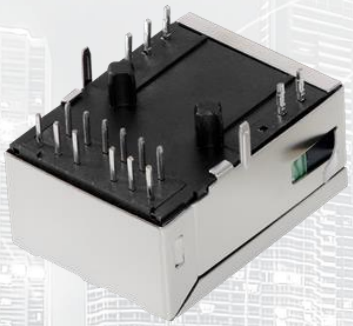
TAOGLAS



Datasheet

RJ45 ICM 10G Base-T Low Profile

Part No:
TMJK9461A97NL

Description:

RJ45 connector with integrated magnetics 10G Base-T

Single Port Tab-UP with right angle THT mount and LEDs

Features:

Industrial grade

Shielded EMI Finger

3Wire + Transformer

Low Profile

RoHS Compliant

1.	Introduction	3
2.	Specifications	4
3.	Mechanical	5
4.	Electrical	6
5.	Packaging	7
	Changelog	8

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1. Introduction

Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJK9461A97NL is an RJ45 Integrated Connector 10G Base-T Single Port Tab Up with shielded EMI Finger and low-profile body design that offers 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	120uH Min @100KHz/100mVrms 8mA DC Bias
Turns Ratio（±2%）	1CT:1CT
Insertion Loss (dB Max)	1～250MHz: -1.2
	250～500MHz: -3
Return Loss (dB Min)	1～40MHz: -18
	40-100MHz: -14
	100～250MHz: -11
	250～500MHz: -8
Crosstalk (dB Min)	1～100MHz: -30
	100～500MHz: -20
Common Mode Rejection Ratio	1～100MHz: -28
	100～250MHz: -22
	250～500MHz: -20
Hipot	1500Vrms

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

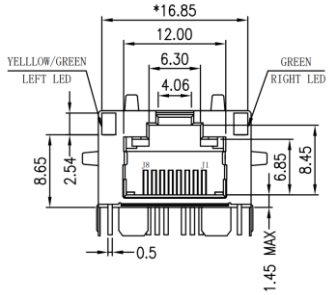
Material Specifications	
Housing	Thermoplastic UL94V-0
Contact/Shield	Copper alloy
Shield Plating	Nickel
Contact plating	Gold 6 micro-inches min. in contact area.
Wave solder tip temperature	260℃ Max,5 Sec

Compliance
IEEE 802.3
RoHS Compliant

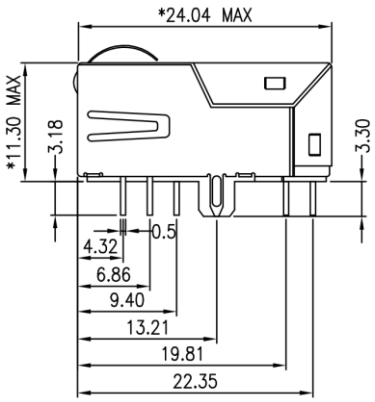
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

3. Mechanical

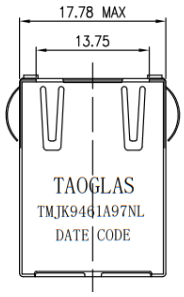
3.1 Mechanical Drawings



Front View



Left View

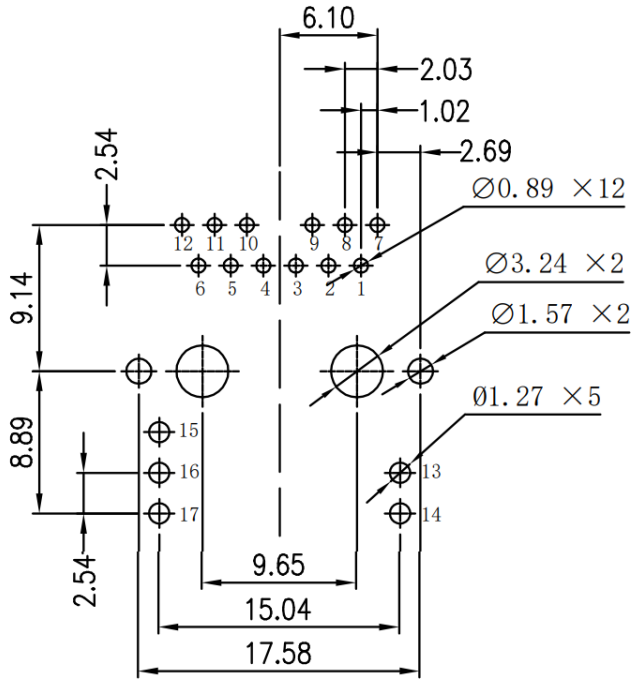


Top View

Mechanical Specifications	
Height	11.3mm
Width	16.85mm
Depth	24.04mm
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

