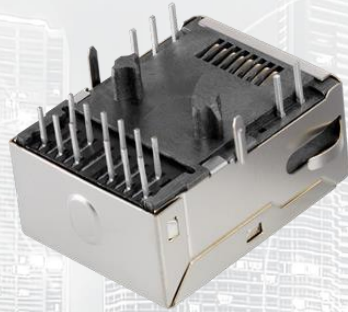




# TAOGLAS®



# Datasheet

## RJ45 ICM 1G Base-T Low Profile

**Part No:**  
TMJUTGW0021103425

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

**Features:**  
Low Profile  
Industrial grade  
3Wire + Transformer  
Shielded EMI Finger  
15 $\mu$ " gold plating  
RoHS Compliant

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# 1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJUTGW0021103425 is an RJ45 Integrated Connector 1G Base-T Single Port Tab Up with shielded EMI Finger and Low-Profile design for extra space.

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	
OCL	350uH MIN @100KHZ,0.1V 8mA DC BIAS
Turns Ratio (±2%)	1CT:1CT
Insertion Loss	-1.0 dB Max @ 0.1MHz-100MHz
Return Loss	-16 dB Min @ 1MHz-30MHz
	-14.5 dB Min @ 30MHz -60MHz
	-12 dB Min @ 60MHz -80MHz
CMR	-30 dB Min @ 1MHz-100MHz
Cross Talk	-30 dB Min @ 0.1MHz-100MHz
Hipot (Isolation Voltage)	2250V DC

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

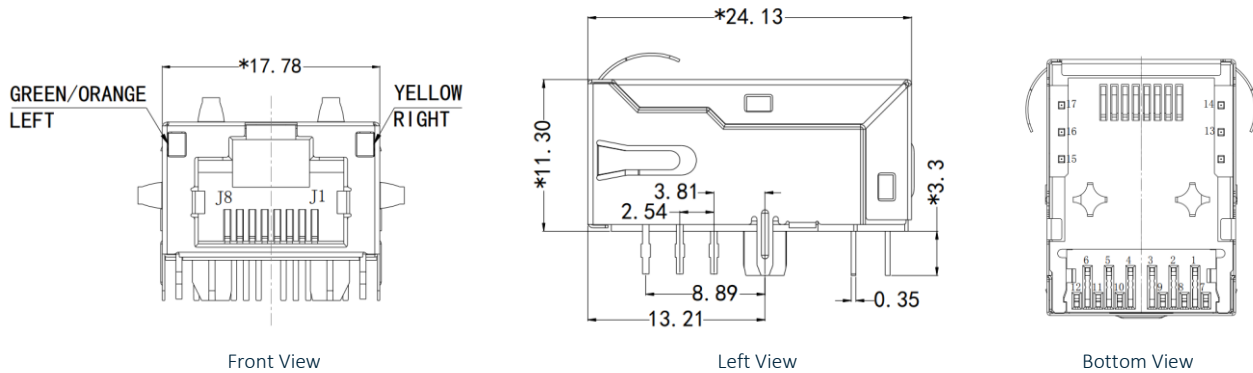
Material Specifications	
Housing	LCP BLACK UL94 V-0
Terminals Bracket	PA66, UL94 V-0, Black
Shield	C2680, T=0.20mm, nickel plating on all area.
Terminal	Phosphor Bronze C5191, T=0.35mm. 15µ" gold plating on contact area
Durability	750 cycles min.
Mating Force	23N Max.
Wave solder tip temperature	260°C Max, 5 Sec

