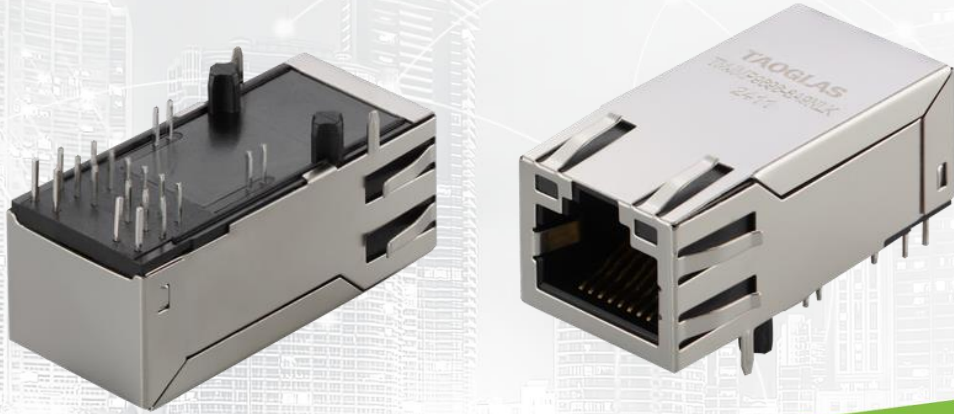




TAOGLAS®



Datasheet

RJ45 ICM 10G Base-T PoE++

Part No:
TMJMP9696-8A9NLK

Description:

RJ45 connector with integrated magnetics 10G Base-T
Single Port Tab-UP with right angle THT mount and LED

Features:

Long Body
Shielded EMI Finger
PoE++ (720mA)
3 Wire + Transformer
Industrial grade

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1. Introduction



The Taoglas TMJMP9696-8A9NLK is a single-port, tab-up RJ45 Integrated Connector with a shielded EMI Finger long 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 10G Base-T connection and PoE++ applications.

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	120µH Min @ 100KHz,0.1V,8mA DC BIAS
Turns Ratio (±2%)	1CT:1CT
Insertion Loss	-1.5dB Max @1-250MHz
	-3.0dB Max @250-500MHz
Return Loss	-18dB Min @1-40MHz
	-14dB Min @40-100MHz
	-11dB Min @100-250MHz
	-8dB Min @250-500MHz
Crosstalk	-30dB Min @1-100MHz
	-20dB Min @100-500MHz
Common Mode Rejection Ratio	-28dB Min @1-100MHz
	-22dB Min @100-250MHz
	-20dB Min @250-500MHz
Balanced DC Line Current	720mA Max @57VDC continuous
	1000A Max @57VDC For 200 Milliseconds
Isolation PHY SIDE To Line SIDE	1500Vrms

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

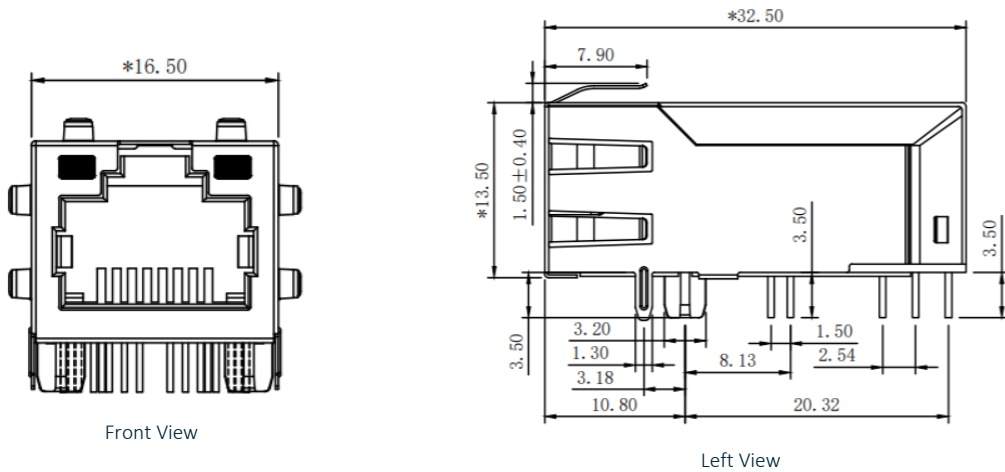
Material Specifications	
Housing	Thermoplastic PBT+30%G. F UL94V-0
Shield	SUS 304 1/2EH Thickness=0.2mm
Contact Material	Phosphor Bronze C5210R-EH Thickness=0.35mm
Contact plating	Gold 30 micro-inches min. in contact area
Pins	Brass C2680R-H Thickness=0.35mm
Wave solder tip temperature	250°C, 5 Sec

