



TAOGLAS®



Datasheet

RJ45 ICM 1G 2x2 Short Body

Part No:
TMJG27037A4NL

Description:

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

Features:

- Short Body
- 3Wire + Transformer
- Shielded EMI Finger
- Board guide
- Industrial grade

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1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJG27037A4NL is an RJ45 Integrated Connector 1G Base-T 2x2 Ports with shielded EMI Finger and Short 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	
Inductance OCL	350μH MIN @ 100KHz 0.1V 8mA DC Bias
Turns Ratio (±2%)	TX=1CT: 1CT RX=1CT: 1CT
Insertion Loss	0.5~100MHz: -1.1dB Max
Return Loss (dB Min)	0.5~30MHz: -18
	30.1~60MHz: -18-20Log(f/30MHz)
	60.1~80MHz: -12
Crosstalk (dB Min)	0.5~40MHz: -35
	40.1~100MHz: -33-20Log(f/50MHz)
Common Mode Rejection Ratio	0.5~100MHz: -30dB Min
Hi-Pot	1500Vrms @ 60Hz

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

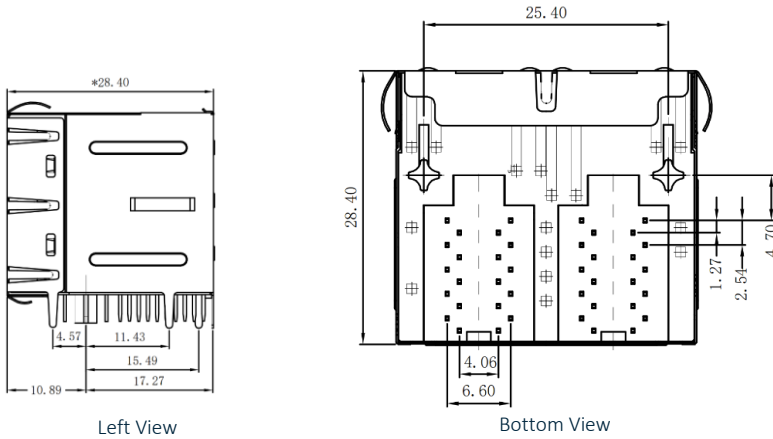
Material Specifications	
Housing	Thermoplastic UL94V-0
Contact/Shield	Copper alloy
Shield plating	Nickel
Contact Plating	Gold in contact area. Thickness = 6μ" min.

