NUMBER : RD-SDRJL-001

DATE :2003/08/13 -CL(REV:3)

Single 10/100 BASE-TX Filtered Connector Module
MODEL NO. : RJL-001

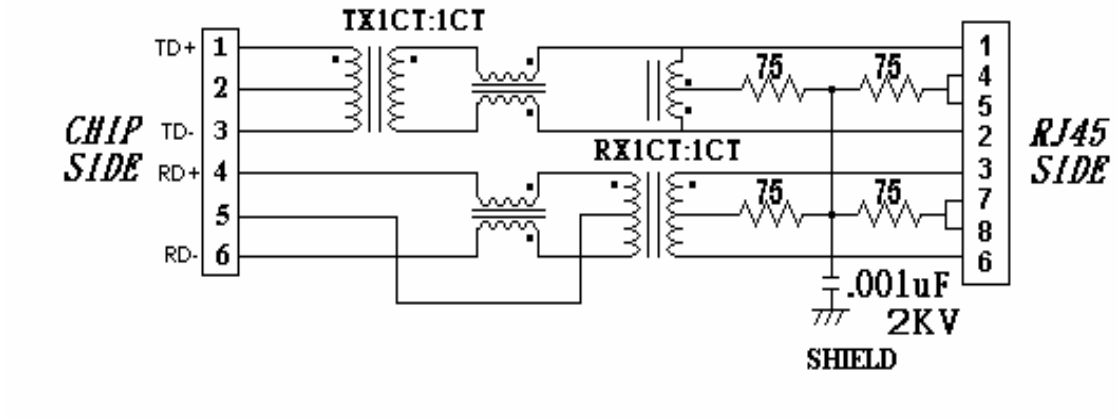
Features

Fully shielded magnetics protect data from internally generated digital noise
Reduces the overall length of the signal path for improved common mode performance
Implements full common mode termination scheme with used and unused twisted pairs
Meets IEEE802.3 Baseline Wander Compensation specification
Integrates high voltage capacitor to chassis ground
Supports all major transceivers with matched turns ration and complete integration of specified termination
DESIGN FOR 100BASE-TX TRANSMISSION OVER UTP-5 CABLE
OPERATING TEMP RANGE:-40 TO +85
STORAGE TEMP RANGE:-55 TO +125
PRIMARY OCL INDUCTANCE:350uH min AT100KHz/0.1Vrms with 8mA DC BIAS.
With the LED lamp.

Typical Performance Characteristics

Insertion Loss (dB MAX)		Return Loss (dB Min @100Ω)				Differential to Common Mode Rejection (dB MIN)	Cross talk (dB MIN)					CMRR (dB MIN)	Isolation Voltage (Vrms min)
MHz		MHz				MHz	MHz					MHz	
0.3~100	100~125	0.5~40	60	80	100	0.3~100	20	40	60	80	100	0.3~100	1500
-0.8	-1.2	-18	-14.5	-12	-10	-35	-47	-40	-37	-35	-33	-30	