Compliance	
	IEEE 802.3at
	RoHS Compliant

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

3. Mechanical

3.1 Mechanical Drawings

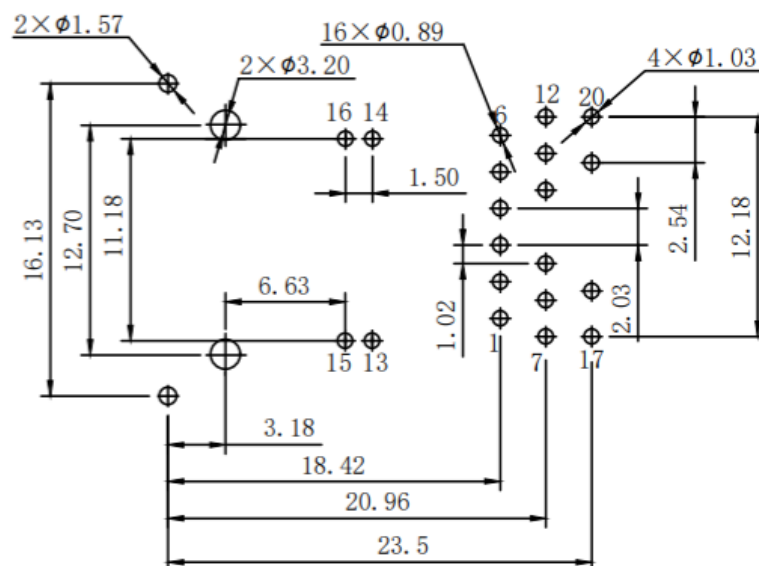


Mechanical Specifications

Height	13.50 mm
Width	16.50 mm
Depth	32.50 mm
Weight	8.9 g
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

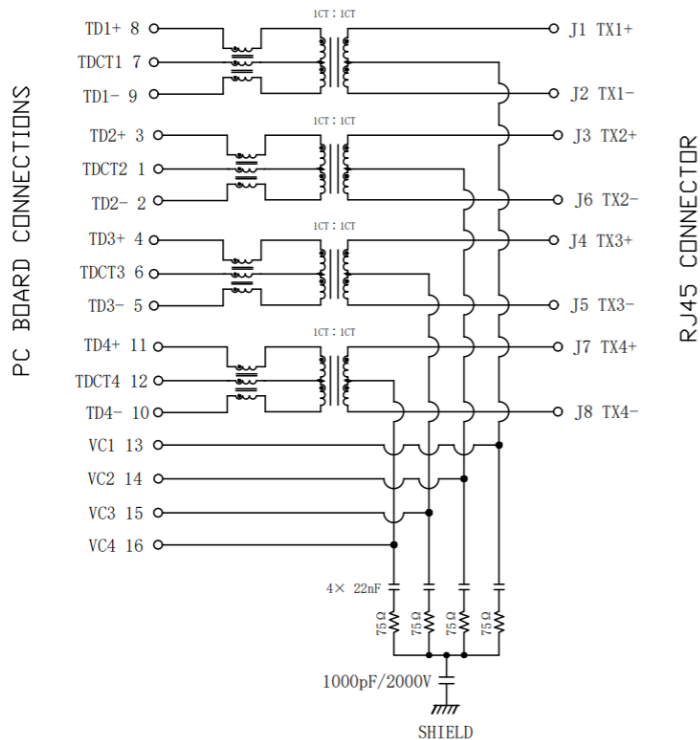


Suggested PCB Layout (Top View)

