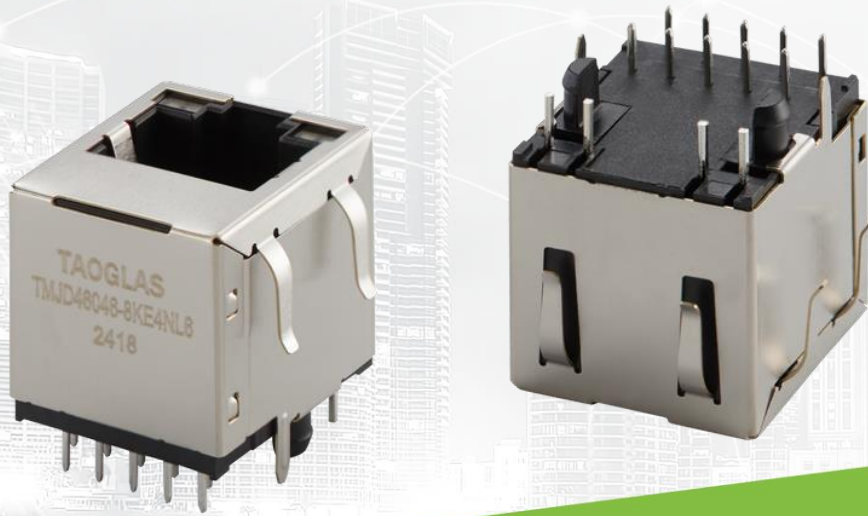




# TAOGLAS®



# Datasheet

## RJ45 ICM 1G Base-T Vertical

**Part No:**  
TMJD46046-8KE4NL6

**Description:**

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

**Features:**

- Vertical
- Shielded EMI Finger
- Transformer + 3Wire
- 8 cores per Jack
- Board Lock
- Industrial grade

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# 1. Introduction



The Taoglas TMJD46046-8KE4NL6 is a vertical RJ45 Integrated Connector with a shielded EMI Finger 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,18mA DC Bias
Turns Ratio (±3%)	1CT:1CT
Isolation PHY SIDE To Line SIDE	1500Vrms
Insertion Loss	-1.2dB Max @0.3MHz TO 100MHz
Return Loss (100 OHMS ±15%)	-16dB Min @1MHz TO 30MHz
	-13.5dB Min @40MHz
	-11.5dB Min @50MHz
	-10dB Min @60-80MHz
Cross talk	-40dB Min @30MHz
	-36dB Min @60MHz
	-30dB Min @100MHz
DCMR	-35dB Min @30MHz
	-32dB Min @60MHz
	-30dB Min @100MHz

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

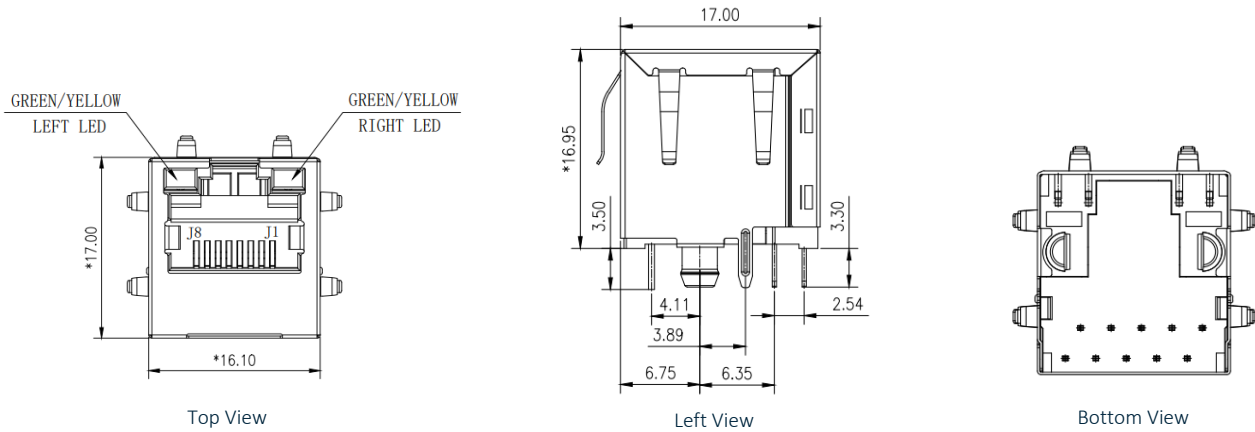
Material Specifications	
Housing	Thermoplastic PA66 UL94V-0 BLACK
Contact	Phosphor Bronze C5191 Thickness=0.35mm plated Nickel 30µ" Min, Gold plated on content area 30 µ " Min
Input Terminal	Brass, Thickness=0.35mm
Finish	120 µ " min Tin over 50 µ " min Nickel
Metal shielding	Copper alloy with nickel plated (C2680), Thickness=0.2mm Ni 30 µ" min
Wave solder tip temperature	260°C, 5 Sec

