

MODEL: CRJ002-ML1-TH | **DESCRIPTION:** MODULAR JACK**FEATURES**

- 8P10C (RJ45)
- integrated magnetics
- 10/100/1000 BaseT
- LED
- shielded

**SPECIFICATIONS**

| parameter | conditions/description | min | typ | max | units |
|----------------------------|---|-----|-------|------|--------|
| rated voltage | | | | 150 | Vac |
| rated current | | | | 1.5 | A |
| withstanding voltage | for 1 minute | | 1,500 | | Vac |
| contact resistance | | | | 40 | mΩ |
| insulation resistance | | 500 | | | MΩ |
| insertion/withdrawal force | | | | 6.12 | kgf |
| operating temperature | | 0 | | 70 | °C |
| storage temperature | | -40 | | 80 | °C |
| life | | | 1,000 | | cycles |
| flammability rating | UL94V-0 | | | | |
| RoHS | yes | | | | |
| packaging | carton size: 355 x 255 x 250 mm tray QTY: 120 pcs per tray carton QTY: 1,200 pcs per carton | | | | |

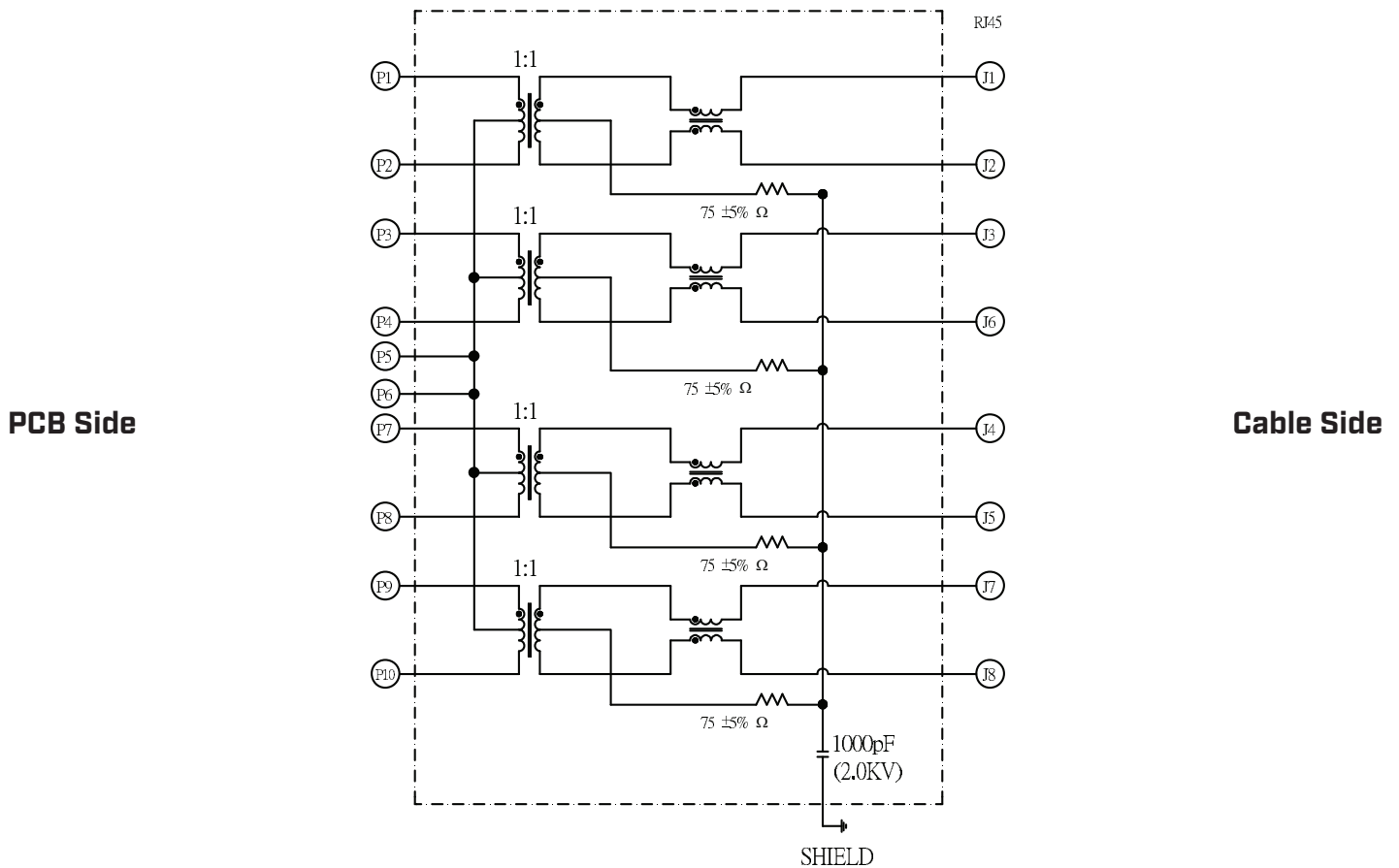
SOLDERABILITY

| parameter | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| wave soldering | for maximum 5 seconds | | | 240 | °C |

MAGNETIC SPECIFICATIONS (AT 25°C)

| parameter | conditions/description | min | typ | max | units |
|-----------------------|--|-------|-----|------|-------|
| turns ratio | TX (1CT : 1 CT) [±5%] RX (1CT : 1 CT) [±5%] | | | | |
| OCL | at 100 kHz, 0.1 V, 8 mA DC | 350 | | | μH |
| insertion loss | at 0.3-100 MHz | | | -1.0 | dB |
| return loss | at 30 MHz | -18 | | | dB |
| | at 60 MHz | -14 | | | dB |
| | at 80 MHz | -12 | | | dB |
| crosstalk | at 1-30 MHz | -40 | | | dB |
| | at 30-60 MHz | -35 | | | dB |
| | at 60-100 MHz | -30 | | | dB |
| common mode rejection | at 30 MHz | -40 | | | dB |
| | at 50 MHz | -35 | | | dB |
| | at 100 MHz | -30 | | | dB |
| | at 150 MHz | -20 | | | dB |
| hipot | input to output for 1 minute, 1 mA | 1,500 | | | Vac |

