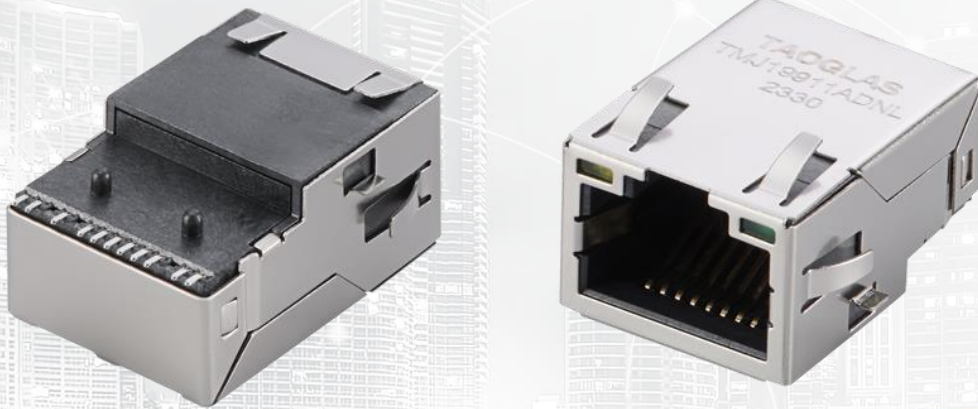




TAOGLAS®



Datasheet

RJ45 ICM 10/100 Base-T Low Profile Recessed Mount

Part No:
TMJ1911ADNL

Description:

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

Features:

- Low Profile
- Mid-mount
- Transformer + CMC
- Shielded EMI Finger
- Industrial grade
- RoHS Compliant

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1. Introduction



The TMJ19911ADNL RJ45 ICM 10/100 Base-T Low Profile Connector is a versatile and robust networking solution, featuring integrated magnetics, compatibility with 10Base-T and 100Base-T Ethernet standards, a space-efficient tab-up design, right-angle surface (SMT) mounting, built-in LEDs for activity monitoring, and a low-profile, mid-mount configuration. It incorporates a transformer and common mode choke (CMC) for signal quality, includes a shielded EMI finger for protection against interference, and is industrial-grade and RoHS compliant, making it an environmentally friendly and durable choice for demanding industrial networking applications.

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	350uH Min @100KHz, 0.1V, 8mA DC Bias
Turns Ratio (±3%)	1CT:1CT
Insertion Loss	-1.0dB MAX @1-100MHz
Return Loss	-18dB MIN @1-30MHz
	-15dB MIN @30-60MHz
	-12dB MIN @60-100MHz
DCR	1.2Ohm Max
Crosstalk	-40dB MIN @1-30MHz
	-35dB MIN @30-60MHz
	-30dB MIN @60-100MHz
Common Mode Rejection	-30dB MIN @1-50MHz
	-20dB MIN @50-100MHz
Hipot	1500Vrms

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

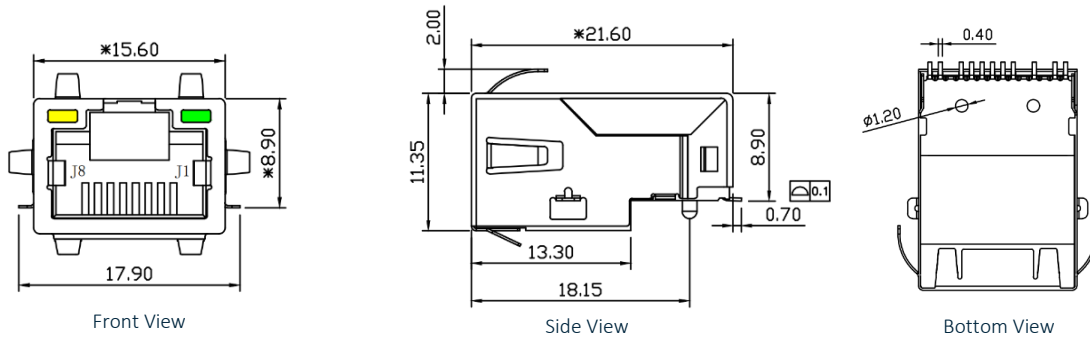
Material Specifications	
Housing	Thermoplastic LCP UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness=0.35mm
Pins	Brass C2680R-H Thickness=0.35mm
Shield	SUS 304-1/2H Thickness=0.2mm
Contact plating	Gold 6 micro-inches min. in contact area.
Wave solder tip temperature	250°C Max, 5 Sec