Compliance	
	IEEE 802.3
	RoHS Compliant

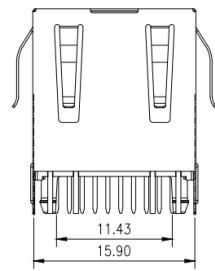
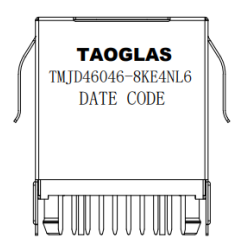
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

### 3. Mechanical

#### 3.1 Mechanical Drawings



Mechanical Specifications	
Height	16.95 mm
Width	17.00 mm
Depth	16.10 mm
Weight	g
Mounting Style	Through Hole (THT)
Mounting Angle	Vertical

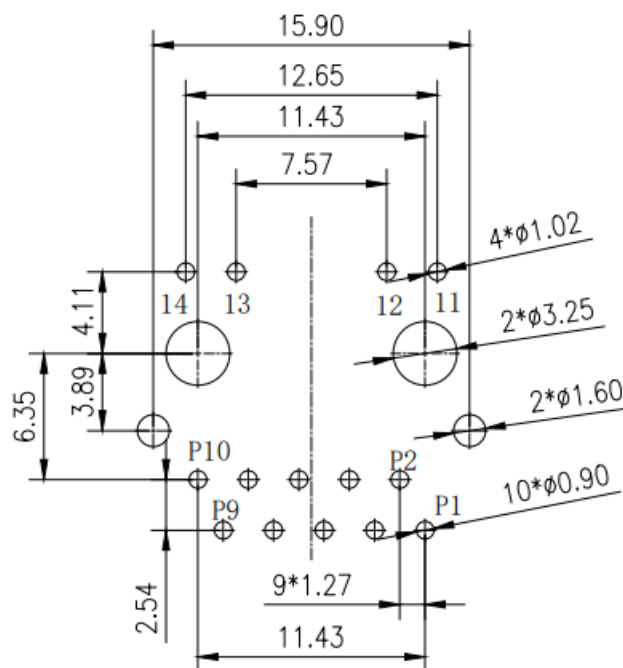


Dimensions are in millimeters with the following tolerances: X.XX = ±0.25

Back View

Top View

#### 3.2 PCB Layout

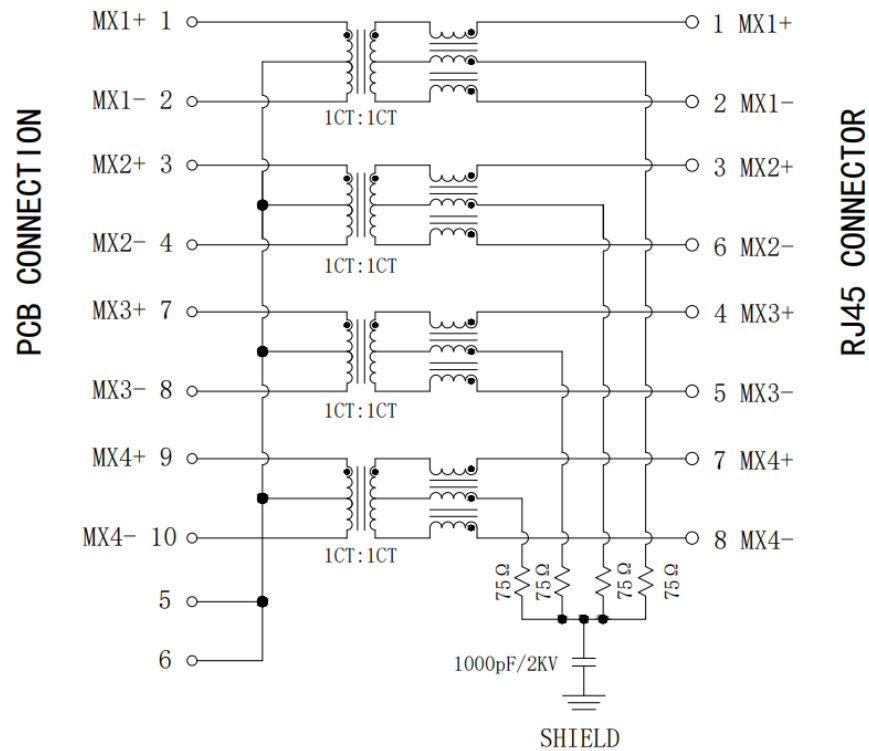


Suggested PCB Layout (Top View)

