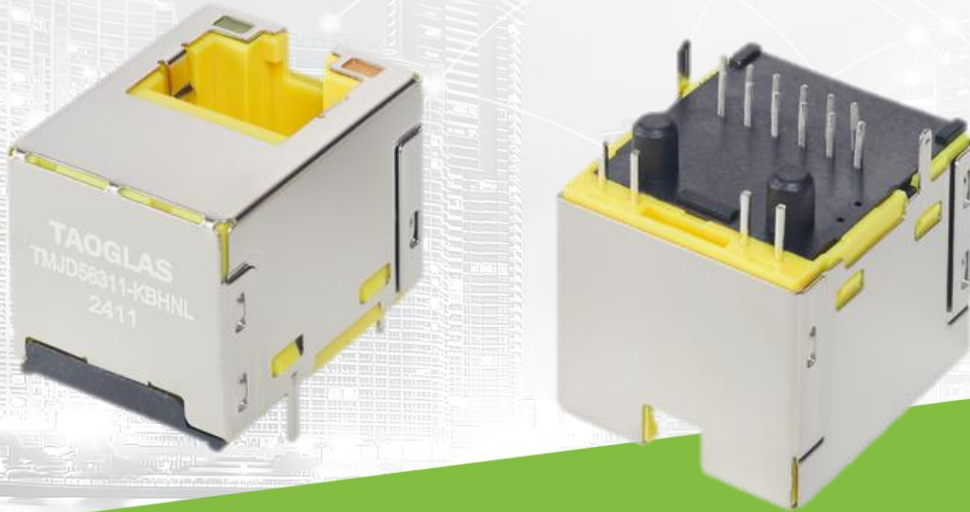




TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T Vertical

Part No:
TMJD56311-KBHNL

Description:

RJ45 connector with integrated magnetics 1G Base-T
Vertical with THT mount and LED

Features:

Vertical
Shielded
Transformer + 3Wire
Industrial grade

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1. Introduction



The Taoglas TMJD56311-KBHNL is a vertical RJ45 Integrated Connector with a shielded 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 1G Base-T connections.

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	350uH Min @100KHz,0.1V,18mA DC Bias
Turns Ratio (±2%)	1CT:1CT
Insertion Loss	1-100MHz: -1.0dB Max
Return Loss (load 100Ω)	1-30MHz: -18dB Min
	30-60MHz: -16dB Min
	60-80MHz: -12dB Min
	80-100MHz: -10dB Min
Cross talk	1-100MHz: -30dB Min
Common Mode Rejection	1-100MHz: -30dB Min
Isolation PHY SIDE To Line SIDE	1500Vrms

Environmental Specifications

Operating Temperature	-40°C TO +85°C
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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	250°C, 5 Sec

Compliance

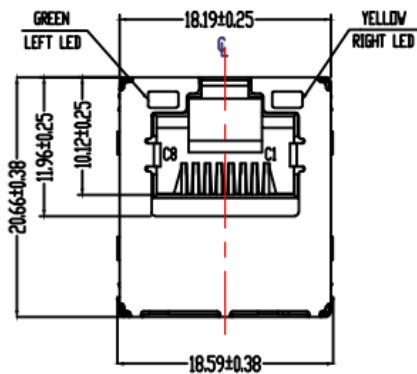
IEEE 802.3
RoHS Compliant

Storage requirements

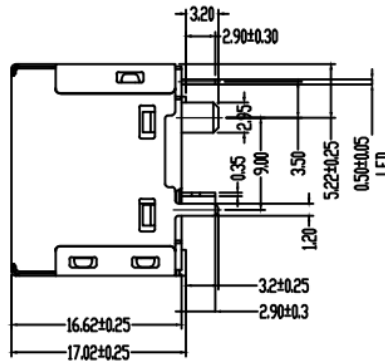
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

