Datasheet

RJ45 ICM 10/100 Base-T PoE

Part No:
TMJ166323B10NL

Description:

RJ45 connector with integrated magnetics 10/100 Base-T.

Single Port Tab-UP with right angle THT mount and LEDs.

Features:

Short Body

3Wire + Transformer

PoE (350 mA)

Shielded

Board lock

Industrial grade

www.taoglas.com

Ireland ISO 9001: 2015 Certified

ISO 9001 CERTIFICATION EUROPE™

Taiwan ISO 9001: 2015 Certified

QA RNATIONAL

UKAS QUALITY MANAGEMENT 046

QUALITY MANAGEMENT SYSTEM IATF16949

Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJ166323B10NL is an RJ45 Integrated Connector 10/100 Base-T Single Port Tab-UP with shielded short body design that offers extra space and with PoE technology of 350mA.

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	
DCR	1.2 Ω MAX	
Turns Ratio (±5%)	TX=1CT: 1CT	RX=1CT: 1CT
Insertion Loss	-1.2dB MAX @ 1-100Mhz	
Return Loss	-16dB MIN @ 1-30Mhz	
	-12dB MIN @ 30-60Mhz	
	-10dB MIN @ 60-80Mhz	
Cross talk	-30dB MIN @ 1-100Mhz	
Common Mode Rejection	-30dB MIN @ 1-100Mhz	
DC Current/Voltage Rating-pse pins	350mA @ 57V (continuous)	
Hi-Pot	1500Vrms	

| Environmental Specifications	
Operating Temperature	-40°C TO +85°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	Stainless Steel SUS 201-1-1/2H Thickness = 0.2mm
Contact Plating	Gold 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
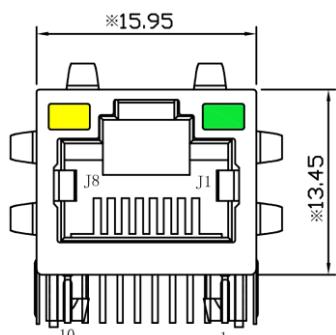
Front View
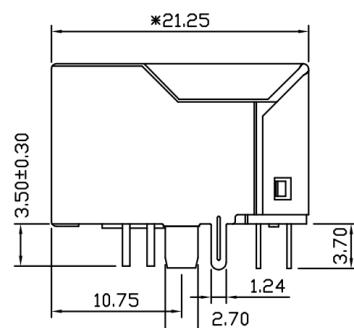
Left View
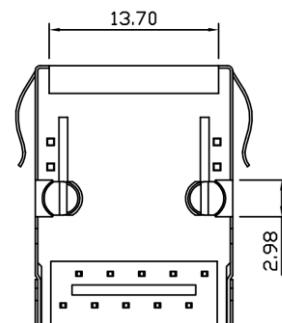
Bottom View

Mechanical Specifications	
Height Above Board	13.45 mm
Width	15.95 mm
Depth	21.25 mm
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

