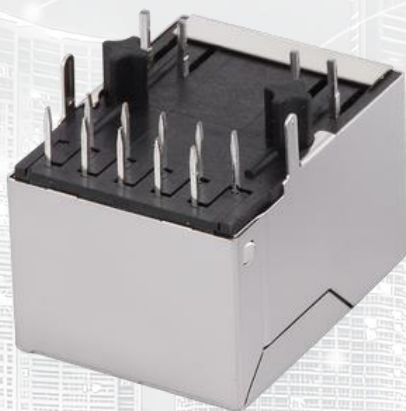




TAOGLAS®



Datasheet

RJ45 ICM 5G Base-T Short Body

Part No:
TMJUTVW0021192448

Description:

RJ45 connector with integrated magnetics 5G Base-T.
Single Port Tab-DOWN with right angle THT mount and LEDs.

Features:

Short Body
3 Wire + Transformer
LED (Green, Yellow)
Shielded
Board guide

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1. Introduction



Featuring a popular footprint and compatible package to industry RJ45 Integrated Connectors standards, the Taoglas TMJUTVW0021192448 is an RJ45 Integrated Connector 5G Base-T Single Port Tab-DOWN with shielded short body design that offers capabilities in Industrial environments.

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	160uH MIN @ 100KHz, 0.1Vrms	
Turns Ratio (±2%)	TX=1CT: 1CT	RX=1CT: 1CT
Insertion Loss (dB Max)	-0.5 dB Max @ 1MHz-50MHz	
	-1.2 dB Max @ 50MHz-125MHz	
	-2.0 dB Max @ 125MHz-250MHz	
Return Loss	-16 dB Min @ 1MHz-40MHz	
	-16+10log(f/40) dB Min @ 40MHz -250MHz	
Cross talk (dB Min)	-30 dB Min @ 1MHz-40MHz	
	-28 dB Min @ 40MHz-100MHz	
	-26 dB Min @ 100MHz-250MHz	
CM to CM Mode Attenuation	-30 dB Min @ 1MHz-250MHz	
Hipot (Isolation Voltage)	2250V DC PRI TO SEC	

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

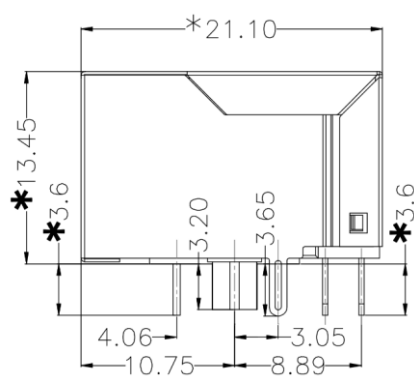
Material Specifications	
Housing	PA9T, UL94V-0, Black
Terminals Bracket	PA9T, UL94V-0, Black
Shield	C2680, T=0.20mm, nickel plating on all area
Terminal	Phosphor Bronze C5210, T=0.35mm 30U" gold plating on contact area

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

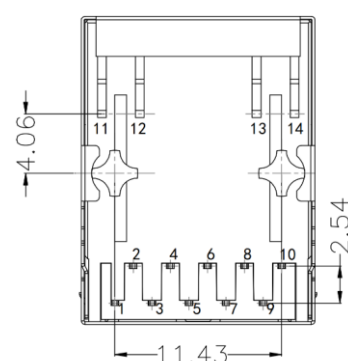
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +85°C

Diagram illustrating the PCB layout for the 16-channel module. The overall width is 16.00. The layout shows two main sections, J1 and J8, with associated components. The bottom section features two rows of pins, labeled GREEN LEFT and YELLOW RIGHT. The distance between the two rows of pins is 1.27 TYP. The total width of the pin rows is 7 * 1.27 = 8.89.

