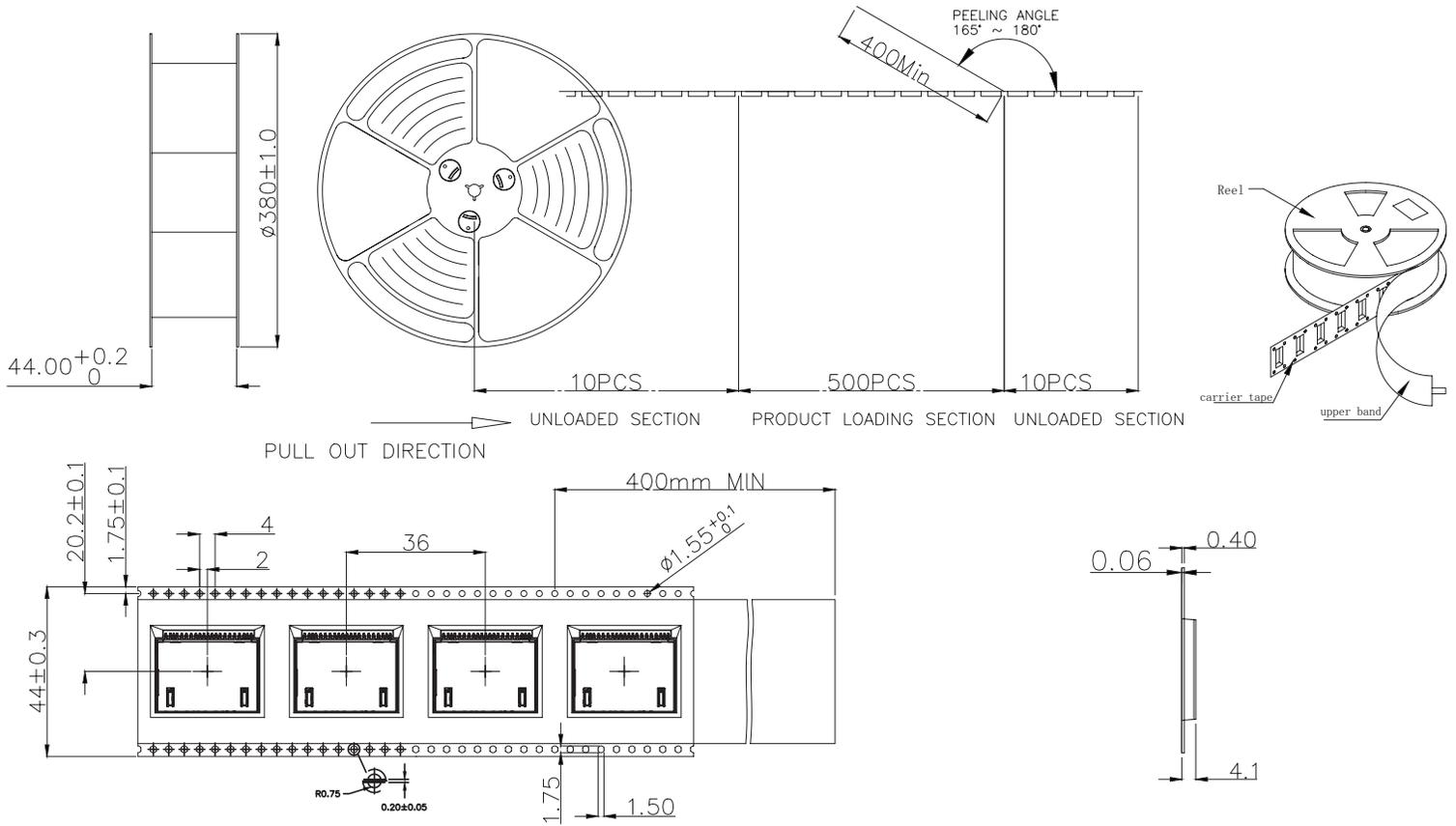
Recommended PCB Layout
Top View

PACKAGING

units: mm

Reel Size: $\varnothing 380$ mm

Reel QTY: 500 pcs per reel



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 05/16/2025 |

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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