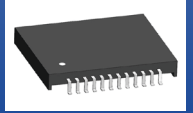


# 10/100/1000 BASE-T Low Profile SMD LAN Transformer Module



ALANL10001



19.8 x 16.6 x 2.5 mm  
RoHS/RoHS II Compliant  
MSL = 1

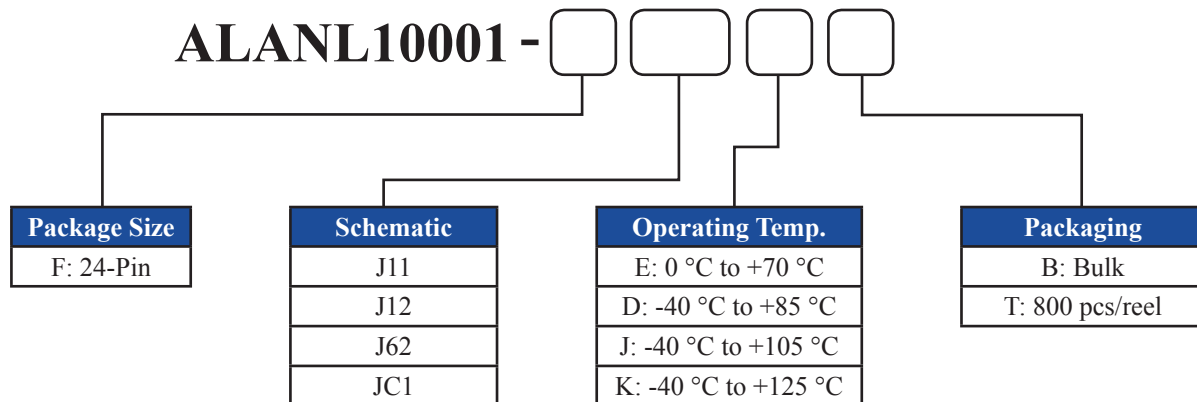
## Features

- Low Profile of 2.53 mm
- Meets IEEE 802.3ab standards
- Compatible with 10 BASE-T, 100 BASE-TX, and 1000 Base-T
- RoHS Compliant
- High performance magnetics for EMI suppression and common mode noise rejection
- 1CT:1CT TX and RX Transformers

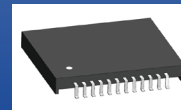
## Applications

- Fast and gigabit Ethernet
- IP cameras, surveillance, and IP phone
- Industrial computers and robotics
- PC Card and Cardbus

## Part Identification



# 10/100/1000 BASE-T Low Profile SMD LAN Transformer Module



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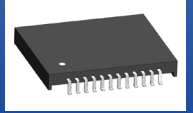
19.8 x 16.6 x 2.5 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Electrical Specifications at 25°C

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)				Crosstalk (dB Min)			CMRR (dB Min)			DCMR (dB Min)		
	0.5-100 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
ALANL10001-FJ11	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL10001-FJ12	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL10001-FJ62	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL10001-FJC1	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33

Part Number	Inductance (uH Min)	Leakage Inductance (uH Max)	Interwinding Capacitance (pF Max)	DC Resistance (Ω Max)		Hi Pot (Vrms)	Weight (g)
Test Condition	@100kHz, 0.2V, 8mA DC Bias	@100kHz, 0.2V TD to MX	@100kHz, 0.1V TD to MX	TD+ to TD-	MX+ to MX-	0.5mA/6 sec.	Per Piece
ALANL10001-FJ11	350	0.5	30	1.0	1.5	1500	1.2
ALANL10001-FJ12	350	0.5	30	1.0	1.5	1500	1.2
ALANL10001-FJ62	350	0.5	30	1.5	1.0	1500	1.2
ALANL10001-FJC1	350	0.5	30	1.0	1.5	1500	1.2

