



TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T PoE++

Part No:
TMJK6064A9NL

Description:

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

Features:

- PoE++ (720mA)
- Industrial grade
- AutoMDIX
- EMI finger
- Long Body
- RoHS & REACH Compliant

| | |
|------------------------|---|
| 1. Introduction | 3 |
| 2. Specifications | 4 |
| 3. Mechanical | 5 |
| 4. Electrical | 6 |
| 5. Packaging & Storage | 7 |
| <hr/> | |
| Changelog | 8 |

Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.



1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJK6064A9NL is an RJ45 Integrated Connector 1G Base-T Single Port Tab Up with EMI Finger and Long Body for PoE++ (720mA) with a schematic that enables AutoMDIX feature.

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 | 350μH MIN @ 100KHz 0.1V 8mA DC Bias |
| Turns Ratio (±2%) | TX=1CT: 1CT RX=1CT: 1CT |
| Insertion Loss | -1.0dB MAX @ 1-100Mhz |
| Return Loss (load 100Ω) | -18dB MIN @ 1-30Mhz |
| | -16dB MIN @ 30-60Mhz |
| | -12dB MIN @ 60-80Mhz |
| | -10dB MIN @ 80-100Mhz |
| Cross talk | -30dB MIN @ 1-100Mhz |
| Common Mode Rejection | -30dB MIN @ 1-100Mhz |
| Balanced DC Line Current | 720mA Max @ 57VDC Continuous 1.2A Max @ 57VDC For 200 Milliseconds. |
| Hi-Pot | 1500Vrms MIN @ 60hZ |

| Environmental Specifications | |
|------------------------------|----------------|
| Operating Temperature | -40°C TO +80°C |

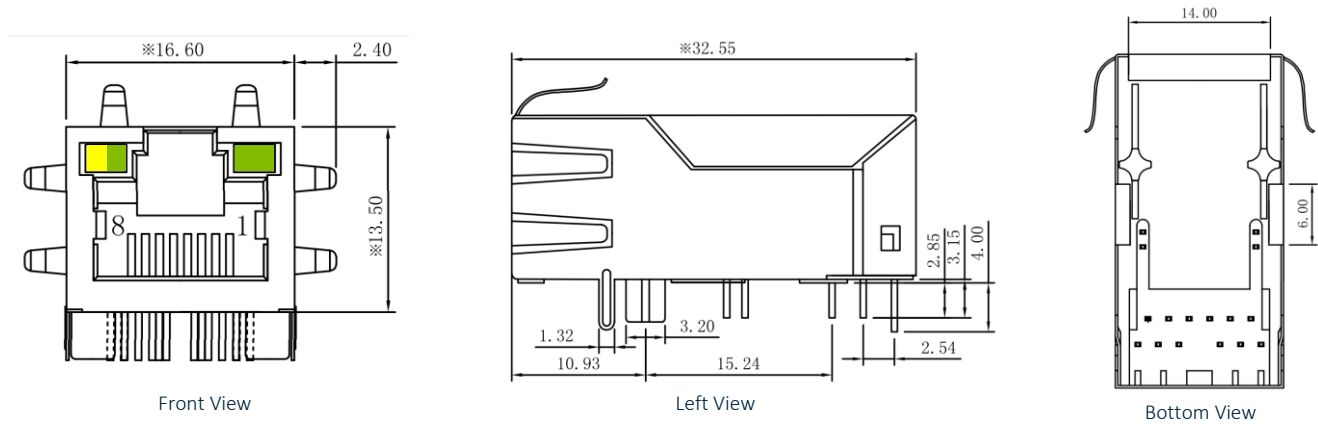
| Material Specifications | |
|-------------------------|---|
| Housing | Thermoplastic PBT+30%G. F UL94V-0 |
| Contact | Phosphor Bronze C5210R-EH Thickness = 0.35mm |
| Contact Plating | Gold Thickness = 6μ" min. |
| Pins | Brass C2680R-H Thickness = 0.35mm |
| Shield | Copper alloy Brass H65Y Thickness = 0.2mm |

| Compliance | |
|----------------------------------|--|
| UL recognized - FILE NO. E528697 | |
| RoHS Compliant | |

