

# 100/1000 Base-T Single Port LAN Transformer w/ PoE+ Extended Temperature

**ALAN-2301**

**RoHS/RoHS II Compliant**



17.50 x 15.60 x 5.40mm

## FEATURES:

- Meet IEEE802.3 specification
- Power Over Ethernet(PoE+)IEEE802.3at compliant performance
- Extended Temperature (-40°C - +85°C)
- ROHS peak reflow temperature rating 245°C
- 1500Vrms Hi-Pot

## APPLICATIONS:

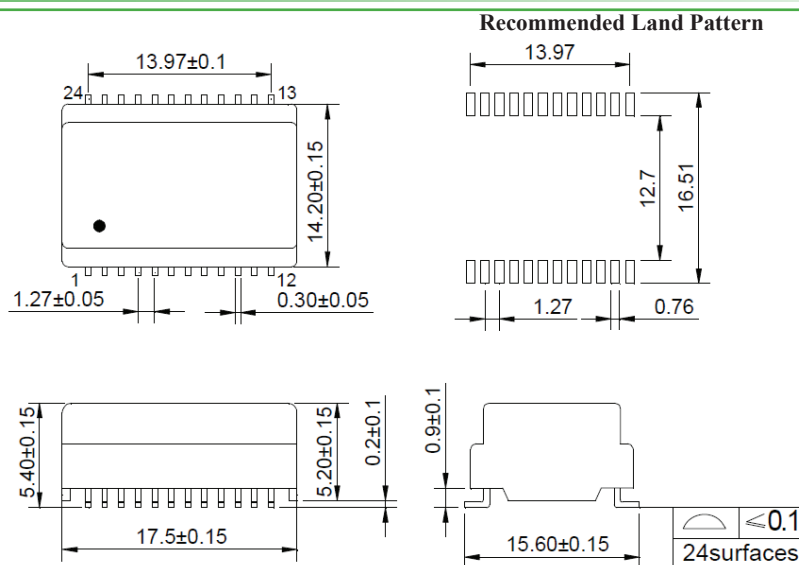
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 1000Base-T Ethernet-LAN
- PoE+ Capabilities
- Symmetrical Tx & RX channels for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC Cards

## STANDARD SPECIFICATIONS:

### Key Electrical Specifications @ 25°C

Parameters	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		+85	°C	
Storage Temperature	-40		+85	°C	
Turn Ratio (± 5%)		1CT:1CT			
Inductance (OCL)	350			μH	100KHz/0.1V@8mA
Leakage Inductance (LL)			0.5	μH	100KHz/0.1V
Cw/w			30	pF	100KHz/0.1V
DC Resistance			1.2	Ω	
Insertion Loss			-1.1	dB	1-100MHz
Return Loss	-18			dB	1-30MHz
	-16				40MHz
	-13				50MHz
	-12				60-80MHz
Cross Talk		-30		dB	1-100MHz
Differential to Common Mode Rejection	-30			dB	1-100MHz
Common Mode Rejection	-30			dB	1-100MHz
PoE Current Capacity			600	mA	
Hi-Pot	1500Vrms				

## OUTLINE DIMENSIONS:



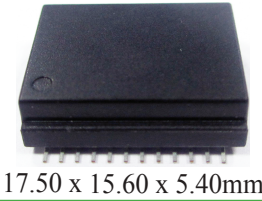
Dimensions: mm (Unless otherwise specified, tolerances are ±0.25)

Dimension: mm

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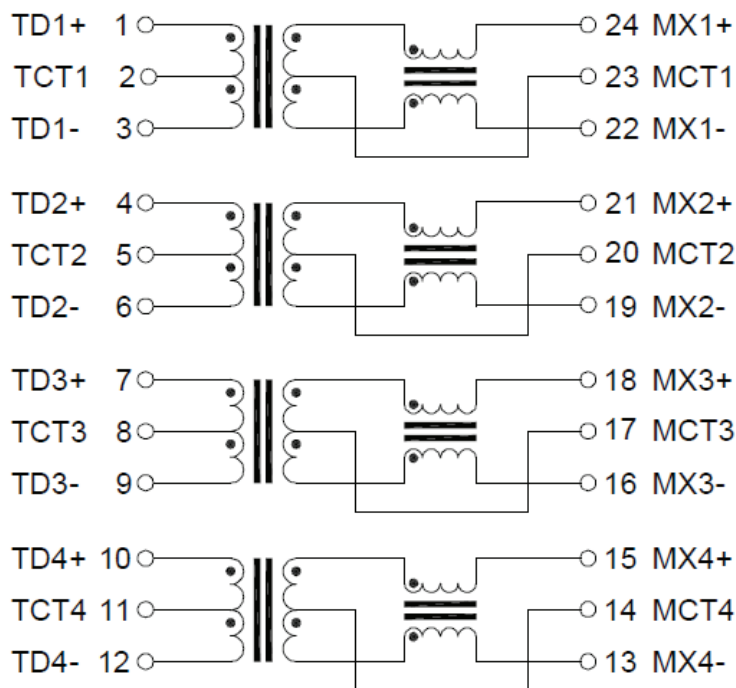


