



TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T Long Body

Part No:
TMJK071AWN

Description:

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

Features:

- Long Body
- Transformer + CMC + AutoXFMR
- Shielded EMI Finger
- RoHS Compliant

1. Introduction	3
2. Specifications	4
3. Mechanical	5
4. Electrical	6
5. Packaging	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 TMJK071AWN1 is an RJ45 Integrated Connector 1G Base-T Single Port Tab UP with Shielded EMI Finger and long body design.

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	350uH MIN @100KHz 0.1V 8mA DC Bias
Turn Ratio (±3%)	1CT:1CT
Insertion Loss	-1.0dB MAX @1-100MHz
Return Loss	-18dB MIN @1-30MHz
	-15dB MIN @30-60MHz
	-12dB MIN @60-100MHz
Crosstalk	-40dB MIN @30MHz
	-35dB MIN @60MHz
	-30dB MIN @100MHz
Common Mode Rejection	-30dB MIN @1-100MHz
Hipot Test	1500Vrms

Environmental Specifications	
Operating Temperature	0°C TO +70°C

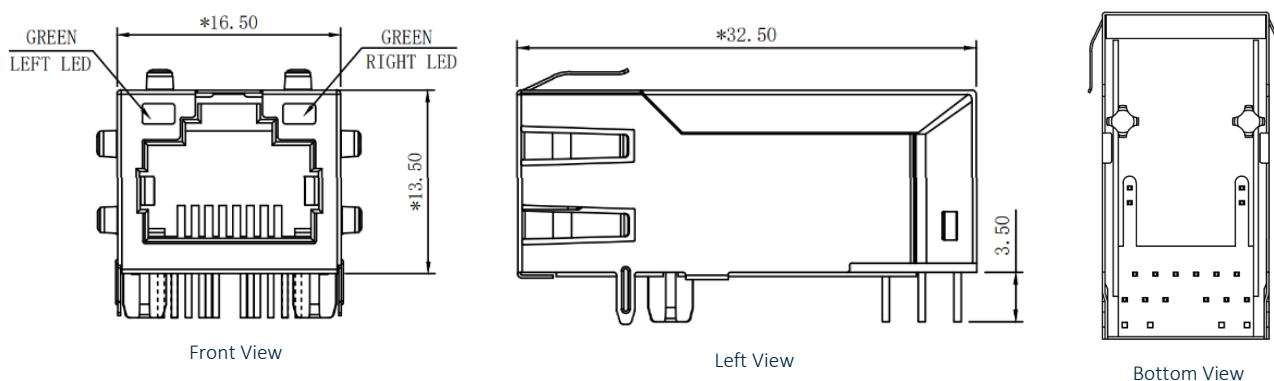
Material Specifications	
Housing	Thermoplastic PBT+30%G. F UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness=0.35mm
Pins	Brass C2680R-H Thickness=0.35mm
Shield	Copper alloy Brass H65Y Thickness=0.2mm
Contact plating	Gold 6 micro-inches min. in contact area.
Wave solder tip temperature	260°C Max, 5 Sec

Compliance	
IEEE 802.3	
UL recognized - FILE NO. E528697	
RoHS Compliant	

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

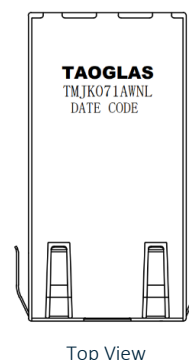
3. Mechanical

3.1 Mechanical Drawings



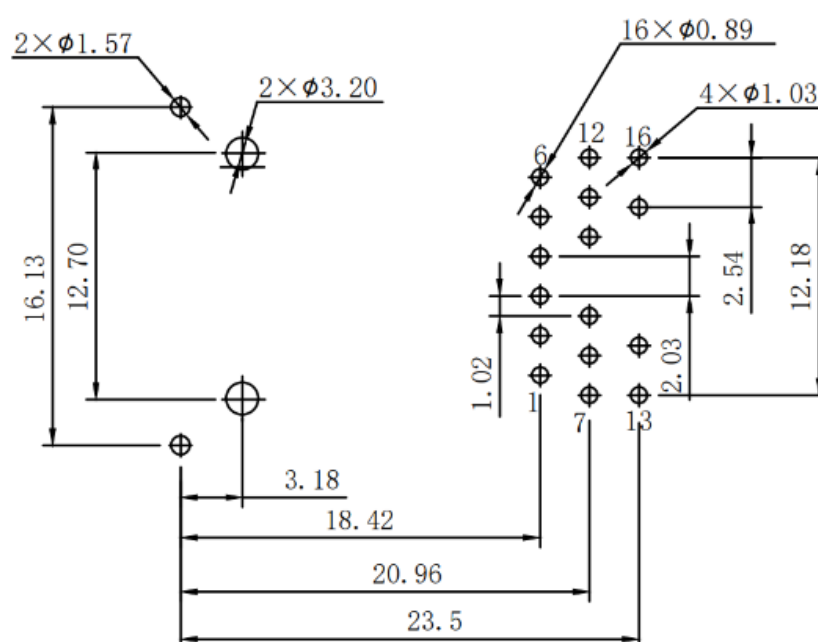
Mechanical Specifications	
Height	13.50mm
Width	16.50mm
Depth	32.50mm
Weight	8.9g
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

