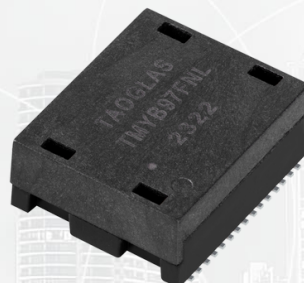
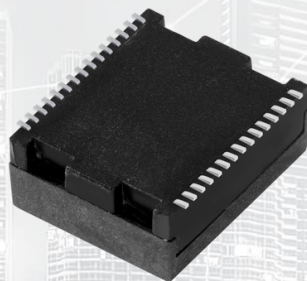




TAOGLAS®



Datasheet

LAN Transformer 10G Base-T PoE Ultra

Part No:
TMYB97FNL

Description:

10G Base-T transformer
Single Port and 30pin SMT with PoE Ultra

Features:

PoE Ultra (1000mA)
3Wire + Transformer
RoHS Compliant

1.	Introduction	3
2.	Specifications	4
3.	Mechanical	5
4.	Electrical	6
5.	Packaging	7
	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 TMYB97FNL is a LAN Transformer 10GBase-T Single Port of 30pins that is capable PoE Ultra (1000mA) 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)	180uH MIN
Turns Ratio (±5%)	1CT: 1CT
Insertion Loss (dB MAX)	-1.1dB (1-250MHz)
	-1.5dB (250-500MHz)
Return Loss (dB MIN)	-22dB (1-40MHz)
	-12 + 21.6*log10(f/400) dB (40-500MHz)
Crosstalk (dB MIN)	-35dB (1-100MHz)
	-30dB (100-500MHz)
CMR (dB MIN)	-17dB (1-250MHz)
	-13dB (250-500MHz)
POE applications current capability	1000mA
Current Rating	PINS1-15:300mA Min
	PINS: 18,21,24,27,30:1000mA Min
	PINS 16,17,19,20,22,23,25,26,28,29:600mA min
Hi-Pot	1500Vrms

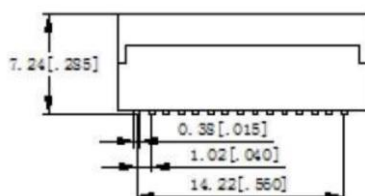
Environmental Specifications	
Operating Temperature	0°C TO +70°C

Compliance	
RoHS Compliant	

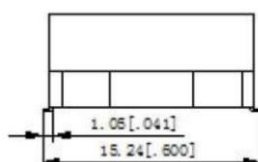
Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +125°C

3. Mechanical

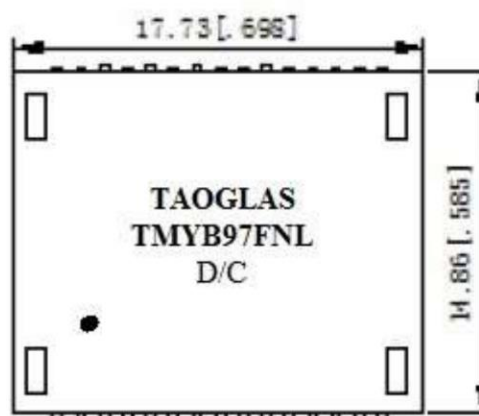
3.1 Mechanical Drawings



Front View



Left View



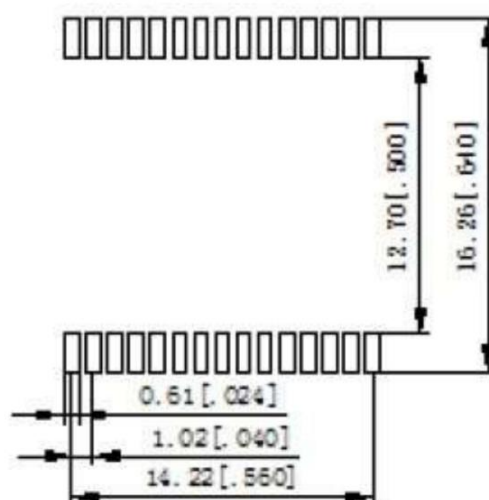
Top View

Mechanical Specifications

Length	17.73 mm
Width	14.86 mm
Height	7.24 mm
Mounting Style	Surface Mount (SMT)

