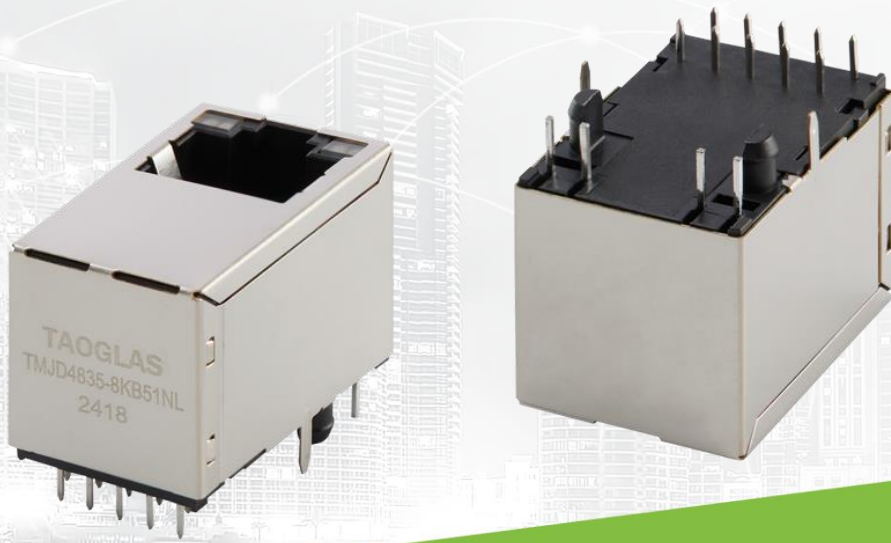




TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T Vertical

Part No:
TMJD4835-8KB51NL

Description:

RJ45 connector with integrated magnetics 1G Base-T
Vertical with THT mount and LED (Green/Yellow, Yellow/Green)

Features:

- Vertical
- Shielded
- Long face
- Transformer + CMC
- 8 cores per Jack
- Board Lock
- Industrial grade

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1. Introduction



The Taoglas TMJD4835-8KB51NL is a vertical RJ45 Integrated Connector with a shielded body design. It features a widely recognized footprint and a compatible package that aligns with industry standards for RJ45 Integrated Connectors, making it popular among users. This connector supports 1G Base-T connections.

Typical Applications Include:

- Industrial Automation
- Hubs
- Routers
- Switches
- Wireless Access Points

Taoglas Magnetics offer an extensive product line of RJ45 Integrated Connectors designed for commercial and industrial grade applications, supporting 10/100 Base-T (Atmos100 Series) and 1G Base-T (Atmos1000 series). These surface mount or through-hole components provide reliable performance and maintain signal integrity that meets IEEE 802.3 standards, and they are UL certified. The Power over Ethernet options are also available including PoE, PoE+ and PoE++.

The majority of Taoglas RJ45 ICMs are manufactured with fully automated winding, assembly & testing to ensure consistent performance, quality and reliability while ensuring cost competitiveness for its customers. These products are fully compliant with the REACH and RoHS directive, and compatible with all major PHY vendors.

For customized products or support with integration, contact your regional Taoglas customer support team for further information.

2. Specifications

Electrical Performance @25°C	
Inductance	350μH Min @100KHz,0.1V, 8mA DC Bias
Turns Ratio (±3%)	1CT:1CT
Insertion Loss	-1.1dB MAX @ 1MHz TO 100MHz
Return Loss (100 OHMS ±15%)	-18dB MIN @ 1MHz TO 40MHz
	-14dB MIN @ 60MHz
	-12dB MIN @ 80MHz
	-10dB MIN @ 100MHz
Cross talk	-35dB MIN @ 1MHz TO 10MHz
	-26dB MIN @ 15MHz TO 60MHz
	-24dB MIN @ 60MHz TO 100MHz
CM TO CM REJ	-35dB MIN @ 1MHz TO 60MHz
	-30dB MIN @ 60MHz TO 100MHz
Isolation PHY SIDE To Line SIDE	1500Vrms

