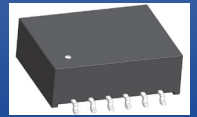


# 10/100 BASE-TX Single Port SMD LAN Transformer Module



ALANS100X1



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

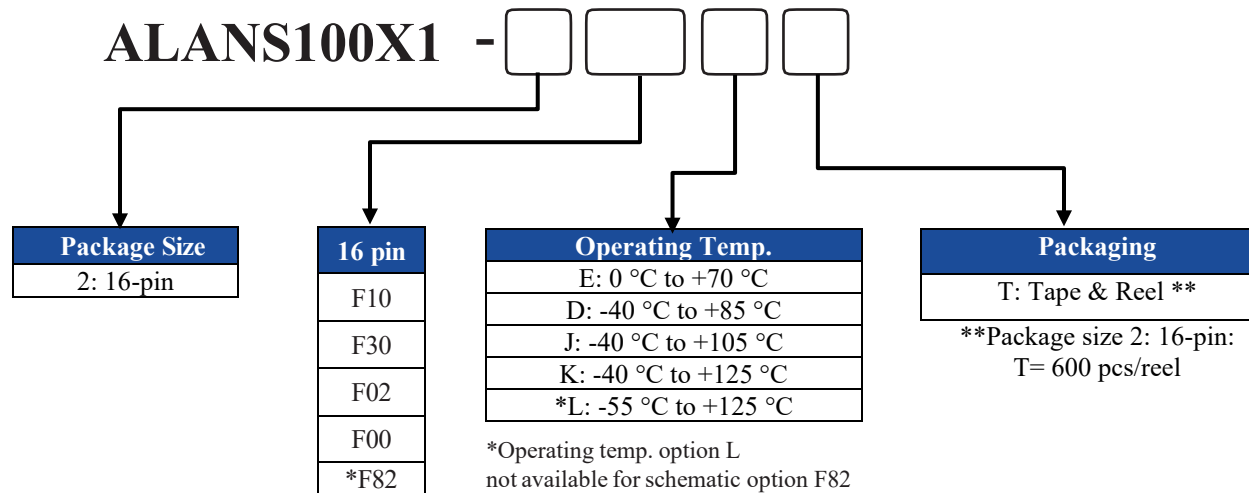
## Features

- 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

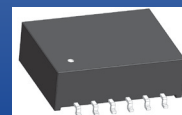
## Applications

- 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



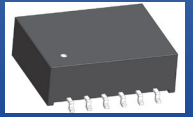
12.8 x 6.9 x 5.6 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Electrical Specifications at 25°C

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)				Crosstalk (dB Min)			CMRR (dB Min)			DCMR (dB Min)		
	0.1-100 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
ALANS100X1-2F10	0.8	18	14	12	10	42	37	33	40	35	30	47	40	33
ALANS100X1-2F30	0.8	18	14	12	10	40	35	30	40	35	30	47	40	33
ALANS100X1-2F02	0.8	18	14	12	10	42	37	33	40	35	30	47	40	33
ALANS100X1-2F00	0.8	18	14	12	10	42	37	33	40	35	30	47	40	33
ALANS100X1-2F82	0.8	18	14	12	10	40	35	30	40	35	30	47	40	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