Front View



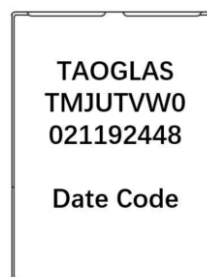
Left View



Bottom View

Mechanical Specifications	
Height Above Board	13.45 mm
Width	16 mm
Depth	21.1 mm
Mounting Style	Through Hole (THT)
Mounting Angle	Right Angle

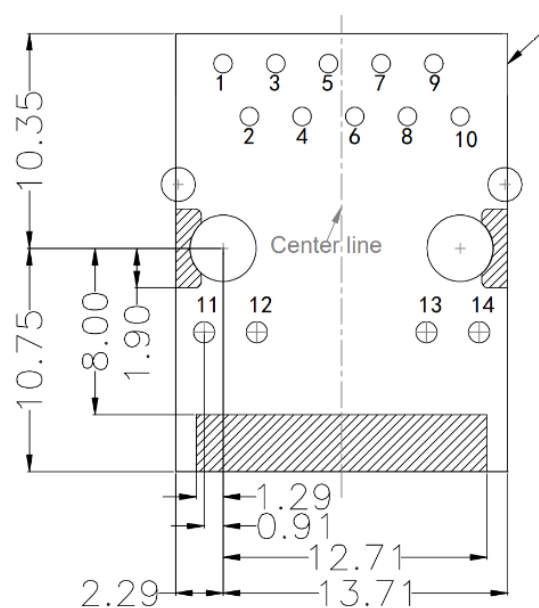
Dimensions are in millimeters with the following tolerances: X.XX = ± 0.25



Top Side View

[illegible]

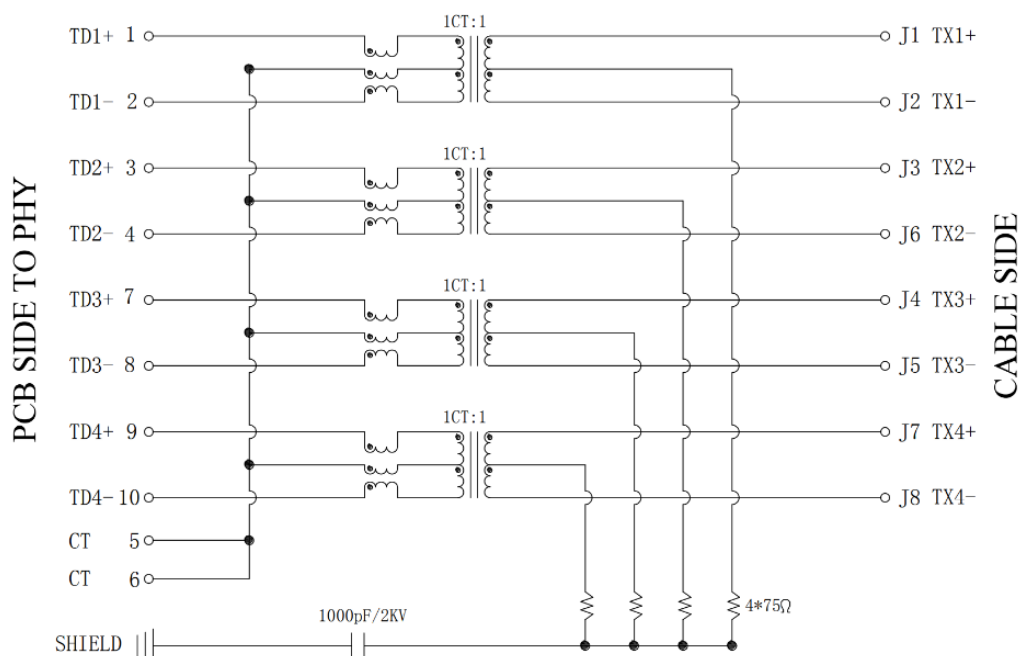
Suggested PCB Layout (Top View)



