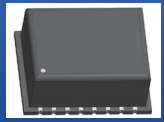


# 10/100 Base-TX Single Port SMD LAN Transformer Module



ALANM100X1



12.0 x 9.4 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Features

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

## Applications

### Communications

- Servers
- Switches
- Routers

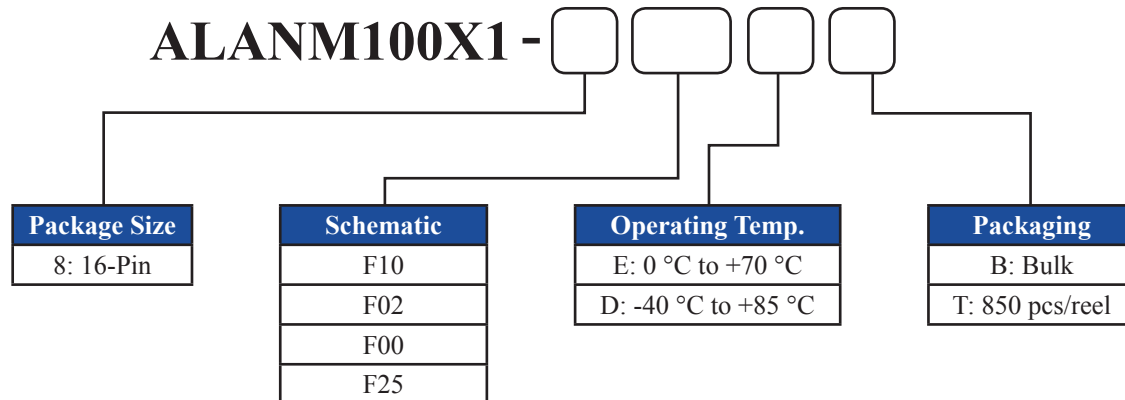
### Commercial/Industrial

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

### IoT/Consumer

- Smart Lighting
- Smart Appliance

## Part Identification



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



ALANM100X1



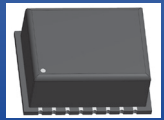
12.0 x 9.4 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

## 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 | 0.5-40 MHz         | 60 MHz | 100 MHz | 30 MHz                            | 60 MHz | 100 MHz | 30 MHz                            | 60 MHz | 100 MHz |
| ALANM100X1-8F10 | 1.5                     | 16                   | 14     | 12     | 10      | 40                 | 37     | 33      | 42                                | 37     | 33      | 42                                | 37     | 33      |
| ALANM100X1-8F02 | 1.5                     | 16                   | 14     | 12     | 10      | 40                 | 37     | 33      | 42                                | 37     | 33      | 42                                | 37     | 33      |
| ALANM100X1-8F00 | 1.5                     | 16                   | 14     | 12     | 10      | 40                 | 37     | 33      | 42                                | 37     | 33      | 42                                | 37     | 33      |
| ALANM100X1-8F25 | 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  |
| ALANM100X1-8F10 | 200                        | 0.5                      | 1500         | 0.95       |
| ALANM100X1-8F02 | 200                        | 0.5                      | 1500         | 0.95       |
| ALANM100X1-8F00 | 200                        | 0.5                      | 1500         | 0.95       |
| ALANM100X1-8F25 | 200                        | 0.5                      | 1500         | 0.95       |