SCHEMATIC

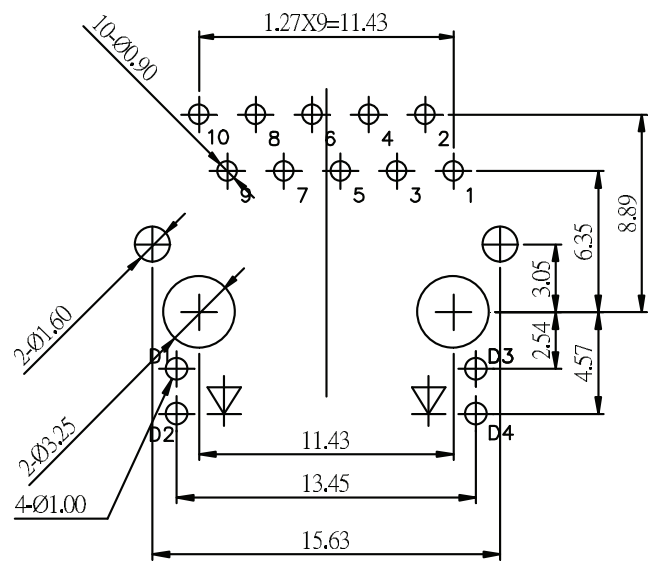
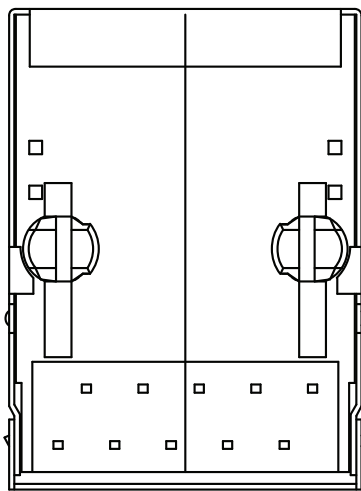
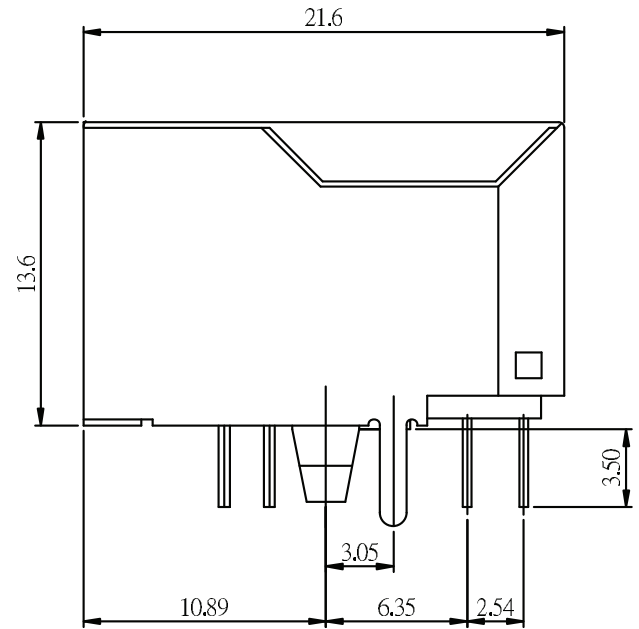
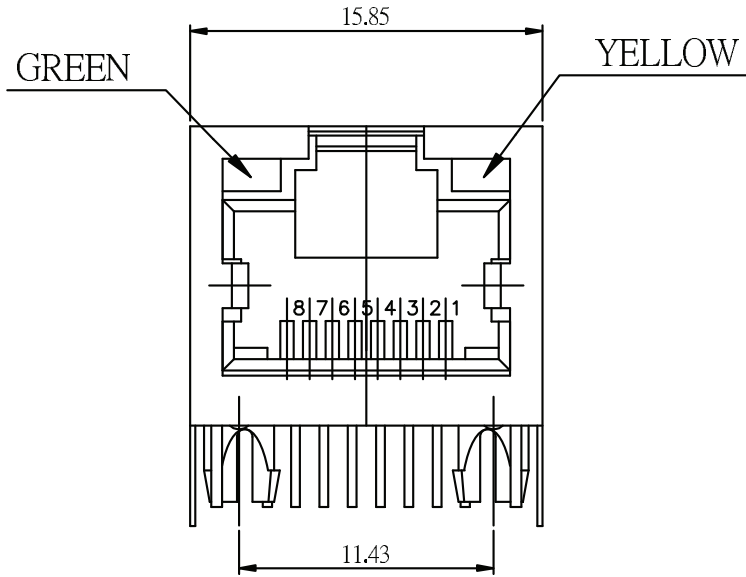


| LED COLOR | WAVELENGTH | FORWARD VOLTAGE at IF 20 mA |
|-----------|------------|-----------------------------|
| Green | 565~575 nm | 2.5 V max |
| Yellow | 585~595 nm | 2.5 V max |

MECHANICAL DRAWING

units: mm
 tolerance:
 X ±0.5 mm
 X.X ±0.38 mm
 X.XX ±0.25 mm
 X.XXX ±0.10 mm
 PCB: ±0.05 mm
 PCB thickness: 1.6 mm
 unless otherwise noted

| ITEM | DESCRIPTION | MATERIAL | PLATING/COLOR |
|------|-------------------|-----------------|---|
| 1 | insulator | PBT (UL94V-0) | black |
| 2 | contact terminals | phosphor bronze | contact area: 6 μ" gold solder area: tin over nickel |
| 3 | shield | brass | nickel alloy |



Recommended PCB Layout
Top View

REVISION HISTORY

| rev. | description | date |
|------|------------------------------|------------|
| 1.0 | initial release | 03/31/2021 |
| 1.01 | logo, datasheet style update | 08/05/2022 |

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



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