

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



ALANM10001



16.0 x 10.0 x 5.0 mm  
17.0 x 16.0 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Features

- Uniform transformer windings
- Fully automated production lines
- Standard 0.99mm and 1.27mm pin pitch
- Meets IEEE 802.3ab standard
- Lead-less SMD construction resistant to tin whiskering
- Multiple schematic and pinout options
- High performance magnetics for EMI suppression and common mode noise rejection
- 5.0mm height

## Applications

### Communications

- Servers
- Switches
- Routers

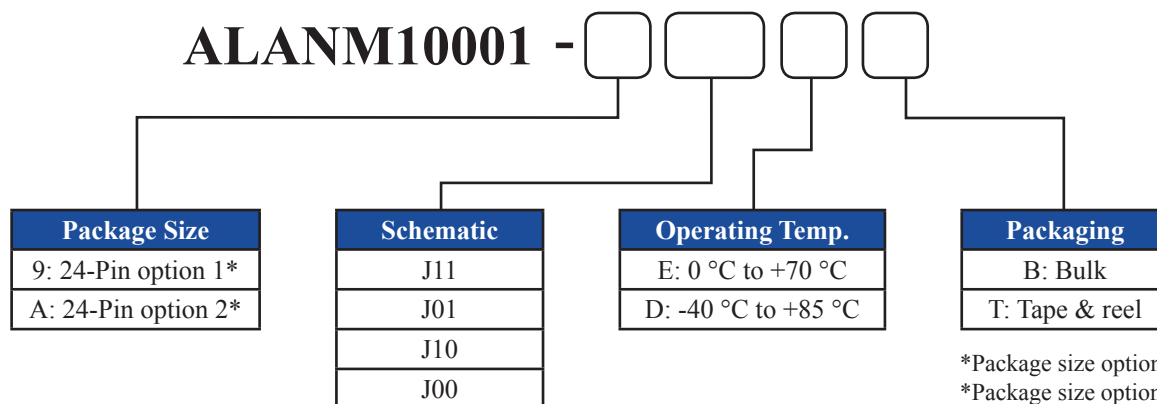
### Commercial/Industrial

- Video surveillance
- VoIP & IP telecommunications
- Transaction machines
- WiFi gateways

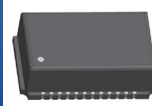
### IoT/Consumer

- Smart Lighting
- Smart Appliance

## Part Identification



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



ALANM10001



16.0 x 10.0 x 5.0 mm  
17.0 x 16.0 x 5.0 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)			CM to CM Rejection Ratio (dB Min)			DM to CM Rejection Ratio (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
ALANM10001-9J11	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-9J01	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-9J10	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-9J00	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-AJ11	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-AJ01	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-AJ10	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33
ALANM10001-AJ00	1.5	16	14	12	10	40	37	33	42	37	33	42	37	33

Part Number	Inductance (uH Min)	Leakage Inductance (uH)	Hi Pot (VDC)	Weight (g)
Test Condition	@100kHz, 0.2V 8mA DC Bias	@ 100kHz Td to Mx	6 sec.	Per Piece
ALANM10001-9J11	200	0.5	1500	1.48
ALANM10001-9J01	200	0.5	1500	1.48
ALANM10001-9J10	200	0.5	1500	1.48
ALANM10001-9J00	200	0.5	1500	1.48
ALANM10001-AJ11	200	0.5	1500	1.68
ALANM10001-AJ01	200	0.5	1500	1.68
ALANM10001-AJ10	200	0.5	1500	1.68
ALANM10001-AJ00	200	0.5	1500	1.68

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



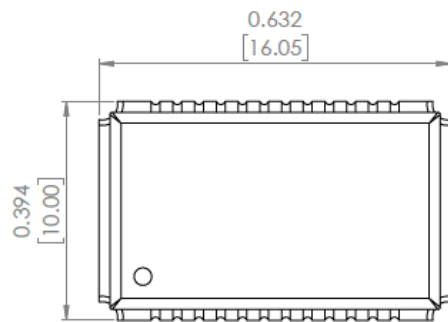
ALANM10001



16.0 x 10.0 x 5.0 mm  
17.0 x 16.0 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

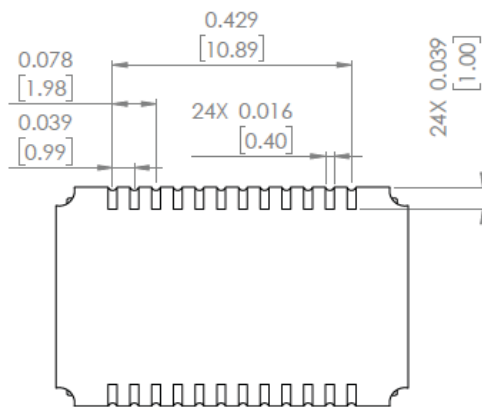
### 9: 24-pin (Option 1)