3. Mechanical

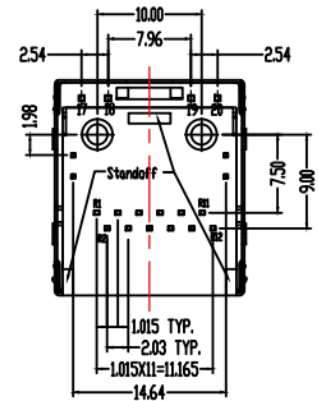
3.1 Mechanical Drawings



Top View



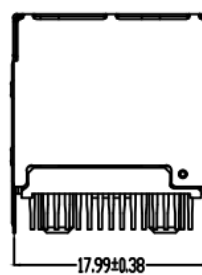
Left View



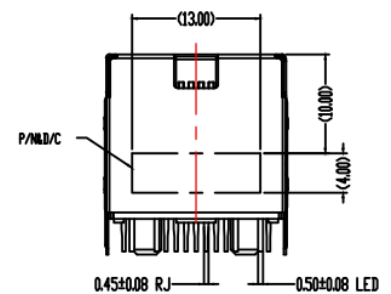
Bottom View

Mechanical Specifications	
Height	17.02 mm
Width	18.59 mm
Depth	20.66 mm
Weight	7.35 g
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

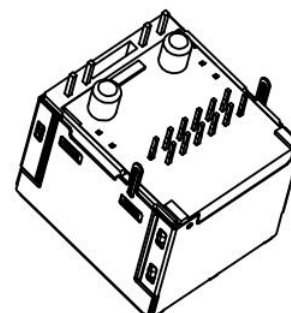
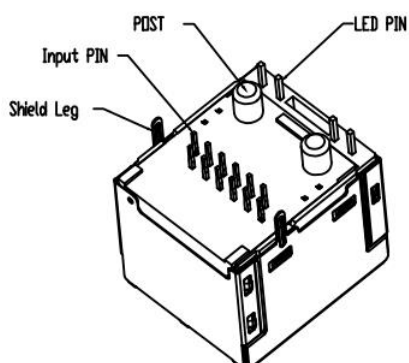
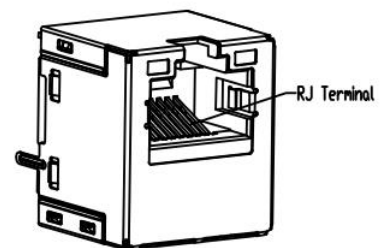
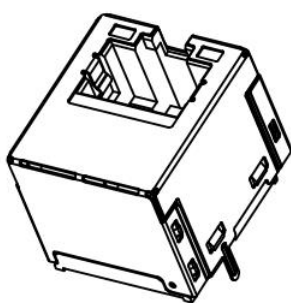
Dimensions are in millimeters with the following tolerances: X.XX = ±0.25



