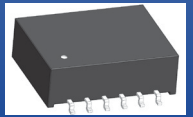


# 10/100 BASE-TX Single Port SMD LAN Transformer Module



ALANS100X1



12.8 x 6.9 x 5.6 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

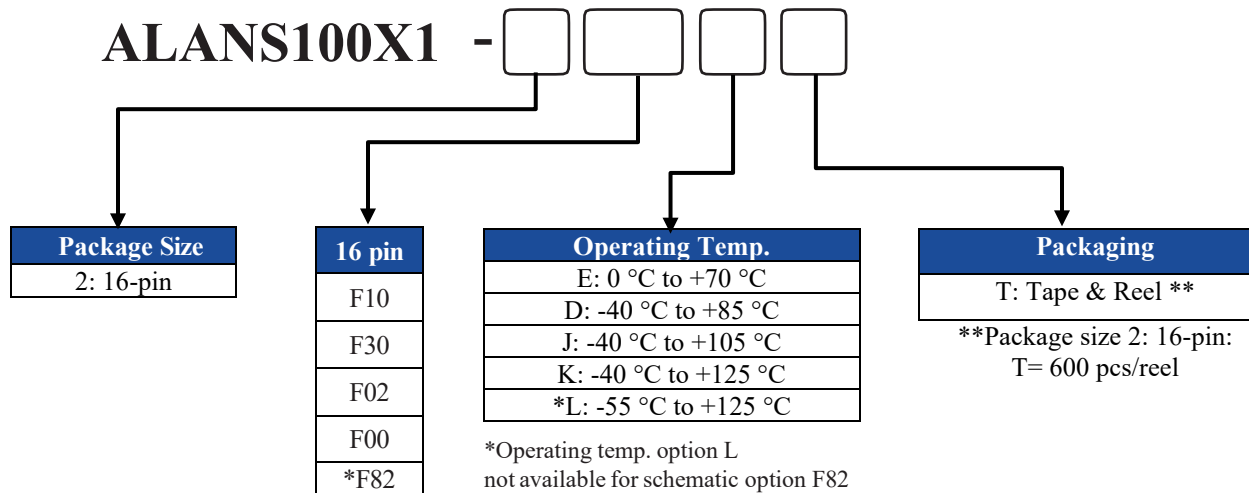
## Features

- Meets IEEE 802.3u standards
- Compatible with 10 BASE-T and 100 BASE-TX
- Operating temperature range up to -55°C to +125°C
- RoHS Compliant
- High performance magnetics for EMI suppression and common mode noise rejection
- Multiple schematic and pinout options with 1.27mm pin pitch.
- 1CT:1CT TX and RX Transformers

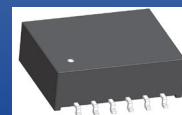
## Applications

- Fast 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



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



ALANS100X1



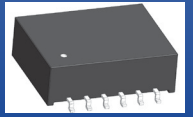
12.8 x 6.9 x 5.6 mm  
RoHS/RoHS II Compliant  
MSL = 1

## 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
ALANS100X1-2F10	-0.8	-18	-14.4	-12	-10	-45	-40	-35	-43	-37	-33	-43	-37	-33
ALANS100X1-2F30	-0.8	-18	-14.4	-12	-10	-45	-40	-35	-43	-37	-33	-43	-37	-33
ALANS100X1-2F02	-0.8	-18	-14.4	-12	-10	-45	-40	-35	-43	-37	-33	-43	-37	-33
ALANS100X1-2F00	-0.8	-18	-14.4	-12	-10	-45	-40	-35	-43	-37	-33	-43	-37	-33
ALANS100X1-2F82	-0.8	-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 (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.
ALANS100X1-2F10	350	0.35	35	0.9	1.2	2500
ALANS100X1-2F30	350	0.35	35	0.9	1.2	2500
ALANS100X1-2F02	350	0.35	35	0.9	1.2	2500
ALANS100X1-2F00	350	0.35	35	0.9	1.2	2500
ALANS100X1-2F82	350	0.35	35	DCR(7-8):1.2	DCR(1-2,16-15,10-9):0.9	2500

