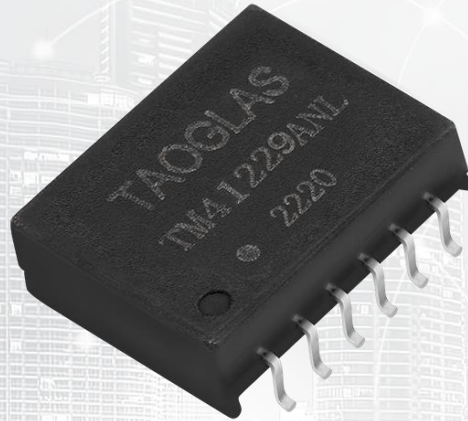




# TAOGLAS®



# Datasheet

## LAN Transformer 10/100 Base-T

**Part No:**  
TM41229ANL

**Description:**

10/100 Base-T transformer  
Single Port and 12pin SMT

**Features:**

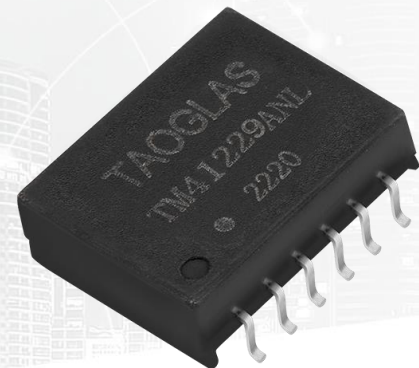
Industrial grade  
RoHS & REACH Compliant

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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 TM41229ANL is a 10/100 Base-T Single Port of 12pin with Transformer and Common Mode Choke to offer better EMI performance.

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	150μH MIN @ 100KHz 0.1V 8mA DC Bias
Turns Ratio (±3%)	TX=1CT: 1CT      RX=1CT: 1CT
Creepage Distance	>10 mm
Primary Leakage	0.5uH Max @ 100Khz, 0.1Vrms
Cw/w	35pF Max. Primary to Secondary
DCR	Primary: 0.45Ω Max, Secondary: 0.85Ω Max
Insertion Loss	0.25dB MAX @ 4Mhz
Return Loss (Z OUT = 100 OHM ±1%)	20dB MIN @ 4Mhz
Crosstalk Adjacent Channels	-50dB MIN @ 4Mhz
Common Mode Rejection Ratio	-35dB MIN @ 1-10Mhz
	-20dB MIN @ 10-1000Mhz
Hi-Pot	1500VAC

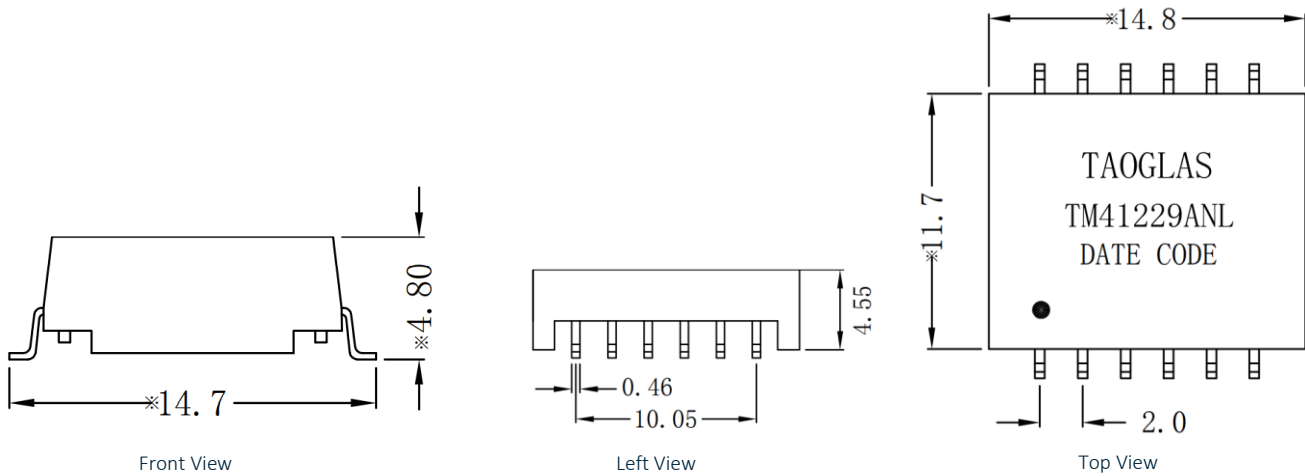
Environmental Specifications	
Operating Temperature	-40°C TO +85°C