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



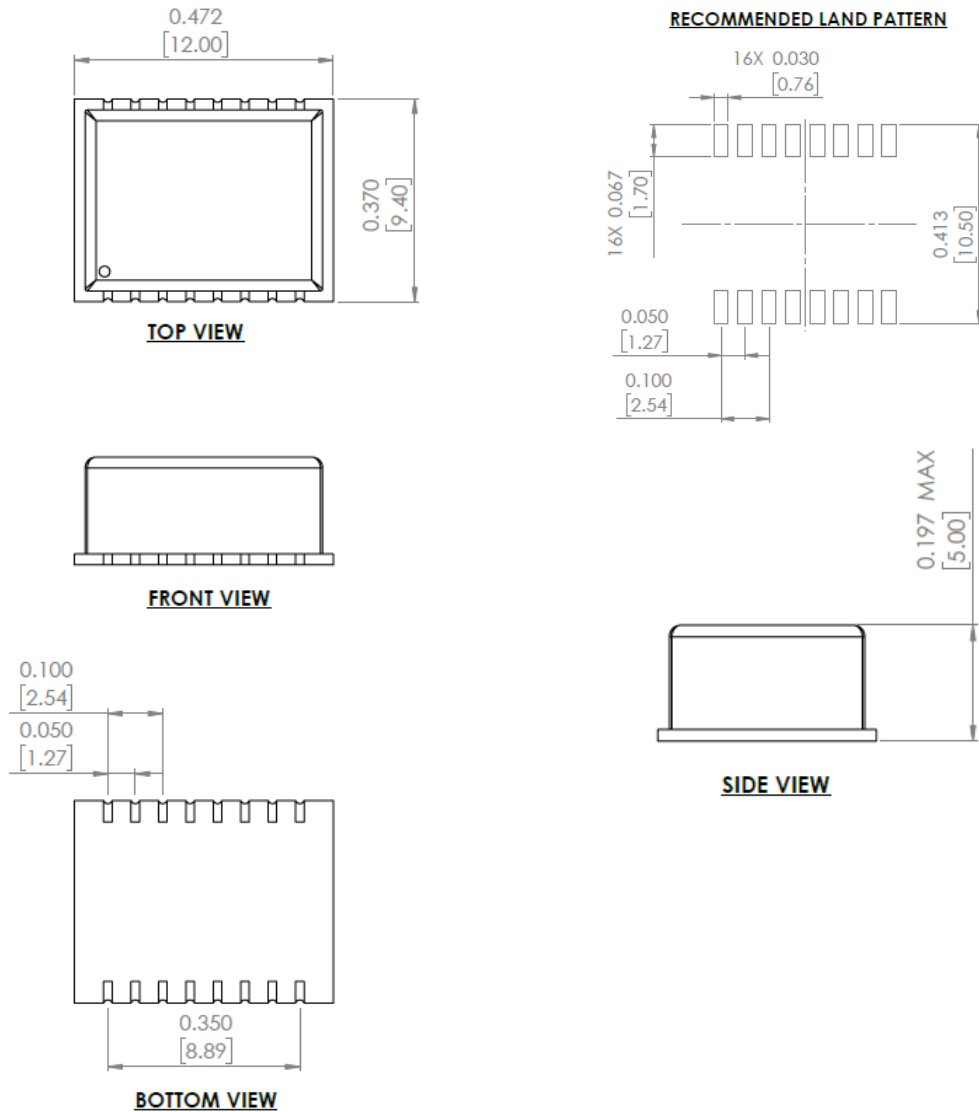
ALANM100X1



12.0 x 9.4 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

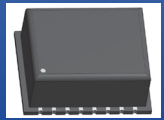
## Mechanical Dimensions

8: 16-pin



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

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



ALANM100X1

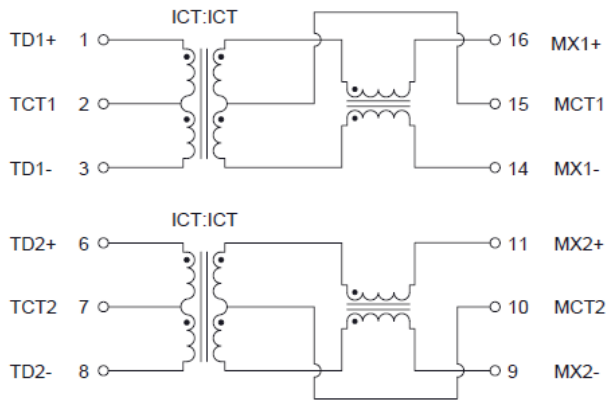


12.0 x 9.4 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

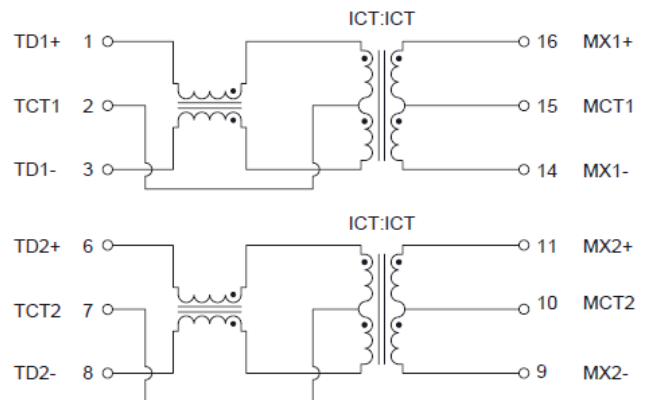
## Schematics

### 16-pin

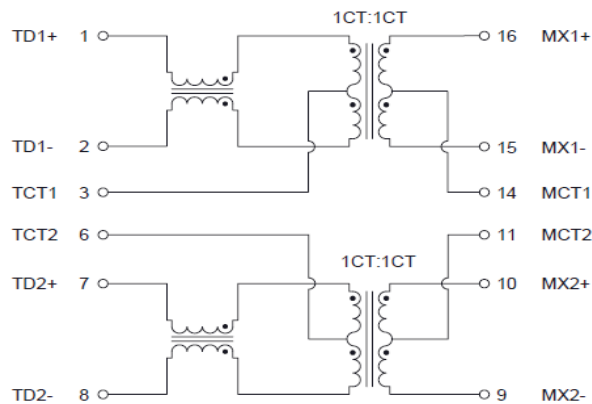
F10