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



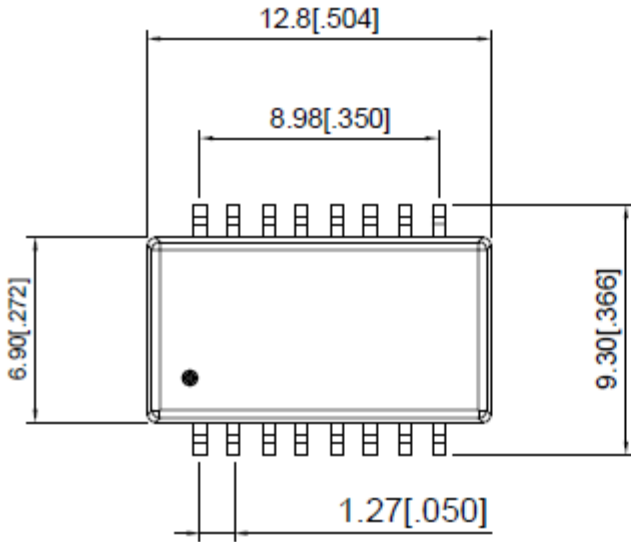
ALANS100X1



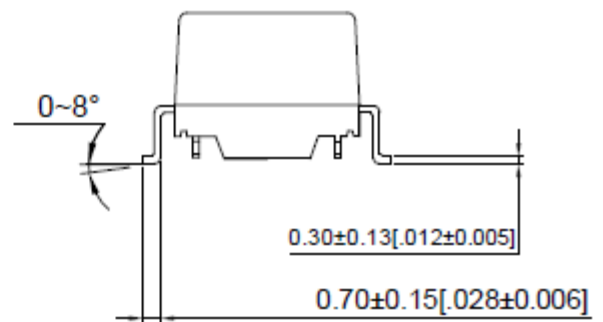
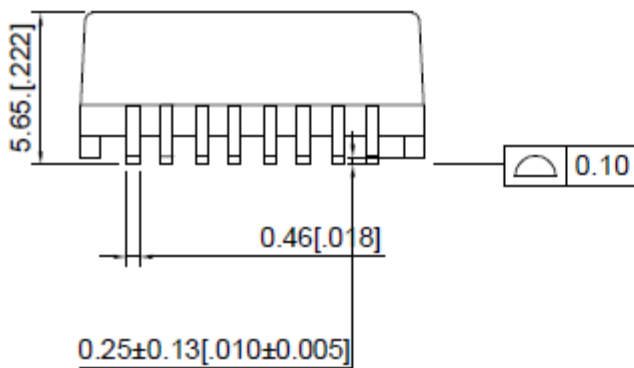
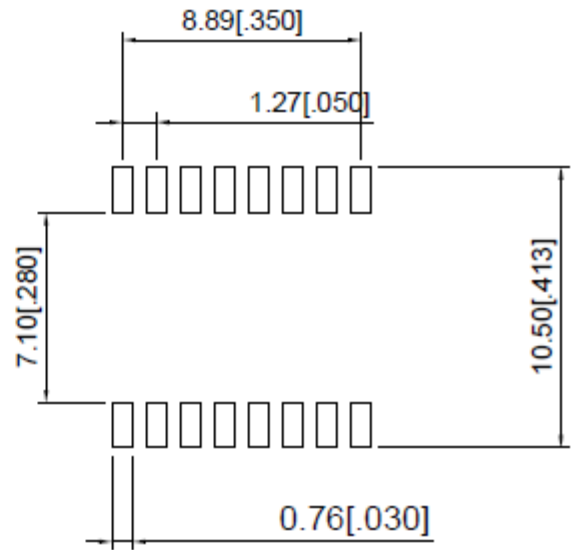
12.8 x 6.9 x 5.6 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