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

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

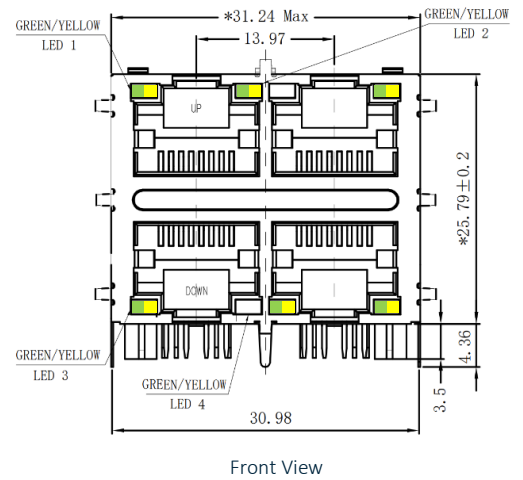
3. Mechanical

3.1 Mechanical Drawings



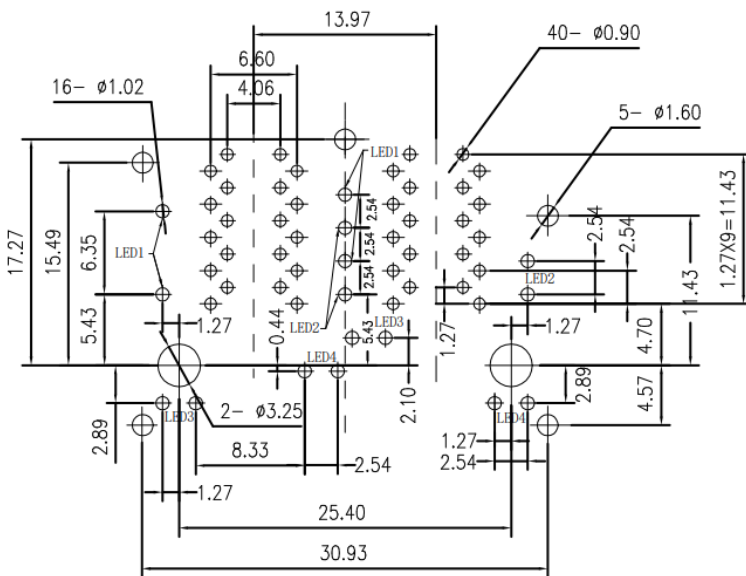
Mechanical Specifications	
Height Above Board	25.79 mm
Width	31.24 mm
Depth	28.4 mm
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

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



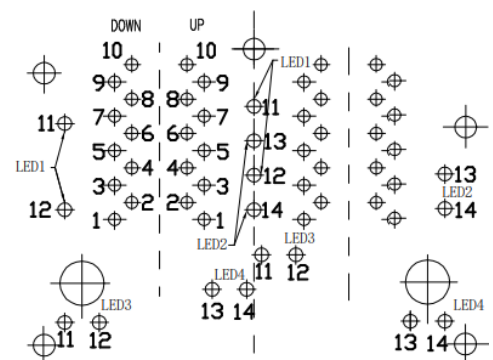
Front View

3.2 PCB Layout



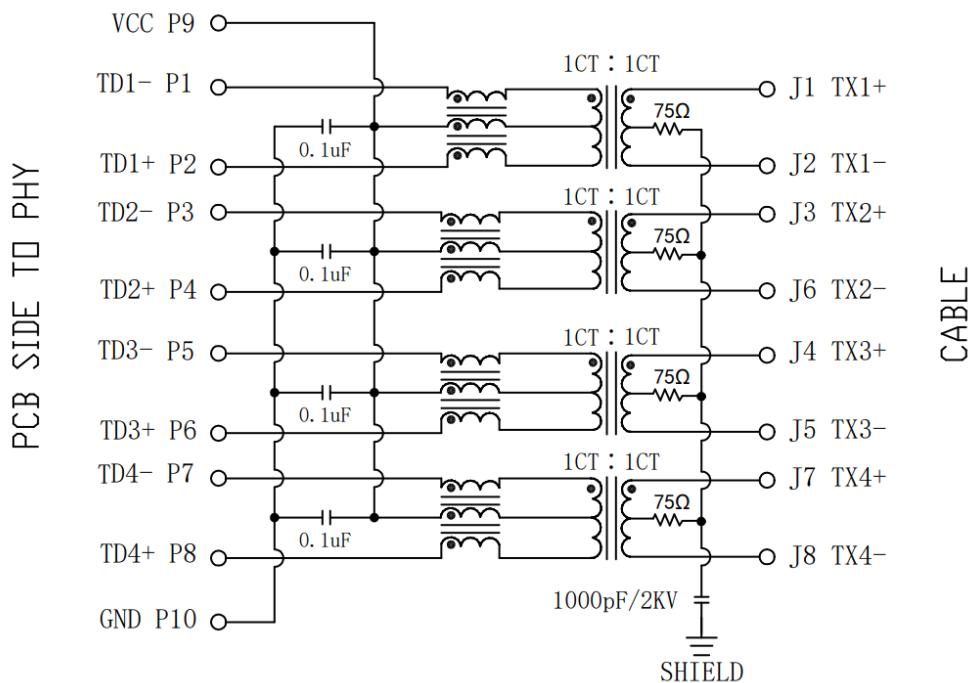
Suggested PCB Layout (Top View)