Compliance	
	IEEE 802.3
	RoHS Compliant

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

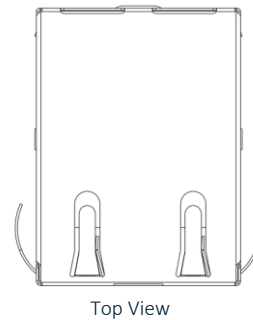
### 3. Mechanical

#### 3.1 Mechanical Drawings

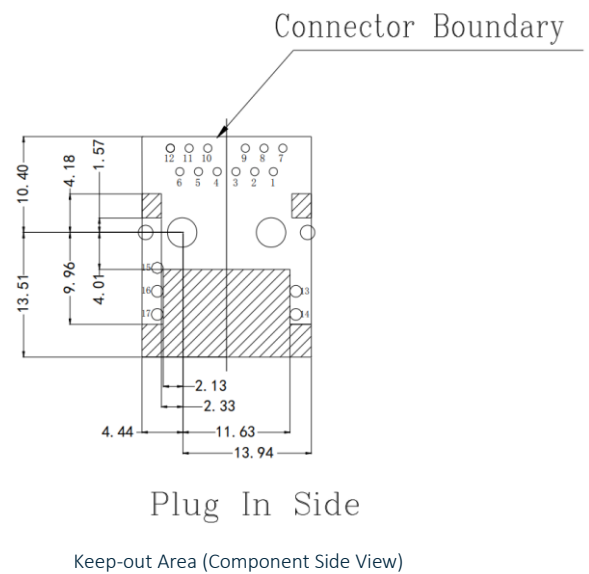
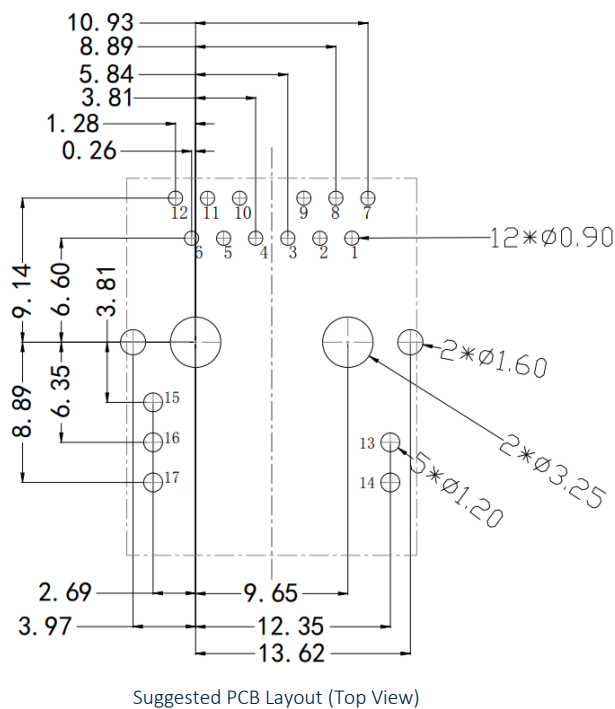


Mechanical Specifications	
Height	11.30mm
Width	17.78mm
Depth	24.13mm
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