Environmental Specifications	
Operating Temperature	-40°C TO +85°C

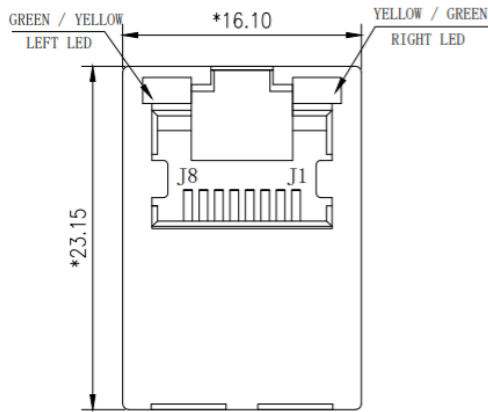
Material Specifications	
Housing	Thermoplastic PBT+30%G.F UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness=0.35mm
Pins	Brass C2680R-H Thickness=0.35mm
Shield	Copper alloy Brass H65Y Thickness=0.2mm
Contact Plating	Gold 30 micro-inches min. in contact area
Wave solder tip temperature	250°C, 5 Sec

Compliance	
	IEEE 802.3
	RoHS Compliant

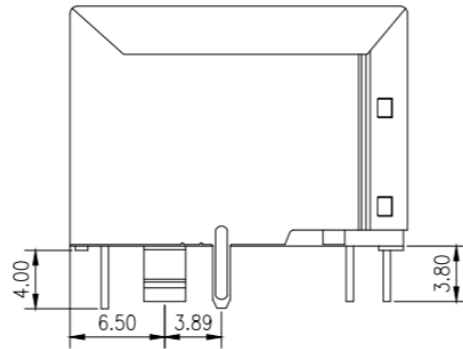
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

3. Mechanical

3.1 Mechanical Drawings

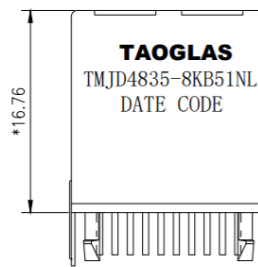


Top View



Left View

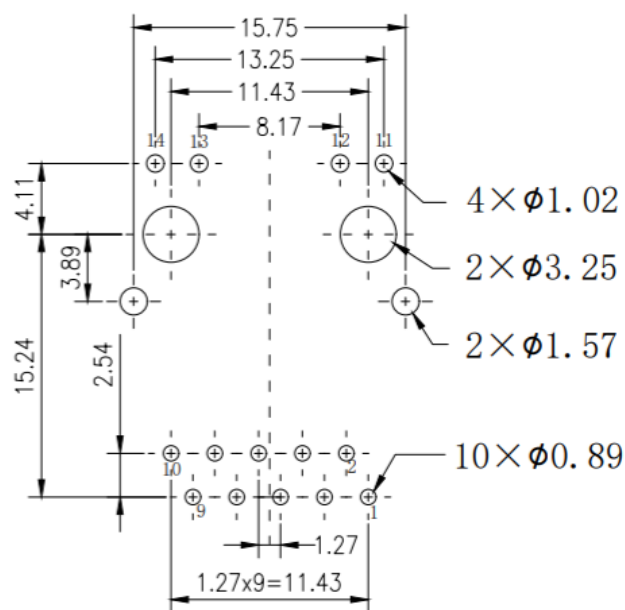
Mechanical Specifications	
Height	16.76 mm
Width	16.10 mm
Depth	23.15 mm
Weight	7.6 g
Mounting Style	Through Hole (THT)
Mounting Angle	Vertical



Back View

Dimensions are in millimeters with the following tolerances: X.XX = ±0.25

3.2 PCB Layout

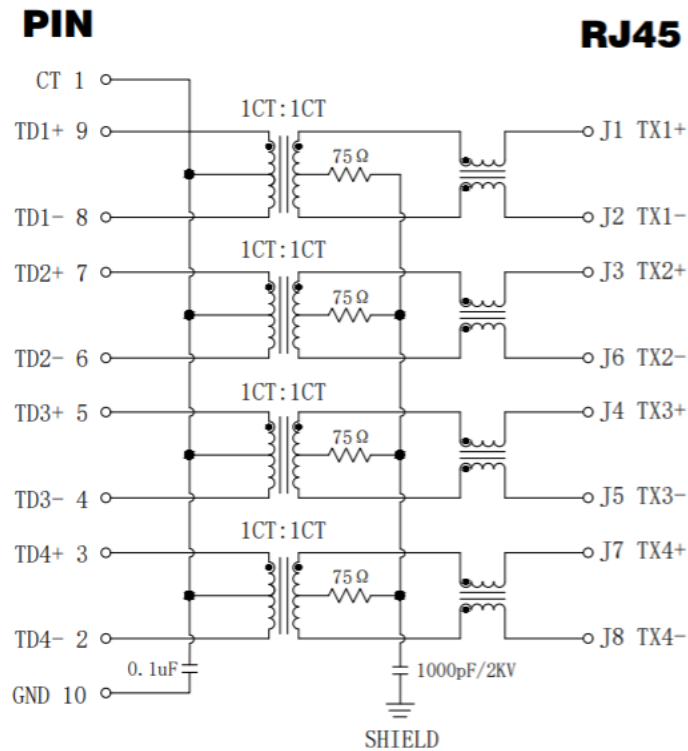


Suggested PCB Layout (Top View)

