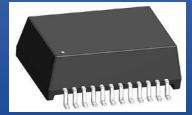


# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



ALANS10001



18.4 x 12.4 x 6.5 mm  
14.0 x 15.5 x 5.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

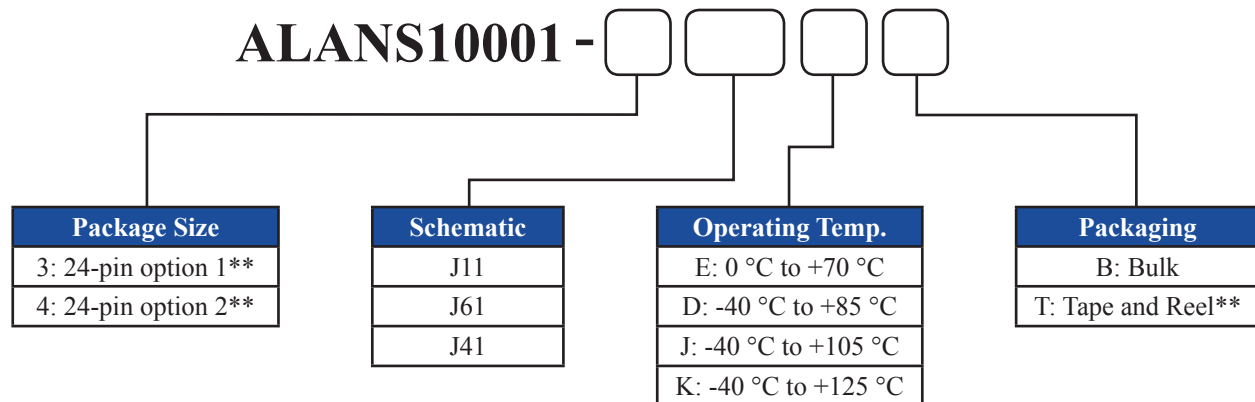
## Features

- Meets IEEE 802.3ab standards
- Compatible with 10 BASE-T, 100 BASE-TX and 1000 BASE-T
- Operating temperature range up to -40°C to +125°C
- RoHS Compliant
- High performance magnetics for EMI suppression and common mode noise rejection
- Multiple schematic and pinout options 0.99mm and 1.27mm pin pitch for the 24-pin package size
- 1CT:1CT TX and RX Transformers

## Applications

- Fast and gigabit Ethernet
- Servers, switches and routers
- IP cameras, surveillance, and phone
- Access points
- Industrial computers and robotics
- Networking and communications
- Broadcast video
- Set top box

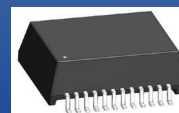
## Part Identification



\*\*Package size "3: 24-pin option 1": T= 400 pcs/reel

\*\*Package size "4: 24-pin option 2": T= 550 pcs/reel

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



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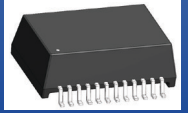
18.4 x 12.4 x 6.5 mm  
14.0 x 15.5 x 5.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Electrical Specifications at 25°C

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)				Crosstalk (dB Min)			CMRR (dB Min)			DCMR (dB Min)		
	0.1-100 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
ALANS10001-3J11	0.8	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-3J61	0.8	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-3J41	0.8	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-4J11	0.8	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-4J61	0.8	18	15	12	10	42	38	34	40	36	32	46	38	31
ALANS10001-4J41	0.8	18	15	12	10	42	38	34	40	36	32	46	38	31

Part Number	Inductance (uH Min)	Leakage Inductance (uH Max)	Interwinding Capacitance (pF Max)	DC Resistance (Ω Max)		Hi Pot (VDC)
	@100kHz, 0.1V, 8mA DC Bias	@100kHz, 0.1V TD to MX	@100kHz, 0.1V TD to MX	Primary	Secondary	0.5mA/6 sec.
ALANS10001-3J11	350	0.35	35	0.9	1.2	2500
ALANS10001-3J61	350	0.35	35	1.2	0.9	2500
ALANS10001-3J41	350	0.35	35	0.9	1.2	2500
ALANS10001-4J11	350	0.35	35	0.9	1.2	2500
ALANS10001-4J61	350	0.35	35	1.2	0.9	2500
ALANS10001-4J41	350	0.35	35	1.2	0.9	2500