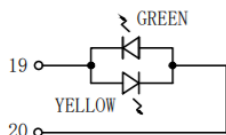
Dimensions are in millimeters with the following tolerances: X.XX = ± 0.10

4. Electrical

4.1 Electrical Drawings

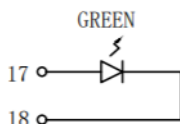


4.2 LED



LEFT LED

LED POLARITY		COLOR
PIN 19	PIN 20	
+	-	YELLOW
-	+	GREEN

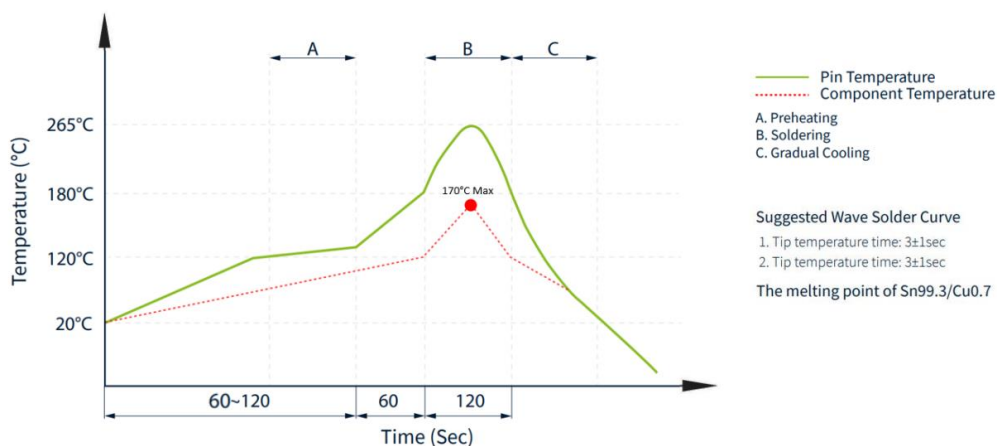


RIGHT LED

LED POLARITY		COLOR
PIN 17	PIN 18	
+	-	GREEN

Emitting Color	λ_p (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

4.3 Profile of Wave Solder

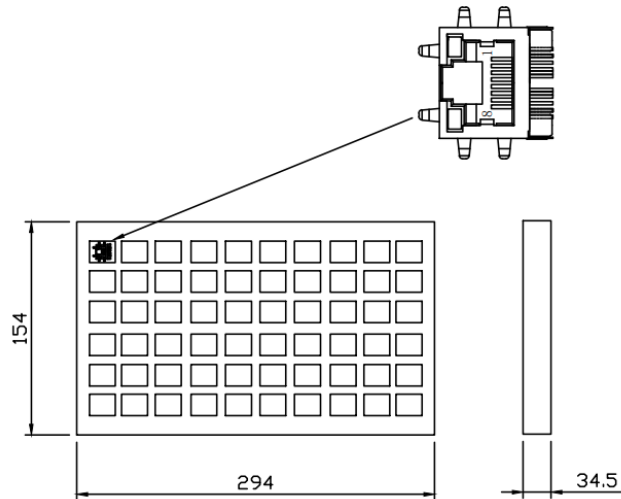


5. Packaging

5.1 SPQ

1 tray = 60 pcs

Tray weight = 0.546 kg

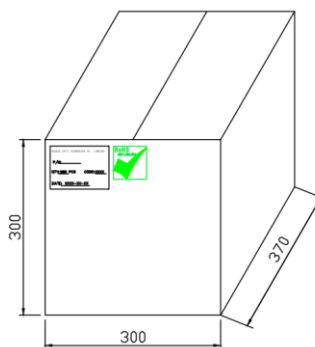


5.2 Carton

1 Carton = 16 trays = 960 pcs

Carton dimensions = 300*370*300 mm

Carton Weight = 10.5 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-24-8-122 – TMJMP9696-8A9NLK

Revision: A (Original First Release)

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

Previous Revisions



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