16-pin

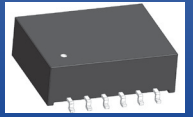


## SUGGESTED PAD LAYOUT



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

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



ALANS100X1

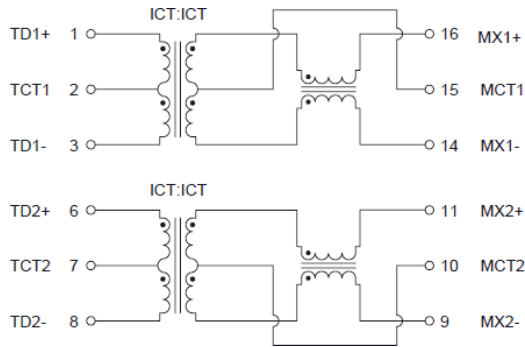


12.8 x 6.9 x 5.6 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

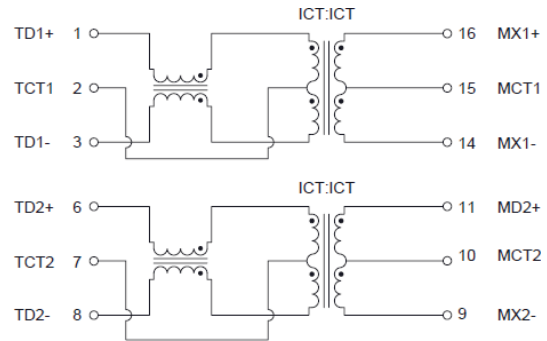
## Schematics

### 16- Pin

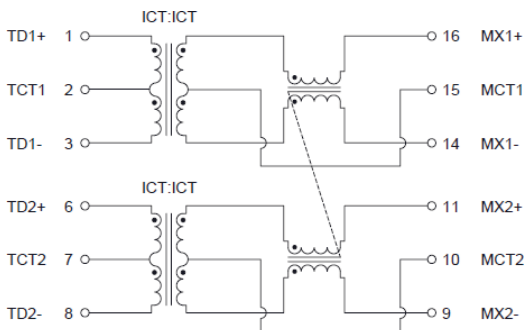
#### F10



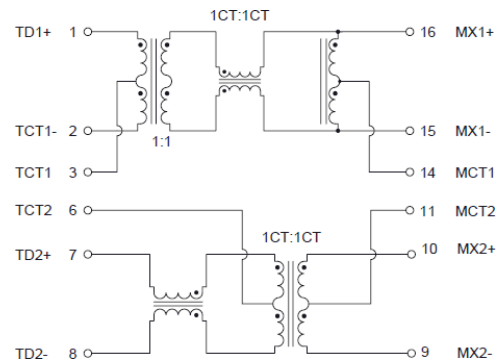
#### F00



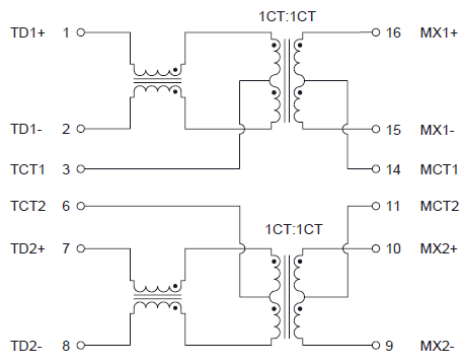
#### F30



#### F82



#### F02



Contact Abracon for additional options.

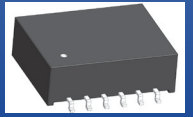


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# 10/100 BASE-TX Single Port SMD LAN Transformer Module

