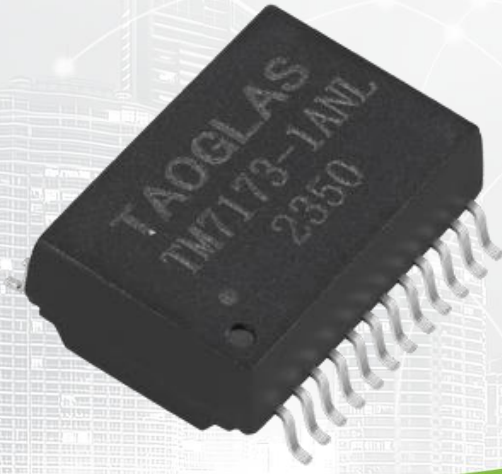




# TAOGLAS®



# Datasheet

## LAN Transformer 1G Base-T PoE++

**Part No:**  
TM7173-1ANL

### Description:

1G Base-T Transformer  
Single Port and 24pin SMT

### Features:

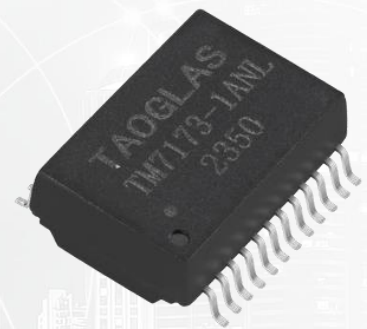
PoE++ (720mA)  
3 Wire + Transformer  
Industrial grade  
RoHS Compliant

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

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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 TM7173-1ANL is a LAN Transformer 1G Base-T Single Port of 24pins capable for PoE++ applications.

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 (100KHz/0.1V@11mA)	350uH Min
Turns Ratio (±2%)	1CT: 1CT
Insertion Loss (dB Max)	0.3-1MHz: -1.1
	1-65MHz: -0.8
	65-100MHz: -1.0
	100-125MHz: -1.2
Return Loss (dB Min @100 OHM)	0.5-40MHz: -18
	40-100MHz: $-[12-20\text{LOG}(f/80\text{MHz})]$
Crosstalk (dB MIN)	0.3-100MHz: $-[33-20\text{LOG}(f/100\text{MHz})]$
CM TO CM REJ	0.3-100MHz: -30dB Min
CM TO DM REJ	0.3-100MHz: -35dB Min
Balanced DC Line Current	720mA Max @ 57VDC Continuous
	1.2A Max @ 57VDC For 200mS
Hi-Pot	1500Vrms/0.5mA

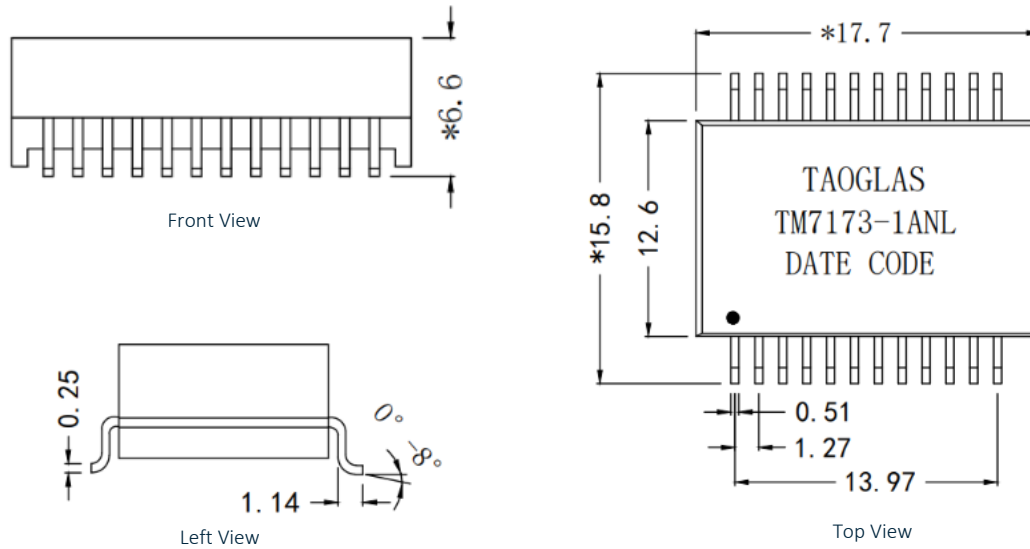
Environmental Specifications	
Operating Temperature	-40°C TO +85°C

Compliance	
RoHS Compliant	
UL recognized - FILE NO. E528697	
IEEE 802.3	

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

### 3. Mechanical

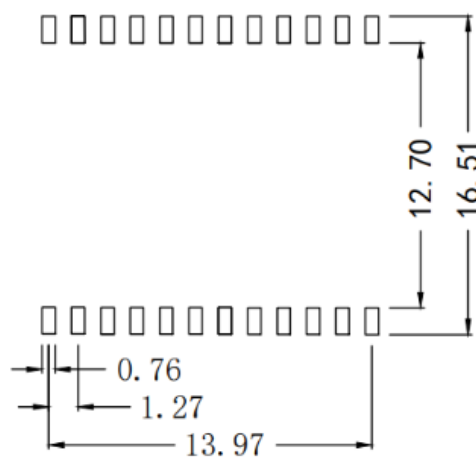
#### 3.1 Mechanical Drawings



Mechanical Specifications	
Length	17.7 mm
Width	15.8 mm
Height	6.6 mm
Weight	1.73 g
Mounting Style	Surface Mount (SMT)