# 10/100/1000 BASE-T Low Profile SMD LAN Transformer Module



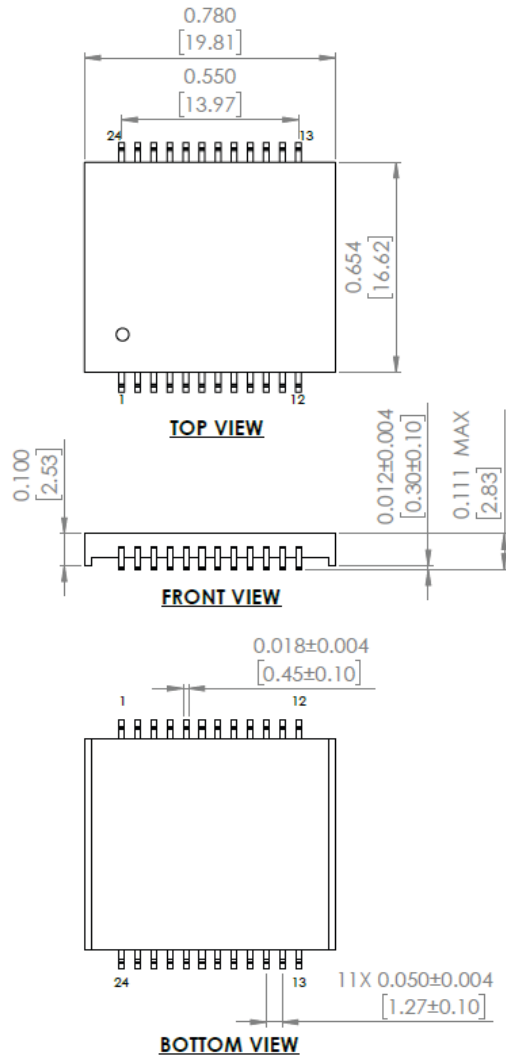
ALANL10001



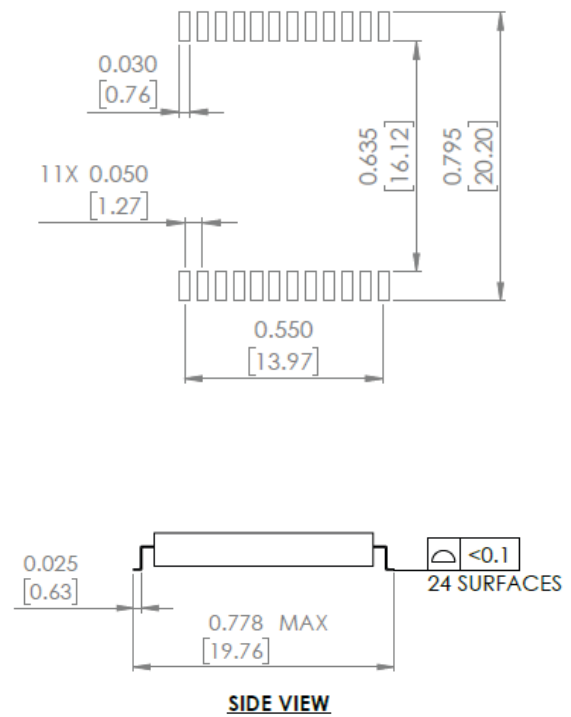
19.8 x 16.6 x 2.5 mm  
RoHS/RoHS II Compliant  
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## Mechanical Dimensions

### F: 24-pin Option 1



### RECOMMENDED LAND PATTERN



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

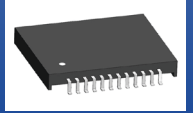


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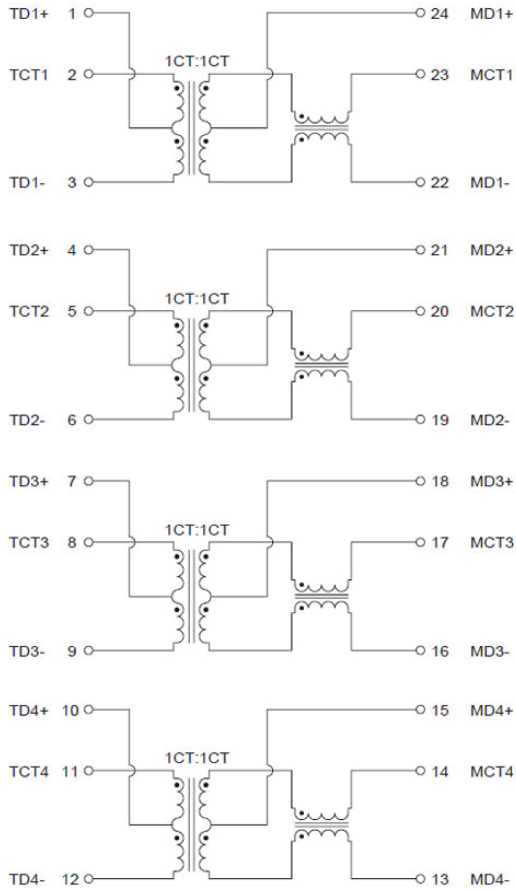


