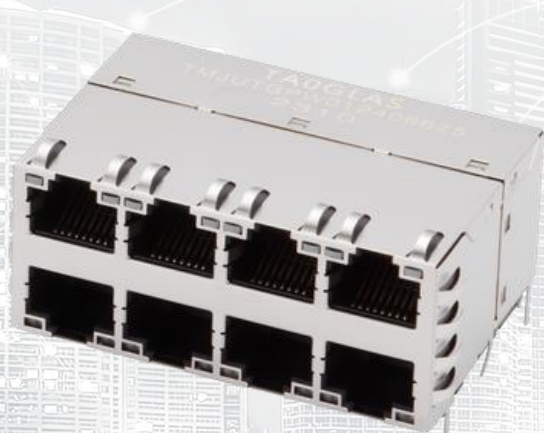




TAOGLAS®



Datasheet

RJ45 ICM 1G Base-T 2x4 Ports

Part No:
TMJUTGPW012406625

Description:

RJ45 connector with integrated magnetics 1G Base-T.
2x4 Ports with THT mount and LEDs.

Features:

- 2x4 Configuration
- 3 Wire + Transformer + 5th Channel-PSE
- Voltage/Current Drive
- Shielded EMI Finger
- Board guide
- PoE (350mA)
- Industrial grade

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1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJUTGPW012406625 is an RJ45 Integrated Connector 1G Base-T Single 2x4 Ports with shielded EMI finger body and designed for Industrial grade environments and PoE capabilities.

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 (±5%)	TX=1CT: 1CT	RX=1CT: 1CT
DCR	1.2 ohm Max	
Insertion Loss	-1.0 dB Max @ 1-100MHz	
	-1.2 dB Max @ 100-125MHz	
Return Loss	-16 dB Min @ 1-40MHz	
	-12 dB Min @ 40-60MHz	
	-10 dB Min @ 60-80MHz	
	-8 dB Min @ 80-100MHz	
Crosstalk	-30 dB Min @ 1-100MHz	
Common Mode Rejection Ratio	-30dB Min @ 1-100MHz	
Isolation (PHY Side to Line Side)	1200 VDC	
DC Current/Voltage rating-PSE Pins	350mA @ 48V (Continuous)	

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

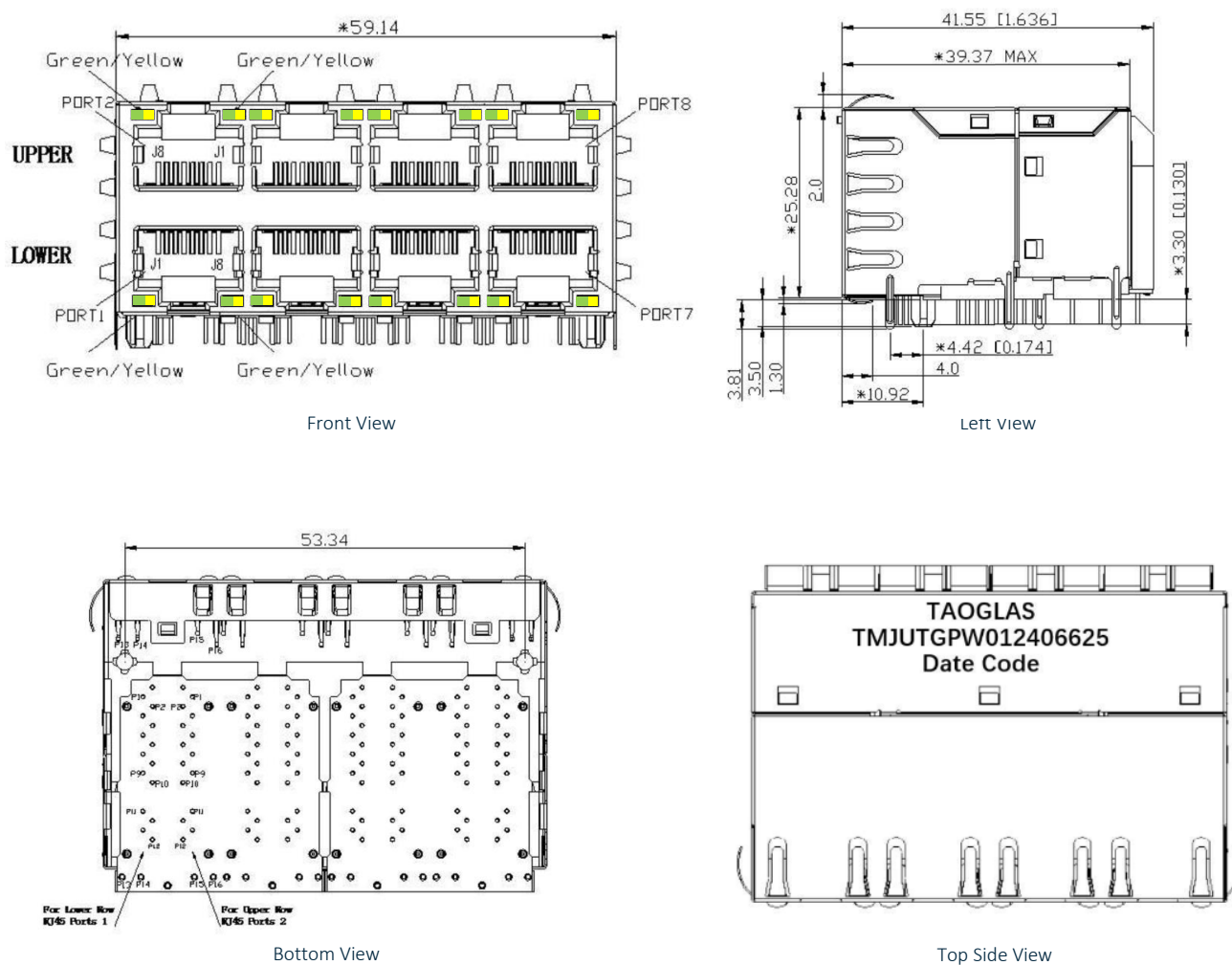
Material Specifications	
Housing	Thermoplastic UL94V-0
Shield	Brass
Shield plating	Nickel
Contact	Copper Alloy
Contact Plating	Gold in contact area
	Thickness = 30μ" min.