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



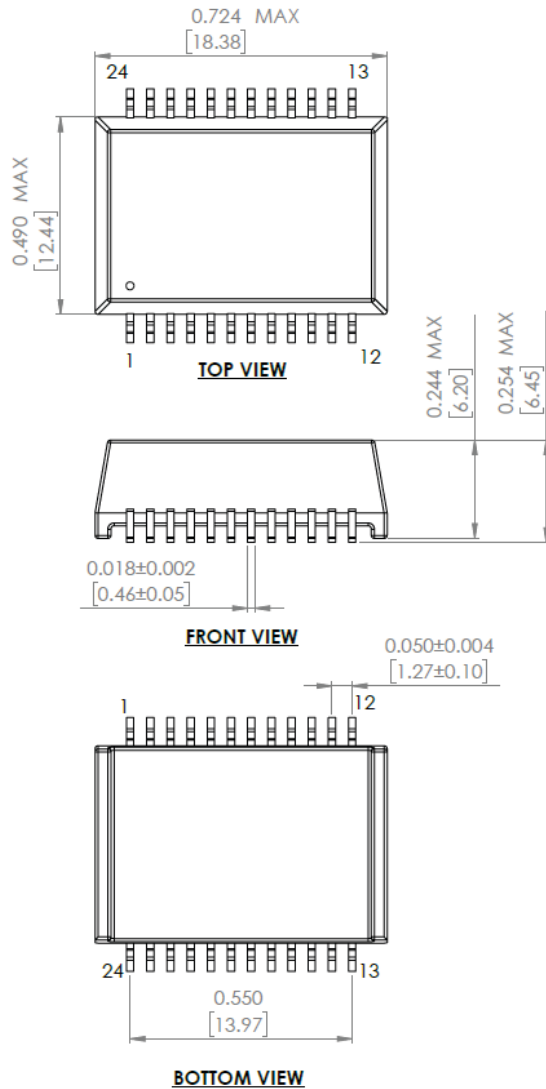
ALANS10001



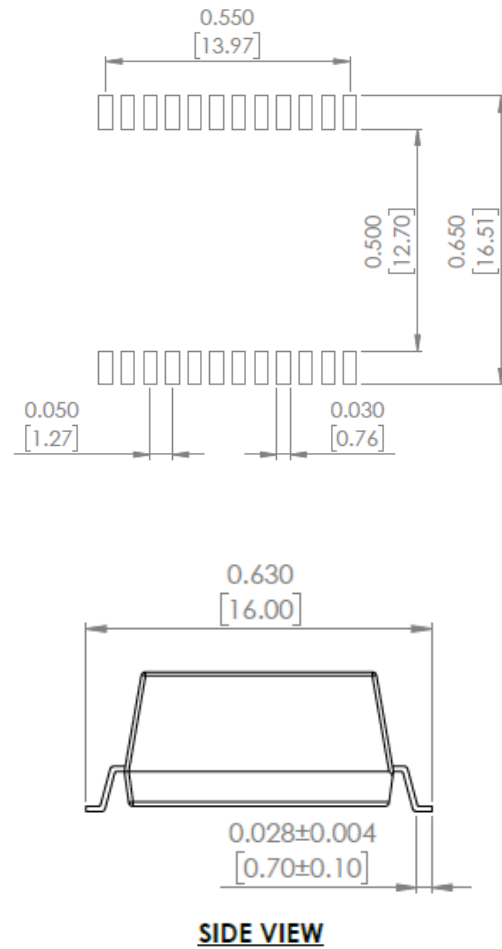
18.4 x 12.4 x 6.5 mm  
14.0 x 15.5 x 5.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