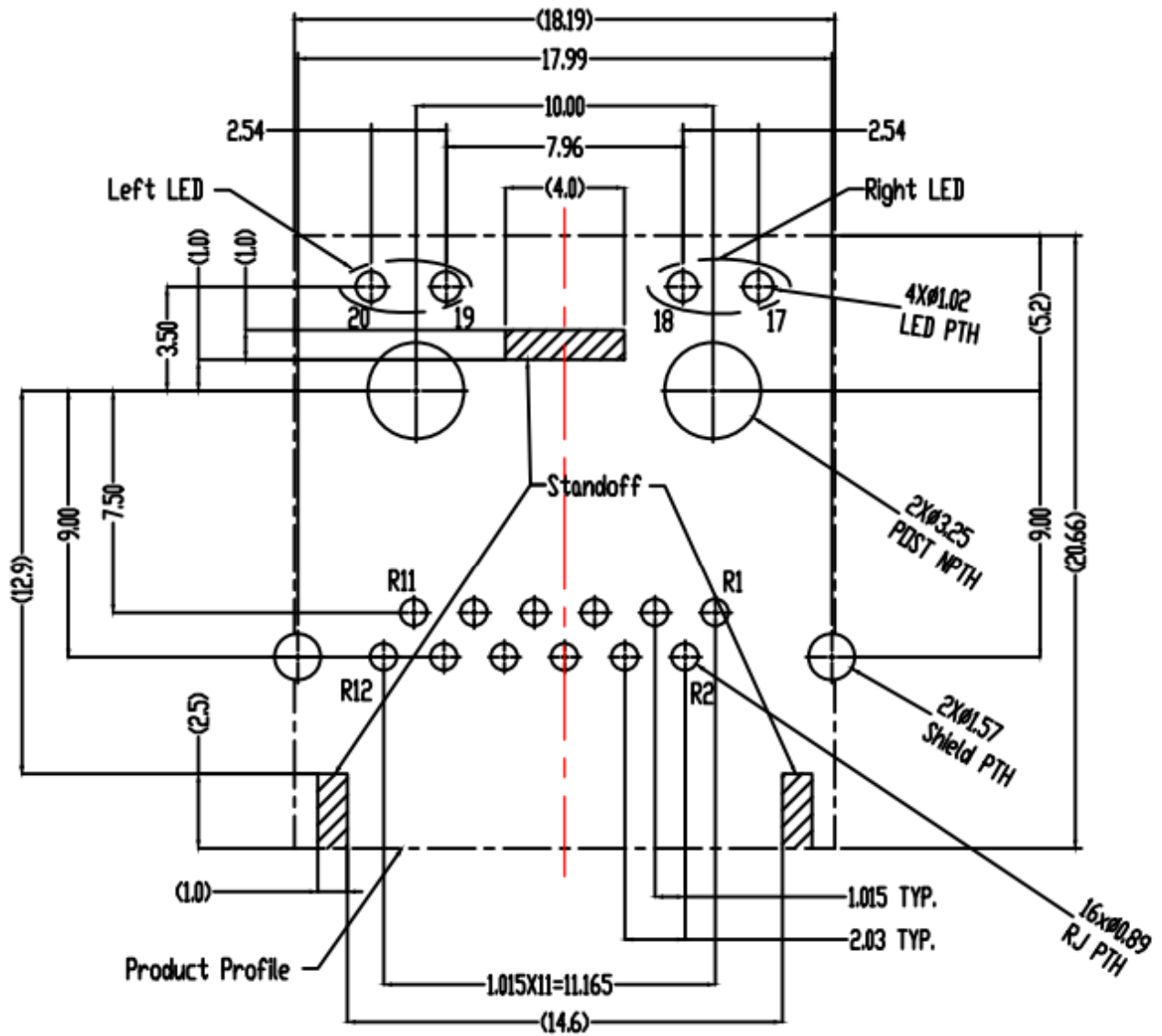
Back View



Top View



3.2 PCB Layout

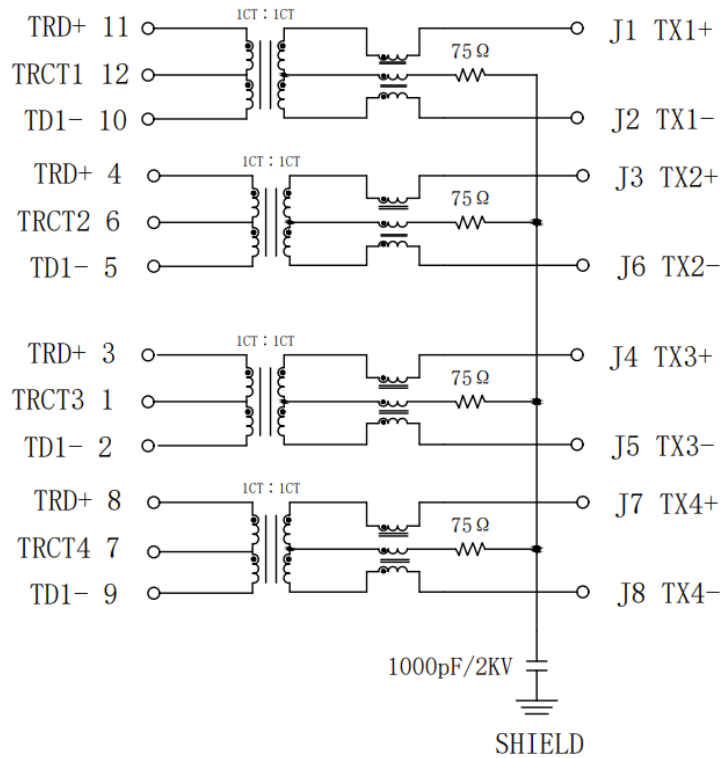


Suggested PCB Layout (Top View)