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

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

3. Mechanical

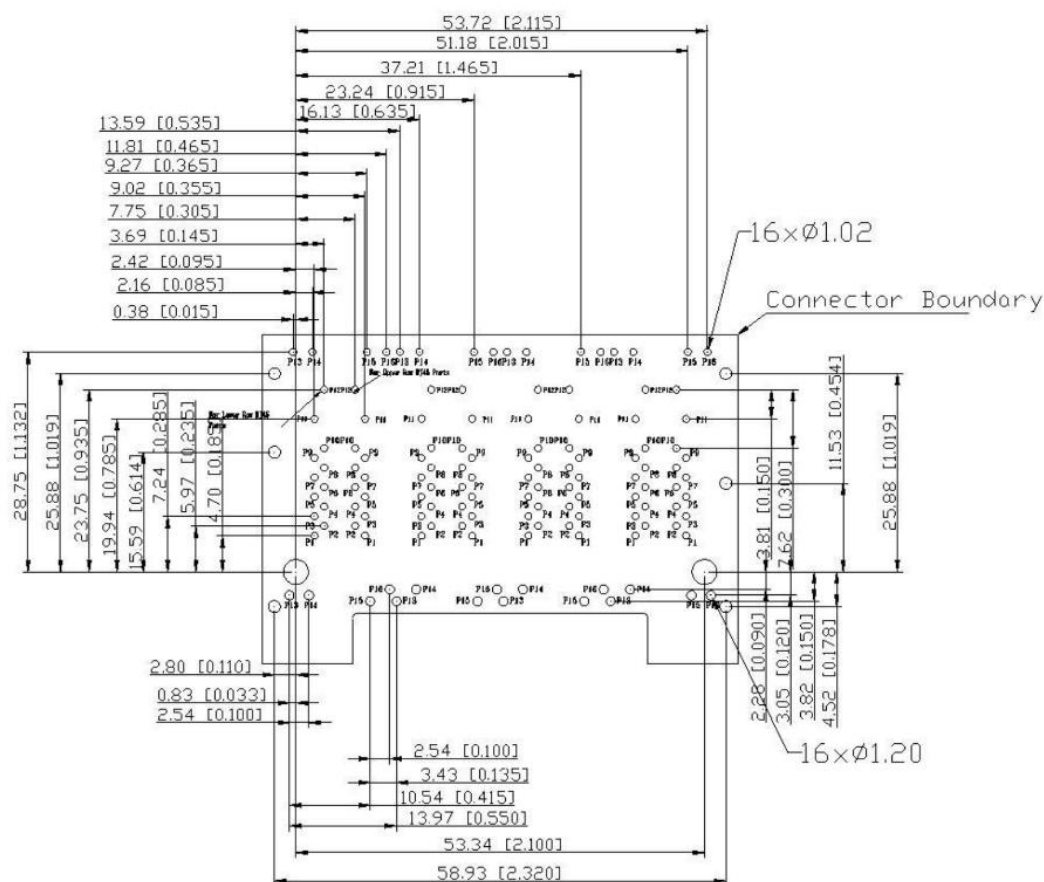
3.1 Mechanical Drawings



Mechanical Specifications	
Height Above Board	27.28 mm
Width	59.14 mm
Depth	41.55 mm
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