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

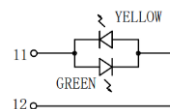


4. Electrical

4.1 Electrical Drawings

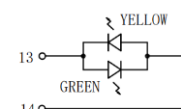


LED Electrical Specification			
Standard LED	Wavelength (nm)	V _F (I _F =20mA)	I _R (V _R =5v)
Green	565	1.8~2.6v	10 µA Max
Yellow	585	1.8~2.6v	10 µA Max



LEFT LED

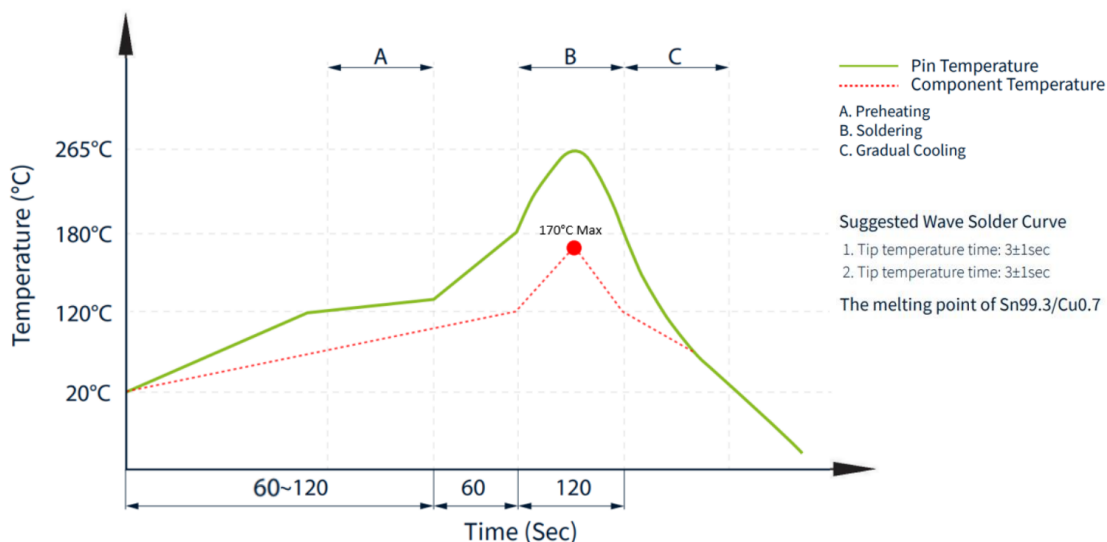
LED POLARITY		COLOR
PIN 11	PIN 12	
+	-	GREEN
-	+	YELLOW



RIGHT LED

LED POLARITY		COLOR
PIN 13	PIN 14	
+	-	GREEN
-	+	YELLOW

4.2 Profile of Wave Solder



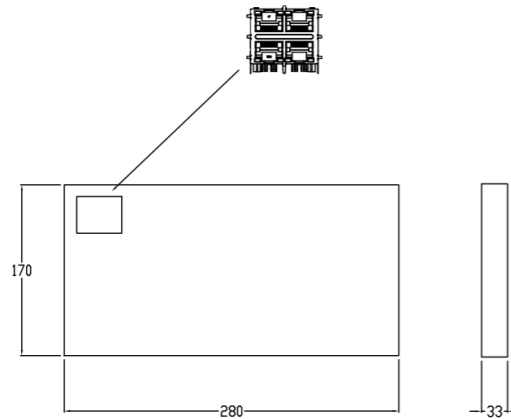
5. Packaging

5.1 SPQ

18 pcs/tray

Tray dimension: 280*170*33 mm

Weight: 560 gr



1 Carton = 18 trays = 324 pcs

Carton dimensions: 300*370*300mm

Carton Weight: 11kg



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-22-8-180 – TMJG27037A4NL

Revision: C

Date:	2023-07-05
Notes:	Update Profile Reflow
Author:	Javier Vasena

Previous Revisions

Revision: A (Original First Release)

Date:	2022-12-13
Notes:	
Author:	Javier Vasena

Revision: B

Date:	2023-03-30
Notes:	PSD updates
Author:	Javier Vasena



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