Component Side View

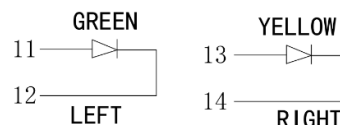
4. Electrical

4.1 Electrical Drawings

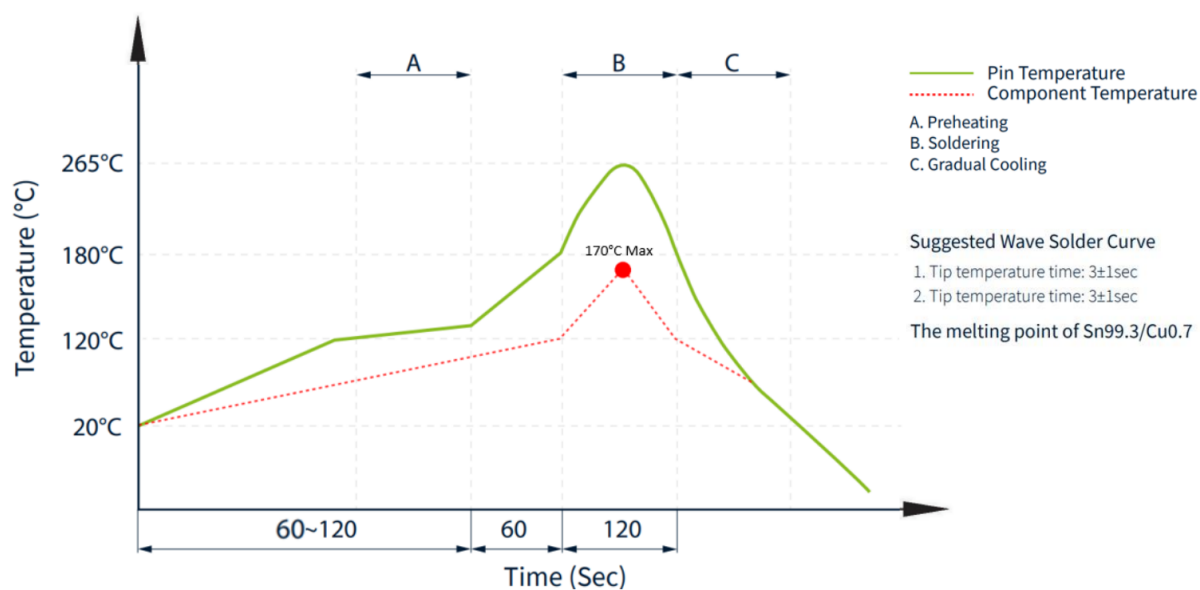


LED Electrical Specification

Standard LED	Wavelength (nm)	V_F (max)	I_R
Green	568	1.8~2.45v	20 μ A Max
Yellow	585	1.8~2.2v	20 μ A Max



4.2 Profile of Wave Solder



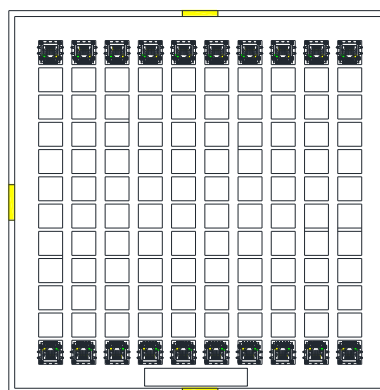
5. Packaging

5.1 SPQ

120 pcs/tray

Tray dimension: 320x320x23 mm

Weight: 120gr



1 Carton = 9 trays = 1080 pcs

Carton dimensions: 330*330*210mm

Carton Weight: 1.65kg



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-23-8-072 – TMJUTVW0021192448

Revision: D

Date: 2024-09-17

Notes: Short body

Author: Javier Vasena

Previous Revisions

Revision: A (Original First Release)

Date: 2023-03-30

Notes:

Author: Javier Vasena

Revision: C

Date: 2024-05-29

Notes: Feature updated

Author: Javier Vasena

Revision: B

Date: 2023-07-05

Notes: Update Solder Profile

Author: Javier Vasena



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