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

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TMJ166323B10NL
DATE CODE

Top Side View

3.2 PCB Layout
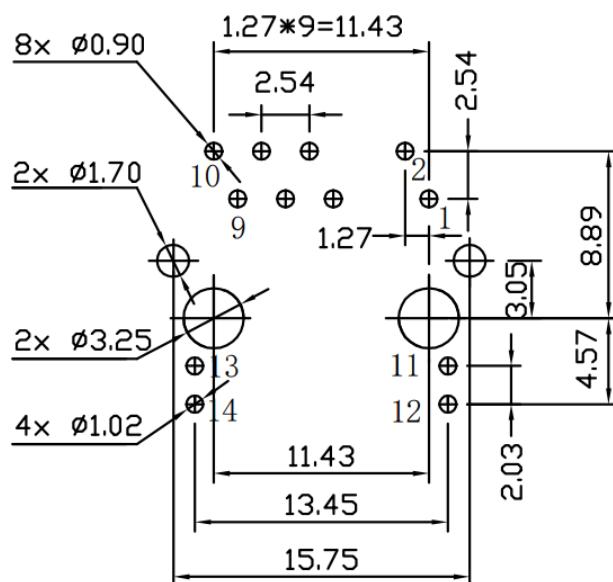
Suggested PCB Layout (Top View)

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

4. Electrical

4.1 Electrical Drawings
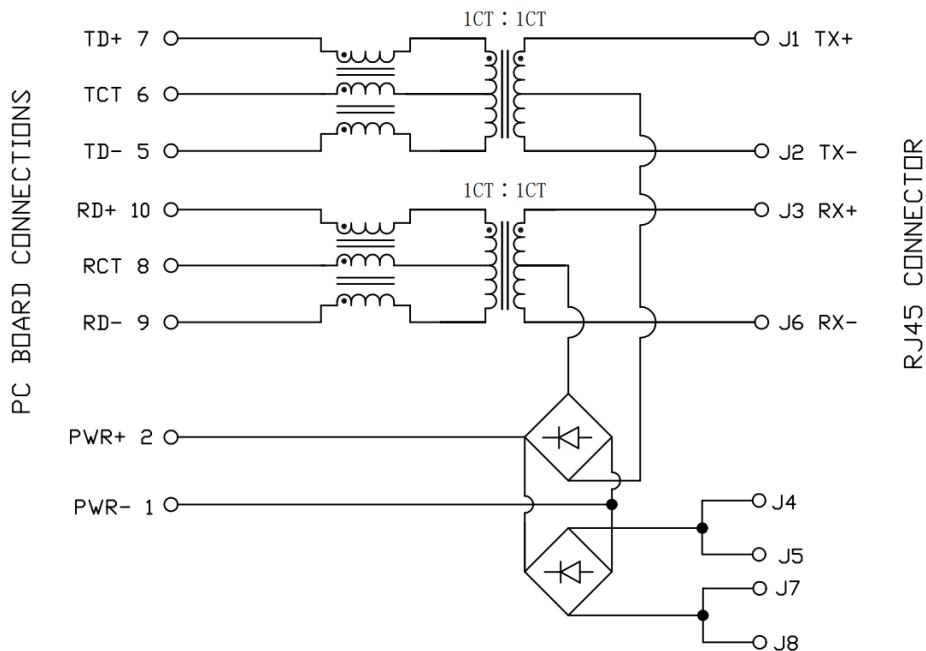
LED Electrical Specification			
Standard LED	Wavelength (nm)	V_F (I_F=20mA)	I_R (V_R=5v)
Green	565	1.8~2.6v	10 μA Max
Yellow	585	1.8~2.6v	10 μA Max
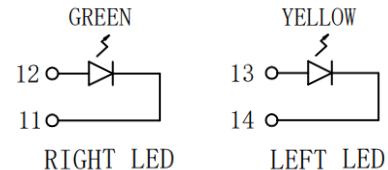
4.2 Profile of Wave Solder

— Pin Temperature
····· Component Temperature

A. Preheating
B. Soldering
C. Gradual Cooling

Suggested Wave Solder Curve

1. Tip temperature time: 3±1sec
2. Tip temperature time: 3±1sec

The melting point of Sn99.3/Cu0.7
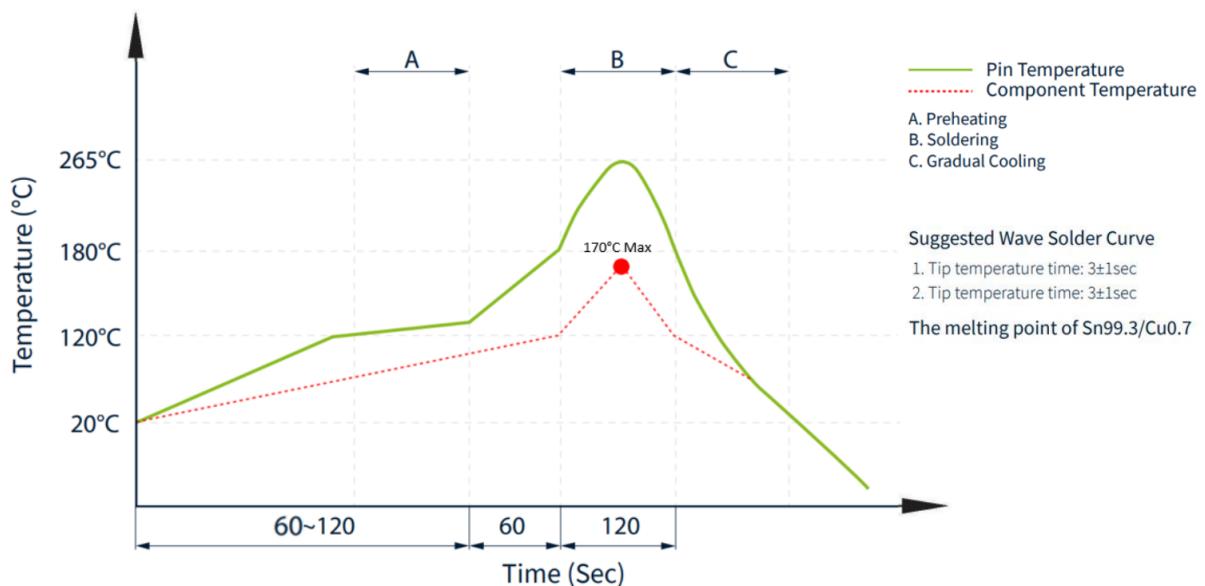
5. Packaging

5.1   SPQ

50 pcs/tray

Tray dimension: 294*154*23 mm

Tray Weight: 365g

Packaging material: PVC
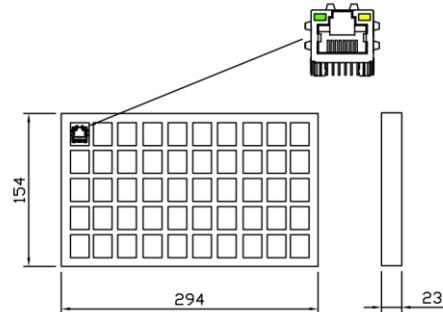
1 Carton = 24 trays = 1200 pcs

Carton dimensions: 320*300*310mm

Carton Weight: 9kg

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-23-8-043 – TMJ166323B10NL

Revision: B	
Date:	2023-07-05
Notes:	Change in Solder Profile
Author:	Javier Vasena

Previous Revisions

Revision: A (Original First Release)	
Date:	2023-03-30
Notes:	
Author:	Javier Vasena

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