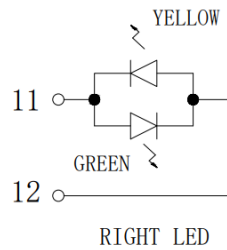
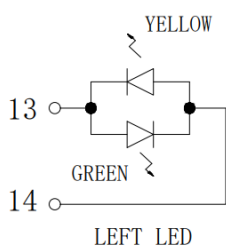
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

## 4. Electrical

### 4.1 Electrical Drawings

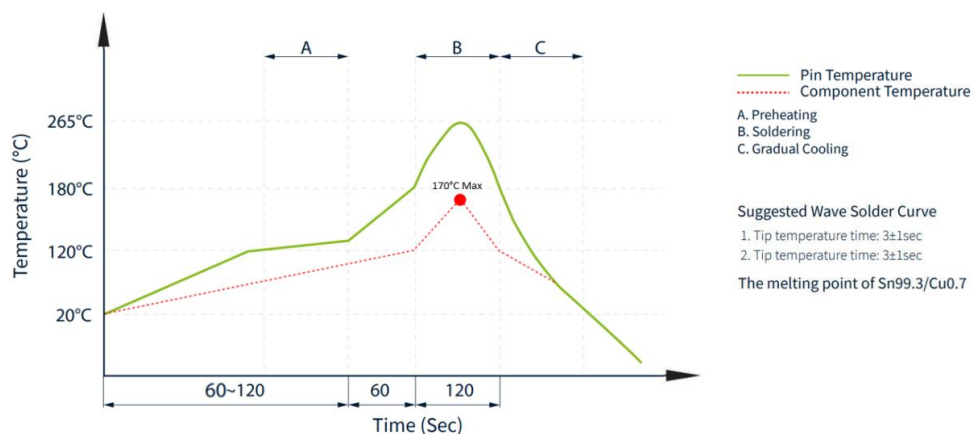


### 4.2 LED



Emitting Color	$\lambda_p$ (nm)	VF@IF=20mA	IR @VR=5V
GREEN	565	1.8~2.4V	10 $\mu$ A max
YELLOW	585	1.8~2.4V	10 $\mu$ A max

### 4.3 Profile of Wave Solder

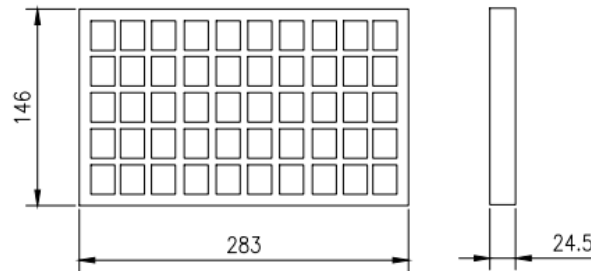


## 5. Packaging

### 5.1 SPQ

1 tray = 50 pcs

Tray Weight = 0.448kg

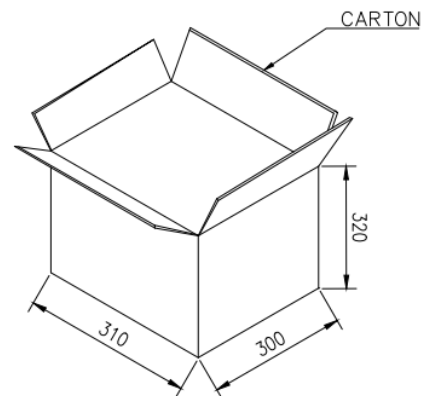


### 5.2 Carton

1 Carton = 20 trays = 1000 pcs

Carton dimensions = 300\*310\*320 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-24-8-096 – TMJD46046-8KE4NL6**

**Revision: A (Original First Release)**

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

**Previous Revisions**






[www.taoglas.com](http://www.taoglas.com)