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

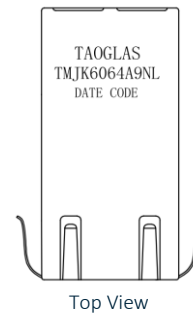
3. Mechanical

3.1 Mechanical Drawings

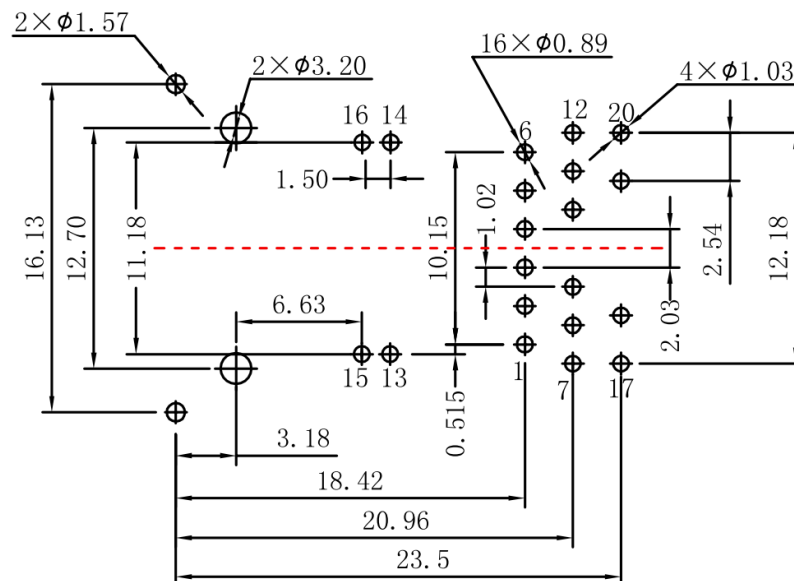


| Mechanical Specifications | |
|---------------------------|--------------------|
| Height Above Board | 0.531" (13.5mm) |
| Width | 0.653" (16.6mm) |
| Depth | 1.28" (32.5mm) |
| Mounting Style | Through Hole (THT) |
| Mounting Angle | Right Angle |

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



3.2 PCB Layout

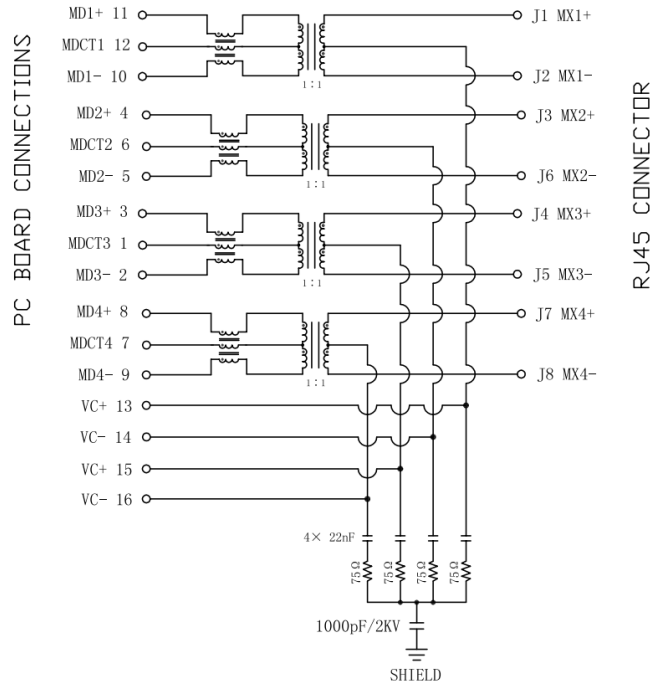


Suggested PCB Layout (Top View)

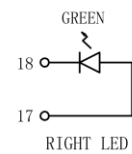
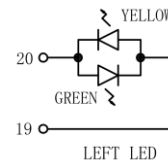
Dimensions are in millimeters with the following tolerances: X.XX = ± 0.10