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



Top View

3.2 PCB Layout

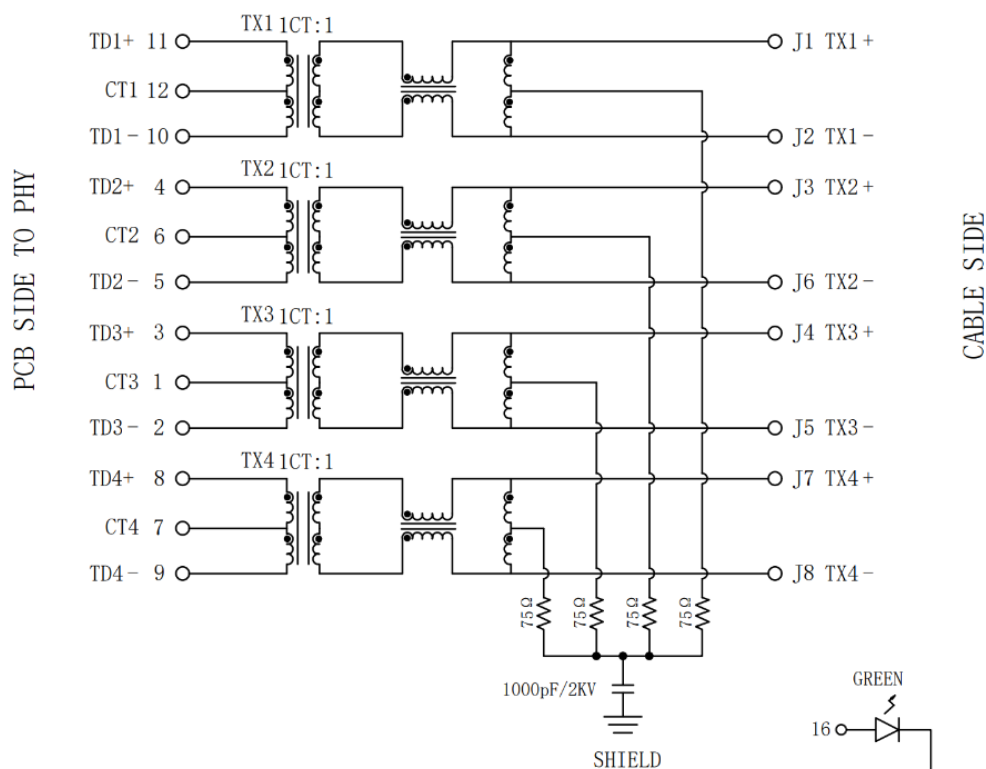


Suggested PCB Layout (Top View)

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

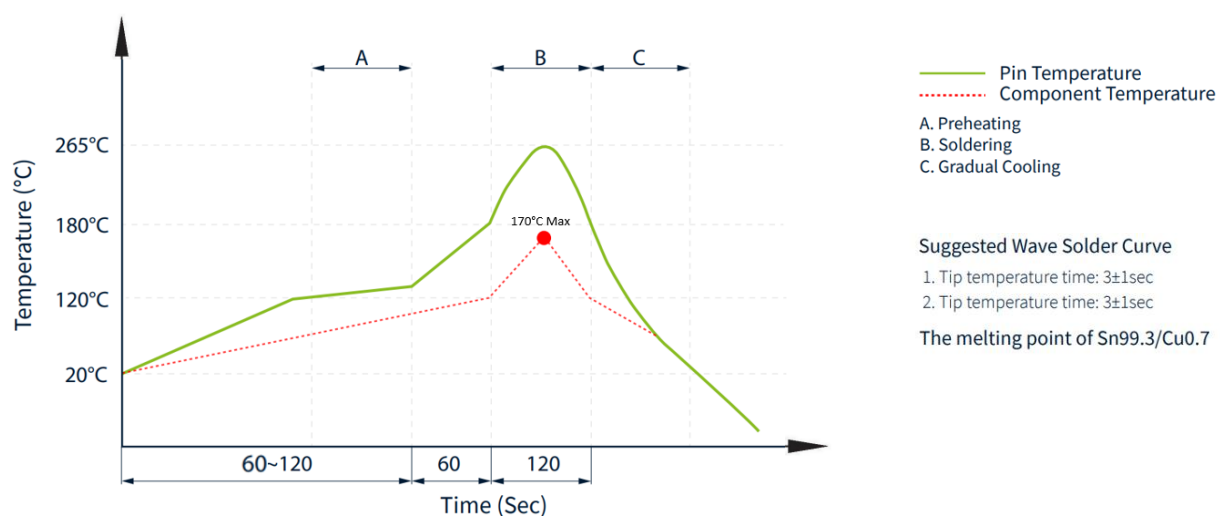
LEFT LED

LED POLARITY		COLOR
PIN 16	PIN 15	
+	-	GREEN

RIGHT LED

LED POLARITY		COLOR
PIN 14	PIN 13	
+	-	GREEN

4.2 Profile of Wave Solder



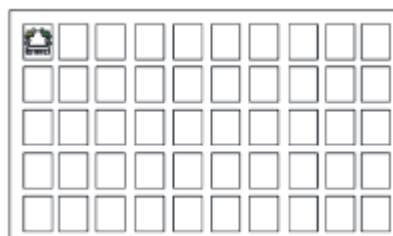
5. Packaging

5.1 SPQ

60 pcs/tray

Tray dimension: 292*176*33 mm

Tray Weight: 610g



1 Carton = 16 trays = 960 pcs

Carton dimensions: 370*300*300mm

Carton Weight: 10kg



5.2 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-23-8-203 – TMJK071AWN

Revision: A (Original First Release)	
Date:	2023-10-01
Notes:	
Author:	Javier Vasena

Previous Revisions



www.taoglas.com