Schematic Design on MDI Interface Circuitry



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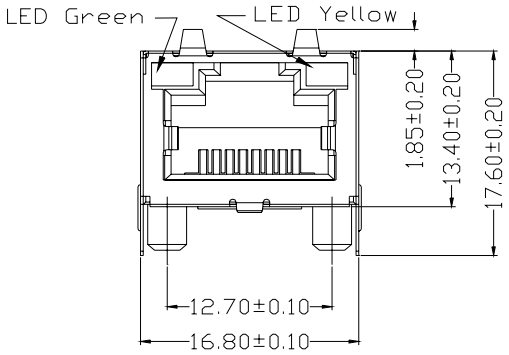
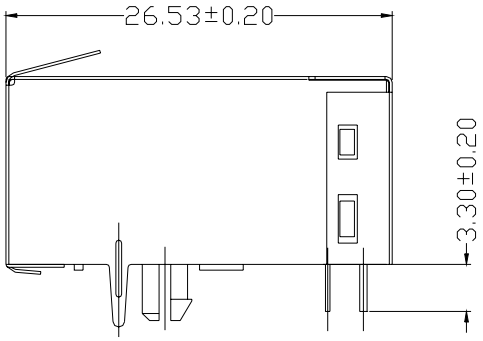
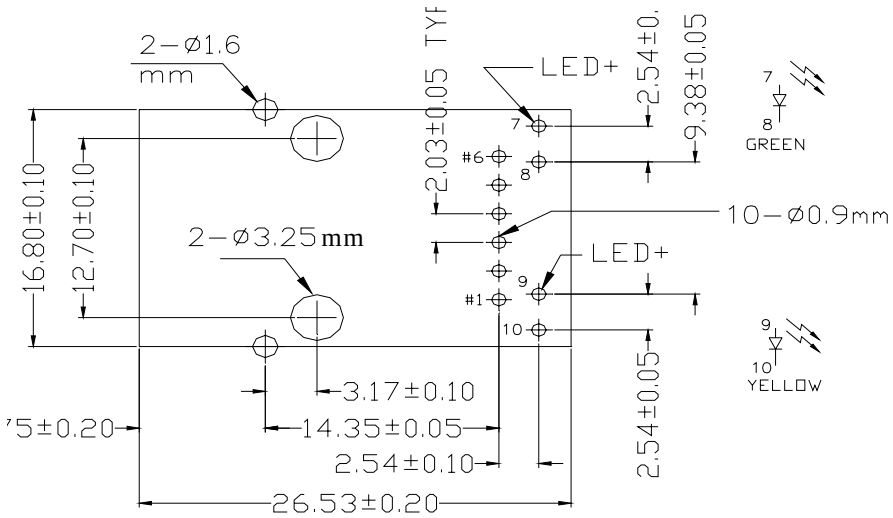
55 Charles Drive Tewksbury Ma 01876
tel: 978.777.7725 fax: 978.777.4877 http://www.Taimagusa.com

Mechanical Specifications







RECOMMENDED P.C.B LAYOUT
COMPONENT SIDE OF BOARD

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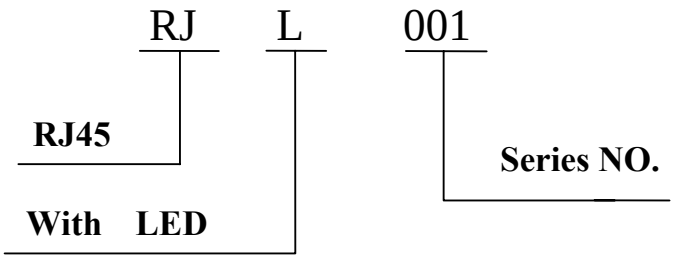
Ordering Information



Requirements

1. Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.

2. Materials and Finish

A. Contact:

RJ Contact : Phosphor Bronze, Thickness=0.30mm

Finish : (a) Contact Area : 30μ"min. Gold

(b) Solder tail Area : 100μ"min. Tin/Lead(9:1)

(c) Under plating : 50μ"min. Nickel over all

RJ Joint Contact : Brass, Thickness=0.35mm

Finish : 100μ"min. Tin/Lead(9:1) over 50μ"min. Nickel

LED Joint Contact : Brass, Thickness=0.30mm

Finish : 100μ"min. Tin/Lead(9:1) over 50μ"min. Nickel

B. Plastic Part :

(1) Set Housing : Thermoplastic, PBT, Black
UL FILE NO. : E130155
Manufacturer : NAN YA PLASTICS CORP.
Grade :1403G3
Flame Class : UL 94V-0

(2) Insert : Thermoplastic, PBT, Black
UL FILE NO. : E130155
Manufacturer : MITSUI Petrochemical Industries
Grade : CH230N
Flame Class : UL 94V-0

(3) Spacer : Thermoplastic, PBT, Black
UL FILE NO. : E130155
Manufacturer : NAN YA PLASTICS CORP.
Grade : 1403G3
Flame Class : UL 94V-0

C. Shield Material :

Cartridge t=0.25mm

10μ"-20μ" Thick Nickel over 10μ"-20μ" min Thick Nickel

D. LED Lamp

(a) Lens Color : Transparent with color
(b) Emitted Color : Green & Yellow
(c) View Angle : 65
(d) Wave Length : Green 568nm ; Yellow 585nm

3. Ratings

(1) Voltage rating : 125 VAC
(2) Current rating : 1.5A

Durability :

1000 cycles with no function damage for RJ-45 . Abnormalities shall be present after the test.

Low Level Contact Resistance : ΔR=300mΩ maximum (final)

The sample should be mounted in the tester and fully mated and unmated 500 times per hour at the rate of 25mm/min.
EIA-364-09C.