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



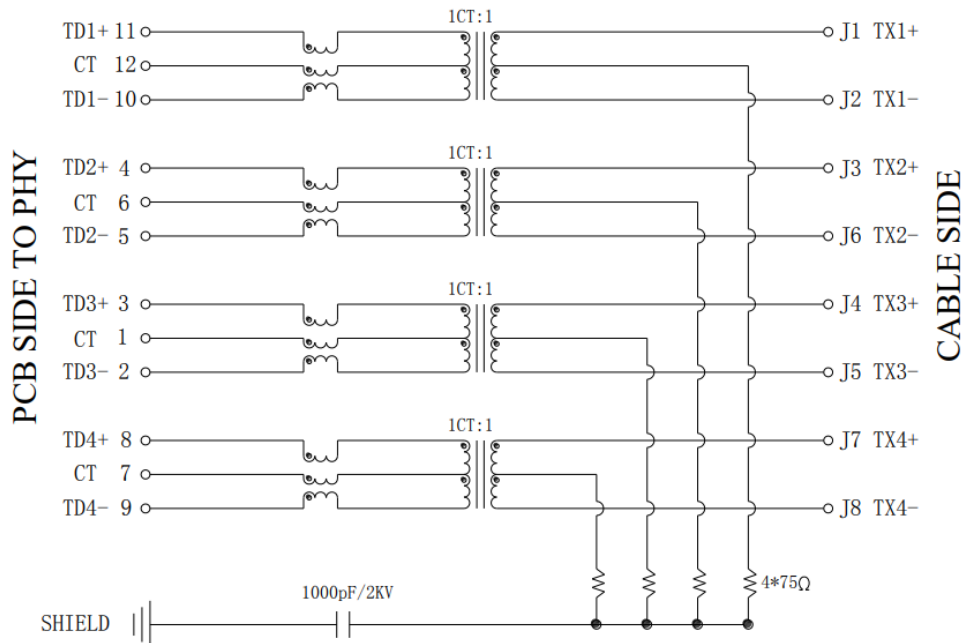
#### 3.2 PCB Layout



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

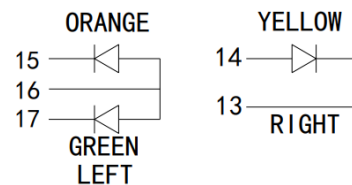
## 4. Electrical

### 4.1 Electrical Drawings

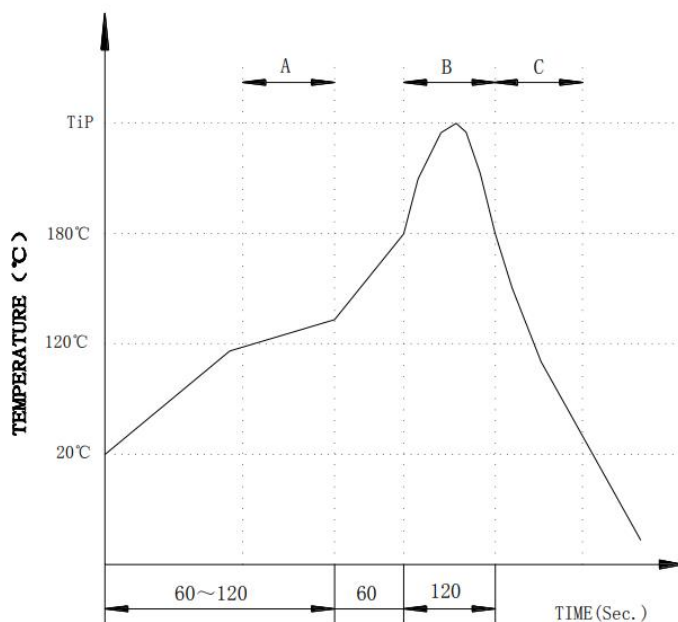


#### LED Electrical Specification

Standard LED	Wavelength (nm)	V <sub>F</sub>	I <sub>F</sub>
Green	565	2.2-2.4V	20 μA
Yellow	585	2.1-2.5V	20 μA
Orange	605	2.0-2.5V	20 μA



### 4.2 Profile of Wave Solder



A.Preheating B.Soldering C.Gradual Cooling  
 Tip temperature:260± 5°C.  
 Tip temperature time:5Sec Max.  
 Tip melting point of Sn96.5/Ag3/Cu0.5:217°C.

Remarks: after wave soldering, the plastic positioning columns of the product which under the PCB will be slightly melted, but it won't affect its function.

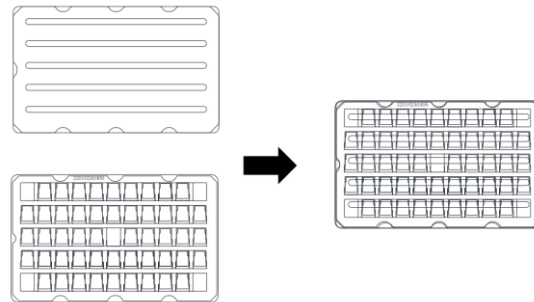
## 5. Packaging

### 5.1 SPQ

50 pcs/tray

Tray dimension: 310\*190\*25 mm

Tray Weight: 50g



1 Carton = 24 trays = 1200 pcs

Carton dimensions: 400\*320\*330mm

Carton Weight: 11.5kg



### 5.2 Label

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-23-8-161 – TMJUTGW0021103425**

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

Date:	2023-07-01
Notes:	
Author:	Javier Vasena

**Previous Revisions**






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