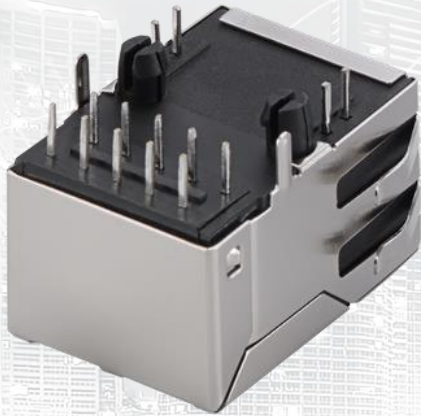




# TAOGLAS®



# Datasheet

## RJ45 ICM 1G Base-T Short Body

**Part No:**  
TMJG16391A4NL

**Description:**

RJ45 connector with integrated magnetics 1G Base-T  
Single Port Tab-UP with right angle THT mount and LEDs

**Features:**

Short Body  
3 Wire + Transformer  
Shielded EMI Finger  
RoHS Compliant

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# 1. Introduction



The Taoglas TMJG16391A4NL is a 1G Base-T single-port, tab-UP RJ45 Integrated Connector with a shielded EMI Finger short body design, offering extra space. It features a widely recognized footprint and a compatible package that aligns with industry standards for RJ45 Integrated Connectors, making it popular among users.

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 OCL	350uH MIN @100KHz 0.1V 8mA DC Bias
Turns Ratio ( $\pm 3\%$ )	1CT:1CT
Insertion Loss	-1.0dB MAX @1-100MHz
Return Loss(@100Ω)	-18dB MIN @1-30MHz
	-16dB MIN @30-60MHz
	-12dB MIN @60-80MHz
	-10dB MIN @80-100MHz
Crosstalk	-30dB MIN @1-100MHz
Common Mode Rejection	-30dB MIN @1-100MHz
Hipot	1500Vrms

Environmental Specifications	
Operating Temperature	0°C TO +70°C

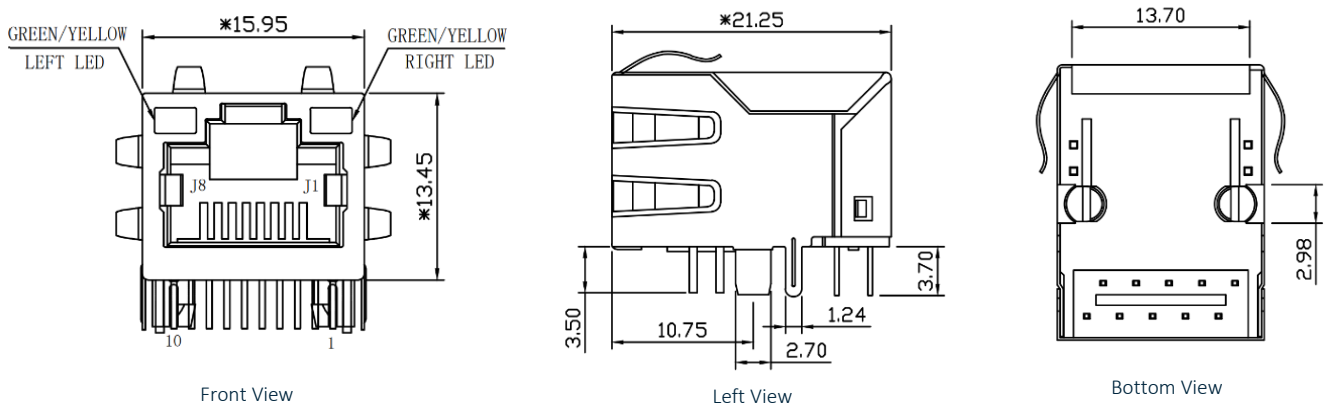
Material Specifications	
Housing	Thermoplastic PBT+30%G. F UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness=0.35mm
Pins	Brass C2680R-H Thickness=0.35mm
Shield	SUS 201-1/2H Thickness=0.2mm
Contact plating	Gold 6 micro-inches min. in contact area.
Wave solder tip temperature	260°C Max, 5 Sec

