



TAOGLAS®



Datasheet

RJ45 ICM 10/100Base-T SMT

Part No:
TMJ3011ABNL

Description:

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

Features:

EMI Finger
AutoMDIX
Surface Mounting Technology
RoHS & REACH Compliant

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1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJ3011ABNL is an RJ45 Integrated Connector 10/100Base-T Single Port Tab Up with EMI Finger, its shielded body design offers extra space, and with a schematic that enables AutoMDIX feature.

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 (±3%)	TX=1CT: 1CT RX=1CT: 1CT
DCR	1.2ΩMAX
Insertion Loss	-1.0dB MAX @ 1-100Mhz
Return Loss	-18dB MIN @ 1-30Mhz
	-15dB MIN @ 30-60Mhz
	-12dB MIN @ 60-80Mhz
Cross talk	-40dB MIN @ 1-30Mhz
	-35dB MIN @ 30-60Mhz
	-30dB MIN @ 60-100Mhz
Common Mode Rejection	-30dB MIN @ 1-50Mhz
	-20dB MIN @ 50-100Mhz
Hi-Pot	1500Vrms

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

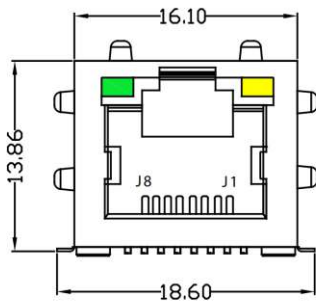
Material Specifications	
Housing	Thermoplastic PBT+30%G. F UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness = 0.35mm
Contact Plating	Gold Thickness = 6µ" min.
Pins	Brass C2680R-H Thickness = 0.35mm
Shield	Stainless Steel SUS 201-1-1/2H Thickness = 0.2mm

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

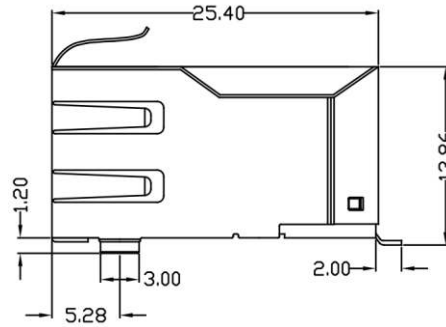
Storage requirements	
Humidity	Storage Temperature
MSL - 1	-40°C TO +85°C

3. Mechanical

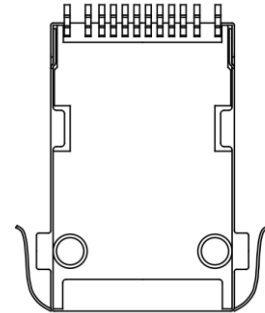
3.1 Mechanical Drawings



Front View



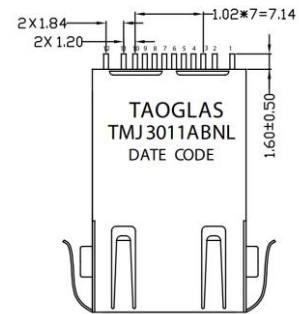
Left View



Bottom View

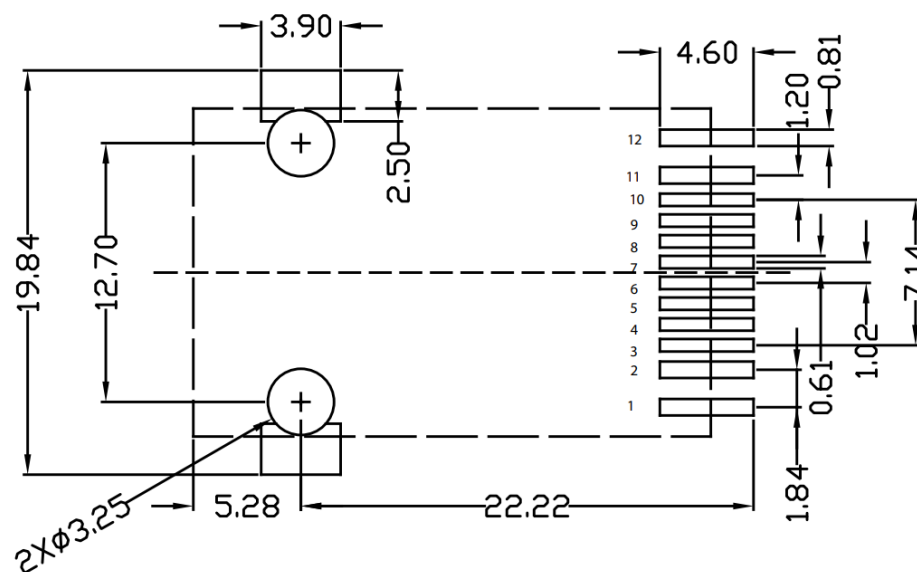
Mechanical Specifications	
Height Above Board	0.545" (13.86mm)
Width	0.633" (16.1mm)
Depth	1" (25.4mm)
Mounting Style	Surface Mount (SMT)
Mounting Angle	Right Angle