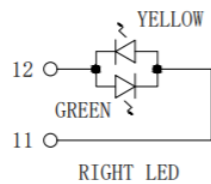
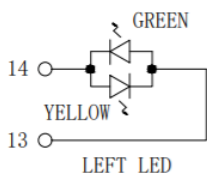
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings

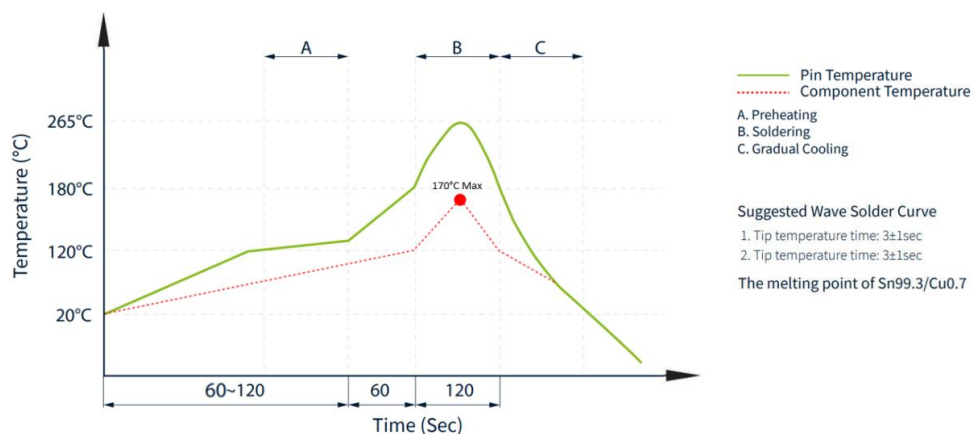


4.2 LED



Emitting Color	$\lambda_p(\text{nm})$	$V_F@I_F=20\text{mA}$	$I_R @V_R=5V$
GREEN	565	1.8~2.6V	10 μA max
YELLOW	585	1.8~2.6V	10 μA max

4.3 Profile of Wave Solder



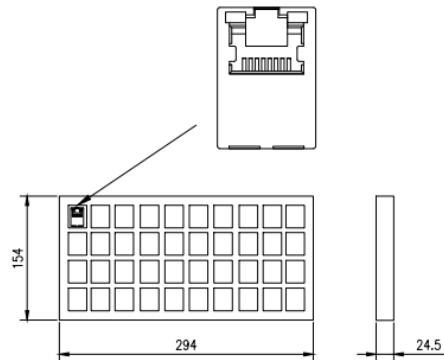
5. Packaging

5.1 SPQ

1 tray = 40 pcs

Tray size = 294x154x24.5mm

Tray Weight = 0.344kg

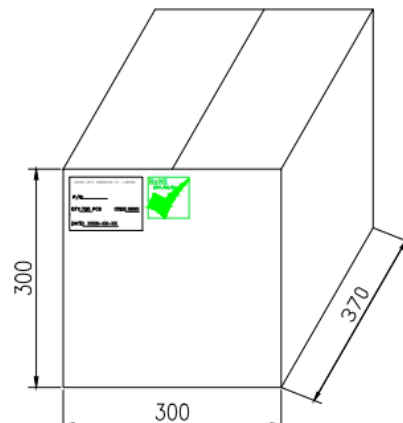


5.2 Carton

1 Carton = 18 trays = 720 pcs

Carton dimensions = 370*300*300 mm

Carton Weight = 7.5 kg



5.3 Label

Taoglas Limited	
P/N NO: XXXXXXXX	
QYT: XXX PCS	DC: XXXX
DATE: XXXX-XX-XX	

SPQ Label (8x4cm)

Taoglas Limited	
P/N NO: XXXXXXXX	
PO: XXXXXXXX	B/N: XXXXXXXX
QYT: XXX PCS	DC: XXXX
DATE: XXXX-XX-XX	

Carton Label (8x4cm)

Changelog

Changelog for the datasheet

SPE-24-8-097 – TMJD4835-8KB51NL

Revision: A (Original First Release)

Date:	2024-06-30
Notes:	
Author:	Javier Vasena

Previous Revisions



www.taoglas.com