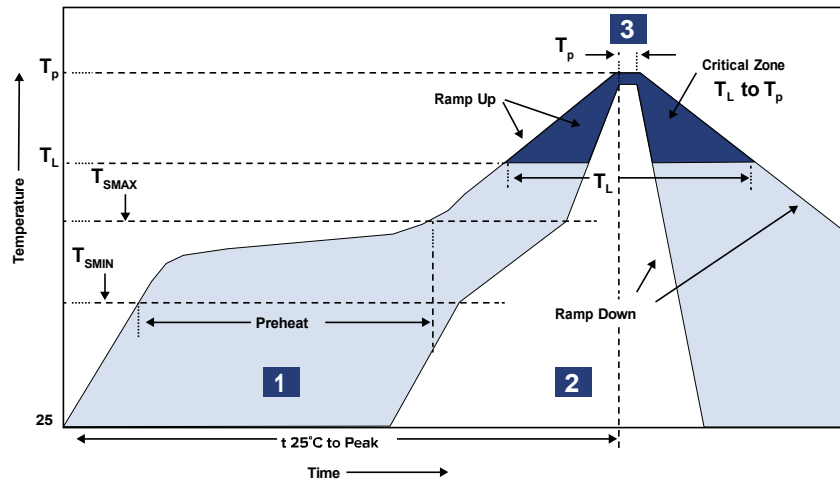


ALANS100X1



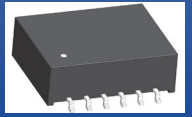
12.8 x 6.9 x 5.6 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_p$ 245°C±5°C	40 sec. MAX

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



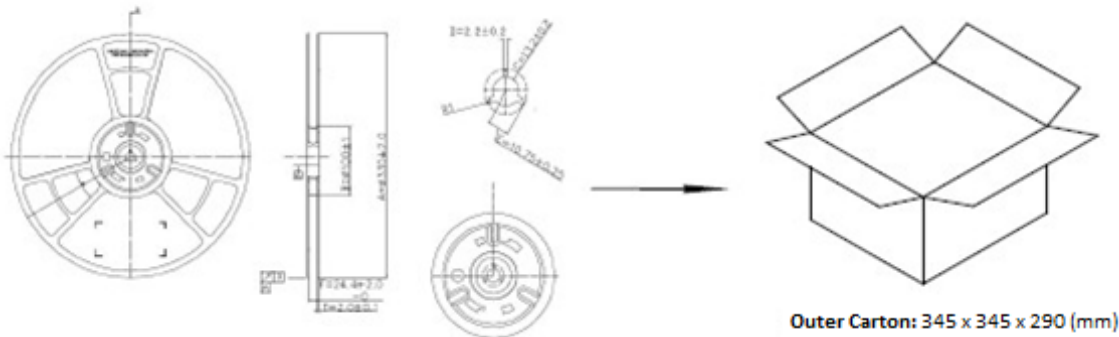
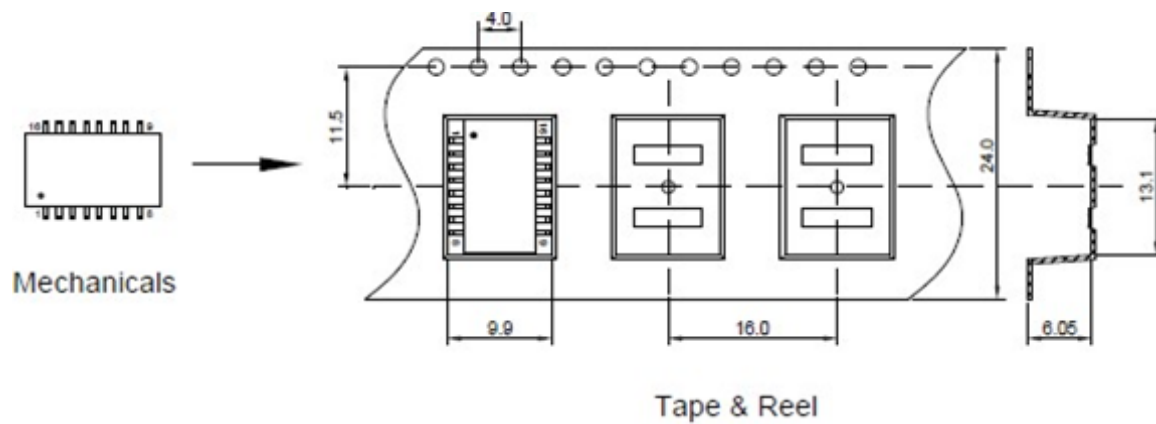
ALANS100X1



12.8 x 6.9 x 5.6 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Packaging

Tape and Reel: 600 pcs/reel  
Pieces per Carton: 4800  
T&R per Carton: 8  
Weight per Carton: 9.0kg  
Weight per Piece: 0.7g



Dimensions: mm

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