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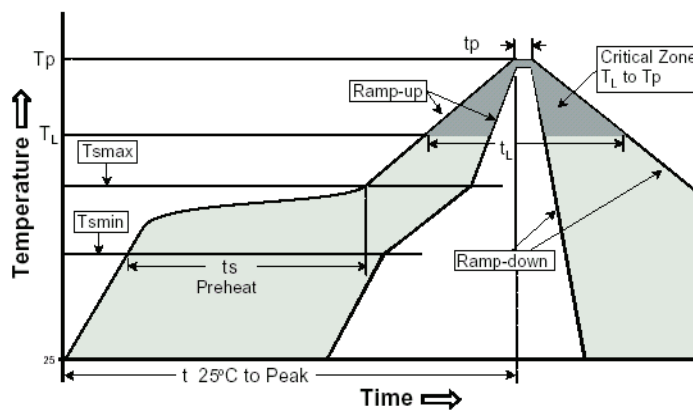
RoHS/RoHS II Compliant

17.50 x 15.60 x 5.40mm

## SCHEMATICS

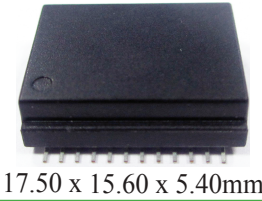


## REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ( $T_{s\ max}$ to $T_p$ )	3°C /second max.
Preheat	
-Temperature Min ( $T_{s\ min}$ )	150°C
-Temperature Max ( $T_{s\ max}$ )	200°C
-Time ( $t_{s\ min}$ to $t_{s\ max}$ )	60-120 seconds
<b>Time maintained above:</b>	
-Temperature ( $T_L$ )	217°C
-Time ( $t_L$ )	60-150 seconds
Peak/Classification Temperature ( $T_p$ )	245+0/-5°C
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	8 minutes max.

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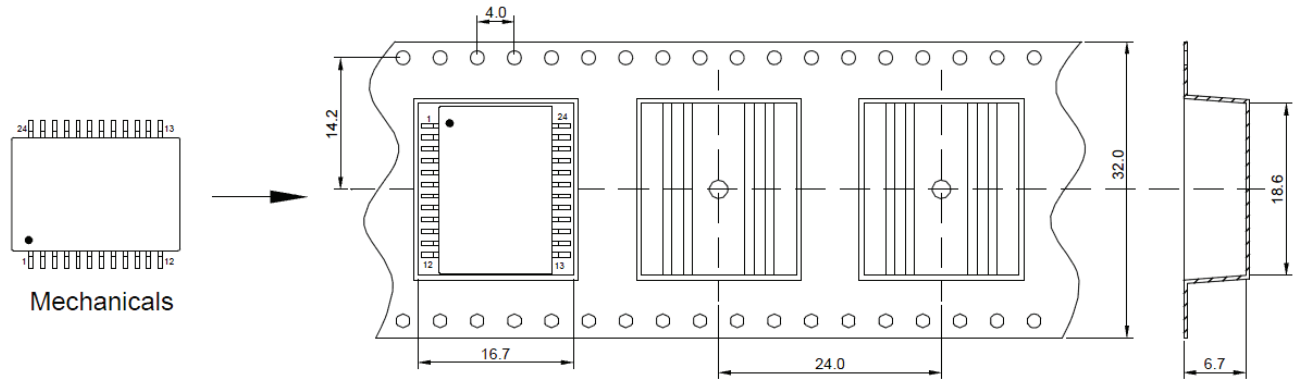
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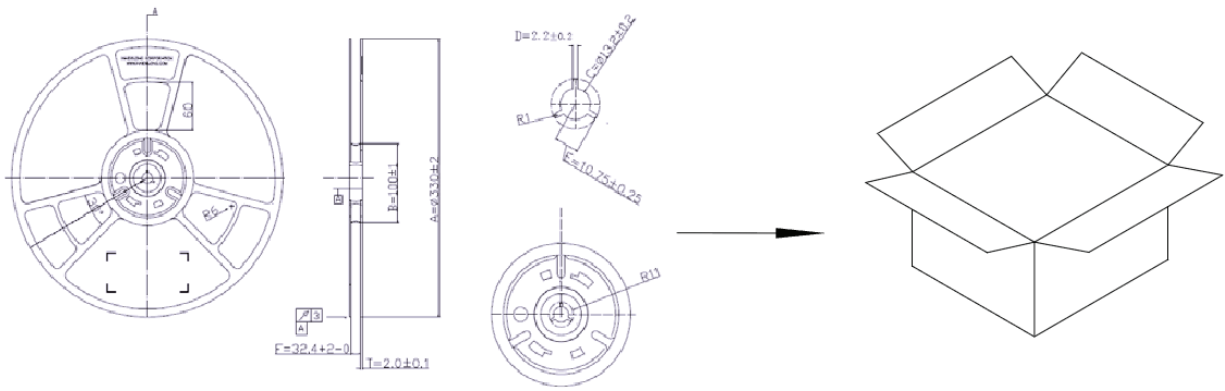
RoHS/RoHS II Compliant

## TAPE & REEL:

**Packing :** 400 pcs / reel  
**Weight** 2.1 grams / pcs

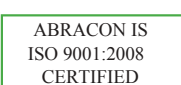


Tape & Reel



**Dimensions: mm**

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