### 3: 24-pin option 1



### RECOMMENDED LAND PATTERN



Unless otherwise specified, all tolerances are ±0.25 in mm  
Dimensions: inch/ [mm]

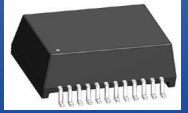


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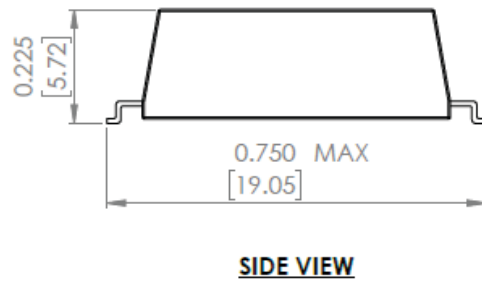
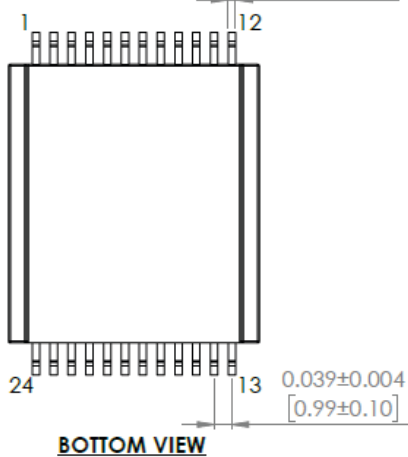
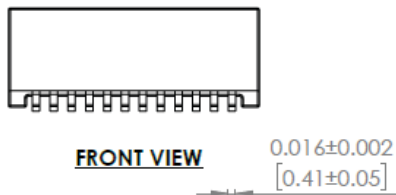
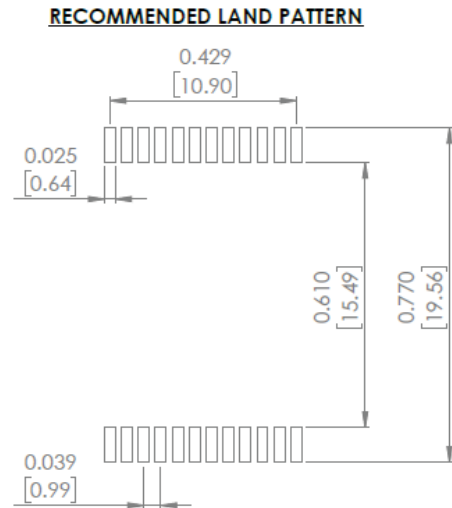
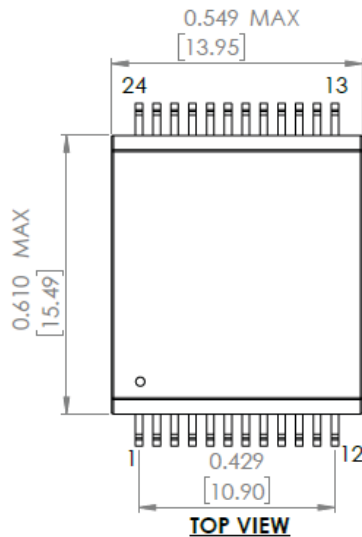
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14.0 x 15.5 x 5.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

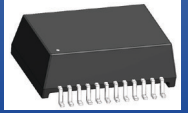
## Mechanical Dimensions

### 4: 24-pin option 2



Unless otherwise specified, all tolerances are  $\pm 0.25$  in mm  
Dimensions: inch/ [mm]

# 10/100/1000 BASE-T Single Port SMD LAN Transformer Module



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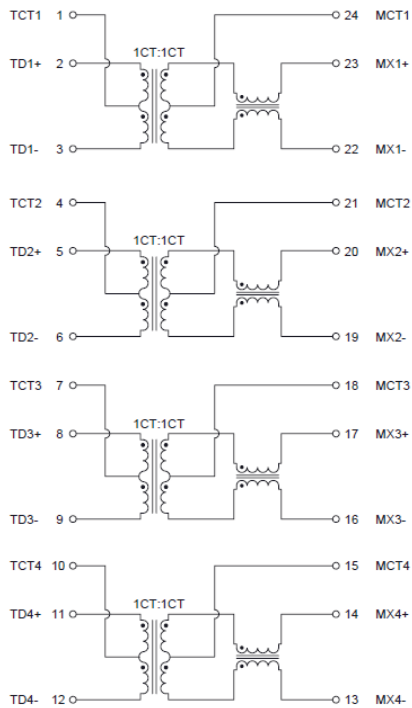


