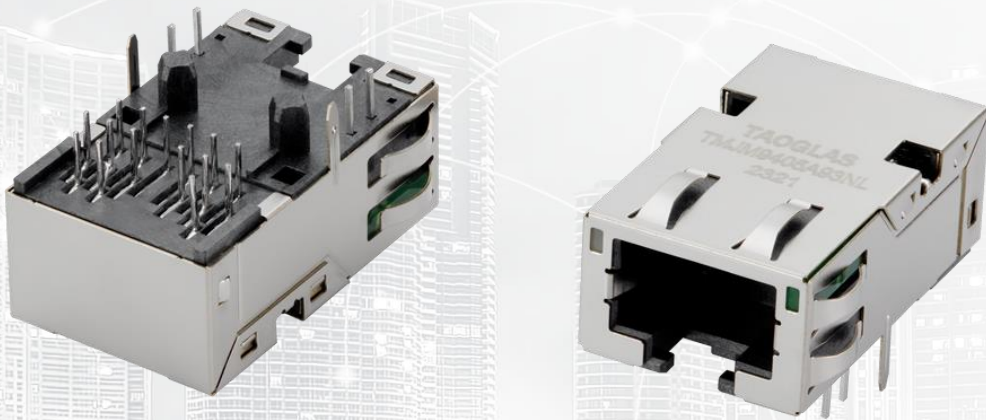




TAOGLAS®



Datasheet

RJ45 ICM 10G Low Profile

Part No:
TMJM9405A93NL

Description:

RJ45 connector with integrated magnetics 10G Base-T
Single Port Tab-DOWN Low-profile with right angle THT mount and LEDs

Features:

- Industrial grade
- Shielded EMI Finger
- 3Wire + Transformer
- Low Profile
- PCI Express
- RoHS Compliant

| | |
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1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJM9405A93NL is an RJ45 Integrated Connector 10G Base-T Single Port Tab Down 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, 0.1V |
| Turns Ratio (±5%) | 1CT:1CT |
| Insertion Loss (dB Max) | 1~100MHz: -3.0 |
| | 100~400MHz: -5.0 |
| Return Loss (dB Min) | 1~100MHz: -22 |
| | 100-200MHz: -16.5 |
| | 200~300MHz: -13.2 |
| | 300~500MHz: -9 |
| Crosstalk (dB Min) | 1~100MHz: -28 |
| | 100~500MHz: -19 |
| Common Mode to Differential Mode Rejection (dB Min) | 1~300MHz: -30 |
| | 300~500MHz: -22 |
| Isolation Hi-Pot | 2250VDC Min |

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

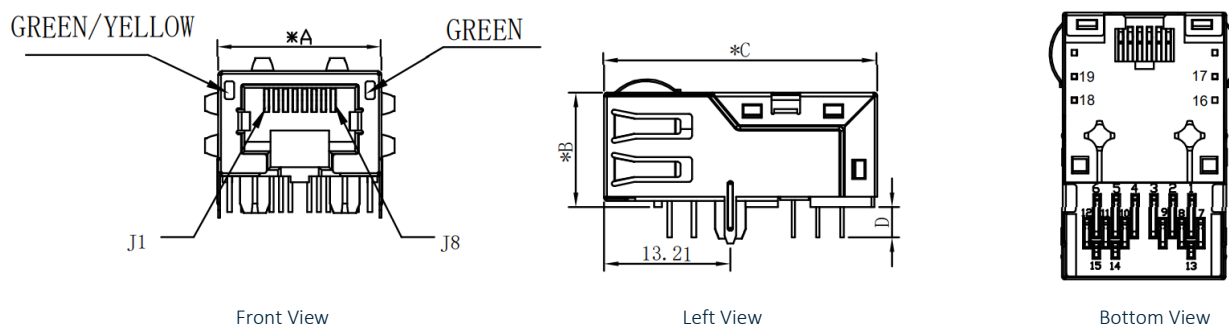
| Material Specifications | |
|-----------------------------|--------------------------------------------------|
| Housing | LCP BLACK UL94 V-0 |
| Insert | LCP BLACK UL94 V-0 |
| Shield | Brass |
| Shield plating | Nickel |
| Contact | Phosphor Bronze |
| Contact Plating | Selective Gold, 6 micro-inch 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 |

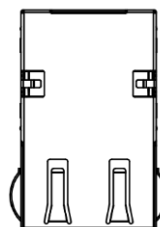
3. Mechanical

3.1 Mechanical Drawings



Mechanical Specifications

| | |
|----------------|--------------------|
| Height | 11.92mm |
| Width | 17.53mm |
| Depth | 28.57mm |
| Mounting Style | Through Hole (THT) |
| Mounting Angle | Right Angle |



