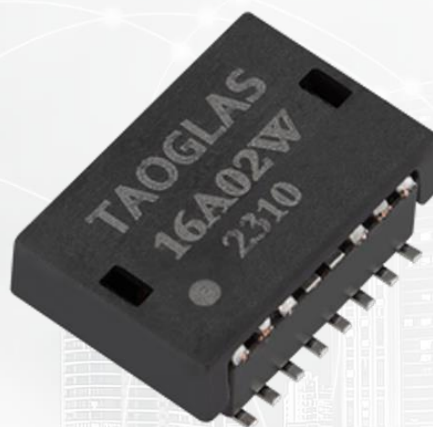




# TAOGLAS®



# Datasheet

## LAN Transformer 10/100 Base-T

**Part No:**  
TMU16A02W

### Description:

10/100 Base-T Transformer  
Single port and 16 pin SMT

### Features:

Transformer + CMC  
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 TMU16A02W is a LAN Transformer 10/100 Base-T Single Port of 16pins.

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	
OCL	350μH Min. @100KHz/0.1V with 8mA DC Bias
Turns Ratio (±3%)	1CT: 1CT
LK	0.5μH Max @100KHz/0.2V
Cw/w	35PF Max @100KHz/0.2V
D.C.R:	1.2 ohm Max
Insertion Loss	1-100MHz: -1.0dB Max
Return Loss	1-30MHz: -16dB Min
	30-60MHz: -16+20 log(f/30) dB Min
	60-80MHz: -10dB Min
CMRR	1-100MHz: -30dB Min
Cross Talk	1-100MHz: -30dB Min
Hi-Pot	1500Vrms

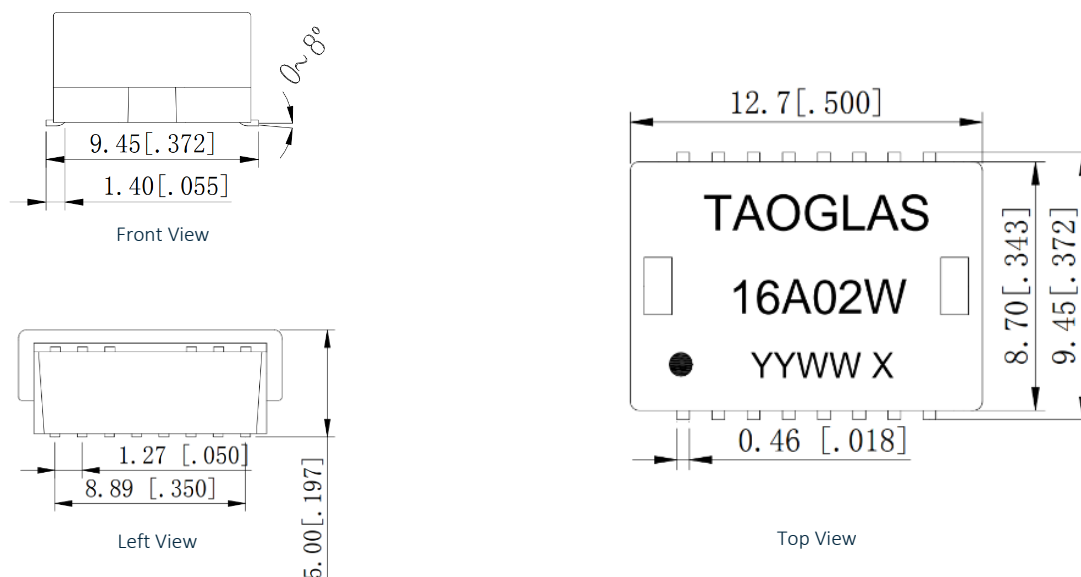
Environmental Specifications	
Operating Temperature	-40°C TO +85°C

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

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

## 3. Mechanical

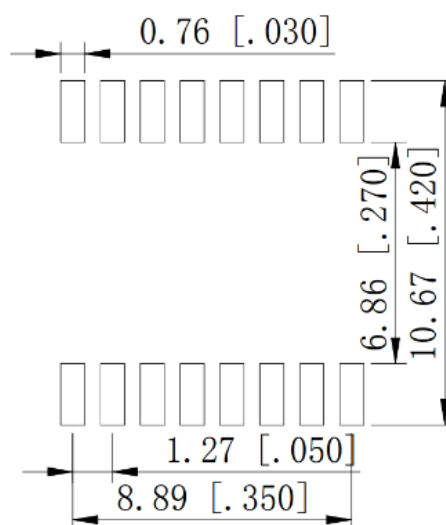
### 3.1 Mechanical Drawings



Mechanical Specifications	
Length	12.70 mm
Width	9.45 mm
Height	5.00 mm
Mounting Style	Surface Mount (SMT)

Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.25$

### 3.2 Pad Layout

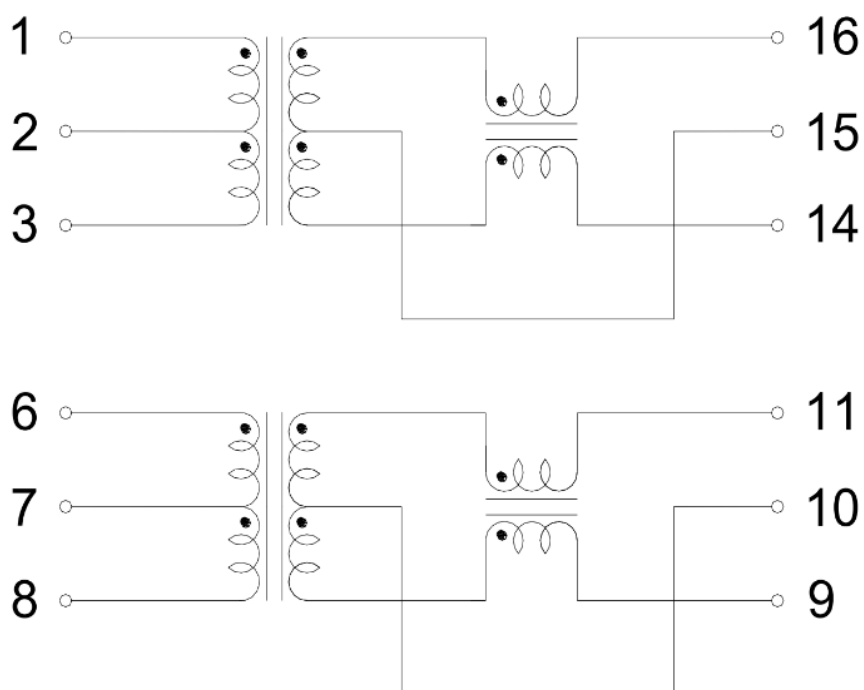


Suggested pad layout

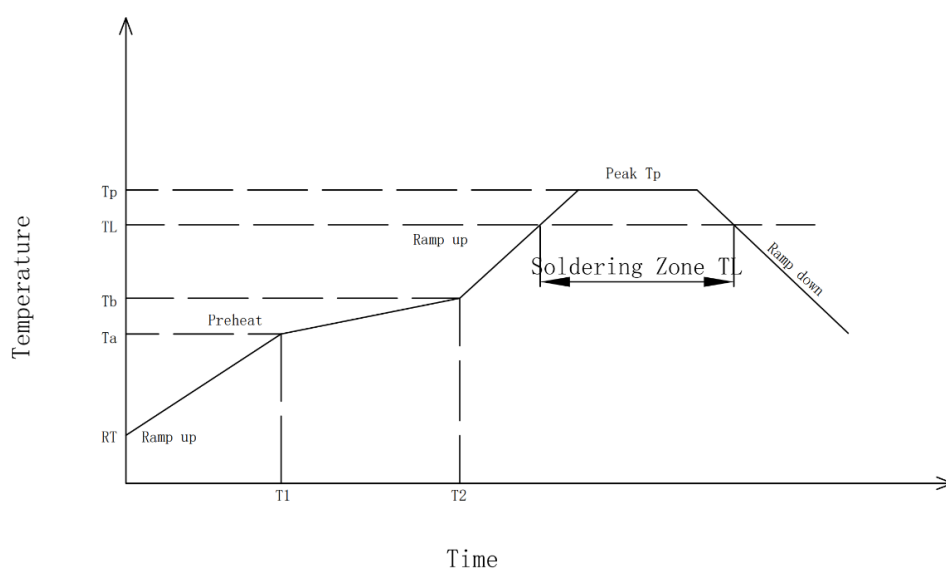
Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$

## 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

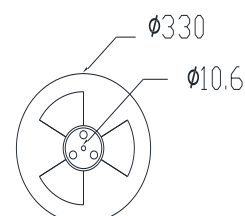
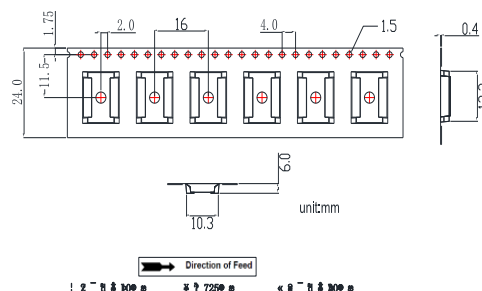
1 reel = 725 pcs

A (Carrier Tape Width):  $24 \pm 0.3$  mm

B (Sprocket hole to Cavity center):  $11.5 \pm 0.2$  mm

C (Cavity width):  $10.3 \pm 0.2$  mm

Weight: 900gr



1 Carton = 9 reels = 6525 pcs

Carton dimensions: 373\*365\*284 mm

Carton Weight: 9.4 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-23-8-033 – TMU16A02W**

## Revision: C

Date:	2024-07-03
Notes:	Sub-level category change to LAN Transformer
Author:	Javier Vasena

## Previous Revisions

### Revision: A (Original First Release)

Date:	2023-02-21
Notes:	
Author:	Javier Vasena

### Revision: B

Date:	2023-03-30
Notes:	Update in PN for Q1 2023 availability.
Author:	Javier Vasena





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