4. Electrical

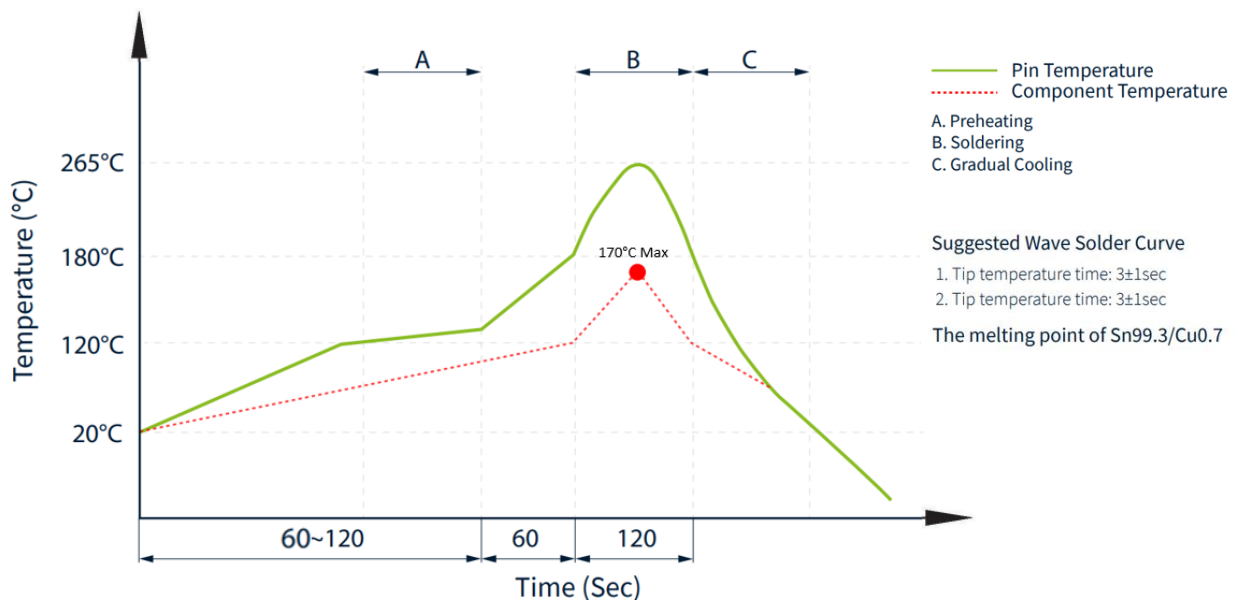
4.1 Electrical Drawings



| 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 |



4.2 Profile of Wave Solder



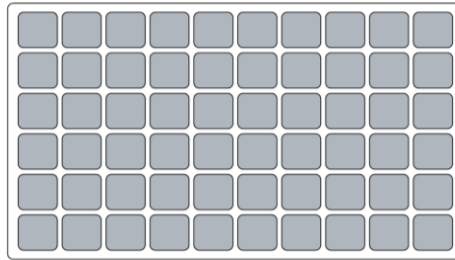
5. Packaging and Storage

5.1 SPQ

60 pcs/tray

Tray dimension: 292*176*33 mm

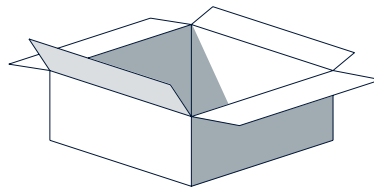
Tray Weight: 606g



1 CTN = 16 trays = 960 pcs

Carton dimensions: 370*300*300 mm

Carton Weight: 10.5kg



Changelog

Changelog for the datasheet

SPE-22-8-045 – TMJK6064A9NL

Revision: A (Original First Release)

| | |
|---------|---------------|
| Date: | 2022-11-08 |
| Notes: | |
| Author: | Javier Vasena |

Previous Revisions

| | |
|--|--|
| | |
| | |



www.taoglas.com