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

3.2 Pad Layout

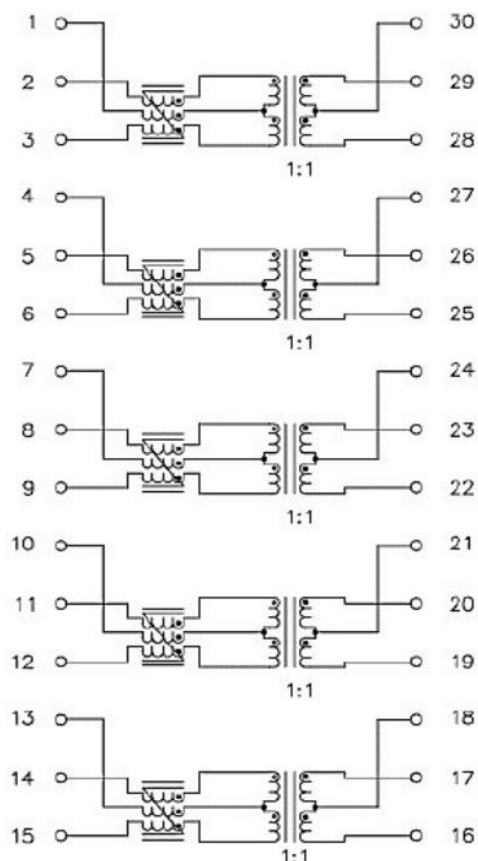


Suggested pad layout

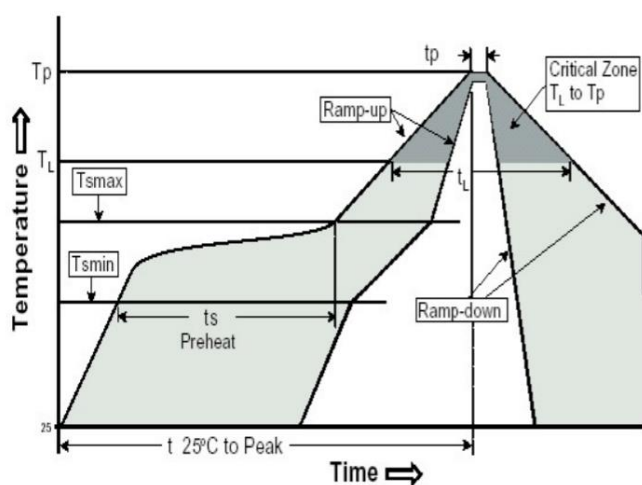
Dimensions are in millimeters with the following tolerances: X.XX = ± 0.10

4. Electrical

4.1 Electrical Drawings



4.2 Profile of Reflow Solder



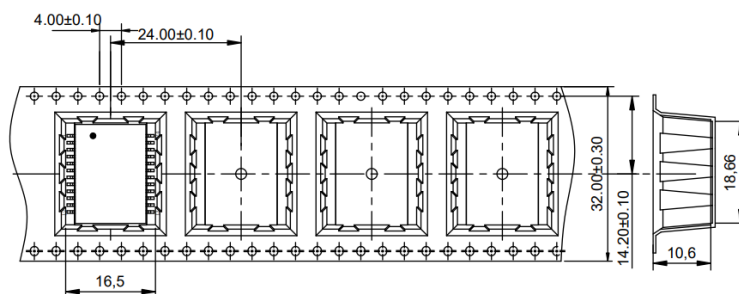
Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ($T_{s_{min}}$ to T_p)	3°C /second max.
Preheat -Temperature Min ($T_{s_{min}}$) -Temperature Max ($T_{s_{max}}$) -Time ($t_{s_{min}}$ to $t_{s_{max}}$)	150°C 200°C 60-120 seconds
Time maintained above: -Temperature (T_l) -Time (t_l)	217°C 60-150 seconds
Peak/Classification Temperature (T_p)	240°C MAX
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-Down Rate	6°C/seconds max
Time 25°C to Peak Temperature	6minutes max.

5. Packaging

5.1 SPQ

1 reel = 250 pcs

Weight: 4.8g/pcs



1 Carton = 8 reels = 2000 pcs

Carton dimensions: 365*365*350 mm

Carton Weight: 13.66 kg



5.2 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-23-8-151 – TMYB97FNL

Revision: B	
Date:	2024-06-06
Notes:	Current rating update
Author:	Javier Vasena

Previous Revisions

Revision: A (Original First Release)	
Date:	2023-07-01
Notes:	
Author:	Javier Vasena



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