



TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T Short Body

Part No:
TMJG0803HENL

Description:

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

Features:

Short Body
Transformer + CMC + AutoXFMR
Shielded
RoHS Compliant

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1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJG0803HENL is an RJ45 Integrated Connector 1G Base-T Single Port Tab Down with shielded 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	350uH Min @100KHz, 100mV, 8mA DC Bias
Turn Ratio	1CT:1CT
Insertion Loss	-1.2dB Max @ 0.3-100Mhz
Return Loss	-16dB Max @ 1-30Mhz
	-13.5dB Max @ 40Mhz
	-11.5dB Max @ 50Mhz
	-10dB Max @ 60-80Mhz
Crosstalk	-40dB Min @ 30Mhz
	-36dB Min @ 60Mhz
	-30dB Min @ 100Mhz
Common Mode Rejection	-35dB Min @ 30Mhz
	-32dB Min @ 60Mhz
	-30dB Min @ 100Mhz
Isolation Voltage	1500Vrms MIN

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

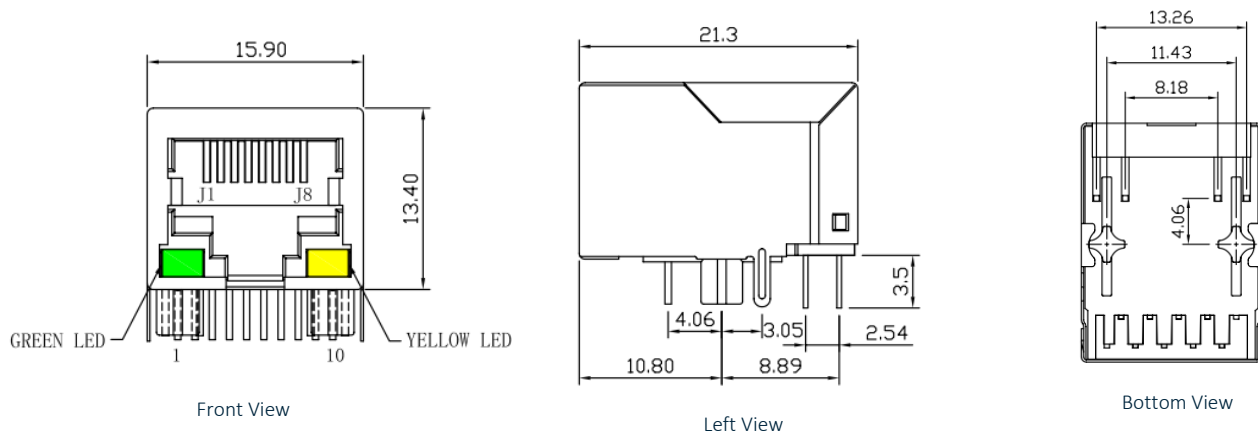
Material Specifications	
Housing	Thermoplastic PBT+30%G. F UL94V-0
Contact	Phosphor Bonze C5210R-EH Thickness=0.35mm
Pins	Brass C2680R-H Thickness=0.35mm
Shield	SUS 201-1/2H Thickness=0.2mm
Contact plating	Gold 6 micro-inches min. in contact area.
Wave solder tip temperature	265°C Max, 5 Sec

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

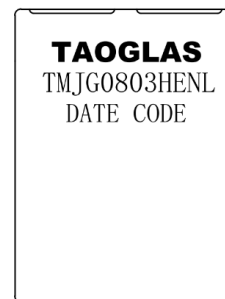
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

3. Mechanical

3.1 Mechanical Drawings



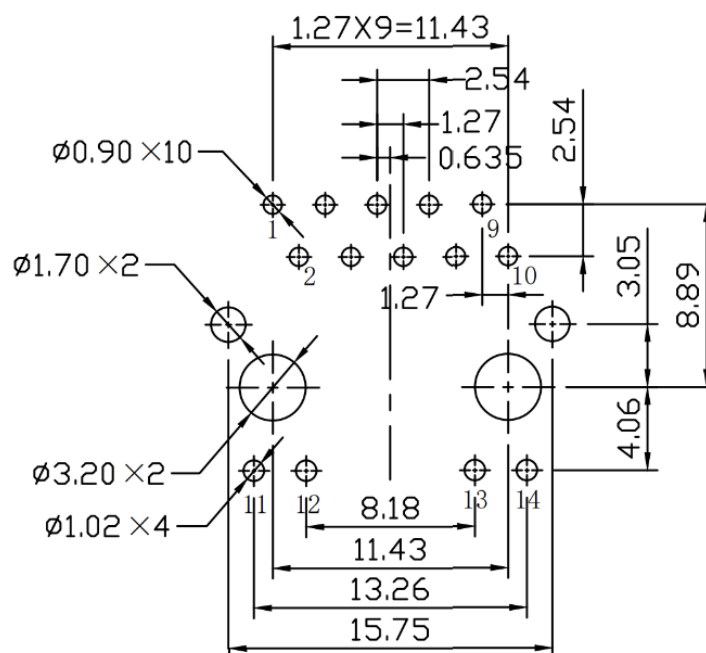
Mechanical Specifications	
Height	13.40mm
Width	15.90mm
Depth	21.3mm
Weight	6.08
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle