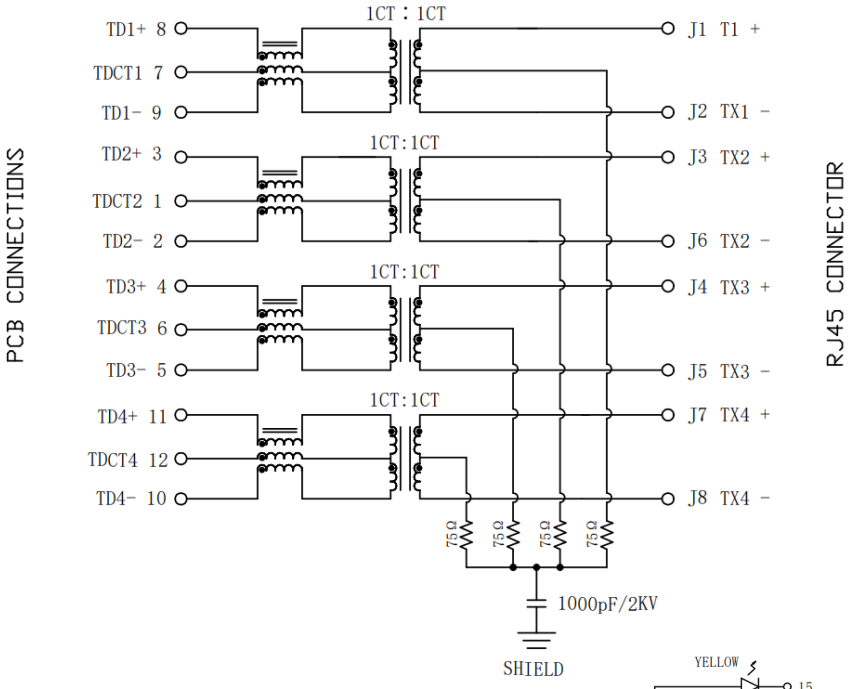


Suggested PCB Layout (Top View)

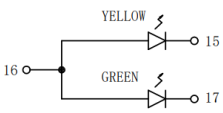
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings

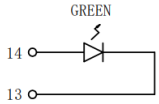


LED Electrical Specification			
Standard LED	Wavelength (nm)	V_F (I_F=20mA)	I_R (V_R=5v)
Green	565	1.8~2.6v	10 μA Max
Yellow	585	1.8~2.6v	10 μA Max



LEFT LED

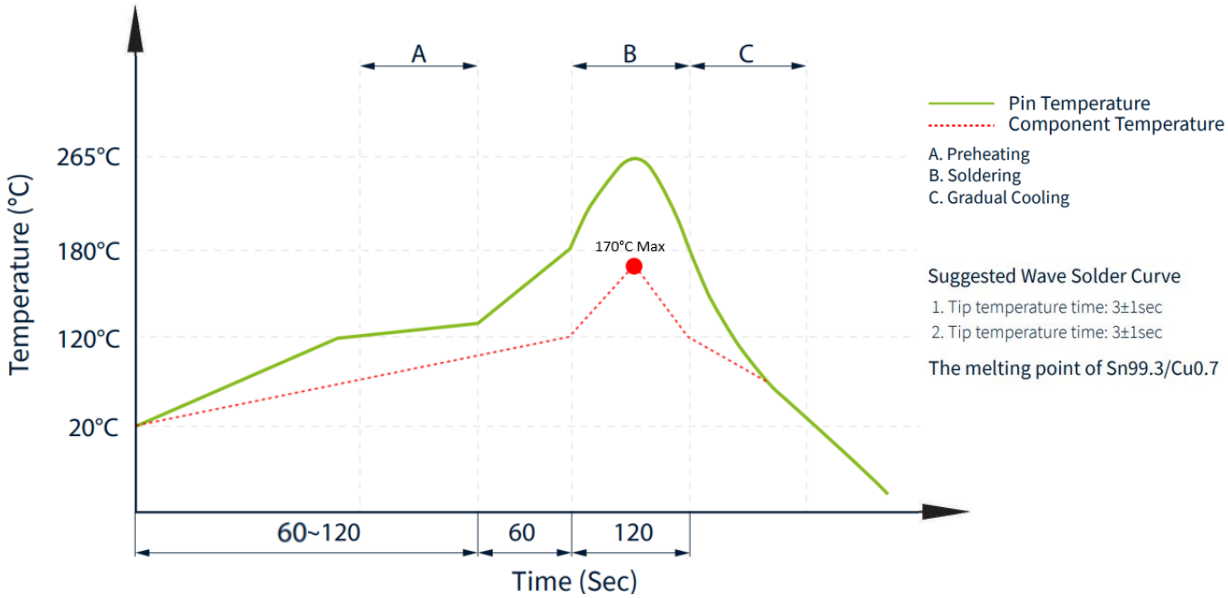
LED POLARITY			COLOR
PIN 15	PIN 16	PIN 17	
-	+		YELLOW
	+	-	GREEN



RIGHT LED

LED POLARITY		COLOR
PIN 13	PIN 14	
-	+	GREEN

4.2 Profile of Wave Solder



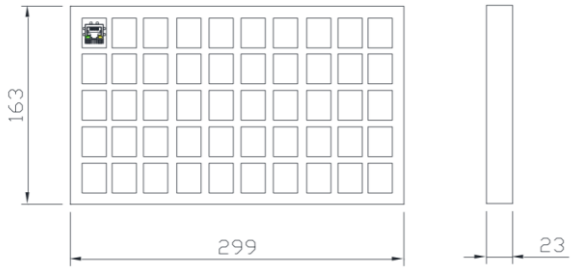
5. Packaging

5.1 SPQ

50 pcs/tray

Tray dimension: 299*163*23 mm

Tray Weight: 425g



1 Carton = 20 trays = 1000 pcs

Carton dimensions: 320*310*300mm

Carton Weight: 9kg

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-23-8-165 – TMJK9461A97NL

Revision: A (Original First Release)	
Date:	2023-07-01
Notes:	
Author:	Javier Vasena

Previous Revisions

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