



TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T Short Body

Part No:
TMJG0820GENL

Description:

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

Features:

- EMI Finger
- AutoMDIX
- Short Body
- RoHS & REACH Compliant

1.	Introduction	3
2.	Specifications	4
3.	Mechanical	5
4.	Electrical	6
5.	Packaging & Storage	7
<hr/>		
	Changelog	8

Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.



1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJG0820GENL is an RJ45 Integrated Connector 1G Base-T Single Port Tab Down with EMI Finger, its shielded short 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 (±2%)	TX=1CT: 1CT RX=1CT: 1CT
Insertion Loss	-1.0dB MAX @ 1-65Mhz
Return Loss	-20dB MIN @ 1-10Mhz
	-16dB MIN @ 10-30Mhz
	-12dB MIN @ 30-60Mhz
	-10dB MIN @ 60-100Mhz
Cross talk	-40dB MIN @ 1-30Mhz
	-35dB MIN @ 20-60Mhz
	-30dB MIN @ 60-100Mhz
Common Mode Rejection	-30dB MIN @ 1-50Mhz
	-20dB MIN @ 50-150Mhz
Hi-Pot	1500Vrms

Forces	
Insertion force with the latch depressed	22 N max
Removal force with the latch depressed	44 N max
Locking force of plug latch	50 N min.@60+/-5sec.

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

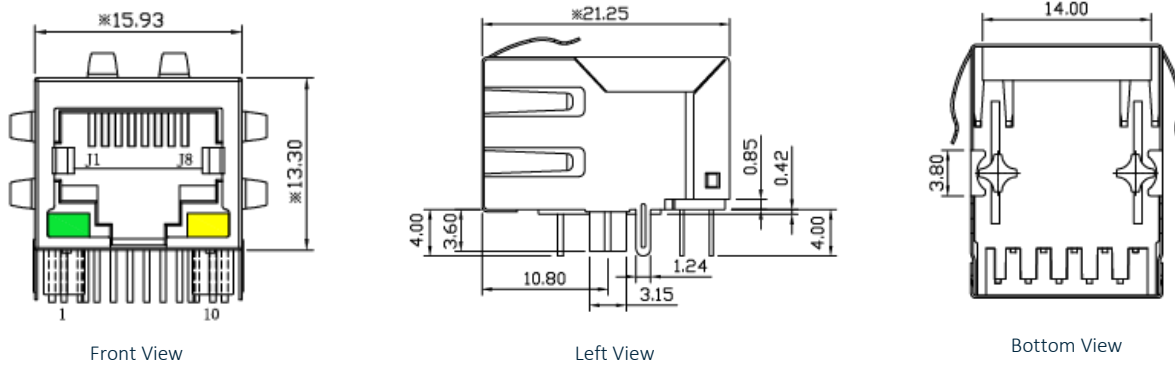
Material Specifications	
Housing	Thermoplastic PBT+30%G. F UL94V-0
Contact	Phosphor Bronze C5210R-EH Thickness = 0.35mm
Contact Plating	Gold Thickness = 6µ" min in contact area
Pins	Brass C2680R-H Thickness = 0.35mm
Shield	Stainless Steel SUS 201-1-1/2H Thickness = 0.2mm

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

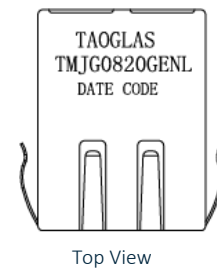
Storage requirements	
Humidity	Storage Temperature
MSL - 1	-40°C TO +85°C

3. Mechanical

3.1 Mechanical Drawings

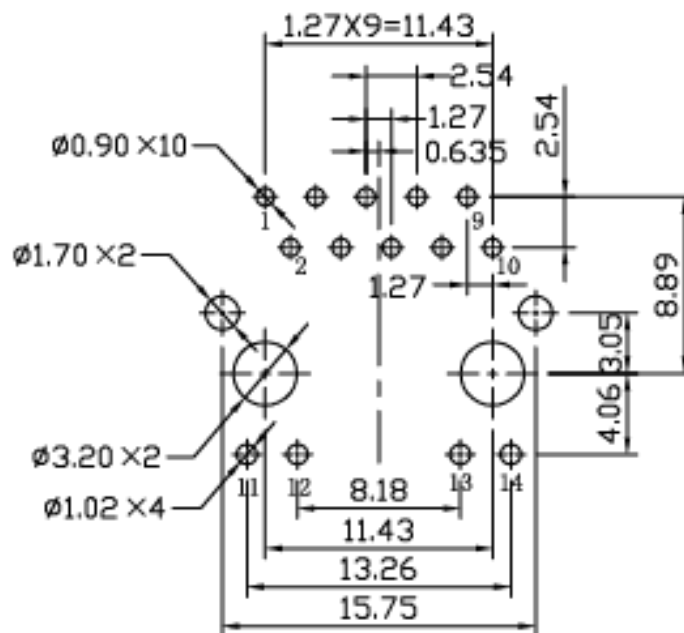


Mechanical Specifications	
Height Above Board	0.52" (13.3mm)
Width	0.627" (15.93mm)
Depth	0.837" (21.25mm)
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle



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

3.2 PCB Layout

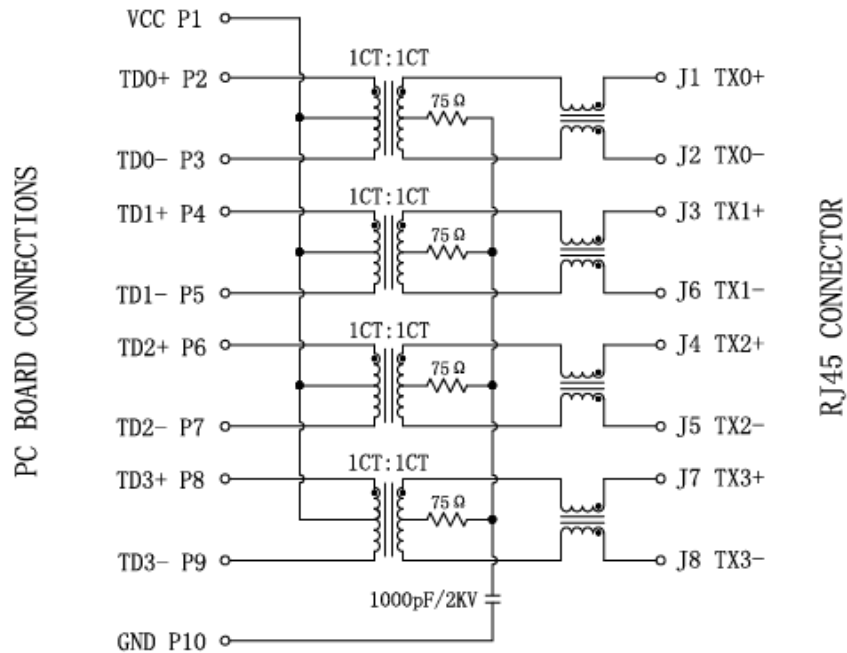


Suggested PCB Layout (Top View)

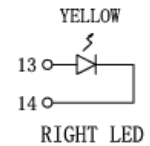
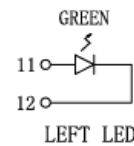
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

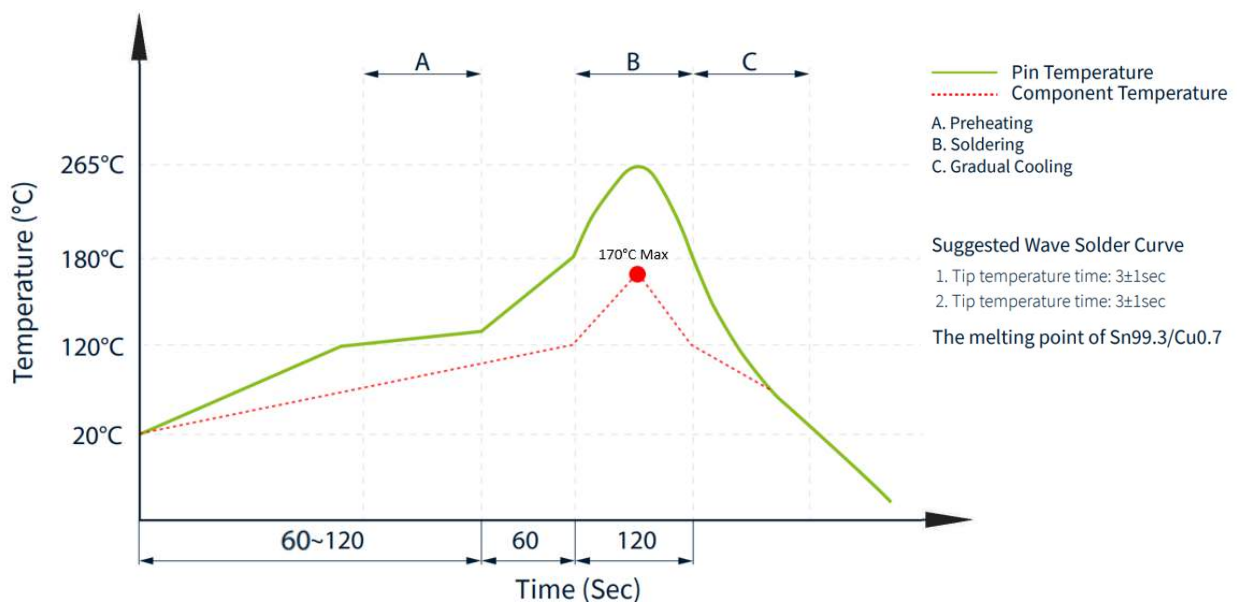
4.1 Electrical Drawings



LED Electrical Specification			
Standard LED	Wavelength (nm)	$V_f (I_f=20mA)$	$I_R (V_R=5v)$
Green	565	1.8~2.6v	10 μA Max
Yellow	585	1.8~2.6v	10 μA Max



4.2 Profile of Wave Solder



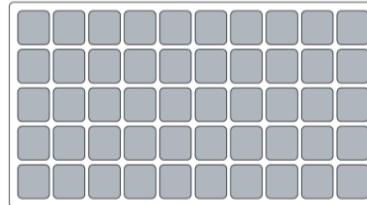
5. Packaging and Storage

5.1 SPQ

50 pcs/tray

Tray dimension: 299*163*23 mm

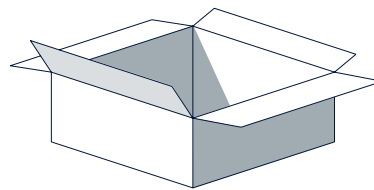
Tray Weight: 349g



1 CTN = 24 trays = 1200 pcs

Carton dimensions: 320*300*301mm

Carton Weight: 9kg



Changelog

Changelog for the datasheet

SPE-22-8-049 – TMJ0820GENL

Revision: A (Original First Release)

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

Previous Revisions



www.taoglas.com

