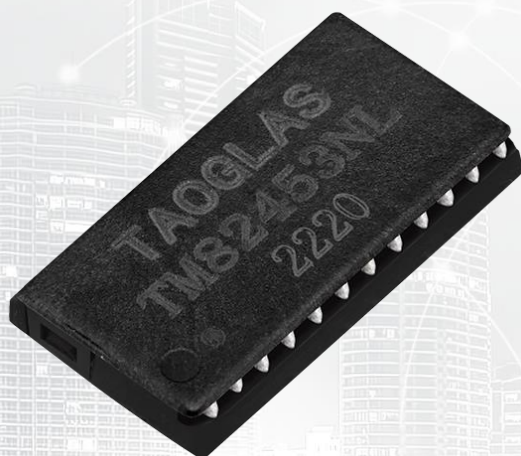




TAOGLAS®



Datasheet

LAN Transformer 1G Base-T PCMCIA

Part No:
TM82453NL

Description:

1000 Base-T/1G transformer
Single Port and 24pin SMT with low-profile PCMCIA

Features:

AutoMDIX
PCMCIA
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 TM82453NL is an LAN Transformer 1GBase-T Single Port of 24pin suitable of AutoMDIX feature.

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	350μH MIN @ 100KHz 0.1V 8mA DC Bias	
Turns Ratio (±3%)	TX=1CT: 1CT	RX=1CT: 1CT
Insertion Loss	-1dB MAX @ 0.3-100Mhz	
Return Loss	-18dB MIN @ 0.3-30Mhz	
	-15.5dB MIN @ 40Mhz	
	-13.5dB MIN @ 50Mhz	
	-10dB MIN @ 60-80Mhz	
Cross talk	-38dB MIN @ 0.3-100Mhz	
DCMR	-43dB MIN @ 30Mhz	
	-37dB MIN @ 60Mhz	
	-33dB MIN @ 100Mhz	
Hi-Pot	1500Vrms	

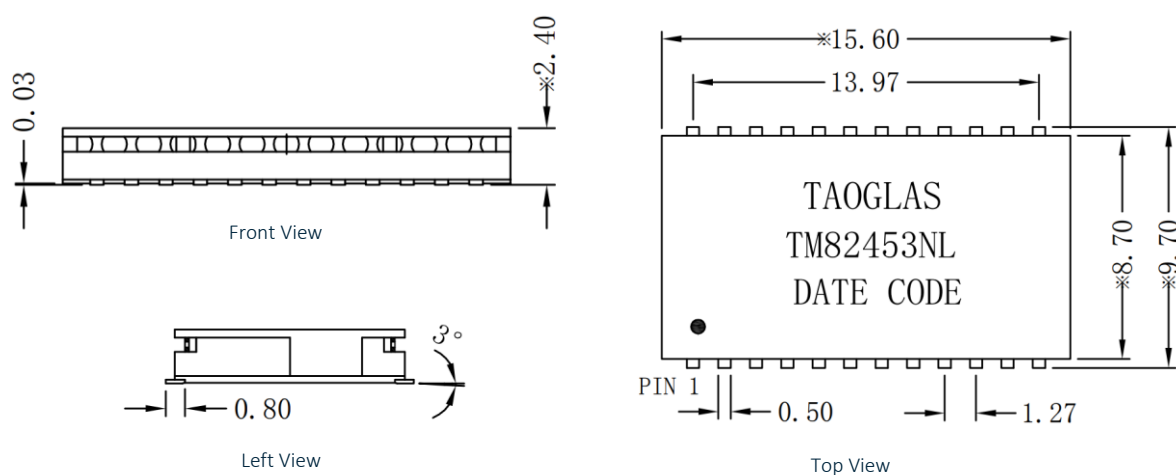
Environmental Specifications	
Operating Temperature	0°C TO +70°C