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



Top View

3.2 PCB Layout

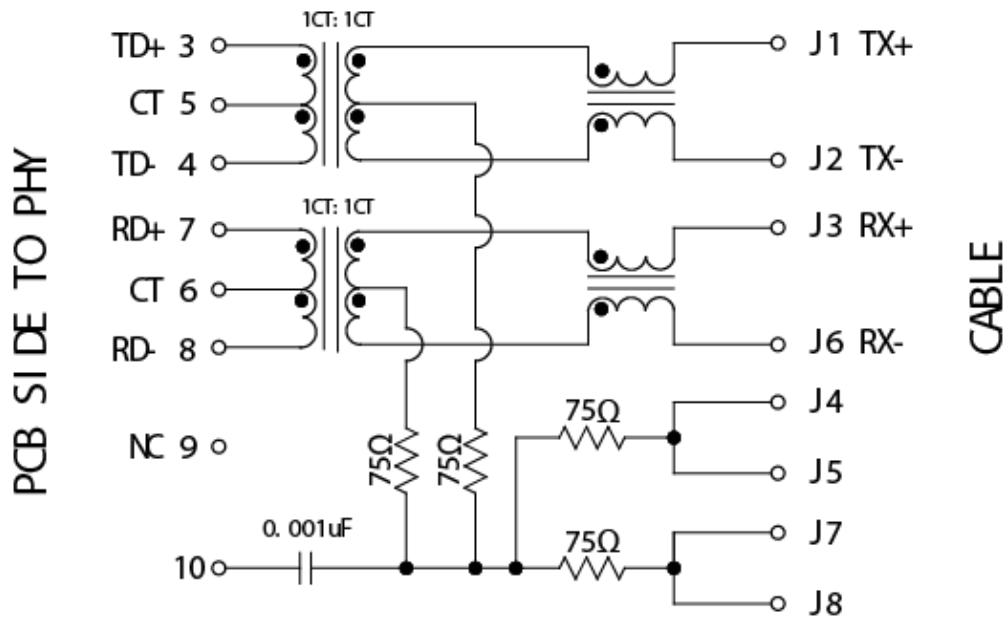


Suggested PCB Layout (Top View)

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

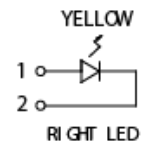
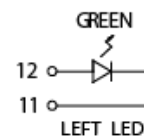
4. Electrical

4.1 Electrical Drawings

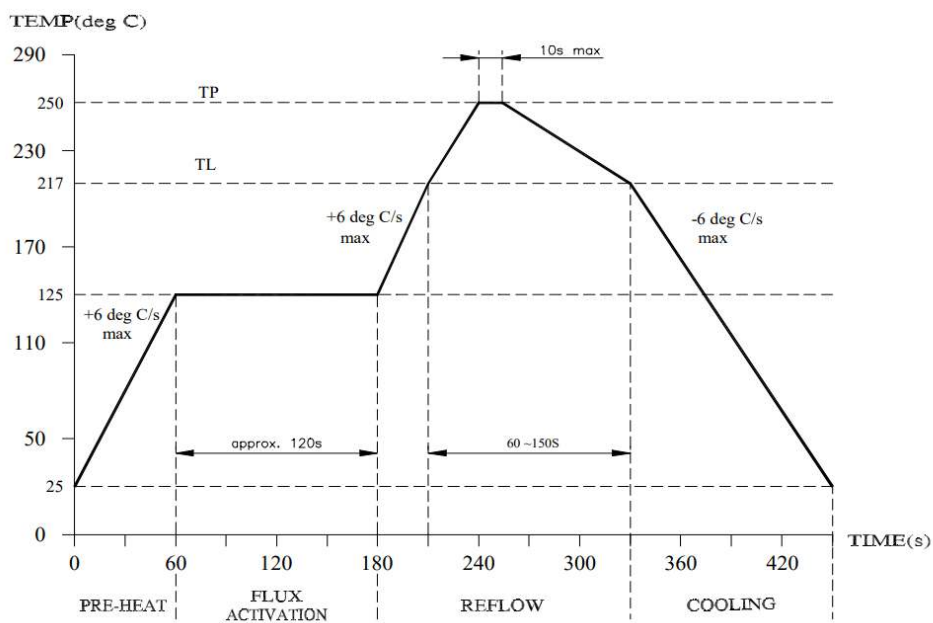


LED Electrical Specification

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



4.2 Profile of Reflow



5. Packaging and Storage

5.1 SPQ

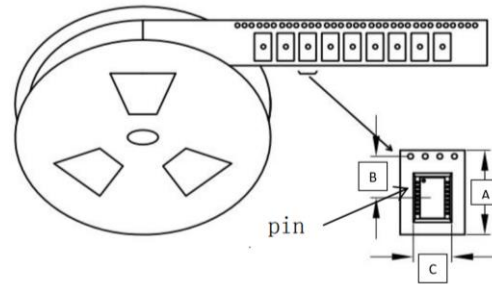
110 pcs/reel

A (Carrier Tape Width): 44 ± 0.3 mm

B (Sprocket hole to Cavity center): 20.2 ± 0.2 mm

C (Cavity width): 23.8 ± 0.2 mm

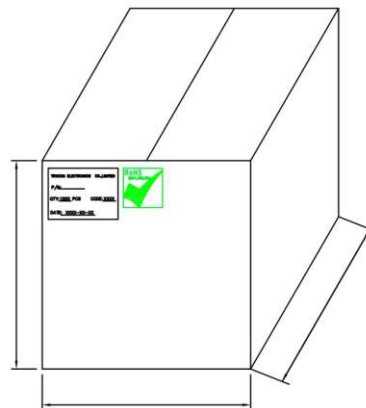
Reel weight: 1050g



1 CTN = 6 reels = 600 pcs

Carton dimensions: 360*360*350mm

Carton Weight: 9kg



Changelog

Changelog for the datasheet

SPE-22-8-075 – TMJ3011ABNL

Revision: A (Original First Release)

Date:	2022-11-08
Notes:	
Author:	Javier Vasena

Previous Revisions



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