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

#### 3.2 Pad Layout

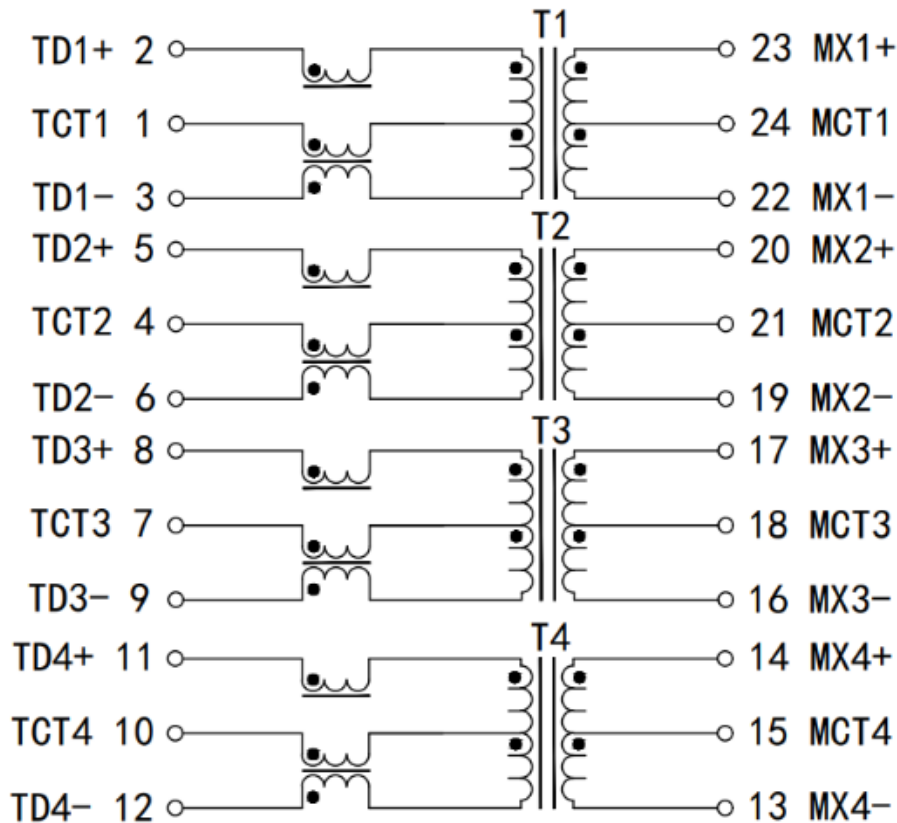


Suggested pad layout

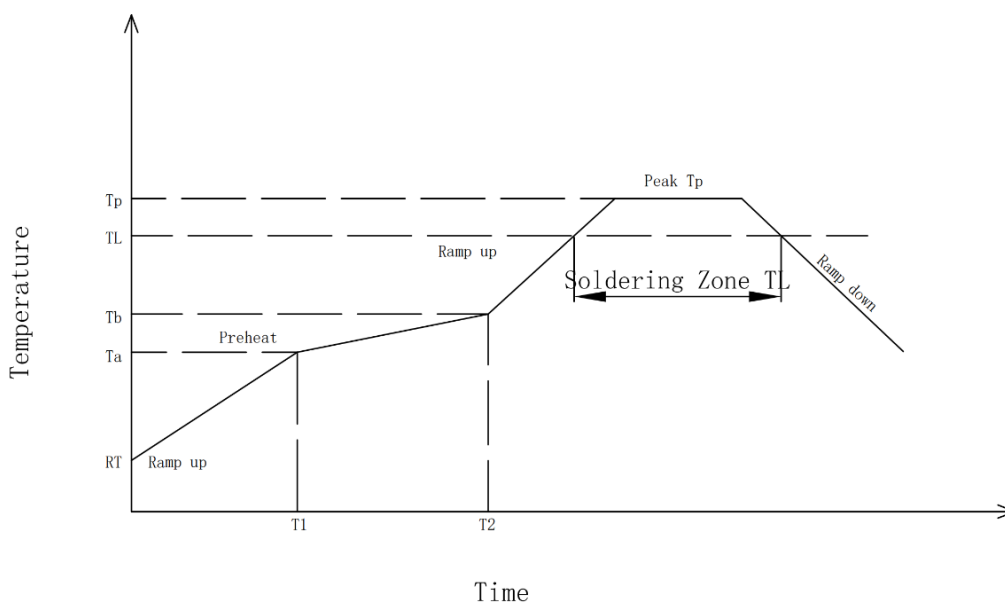
Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$

## 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): 245°C(+0/-5°C)  
 Max Time (Tp):5s

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

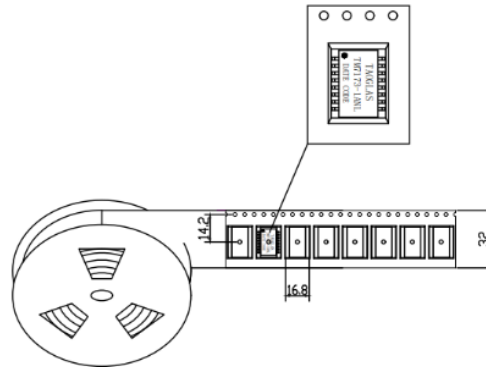
## 5. Packaging

### 5.1 SPQ

1 reel = 400 pcs

Reel (mm) = 32x16.8x14.2

Weight = 1 kg



### 5.2 Carton

1 Carton = 4 reels = 1600 pcs

Carton dimensions: 370\*370\*250 mm

Carton Weight: 5.55 kg



### 5.3 Label

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

SPQ Label (8x4cm)

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

Carton Label (8x4cm)

# Changelog

Changelog for the datasheet

**SPE-23-8-374 – TM7173-1ANL**

**Revision: A (Original First Release)**

Date:	2024-01-01
Notes:	
Author:	Javier Vasena

**Previous Revisions**






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