Compliance
UL recognized - FILE NO. E528697
RoHS Compliant

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

3. Mechanical

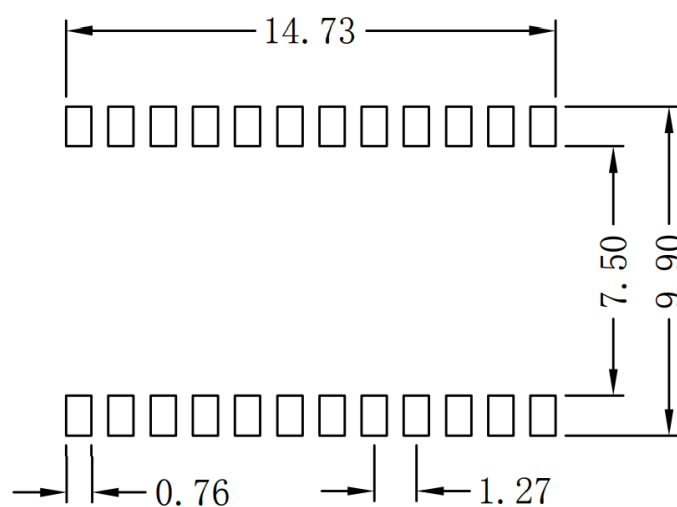
3.1 Mechanical Drawings



Mechanical Specifications	
Length	15.60 mm
Width	9.70 mm
Height	2.40 mm
Mounting Style	Surface Mount (SMT)