18.4 x 12.4 x 6.5 mm  
14.0 x 15.5 x 5.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

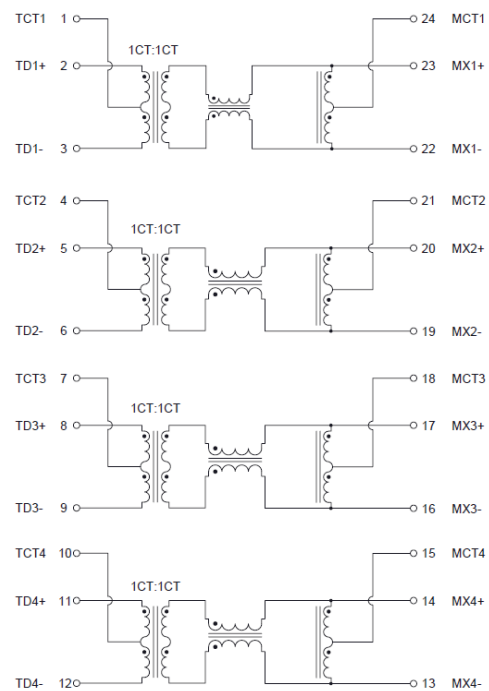
## Schematics

### 24-Pin

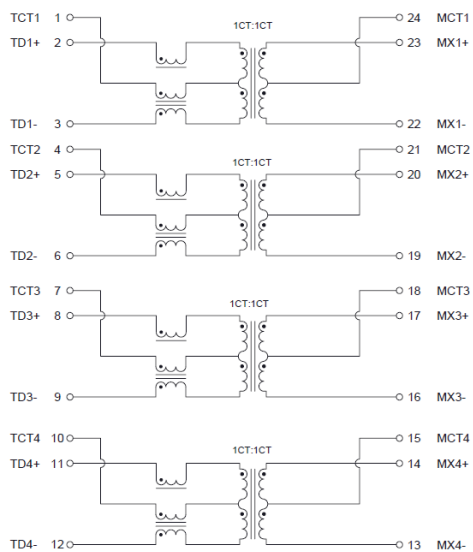
#### J11



#### J41



#### J61



Contact Abracon for additional options.

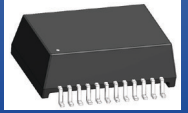


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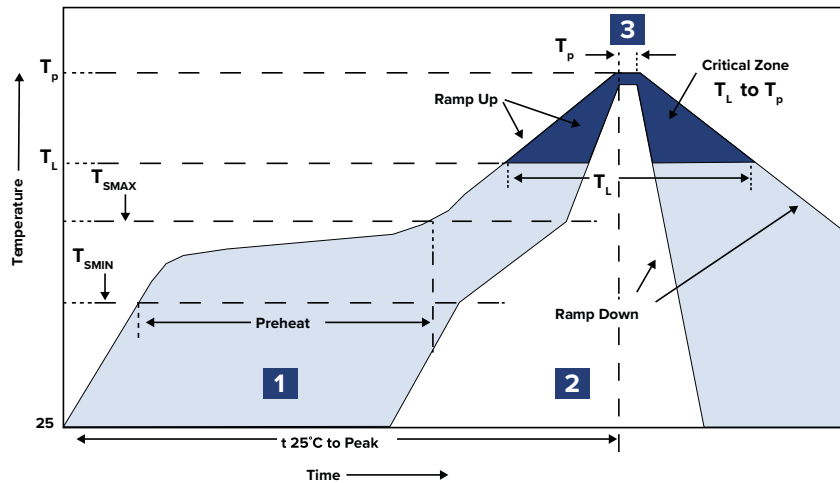