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

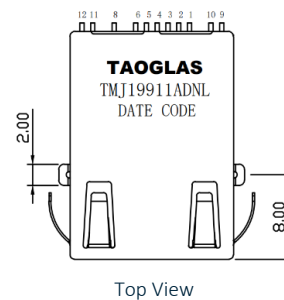
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

3. Mechanical

3.1 Mechanical Drawings

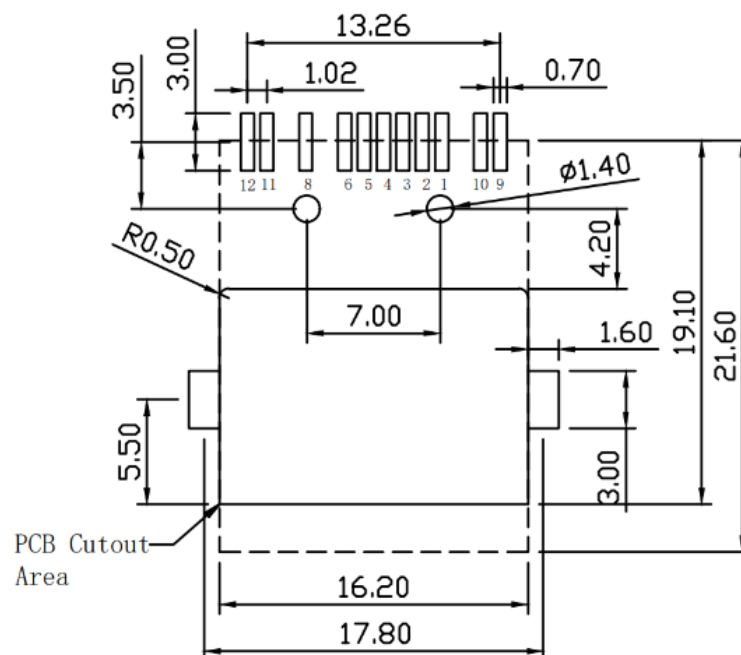


Mechanical Specifications	
Height	11.35mm
Width	15.60mm
Depth	21.60mm
Weight	4.44g
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle



