## TAOGLAS.



[^0]1. Introduction ..... 3
2. Specifications ..... 4
3. Mechanical ..... 5
4. Electrical ..... 6
5. Packaging \& Storage ..... 7
Changelog ..... 8

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## 1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJK0036AINL is an RJ45 Integrated Connector 1G Base-T Single Port Tab Up with EMI Finger and shielded long body and 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.

## Electrical Performance @ $25^{\circ} \mathrm{C}$

| Inductance OCL | $350 \mu \mathrm{H}$ MIN @ 100KHz 0.1V 8mA DC Bias |  |
| :---: | :---: | :---: |
| DCR | $1.2 \Omega \mathrm{MAX}$ |  |
| Turns Ratio ( $\pm 5 \%$ ) | TX=1CT: 1CT | $\mathrm{RX}=1 \mathrm{CT}: 1 \mathrm{CT}$ |
| Insertion Loss | -1.0dB MAX @ 1-100Mhz |  |
| Return Loss | -16dB MIN @ 1-40Mhz |  |
|  | -12dB MIN @ 40-60Mhz |  |
|  | -10dB MIN @ 60-80Mhz |  |
|  | -8dB MIN @ 80-100Mhz |  |
| Cross talk | -30dB MIN @ 1-100Mhz |  |
| Common Mode Rejection | -30dB MIN @ 1-100Mhz |  |
| Hi -Pot | 1500Vrms MIN |  |

## Environmental Specifications

Operating Temperature

$$
0^{\circ} \mathrm{C} \mathrm{TO}+70^{\circ} \mathrm{C}
$$

| Material Specifications |  |
| :---: | :---: |
| Housing | Thermoplastic UL94V-0 |
| Contact | Copper alloy |
| Gold |  |
| Contact Plating | Thickness $=6 \mu^{\prime \prime}$ min. |
| Shield | Nickel |
|  | Compliance |
| UL recognized - FILE NO. E528697 |  |
| RoHS Compliant |  |

Storage requirements

MSL - 1

Storage Temperature $-40^{\circ} \mathrm{C} \mathrm{TO}+85^{\circ} \mathrm{C}$

## 3. <br> Mechanical

### 3.1 Mechanical Drawings



Front View


Left View


Bottom View

## Mechanical Specifications

Height Above Board
Width
Depth
Mounting Style
Mounting Angle
Dimensions are in millimeters with the following tolerances: $\mathrm{X} . \mathrm{XX}= \pm 0.25$


Top View
3.2 PCB Layout


Suggested PCB Layout (Top View)
Dimensions are in millimeters with the following tolerances: $\mathrm{X} . \mathrm{XX}= \pm 0.10$

## 4. Electrical

### 4.1 Electrical Drawings



| LED Electrical Specification |  |  |  | KYELLOW | $\begin{gathered} \text { GREEN } \\ \mathrm{S} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standard LED | Wavelength ( nm ) | $\mathrm{V}_{\mathrm{F}}\left(\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}\right)$ | $\mathrm{I}_{\mathrm{R}}\left(\mathrm{V}_{\mathrm{R}}=5 \mathrm{~V}\right)$ | CH | 140 |
| Green | 565 | $1.8 \sim 2.6 \mathrm{v}$ | $10 \mu \mathrm{~A}$ Max | GREEN ? | 130 |
| Yellow | 585 | $1.8 \sim 2.6 \mathrm{v}$ | $10 \mu \mathrm{~A}$ Max | LEFT LED | RIGHT LED |

### 4.2 Profile of Wave Solder



## 5. Packaging and Storage

5.1 SPQ

60 pcs/tray

Tray dimension: 292*176*33 mm

Tray Weight: 600g


1 CTN = 16 trays = 960 pcs
Carton dimensions: 370*300*300 mm

Carton Weight: 10kg


## Changelog



Previous Revisions

## TAOGLAS.

www.taoglas.com


[^0]:    RJ45 ICM 1G Base-T Long Body

    Part No:
    TMJK0036AINL

    ## Description:

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

    ## Features:

    AutoMDIX
    3Wire/Phy
    Long Body
    RoHS \& REACH Compliant