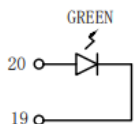
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings

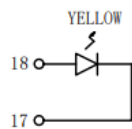


4.2 LED



LEFT LED

LED POLARITY		COLOR
PIN 20	PIN 19	
+	-	GREEN

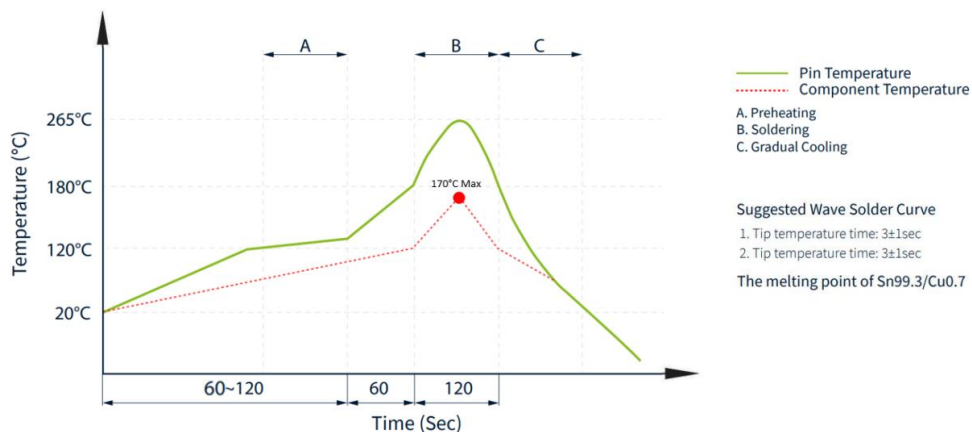


RIGHT LED

LED POLARITY		COLOR
PIN 18	PIN 17	
+	-	YELLOW

Emitting Color	λ_p (nm)	V _F @I _F =20mA	I _R @V _R =5V
GREEN	565	1.8~2.6V	10 μ A max
YELLOW	585	1.8~2.6V	10 μ A max

4.3 Profile of Wave Solder

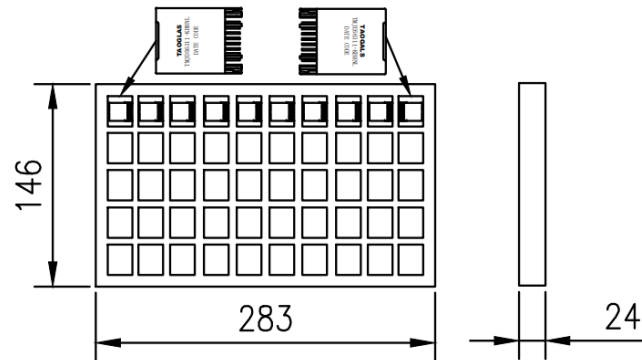


5. Packaging

5.1 SPQ

1 tray = 50 pcs

Tray Weight = 448g

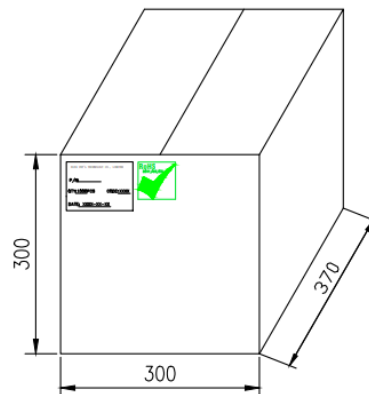


5.2 Carton

1 Carton = 20 trays = 1000 pcs

Carton dimensions = 300*370*050 mm

Carton Weight = 9 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-23-8-334 – TMJD56311-KBHNL

Revision: A (Original First Release)

Date:	2023-11-28
Notes:	
Author:	Javier Vasena

Previous Revisions



www.taoglas.com

