



TAOGLAS®



Datasheet

LAN Transformer 2.5G Base-T PoE Ultra

Part No:
TMU24C04UW

Description:

2.5G Base-T transformer
Single Port and 24pin SMT

Features:

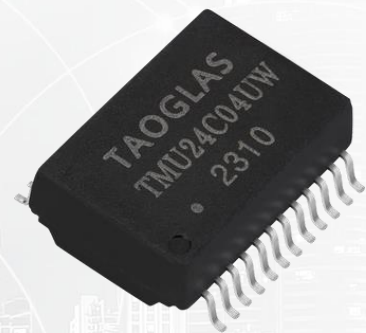
PoE Ultra
CMC + Transformer
Industrial grade

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1. Introduction



Featuring a compatible footprint with industry LAN transformers, and designed to work in demanding industrial environmental conditions, the Taoglas TMU24C04UW is a 2.5G Base-T Single Port of 24pin with Common Mode Choke and Transformer designed for PoE Ultra capabilities.

Typical applications for this cost-effective part are:

- Industrial Automation
- Hubs
- Routers
- Switches
- Wireless Access Points

The Taoglas Magnetics Product Team have over fifteen years of LAN magnetics design and high-quality manufacturing. With an ever-expanding portfolio, we provide trusted products and services to customers within a wide range of applications such as: Networking and Interconnect Devices, Servers, Switches, Router, Communication systems and any Digital Consumer electronics.

The Taoglas Exos Series offer an extensive product line of LAN Transformers designed for commercial and industrial grade applications, supporting 10/100 Base-T (Exos100 Series), 1G Base-T (Exos1G Series) and 10G Base-T (Exos10G Series). These products include Single, Dual, and Quad configurations not only for standard applications but also for Power over Ethernet (PoE, PoE+, PoE++).

For more information on the range of products or for assistance with integration, contact your regional Taoglas customer support team.

2. Specifications

Electrical Performance @25°C	
Inductance OCL	180uH Min. @100KHz/0.1V
Turns Ratio (±3%)	TX=1CT: 1CT RX=1CT: 1CT
D.C.R:	1.0 ohm Max
Insertion Loss	-1.0dB Max@1-100MHz
	-1.5dB Max@100-125MHz
Return Loss	-16dB Min @1-40MHz
	-16+10log(f/40) dB Min@40-250MHz
Crosstalk	-30dB Min@1-125MHz
CMRR	-30dB Min@1-125MHz
Hi-Pot	1500Vrms
PoE	1100mA per centre tap

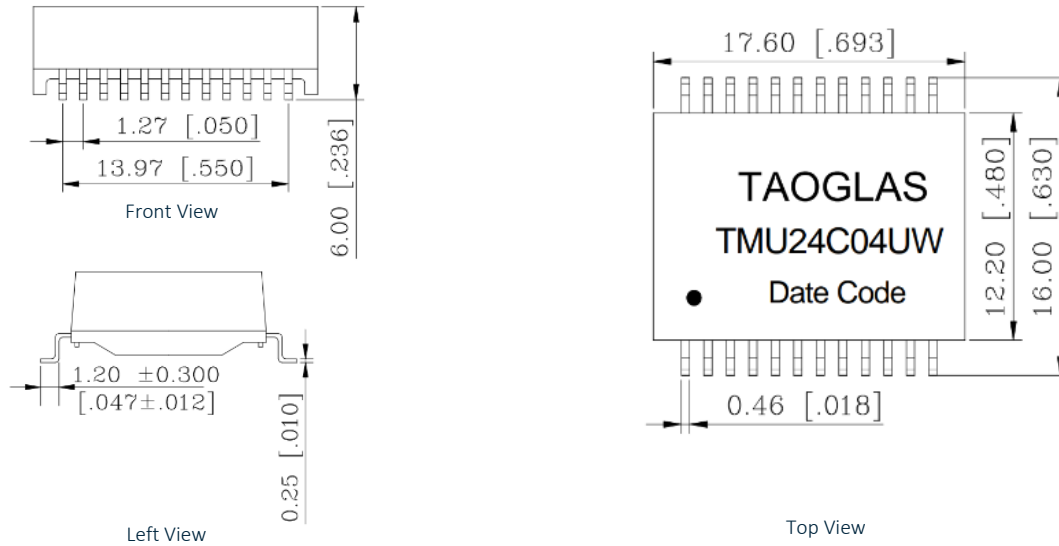
Environmental Specifications	
Operating Temperature	-40°C TO +85°C

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +125°C

3. Mechanical

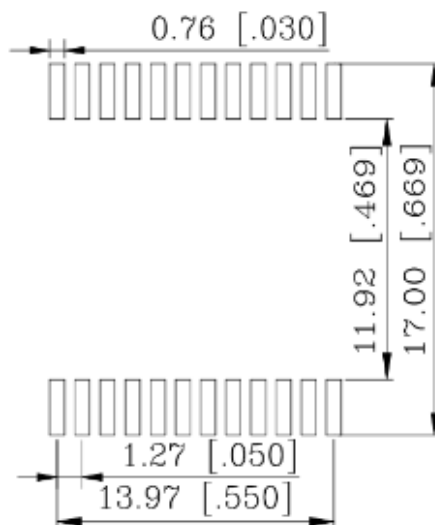
3.1 Mechanical Drawings



Mechanical Specifications	
Length	17.6 mm
Width	16 mm
Height	6 mm
Mounting Style	Surface Mount (SMT)