19.8 x 16.6 x 2.5 mm  
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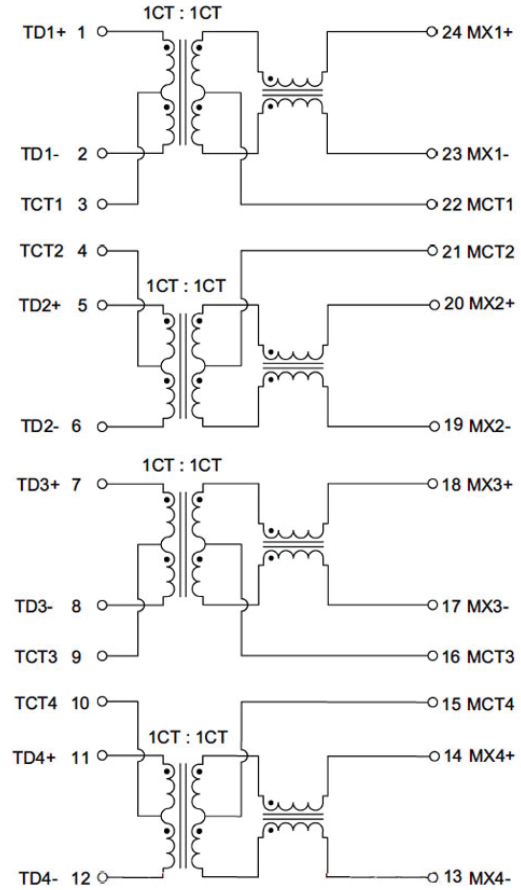
## Schematics

### 24-Pin

#### J11



#### J12



Contact Abracon for additional options.

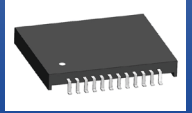


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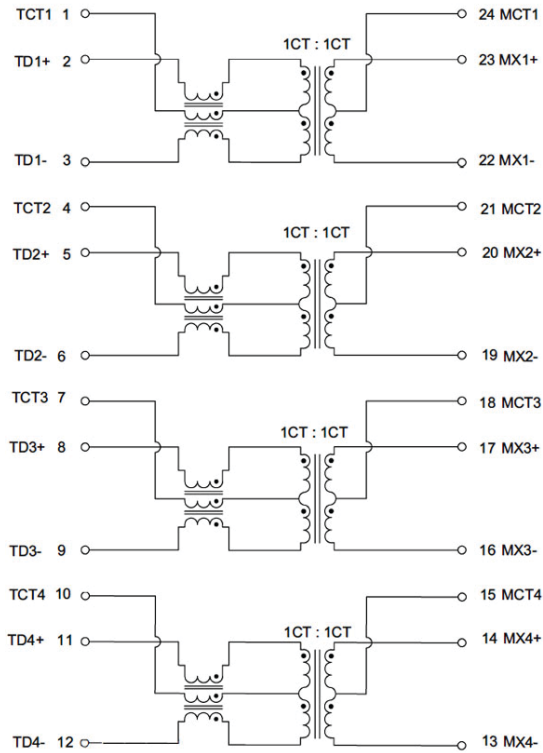


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MSL = 1

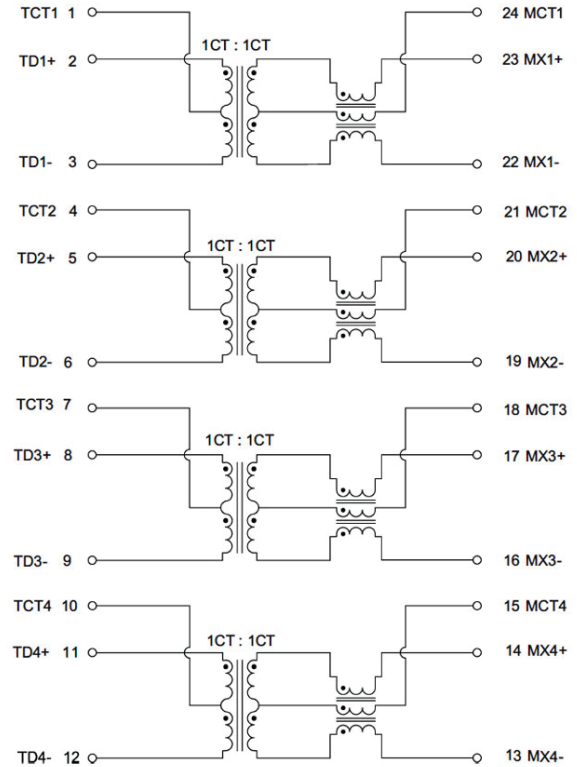
## Schematics

### 24-Pin

#### J62



#### JC1



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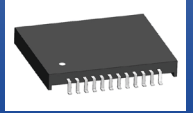