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

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

### 3. Mechanical

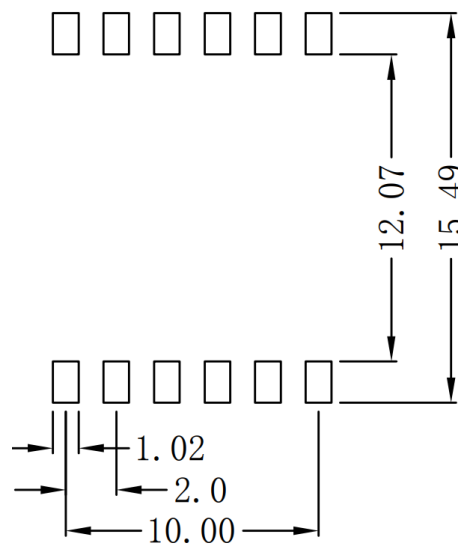
#### 3.1 Mechanical Drawings



Mechanical Specifications	
Length	14.8 mm
Width	14.7 mm
Height	4.80 mm
Mounting Style	Surface Mount (SMT)

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

#### 3.2 Pad Layout

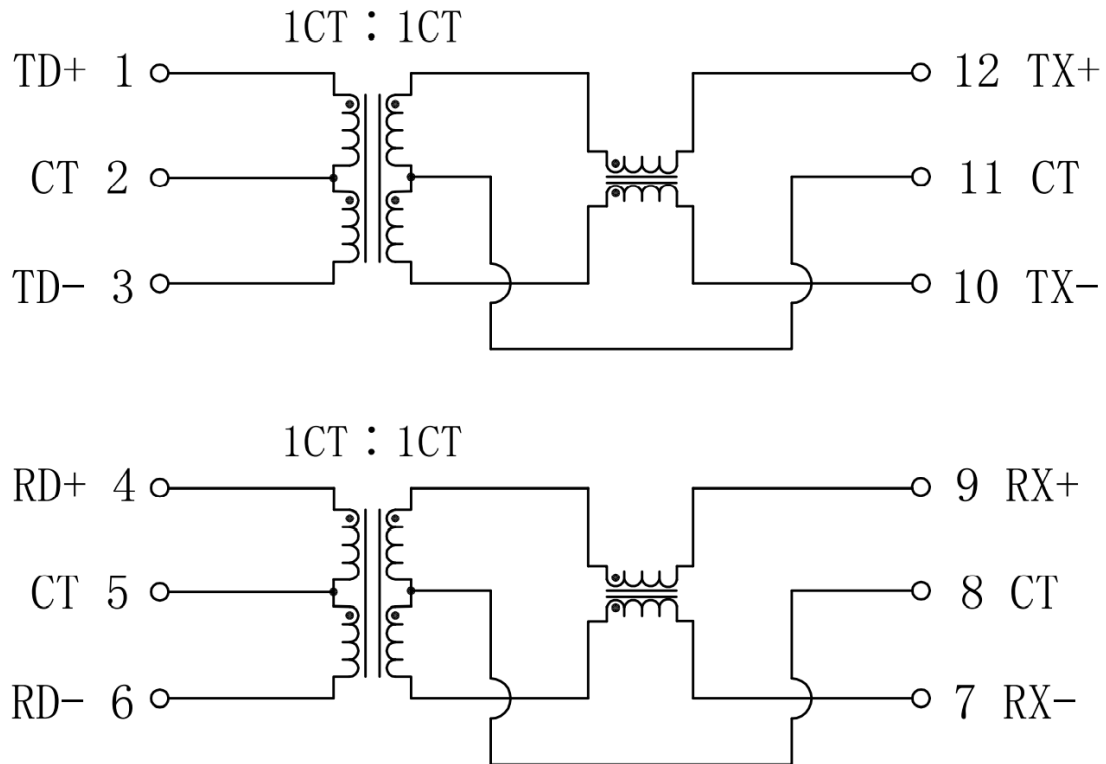


Suggested pad layout

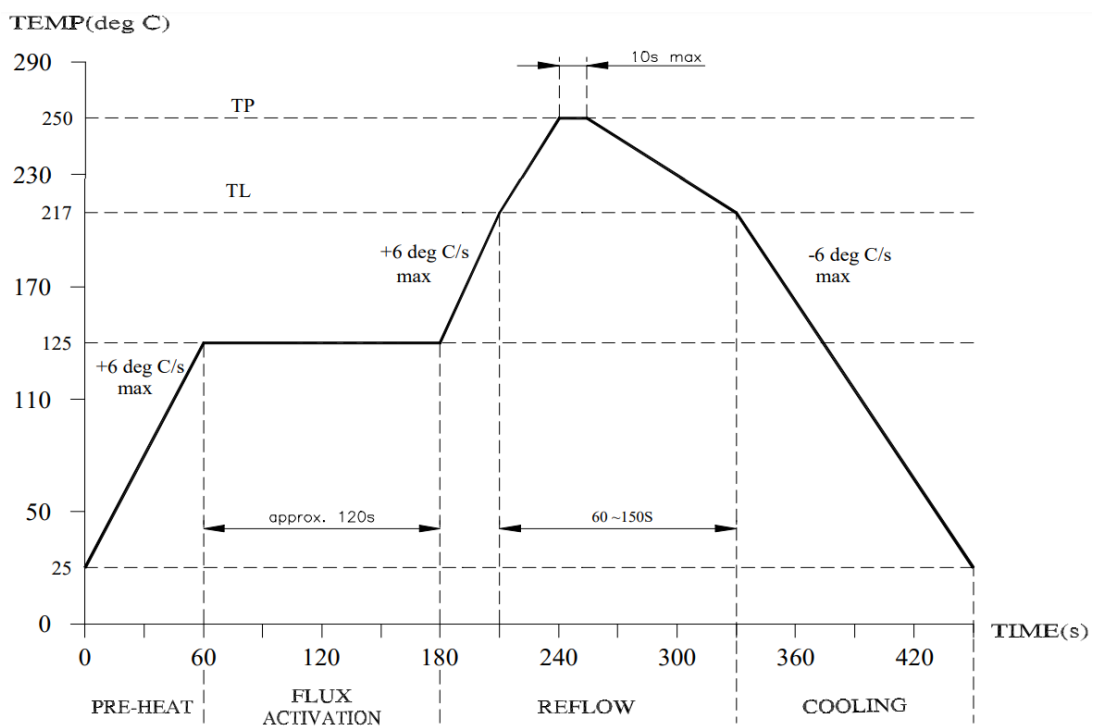
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

## 4. Electrical

### 4.1 Electrical Drawings



### 4.2 Profile of Reflow Solder



## 5. Packaging and Storage

### 5.1 SPQ

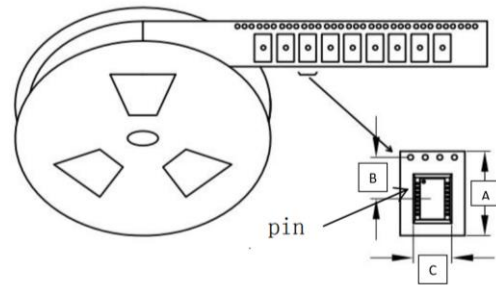
600 pcs/reel

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

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

C (Cavity width):  $15.3 \pm 0.2$  mm

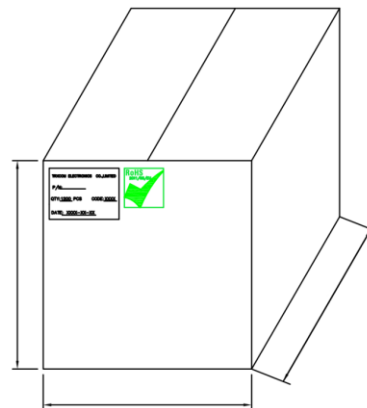
Reel weight: 1000 g



1CTN = 6 reels = 3600 pcs

Carton dimensions: 370\*370\*250mm

Carton Weight: 6 kg



# Changelog

Changelog for the datasheet

**SPE-22-8-040 – TM41229ANL**

**Revision: B**

Date:	2023-04-27
Notes:	Change from BMS Transformer class to LAN Transformer 10/100 Base-T
Author:	Javier Vasena

**Previous Revisions**

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

Date:	2022-11-08
Notes:	
Author:	Javier Vasena