

# 10/100 Base-T Single Port LAN Transformer w/ PoE Extended Temperature 3 Cores Solution



12.70 x 9.40 x 5.70mm

**ALAN-2201**

**RoHS/RoHS II Compliant**

## FEATURES:

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

## APPLICATIONS:

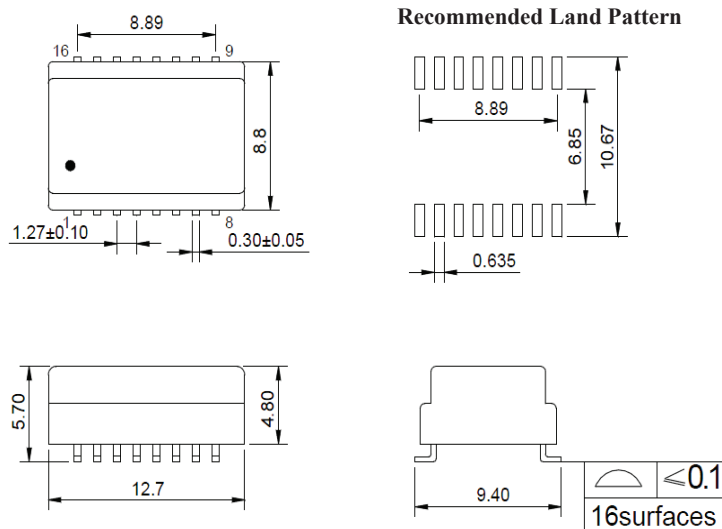
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP/PoE Capabilities
- Symmetrical Tx & RX channels for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC 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			350	mA	
Hi-Pot	1500Vrms				

## OUTLINE DIMENSIONS:



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

Dimension: mm

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ISO 9001:2008  
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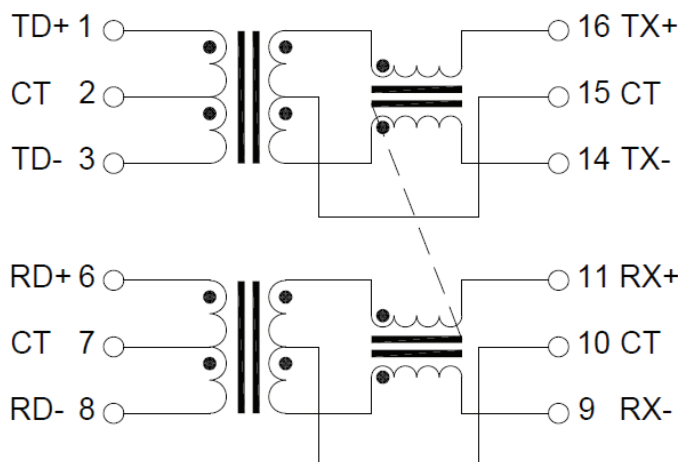
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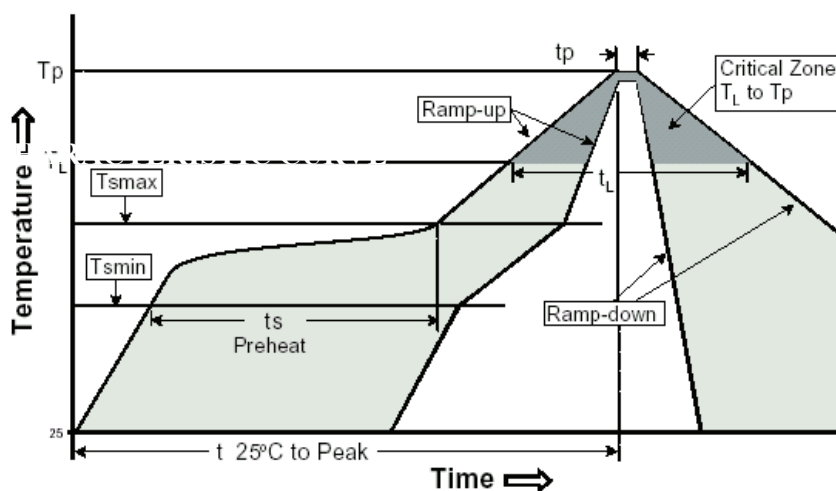


12.70 x 9.40 x 5.70mm

## SCHEMATICS



## REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T <sub>s max</sub> to T <sub>p</sub> )	3°C /second max.
Preheat -Temperature Min (T <sub>s min</sub> ) -Temperature Max (T <sub>s max</sub> ) -Time (t <sub>s min</sub> to t <sub>s max</sub> )	150°C 200°C 60-120 seconds
<b>Time maintained above:</b> -Temperature (T <sub>L</sub> ) -Time (t <sub>L</sub> )	217°C 60-150 seconds
Peak/Classification Temperature (T <sub>p</sub> )	245±5°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	20-40 seconds
Ramp-Down Rate	6°C /seconds max
Time 25°C to Peak Temperature	8 minutes max.