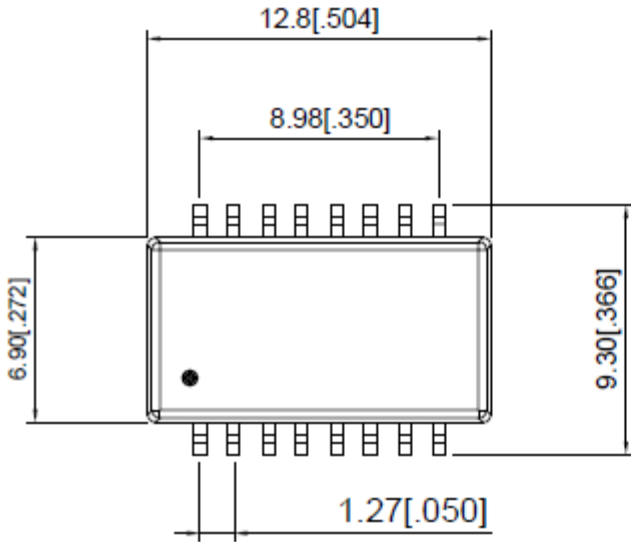
ALANS100X1



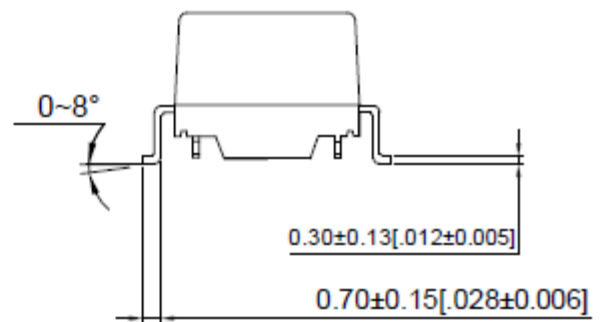
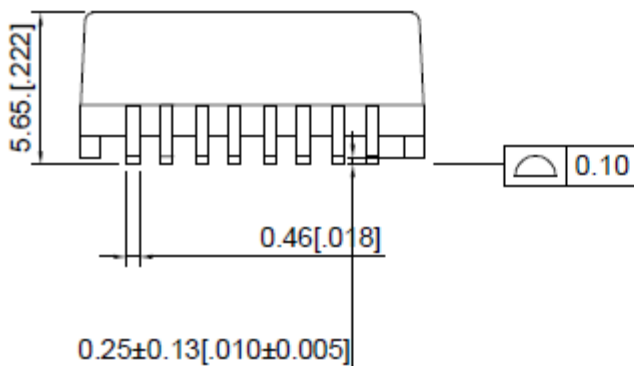
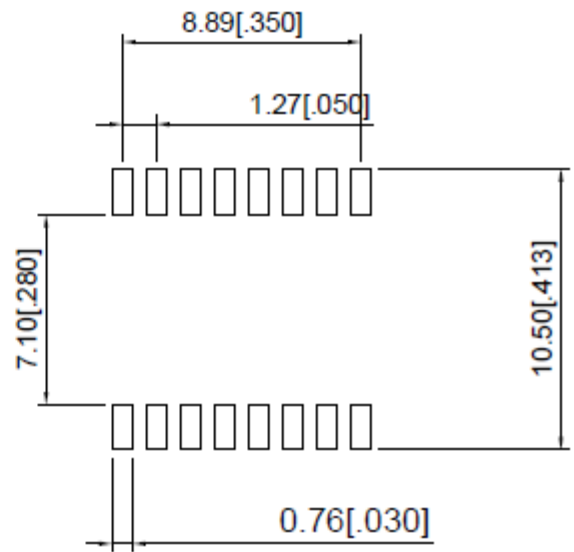
12.8 x 6.9 x 5.6 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

16-pin

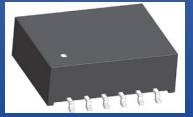


## SUGGESTED PAD LAYOUT



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

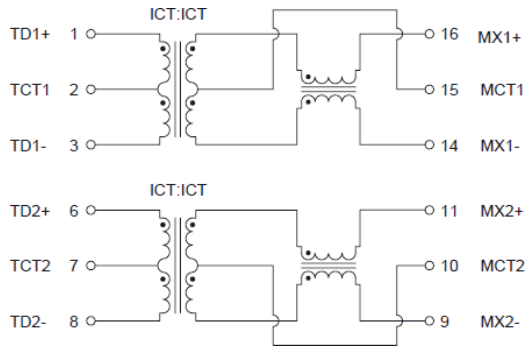


12.8 x 6.9 x 5.6 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

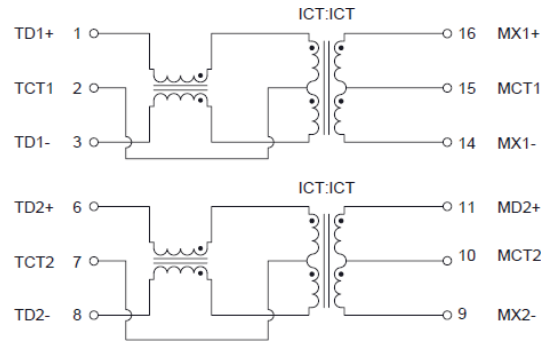
## Schematics

### 16- Pin

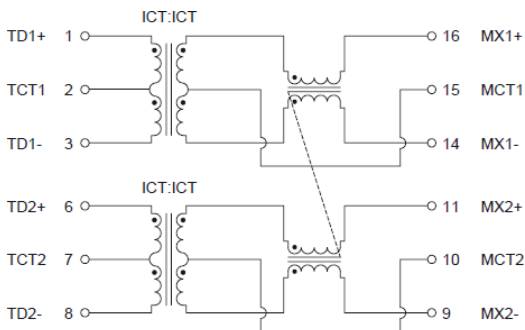
#### F10



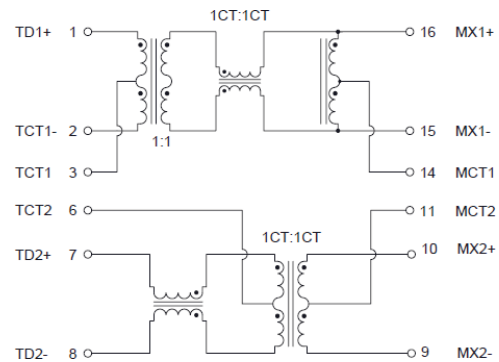
#### F00



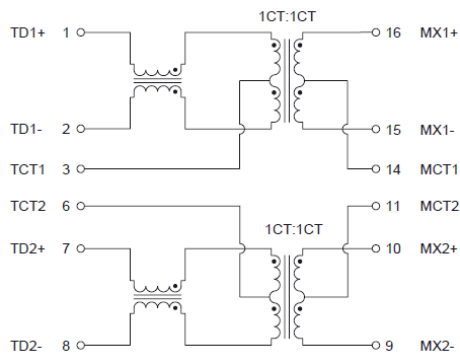
#### F30



#### F82



#### F02



Contact Abracon for additional options.