Compliance	
	IEEE 802.3
	RoHS Compliant

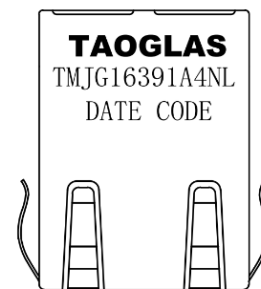
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

### 3. Mechanical

#### 3.1 Mechanical Drawings



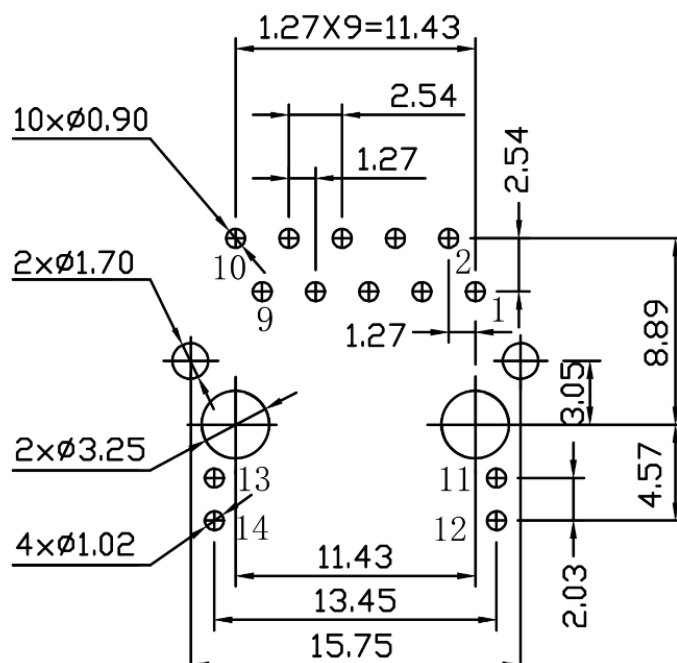
Mechanical Specifications	
Height	13.45mm
Width	15.95mm
Depth	21.25mm
Weight	5.73g
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle



Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.25$

Top View

#### 3.2 PCB Layout

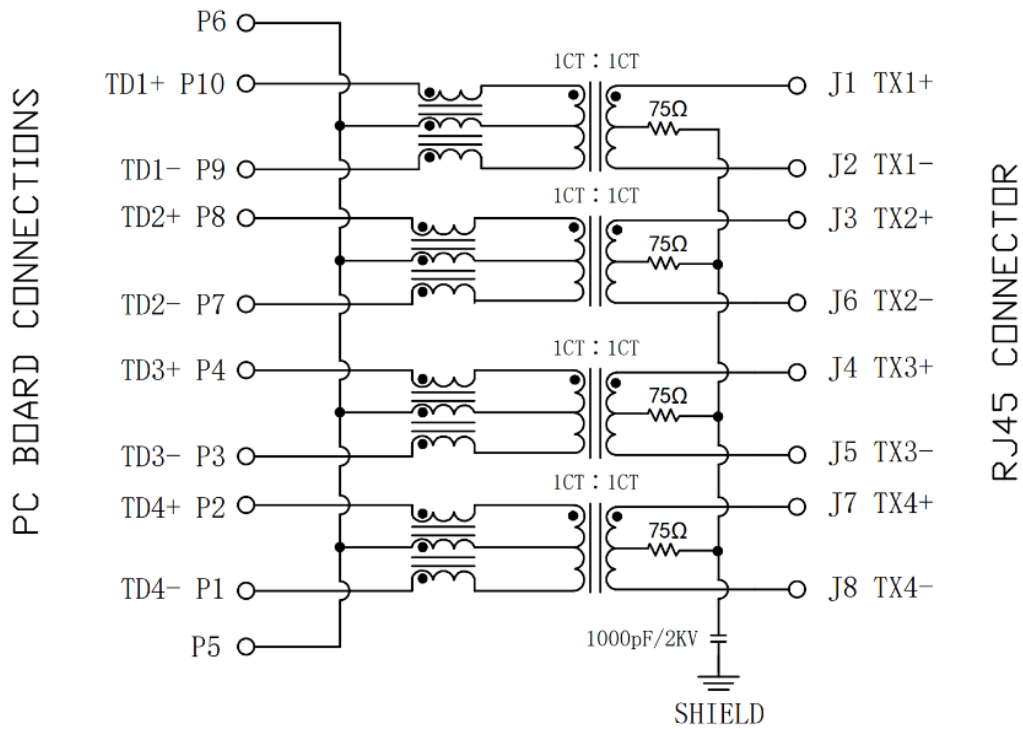


Suggested PCB Layout (Top View)