Top View

UNIT : mm / Inch

A = 17.53 / 0.690

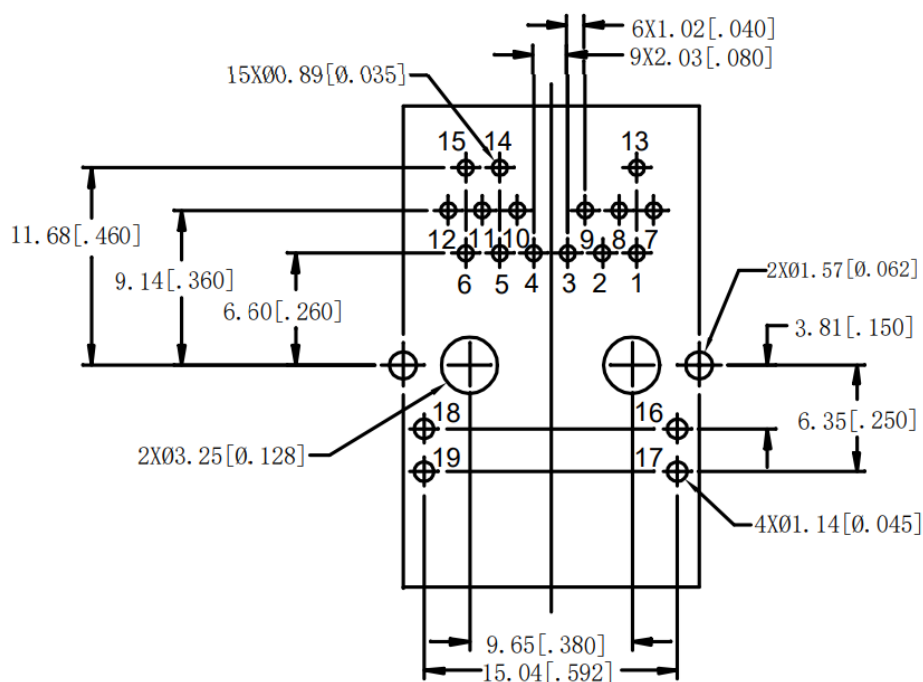
B = 11.92 / 0.445

C = 28.57 / 1.125

D = 3.18 / 0.125

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

3.2 PCB Layout

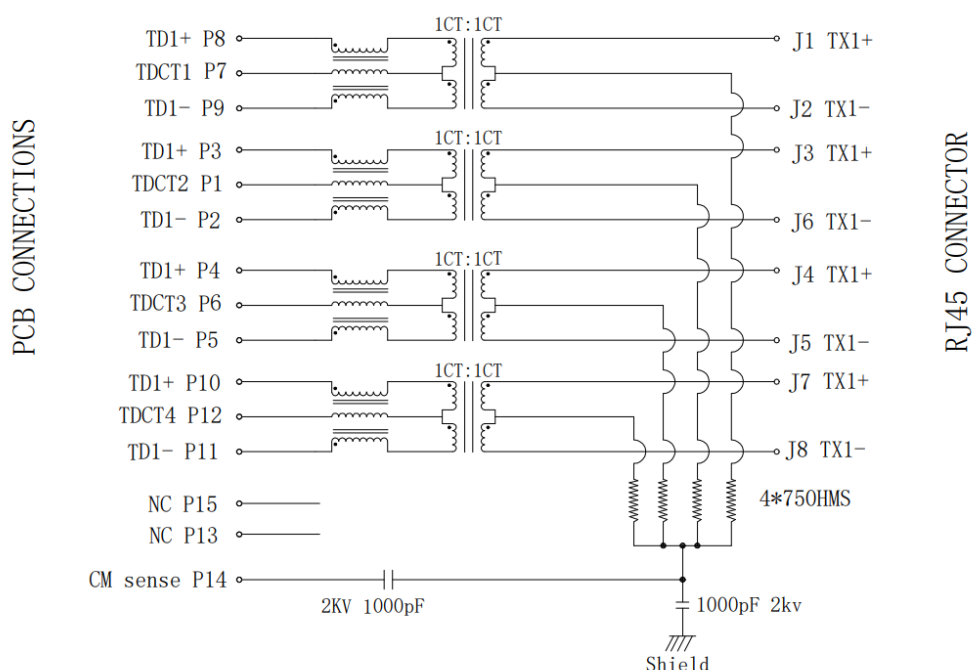


Suggested PCB Layout (Top View)