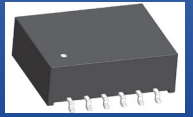


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# 10/100 BASE-TX Single Port SMD LAN Transformer Module

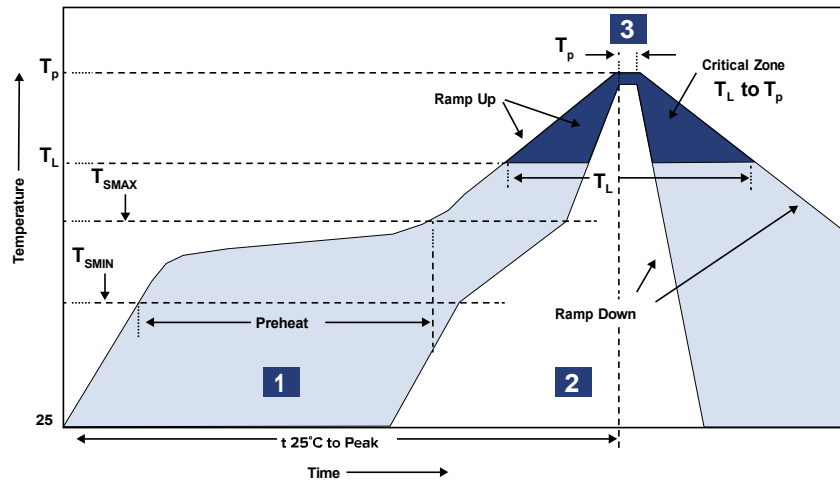


ALANS100X1



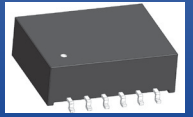
12.8 x 6.9 x 5.6 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## 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



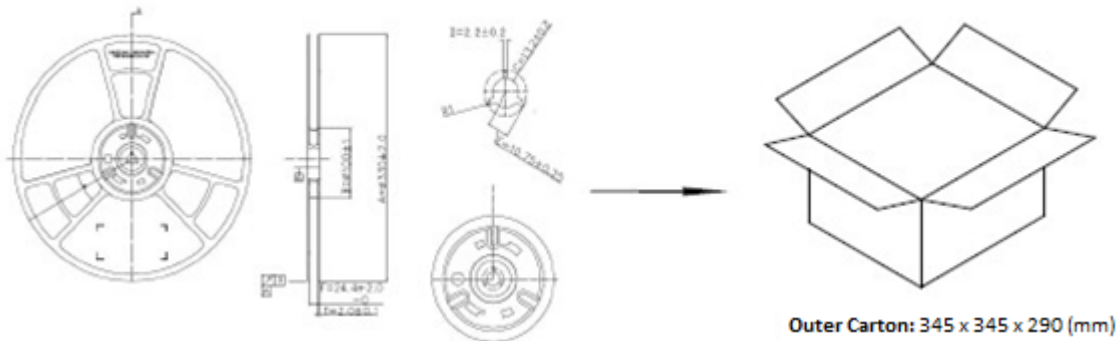
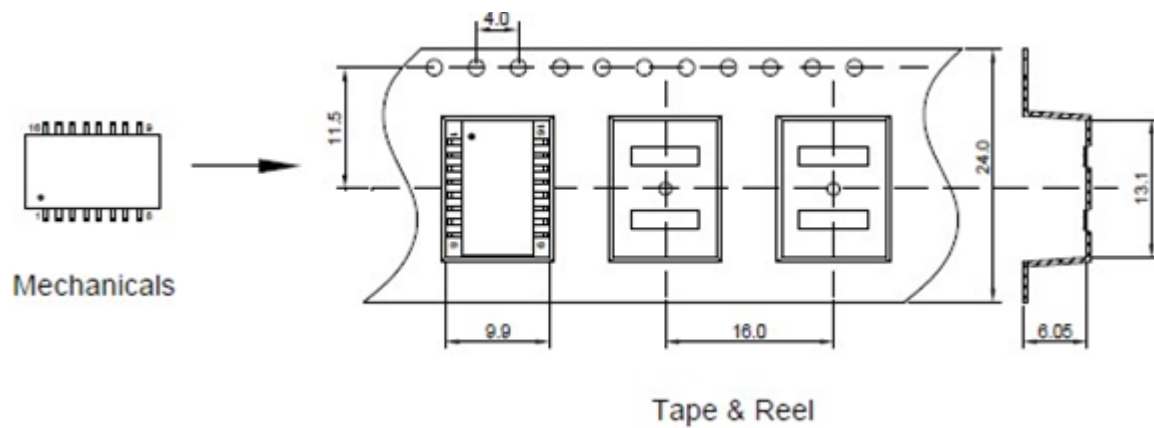
ALANS100X1



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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