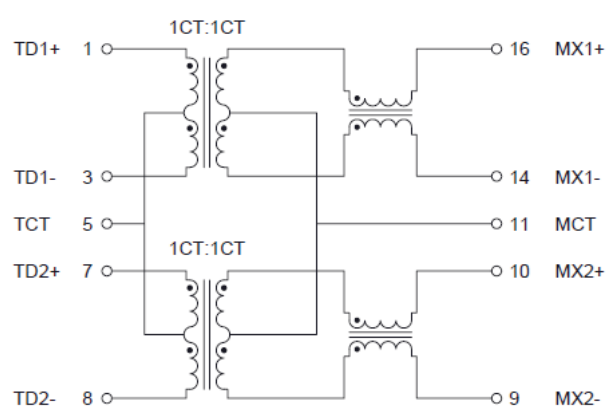
F00



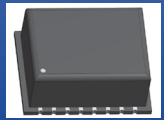
F02



F25



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

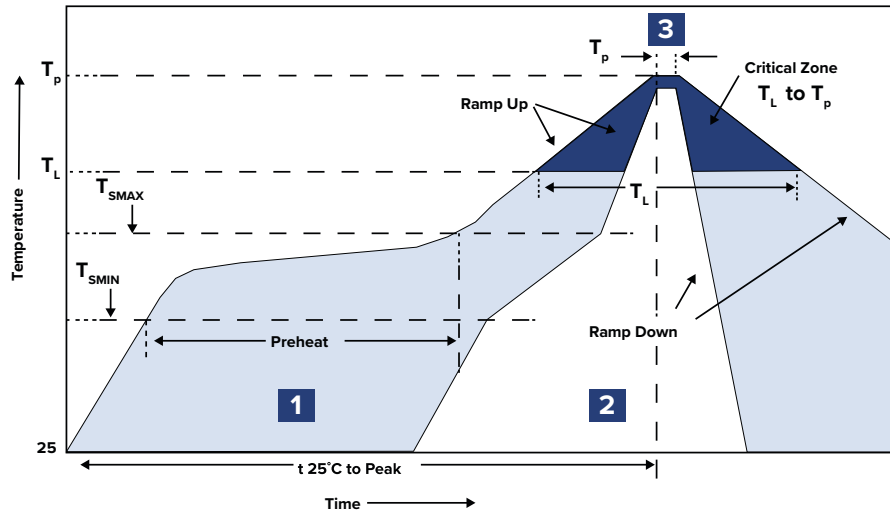


ALANM100X1



12.0 x 9.4 x 5.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

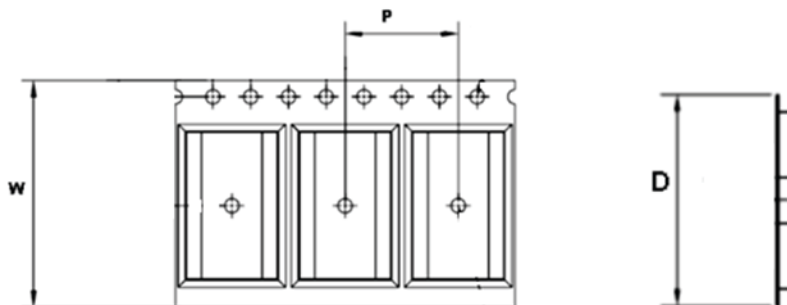
## Reflow Profile



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

## Packaging

T = 850 pcs/reel



| W    | P    | D    |
|------|------|------|
| 24.0 | 16.0 | Ø330 |

Dimensions: mm



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REVISED: 05-6-19

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