**TOP VIEW**

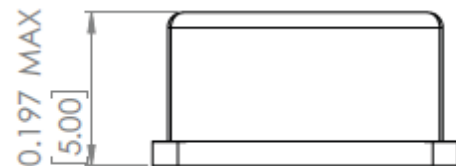


**FRONT VIEW**



**BOTTOM VIEW**

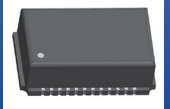
### RECOMMENDED LAND PATTERN



**SIDE VIEW**

Unless otherwise specified, all tolerances are  $\pm 0.25$  in mm  
Dimensions: mm

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



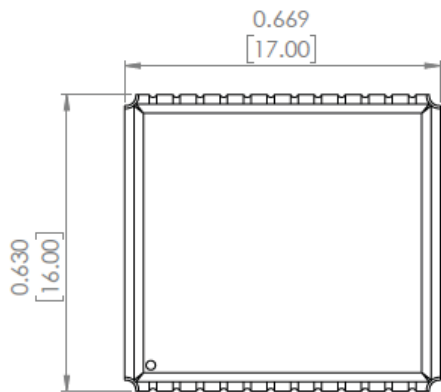
ALANM10001



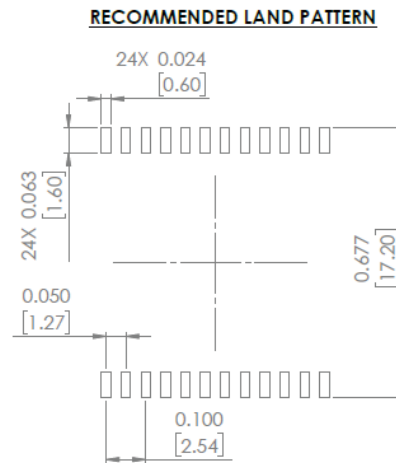
16.0 x 10.0 x 5.0 mm  
17.0 x 16.0 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

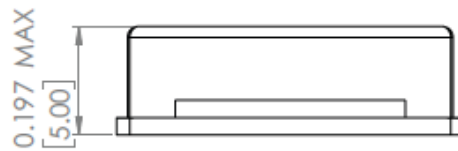
A: 24-pin (Option 2)



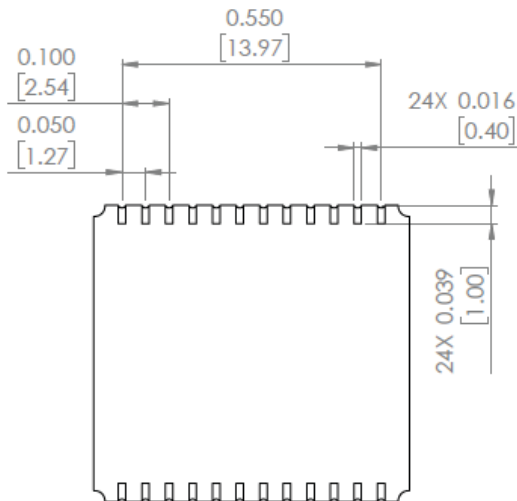
**TOP VIEW**



**FRONT VIEW**



**SIDE VIEW**



**BOTTOM VIEW**

Unless otherwise specified, all tolerances are  $\pm 0.25$  in mm  
Dimensions: mm

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



ALANM10001

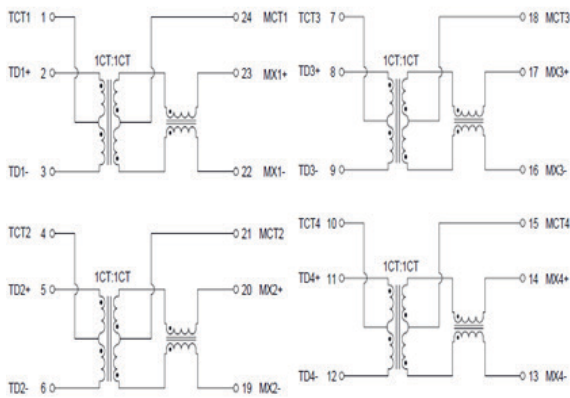


16.0 x 10.0 x 5.0 mm  
 17.0 x 16.0 x 5.0 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