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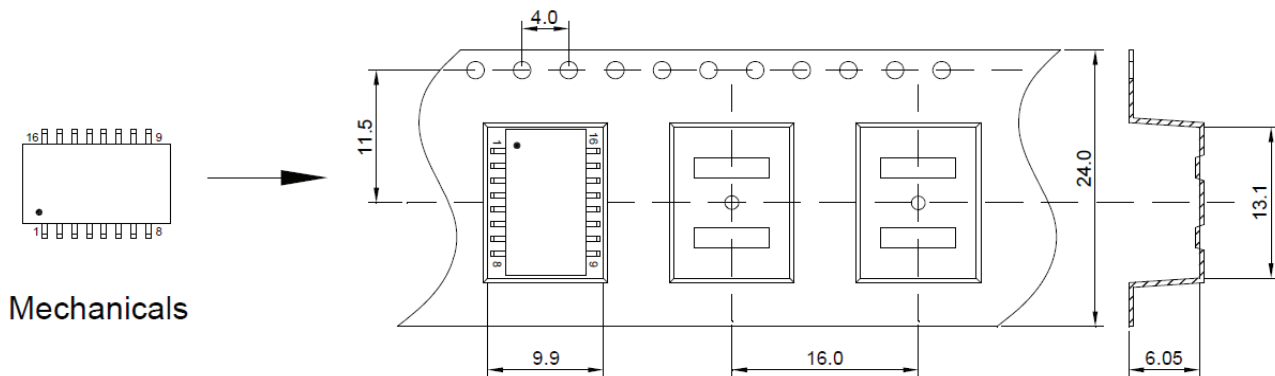
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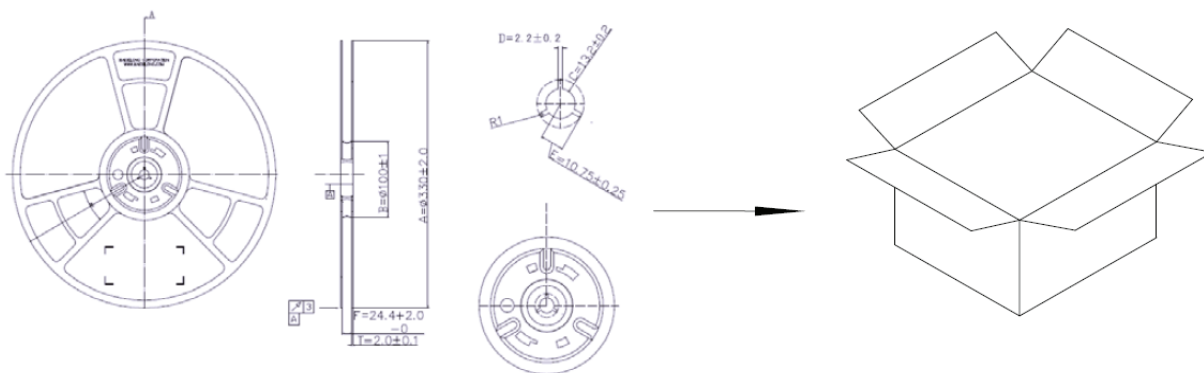
## TAPE & REEL:

**Packing Option I:** 700 pcs / reel  
**Weight:** 0.7 grams / pcs

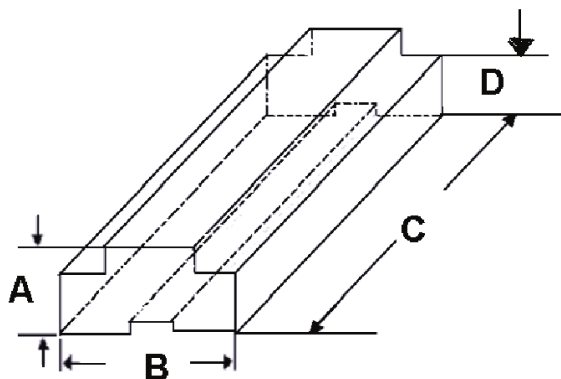


Mechanicals

Tape & Reel



**Packing Option II:** 36 pcs / tube  
**Weight:** 0.7 grams / pcs



A	B	C	D
9.20	13.70	485.0	6.0

**Dimensions: mm**

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