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

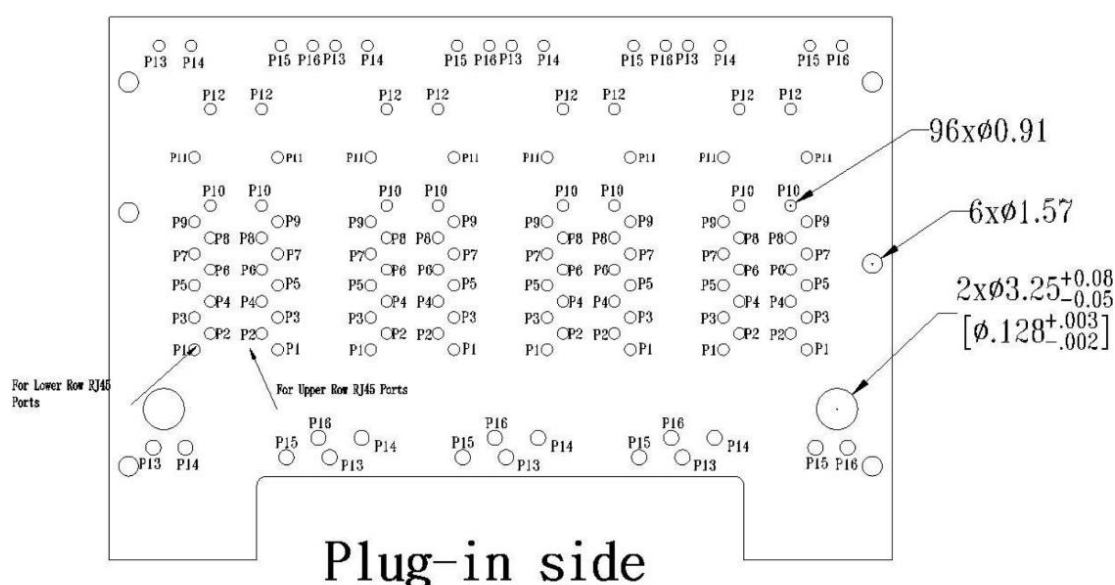
3.2 PCB Layout



Plug In Side

Suggested PCB Layout (Top View)