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

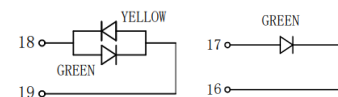
4. Electrical

4.1 Electrical Drawings

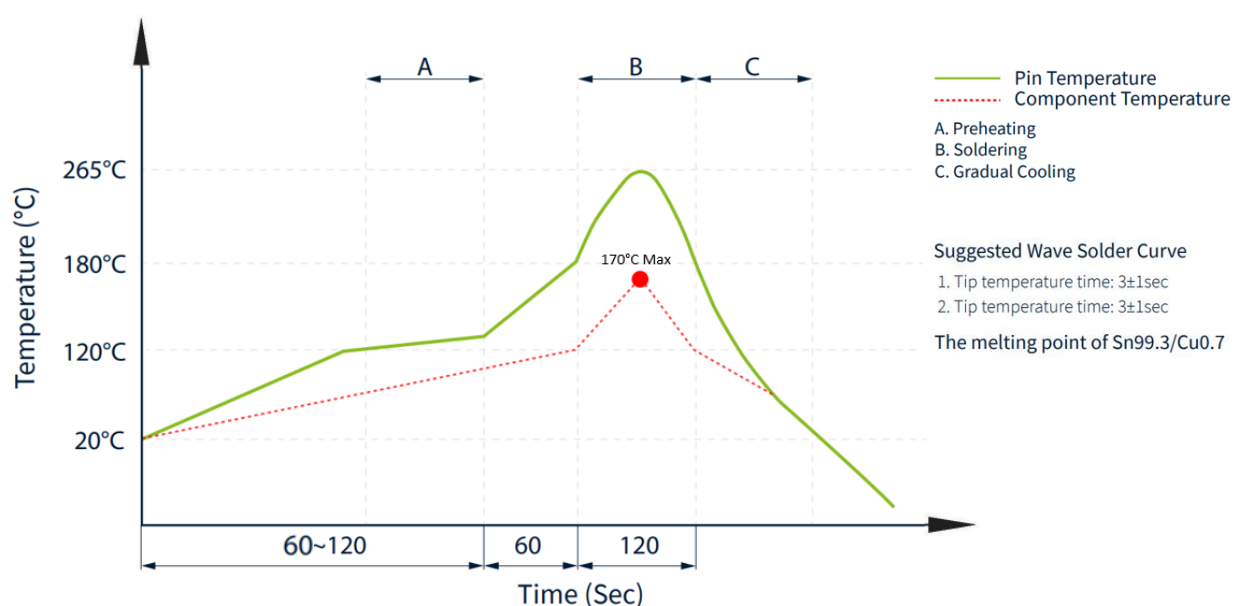


LED Electrical Specification

| Standard LED | Wavelength (nm) | V_F ($I_F=20\text{mA}$) | Power Diss. (Pd) | I_R ($V_R=5\text{V}$) |
|--------------|-----------------|-----------------------------|------------------|---------------------------|
| Green | 565 | 2.2v | 105 mW MAX | 25 μA Max |
| Yellow | 585 | 2.1v | 100 mW MAX | 30 μA Max |



4.2 Profile of Wave Solder



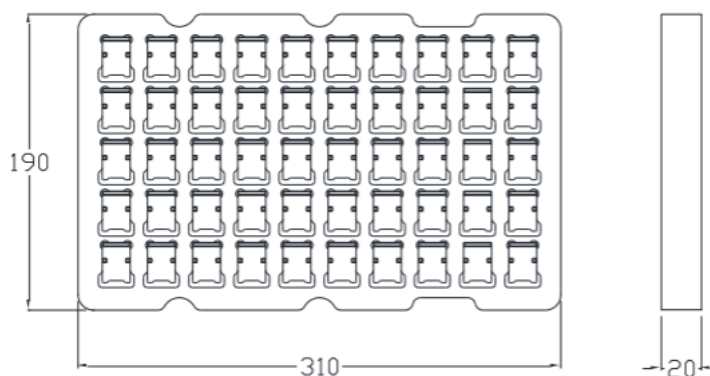
5. Packaging

5.1 SPQ

50 pcs/tray

Tray dimension: 310*190*20 mm

Tray Weight: 500g



1 Carton = 26 trays = 1300 pcs

Carton dimensions: 400*320*333mm

Carton Weight: 13.5kg



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-23-8-163 – TMJM9405A93NL

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

Previous Revisions

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