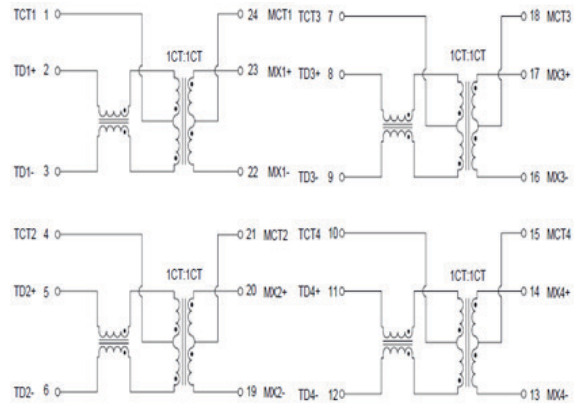
## Schematics

### 24-pin

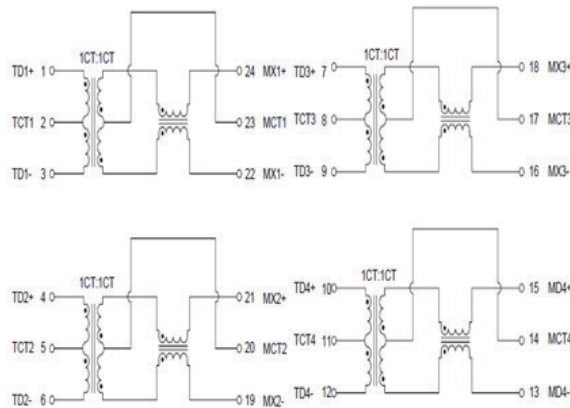
#### J11



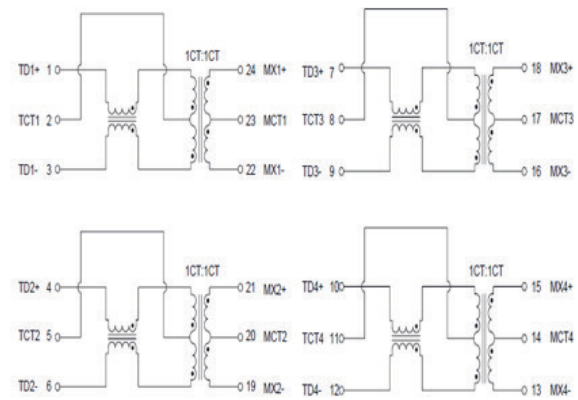
#### J01



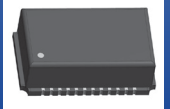
#### J10



#### J00



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

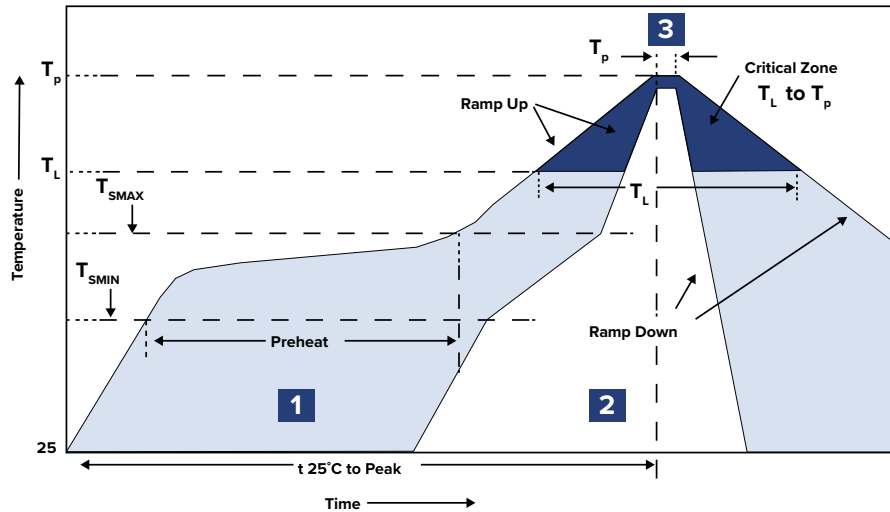


ALANM10001



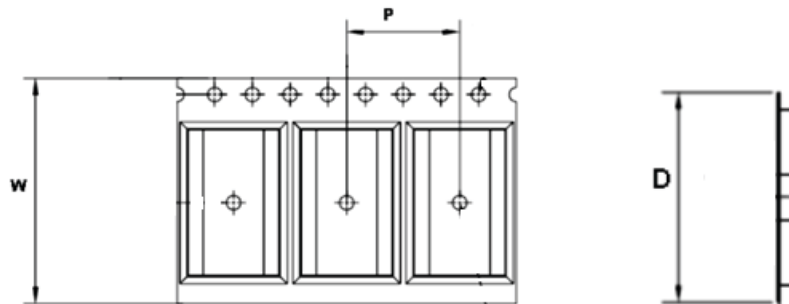
16.0 x 10.0 x 5.0 mm  
 17.0 x 16.0 x 5.0 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 245°C	20 ~ 40 sec.
3	Peak heat	$T_P$ 260°C±5°C	10 sec. MAX

## Packaging



Mechanical Dimension Option	Pcs/reel	W	P	D
9: 24-pin option 1	850	24.0	16.0	Ø330
A: 24-pin option 2	600	32.0	20.0	Ø330