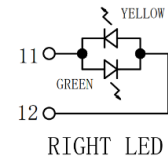
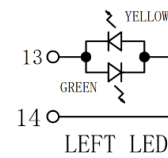
Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$

# 4. Electrical

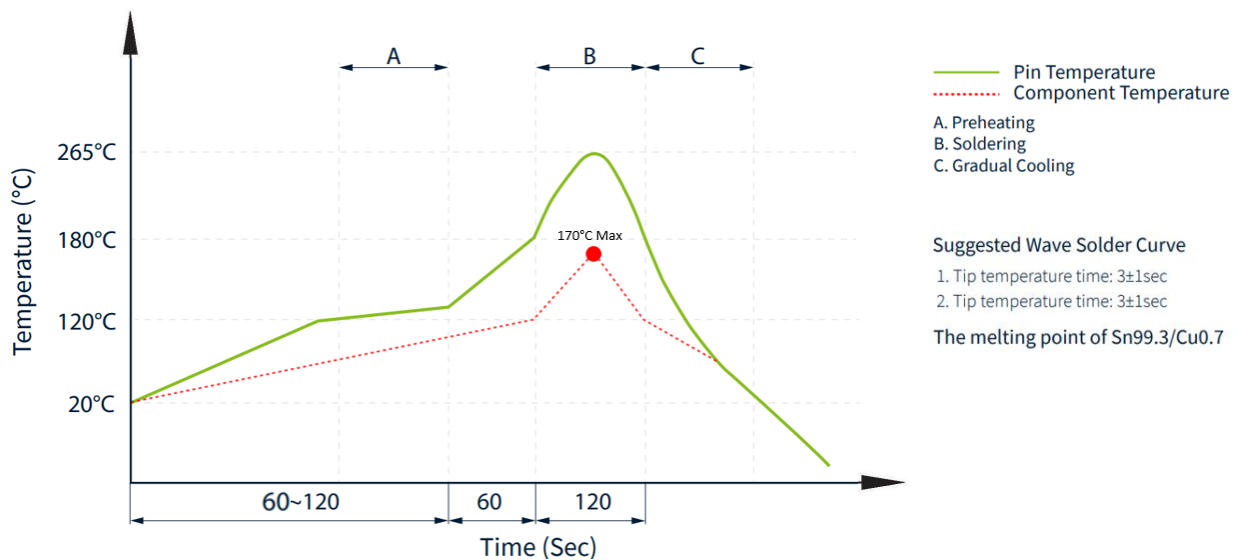
## 4.1 Electrical Drawings



LED Electrical Specification			
Standard LED	Wavelength (nm)	$V_F$ ( $I_F=20mA$ )	$I_R$ ( $V_R=5v$ )
Green	565	1.8~2.6v	10 $\mu A$ Max
Yellow	585	1.8~2.6v	10 $\mu A$ Max



## 4.2 Profile of Wave Solder



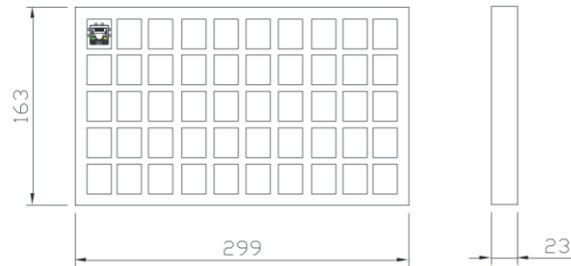
## 5. Packaging

### 5.1 SPQ

50 pcs/tray

Tray dimension: 299\*163\*23 mm

Tray Weight: 365g



1 Carton = 24 trays = 1200 pcs

Carton dimensions: 320\*300\*310mm

Carton Weight: 9kg



### 5.2 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-23-8-214 – TMJG16391A4NL**

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

Date:	2023-10-01
Notes:	
Author:	Javier Vasena

**Previous Revisions**






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