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

3.2 PCB Layout

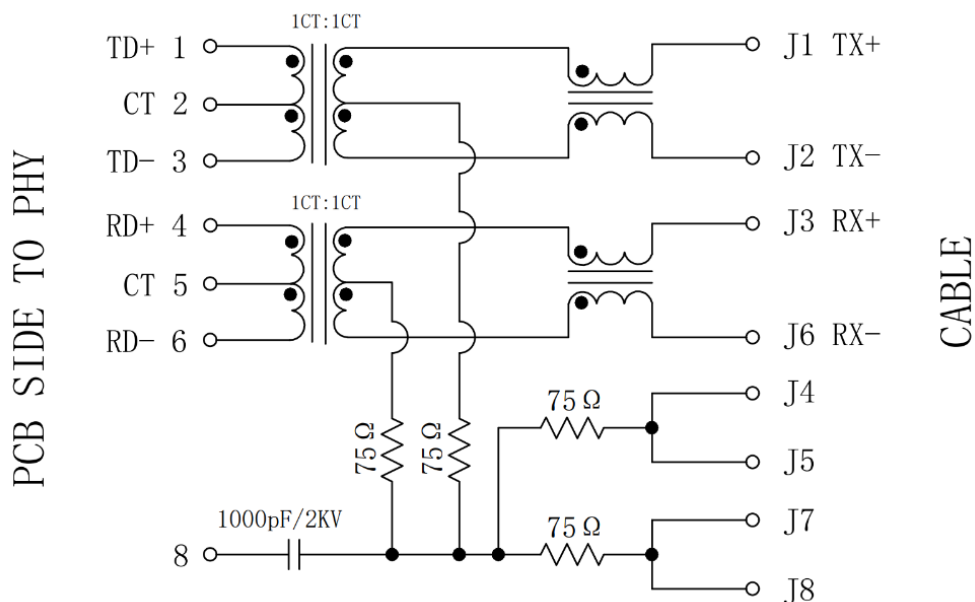


Suggested PCB Layout (Top View)

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

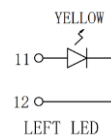
4. Electrical

4.1 Electrical Drawings

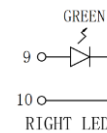


LED Electrical Specification

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

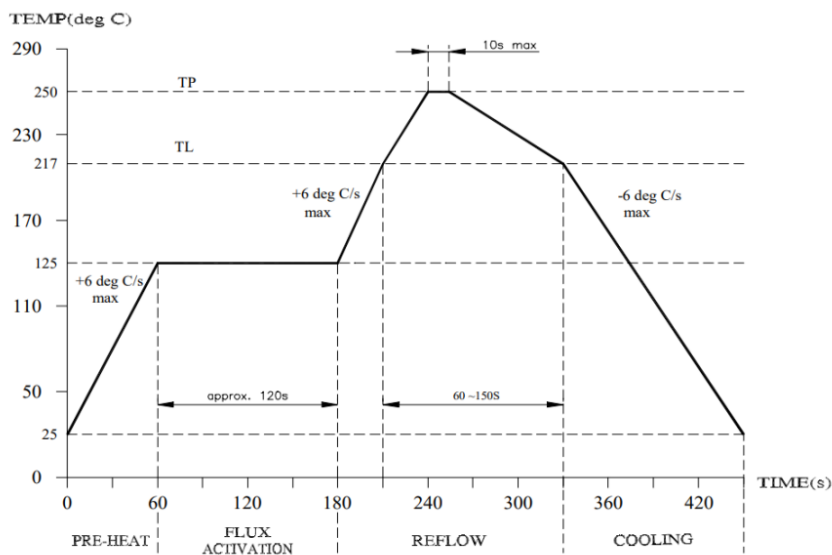


LED POLARITY		COLOR
PIN 11	PIN 12	COLOR
+	-	YELLOW



LED POLARITY		COLOR
PIN 9	PIN 10	COLOR
+	-	GREEN

4.2 Profile of Reflow



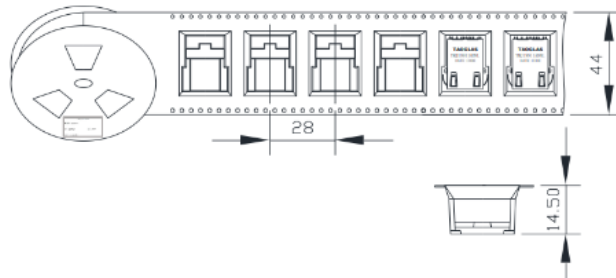
5. Packaging

5.1 SPQ

150 pcs/reel

Reel (mm): 44*28*14.5 mm

Reel Weight: 1.6kg



1 Carton = 6 trays = 900 pcs

Carton dimensions: 350*350*350mm

Carton Weight: 10kg



5.2 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-23-8-196 TMJ19911ADNL

Revision: A (Original First Release)

Date:	2023-10-01
Notes:	
Author:	Javier Vasena

Previous Revisions



www.taoglas.com