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

3.2 Pad Layout

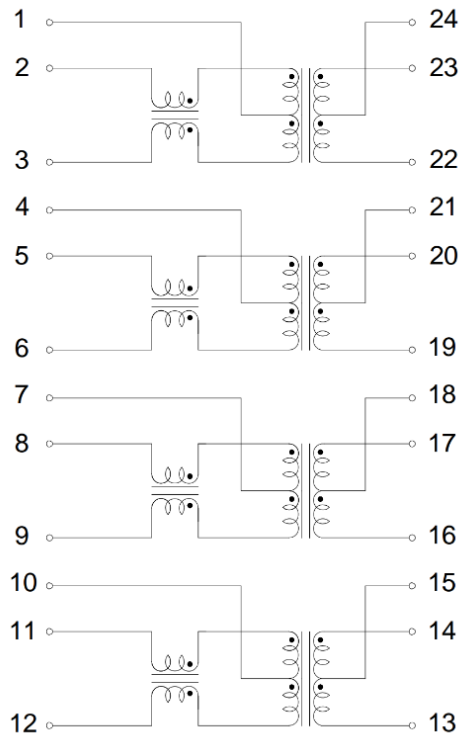


Suggested pad layout

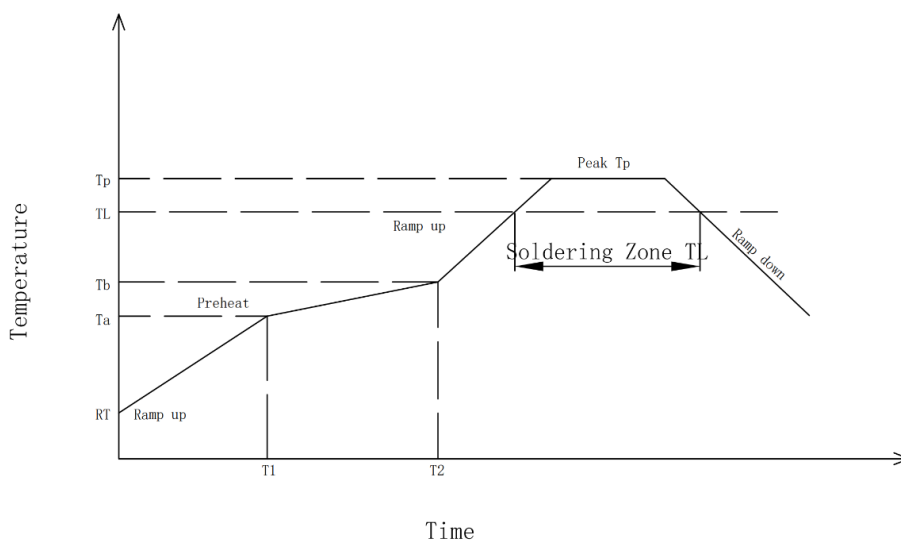
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings



4.2 Profile of Reflow Solder



Preheat :
 Temperature (Ta-Tb):150-200°C
 Time(T1-T2):60-180s

Holding Temperature:217°C
 Time (TL):60-150s

Max Temperature (Tp):250(+0/-5°C)
 Max Time (Tp):30Sec±10Sec

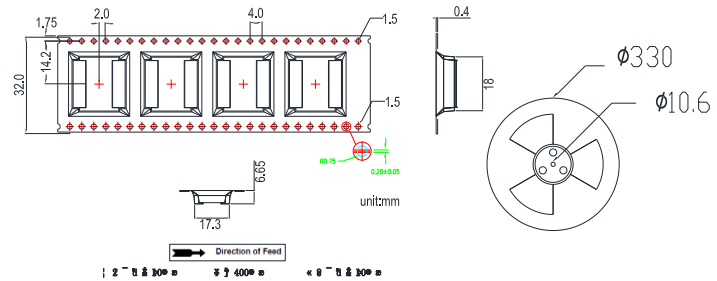
The average speed:3°C/S Max
 The average cooling speed:6°C/S Max

From 25°C to Products out of the
 furnace:6 minutes Max

5. Packaging

5.1 SPQ

1 reel = 400 pcs
 Reel (mm): 32x14.2x17.3
 Weight (gr): 950



1 Carton = 7 reels = 2800 pcs
 Carton dimensions: 373*365*284 mm
 Carton Weight: 8.05 kg



5.2 Label

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

SPQ Label (8x5cm)

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-23-8-058 – TMU24C04UW

Revision: A (Original First Release)

Date:	2023-03-30
Notes:	
Author:	Javier Vasena

Previous Revisions



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