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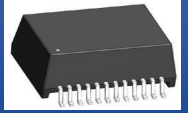
18.4 x 12.4 x 6.5 mm  
 14.0 x 15.5 x 5.7 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	30 ~ 40 sec.
3	Peak heat	$T_P$ 245°C±5°C	10 sec. MAX

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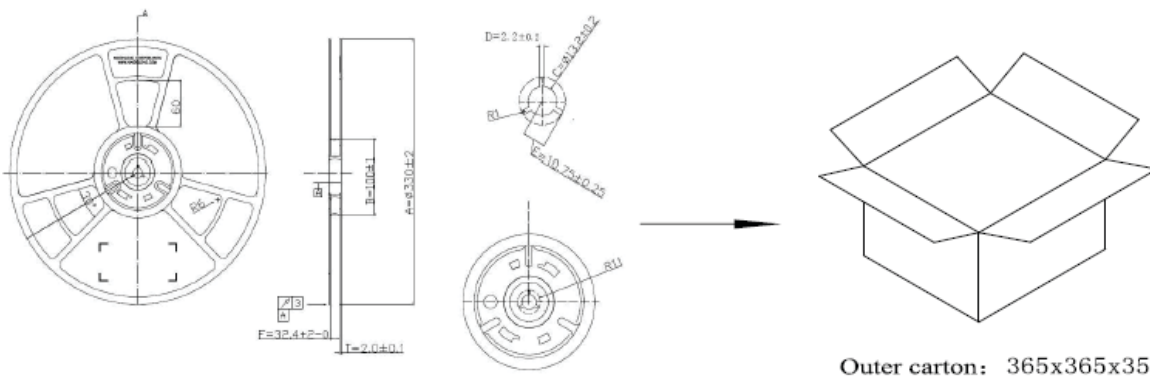
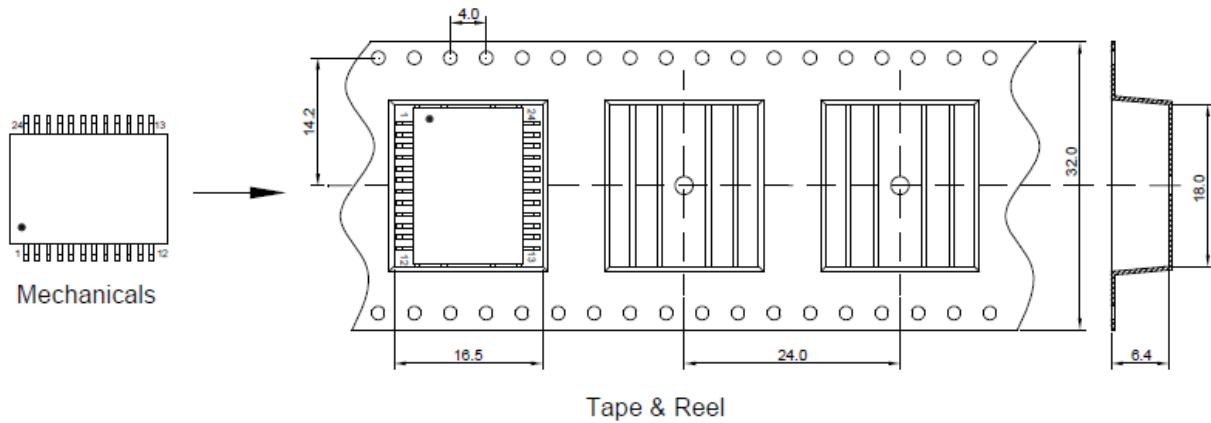


18.4 x 12.4 x 6.5 mm  
14.0 x 15.5 x 5.7 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Packaging

### Package size option 3:

Tape and Reel: 400 pcs/reel  
Pieces per Carton: 3200  
T&R per Carton: 8  
Weight per Carton: 13.6kg  
Weight per Piece: 2.65g



Dimensions: mm



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