



# TAOGLAS®



# Datasheet

## RJ45 ICM 10/100 Base-T SMT

**Part No:**  
TMJ20737-8BBNL

### Description:

RJ45 connector with integrated magnetics 10/100 Base-T  
Single Port Tab-UP with right angle THT mount and LEDs

### Features:

SMT  
TX: XFMR + CMC + AutoXFMR  
RX: CMC + XFMR  
Shielded EMI Finger  
Industrial grade  
RoHS Compliant

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## 1. Introduction



The Taoglas TMJ20737-8BBNL is a 10/100 Base-T Single-port, tab-UP SMT RJ45 Integrated Connector with a shielded EMI Finger 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.

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	
OCL	350uH Min @100KHz,0.1V,8mA DC BIAS
Turns Ratio (±3%)	1CT:1CT
DCR	1.2Ω MAX
Insertion Loss	-1.0dB MAX @1-100MHz
Return Loss	-20dB MIN @1-10MHz
	-16dB MIN @30MHz
	-12dB MIN @60-80MHz
Crosstalk	-40dB MIN @1-30MHz
	-35dB MIN @30-60MHz
	-30dB MIN @60-100MH
Common Mode Rejection	-30dB MIN @ 1-50MHz
	-20dB MIN @ 50-100MHz
Isolation PHY SIDE To Line SIDE	1500Vrms

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

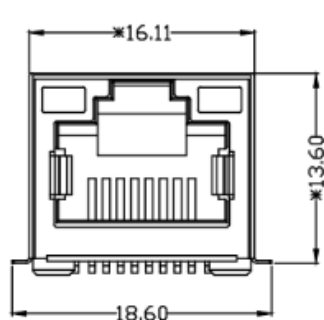
Material Specifications	
Housing	Thermoplastic PBT+30%G.F UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness=0.35mm
Pins	Brass C2680R-H Thickness=0.35mm
Shield	SUS 201-1/2H Thickness=0.2mm
Contact plating	Gold 30 micro-inches min. in contact area
Reflow tip temperature	250°C Max, 5 Sec

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

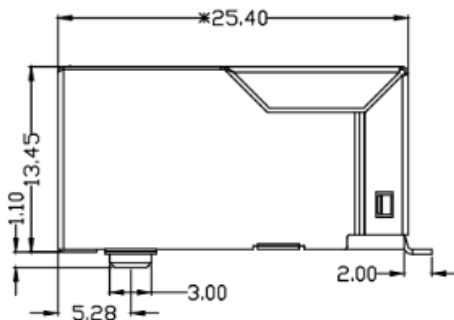
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

## 3. Mechanical

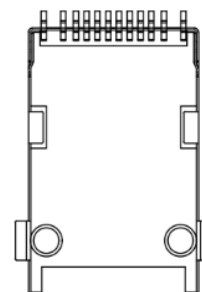
### 3.1 Mechanical Drawings



Front View



Side View

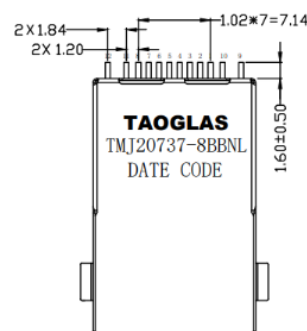


Bottom View

#### Mechanical Specifications

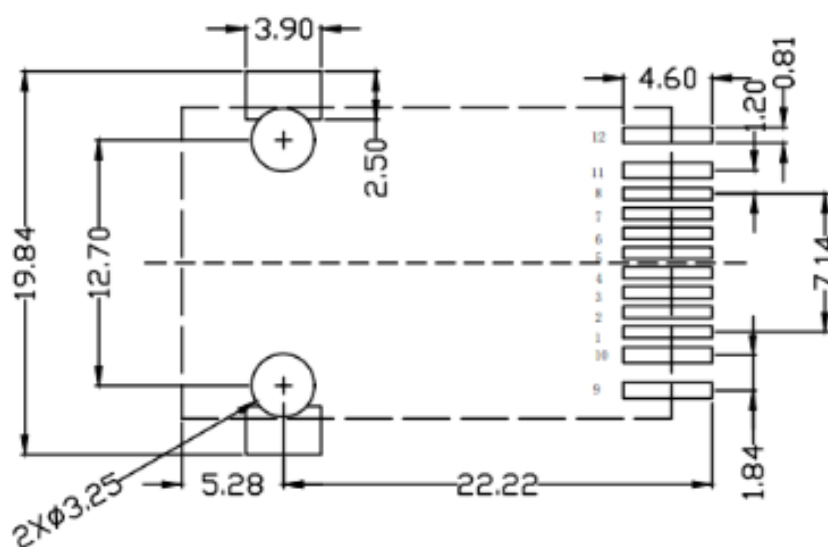
Height	13.60 mm
Width	16.11 mm
Depth	25.40 mm
Weight	g
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.25$