Dimensions are in millimeters

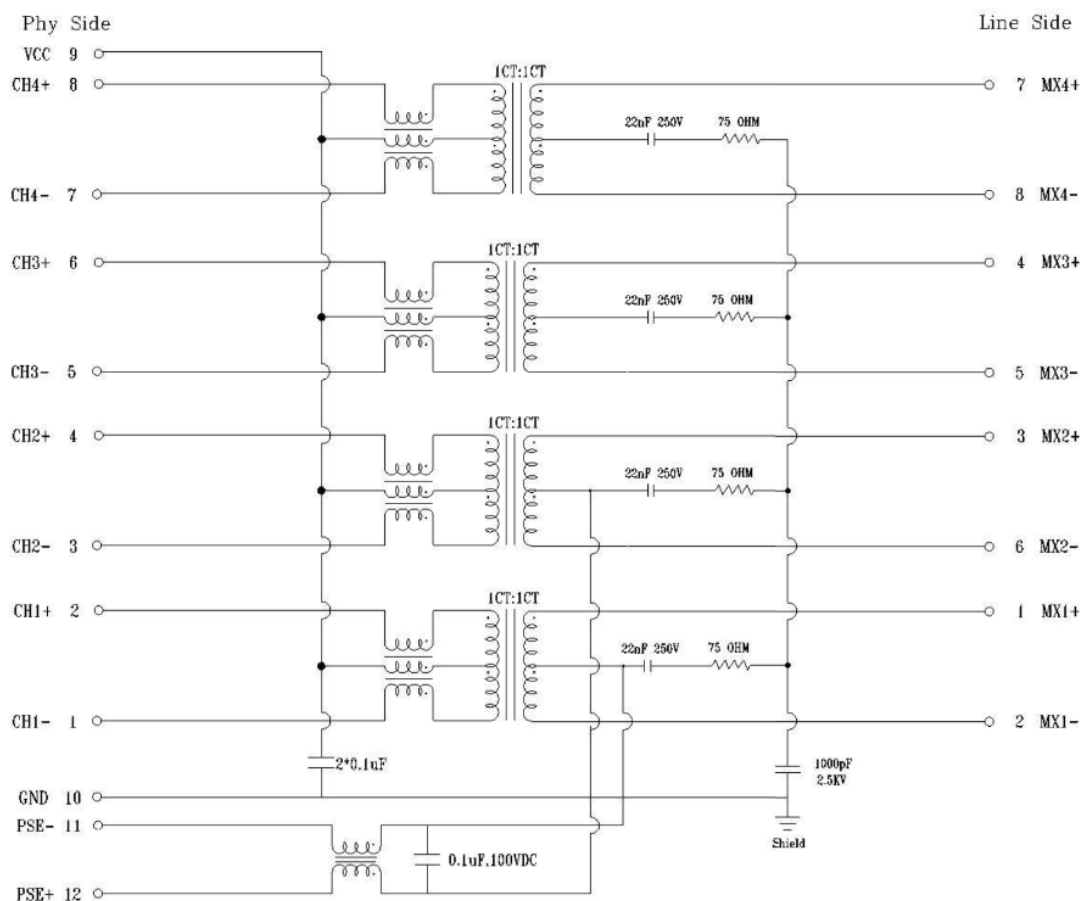


Component Side View

Dimensions are in millimeters

4. Electrical

4.1 Electrical Drawings

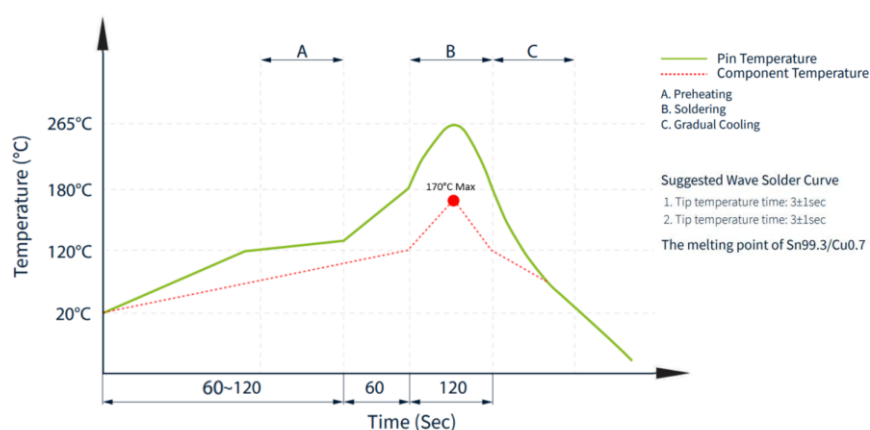


LED Electrical Specification

Standard LED	Wavelength (nm)	V _F (max)	I _R
Green	565	2.4v	20 μ A Max
Yellow	590	2.5v	20 μ A Max



4.2 Profile of Wave Solder



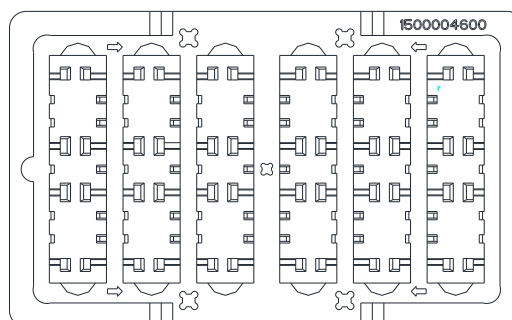
5. Packaging

5.1 SPQ

12 pcs/tray

Tray dimension: 310*190*27 mm

Tray Weight: 750gr



1 Carton = 4 trays = 48 pcs

Carton dimensions: 340*220*200mm

Carton Weight: 3kg



5.2 Label

Taoglas Limited	
P/N NO: XXXXXXXX	
PO: XXXXXXXX	B/N: XXXXXXXX
QYT: XXX PCS	DC: XXXX
DATE: XXXX-XX-XX	

Carton Label (8x5cm)

Changelog

Changelog for the datasheet

SPE-23-8-071 – TMJUTGPW012406625

Revision: B	
Date:	2023-07-05
Notes:	Update in Solder profile
Author:	Javier Vasena

Previous Revisions

Revision: A (Original First Release)	
Date:	2023-03-30
Notes:	
Author:	Javier Vasena



www.taoglas.com