Top View

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

3.2 PCB Layout

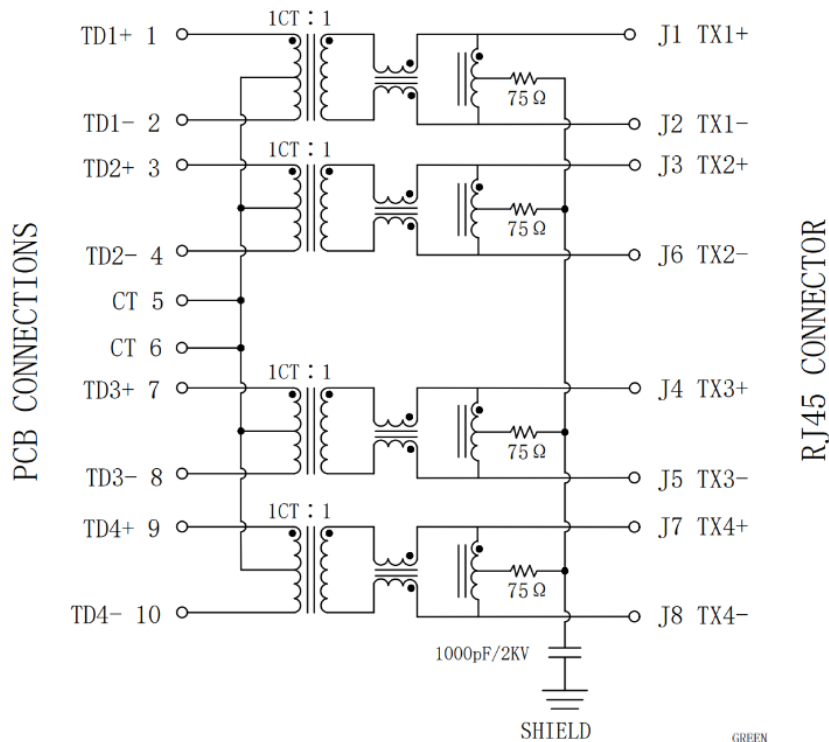


Suggested PCB Layout (Top View)

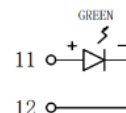
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings

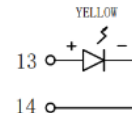


LED Electrical Specification			
Standard LED	Wavelength (nm)	V _F (I _F =20mA)	I _R (V _R =5v)
Green	565	1.8~2.6v	10 μA Max
Yellow	585	1.8~2.6v	10 μA Max



LEFT LED

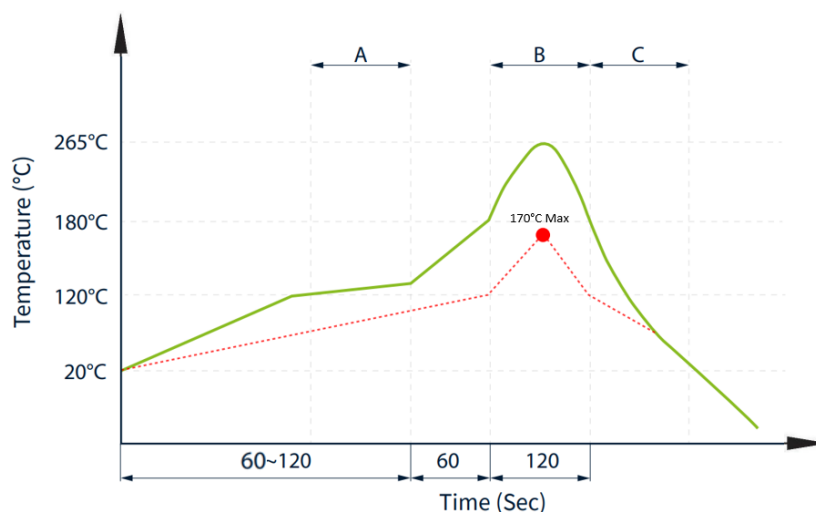
LED POLARITY		COLOR
PIN 11	PIN 12	
+	-	GREEN



RIGHT LED

LED POLARITY		COLOR
PIN 13	PIN 14	
+	-	YELLOW

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

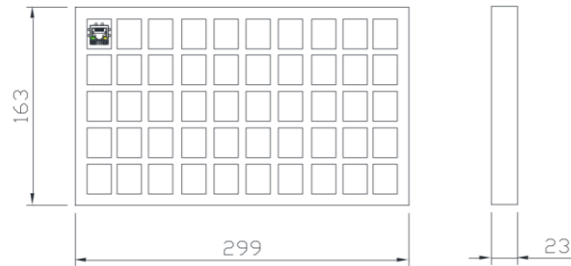
5. Packaging

5.1 SPQ

50 pcs/tray

Tray dimension: 299*163*23 mm

Tray Weight: 365g



1 Carton = 24 trays = 1200 pcs

Carton dimensions: 320*300*310mm

Carton Weight: 9kg



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-23-8-204 – TMJG0803HENL

Revision: A (Original First Release)

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

Previous Revisions



www.taoglas.com