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

3.2 Pad Layout

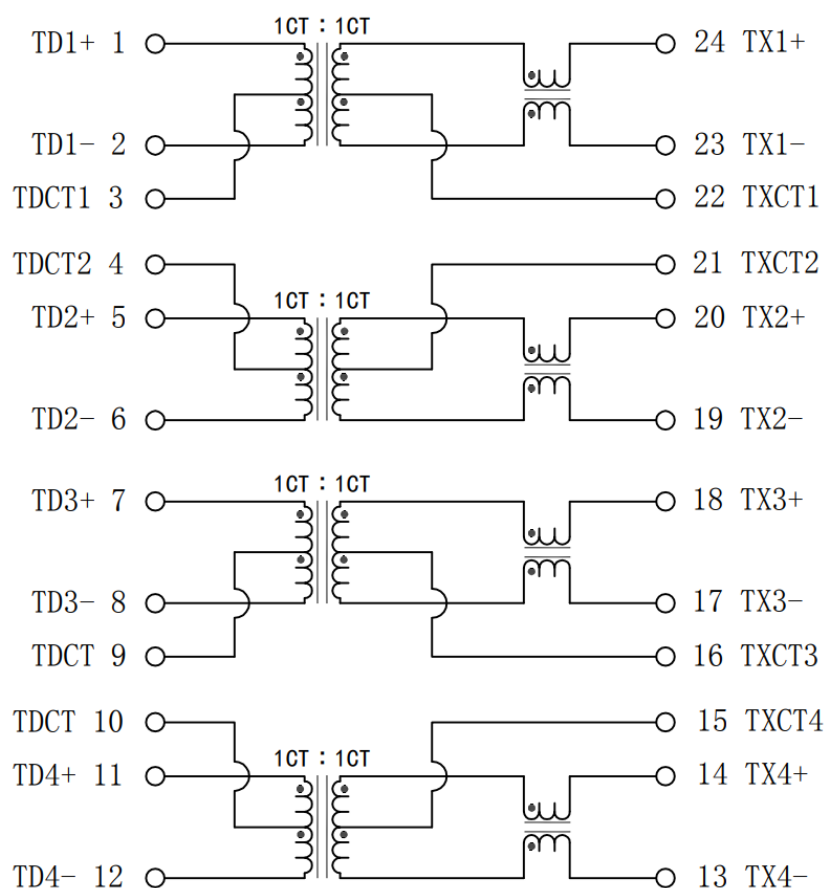


Suggested Pad Layout

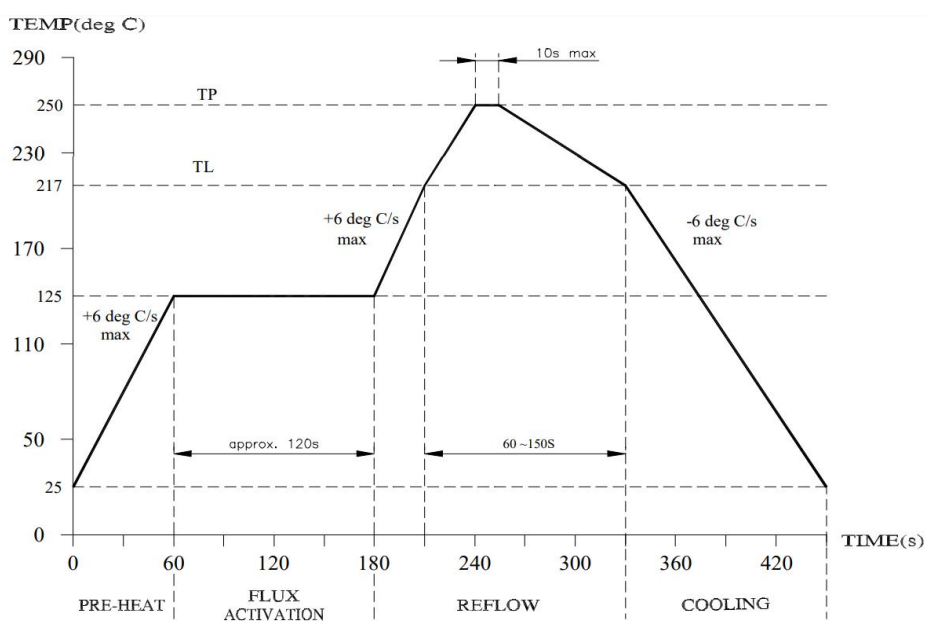
Dimensions are in millimeters with the following tolerances: X.XX = ± 0.10

4. Electrical

4.1 Electrical Drawings



4.2 Profile of Reflow Solder



5. Packaging and Storage

5.1 SPQ

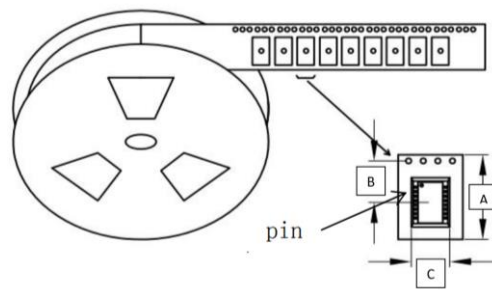
1400 pcs/reel

A (Carrier Tape Width): 24 ± 0.3 mm

B (Sprocket hole to Cavity center): 11.5 ± 0.2 mm

C (Cavity width): 10.3 ± 0.2 mm

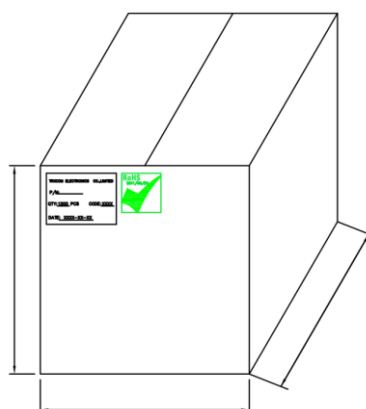
Reel weight: 1350g



1CTN = 6 reels = 8400 pcs

Carton dimensions: 370*370*250mm

Carton Weight: 8kg



Changelog

Changelog for the datasheet

SPE-22-8-064 – TM82453NL

Revision: D	
Date:	2024-06-20
Notes:	PoE update
Author:	Javier Vasena

Previous Revisions

Revision: A (Original First Release)	
Date:	2022-11-08
Notes:	
Author:	Javier Vasena

Revision: C	
Date:	2024-06-18
Notes:	Dimensions update
Author:	Javier Vasena

Revision: B	
Date:	2024-05-25
Notes:	
Author:	Javier Vasena



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