Top View

### 3.2 PCB Layout

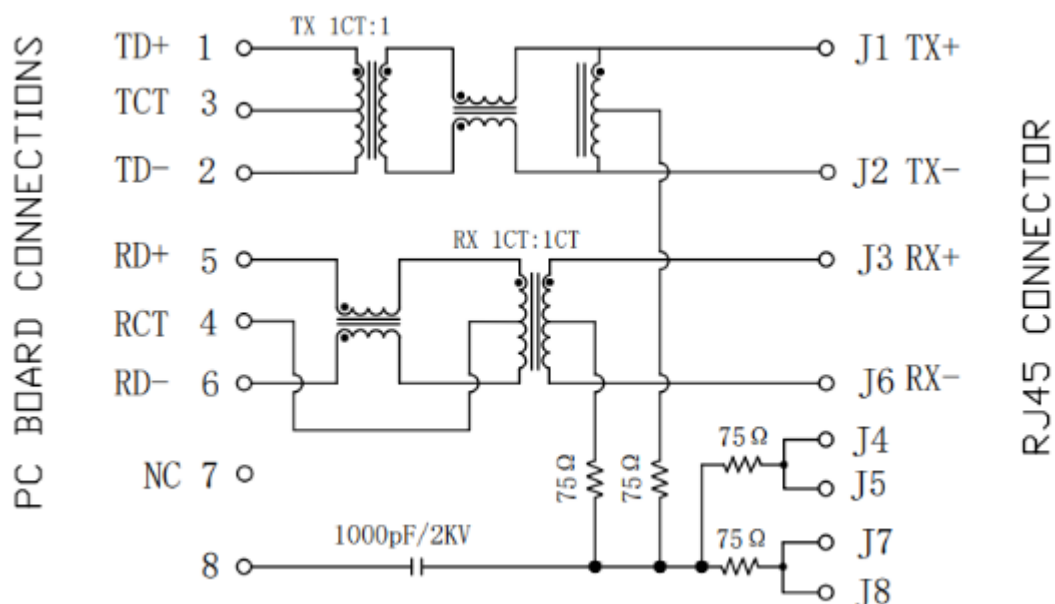


Suggested PCB Layout (Top View)

Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$

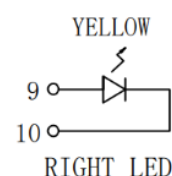
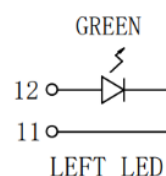
## 4. Electrical

### 4.1 Electrical Drawings

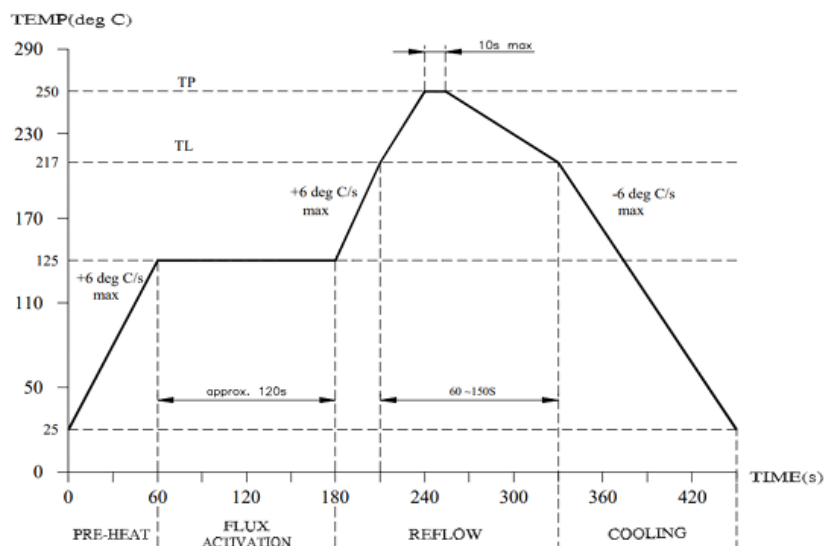


LED Electrical Specification

Standard LED	Wavelength (nm)	$V_F$ ( $I_F=20mA$ )	$I_R$ ( $V_R=5v$ )
Green	565	1.8~2.6v	10 $\mu A$ Max
Yellow	585	1.8~2.6v	10 $\mu A$ Max



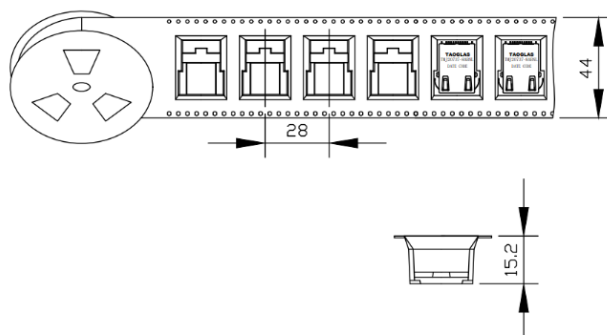
### 4.2 Profile of Reflow



## 5. Packaging

### 5.1 SPQ

110 pcs/reel  
Reel(mm): 44x28x15.2  
Tray Weight: 1.06 kg



### 5.2 Carton

1 Carton = 6 reels = 660 pcs  
Carton dimensions: 355\*355\*350 mm  
Carton Weight: 7.3 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-23-8-354 – TMJ20737-8ABNL

Revision: B	
Date:	2025-02-25
Notes:	Reflow spec update
Author:	Javier Vasena

Previous Revisions

Revision: A (Original First Release)	
Date:	2024-01-01
Notes:	
Author:	Javier Vasena






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