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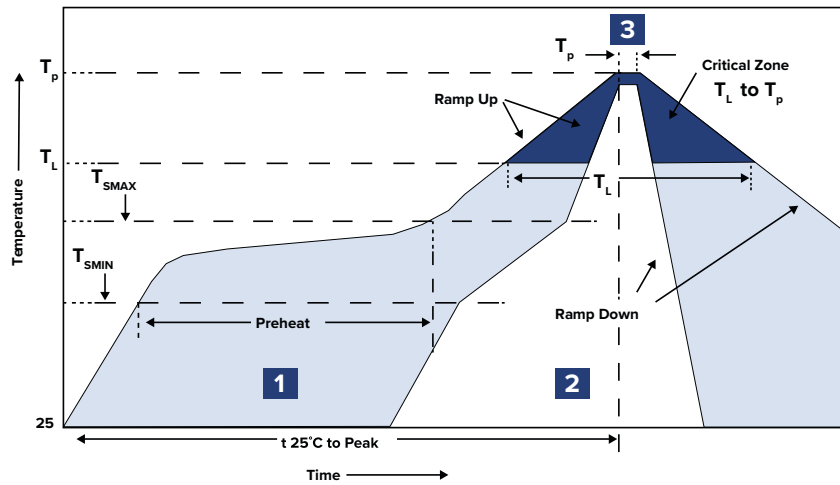


ALANL10001



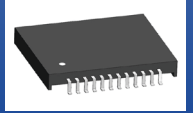
19.8 x 16.6 x 2.5 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ $150^{\circ}\text{C} \sim 200^{\circ}\text{C}$	60 ~ 180 sec.
2	Reflow	$T_L$ $245^{\circ}\text{C}$	20 ~ 40 sec.
3	Peak heat	$T_P$ $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$	10 sec. MAX

# 10/100/1000 BASE-T Low Profile SMD LAN Transformer Module



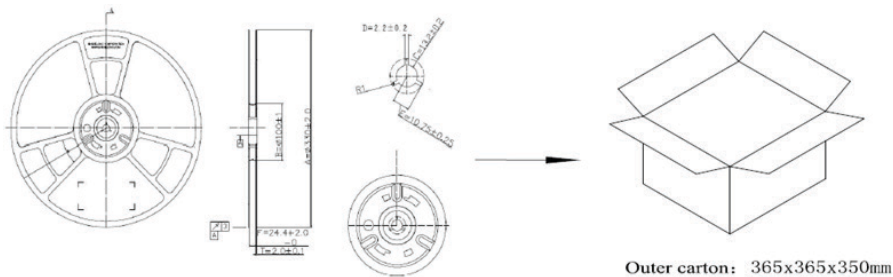
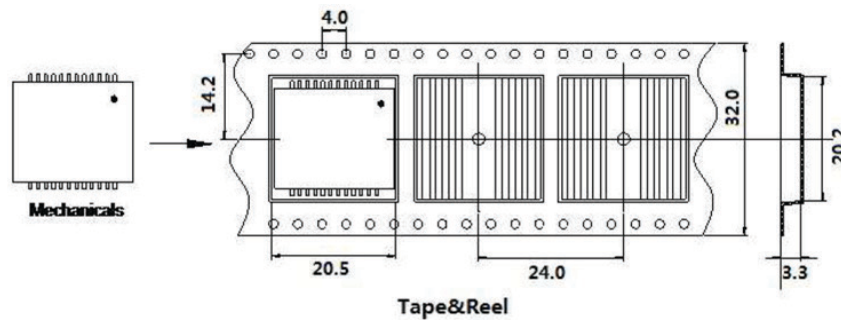
ALANL10001



19.8 x 16.6 x 2.5 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Packaging

Tape and Reel: 800 pcs  
Pieces per Carton: 6,400 pcs/box  
T&R per Carton: 8 T&R/box  
Weight per Carton: 11.5kg  
Weight per Piece: 1.2g



Dimensions: mm

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