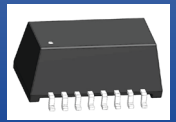


POE 10/100 BASE-TX Single Port SMD LAN Transformer Module



ALAN1100X1



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

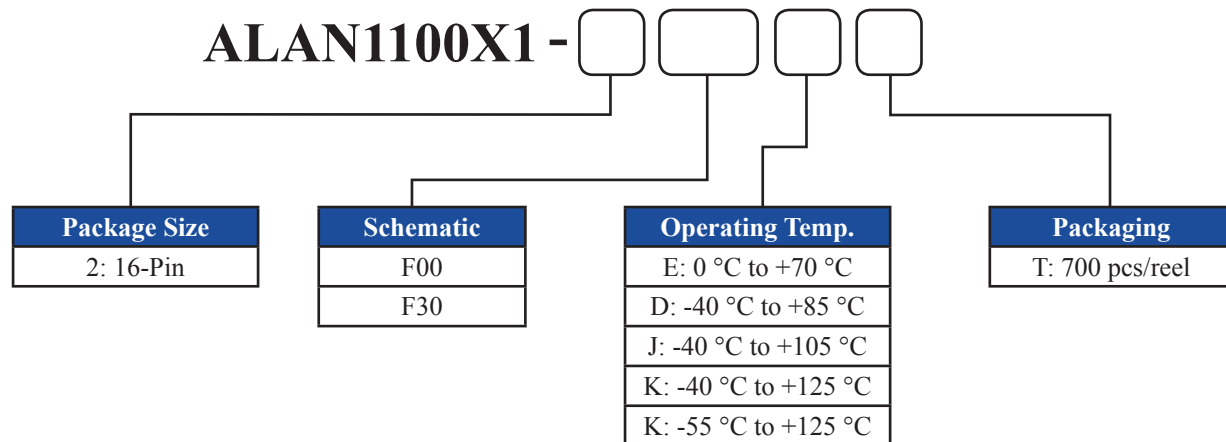
Features

- Meets IEEE 802.3af standards
- Supports speed up to 100 Mbps
- Power Over Ethernet up to 15 Watts
- Current capability up to 350 mA
- Operating temperature range up to -55°C to +125°C
- Compatible with major IC's for Ethernet applications
- High performance magnetics for EMI suppression and common mode noise rejection
- 1CT:1CT TX and RX Transformers

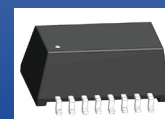
Applications

- Fast Ethernet
- Hubs, servers, switches, routers, access points
- IP cameras, surveillance, and phone
- Industrial computers and robotics
- Networking and communications
- Broadcast video
- Set top box

Part Identification



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



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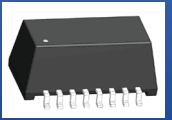
Electrical Specifications at 25°C

| Part Number | Insertion Loss (dB Max) | Return Loss (dB Min) | | | | | Crosstalk (dB Min) | | | CMRR (dB Min) | | | DCMR (dB Min) | | |
|-----------------|-------------------------|----------------------|--------|--------|-----------|---------|--------------------|--------|---------|---------------|--------|---------|---------------|--------|---------|
| | 1-100 MHz | 1-30 MHz | 40 MHz | 50 MHz | 60-80 MHz | 100 kHz | 1 MHz | 50 MHz | 100 MHz | 30 MHz | 60 MHz | 100 MHz | 30 MHz | 60 MHz | 100 MHz |
| ALAN1100X1-2F00 | 1.2 | 18 | 16 | 14 | 12 | 50 | 40 | 35 | 30 | 40 | 35 | 30 | 47 | 40 | 33 |
| ALAN1100X1-2F30 | 1.2 | 18 | 16 | 14 | 12 | 50 | 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 (Vrms) | Weight (g) |
|-----------------|----------------------------|-----------------------------|-----------------------------------|-----------------------|-----------|---------------|------------|
| | | | | Primary | Secondary | | |
| Test Condition | @100kHz, 0.1V, 8mA DC Bias | @100kHz, 0.1V TD to MX | @100kHz TD to MX | | | 6 sec. | Per Piece |
| ALAN1100X1-2F00 | 350 | 0.3 | 30 | 1.2 | 1.0 | 1500 | 0.7 |
| ALAN1100X1-2F30 | 350 | 0.3 | 30 | 1.0 | 1.2 | 1500 | 0.7 |

| Standard | Current (mA Max) | Voltage (V) | Power Delivered per Port (W Max) |
|----------------------------|------------------|------------------|----------------------------------|
| IEEE 802.3af: Type-1 / POE | 350 | @57 V Continuous | 15.4 |

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



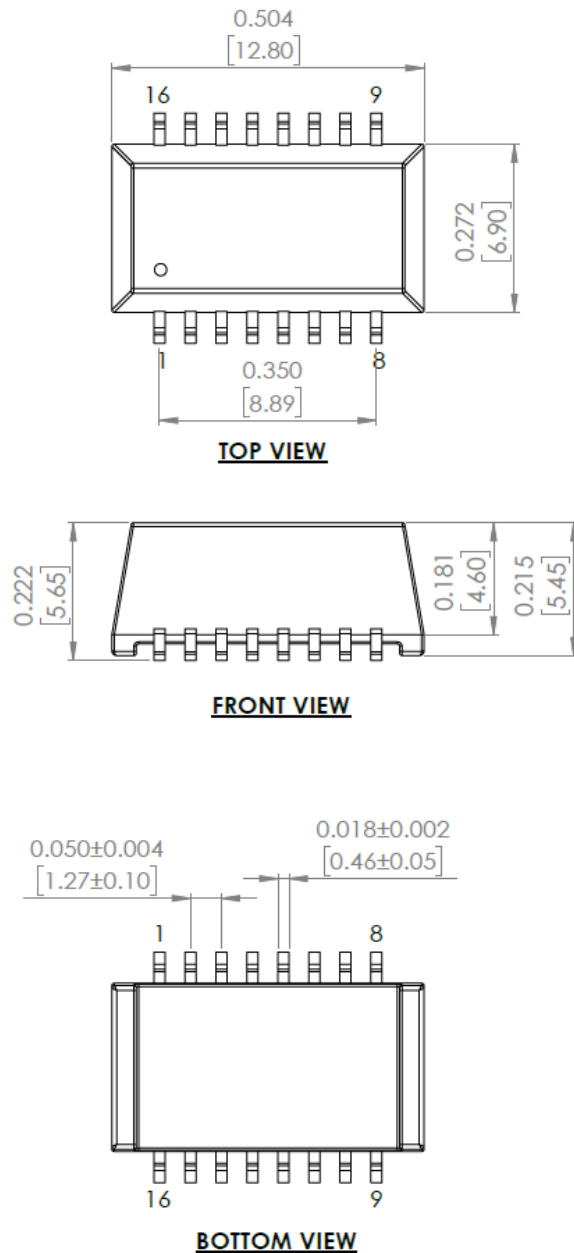
ALAN1100X1



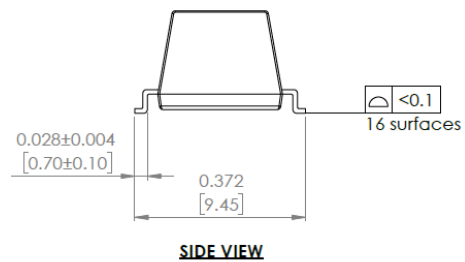
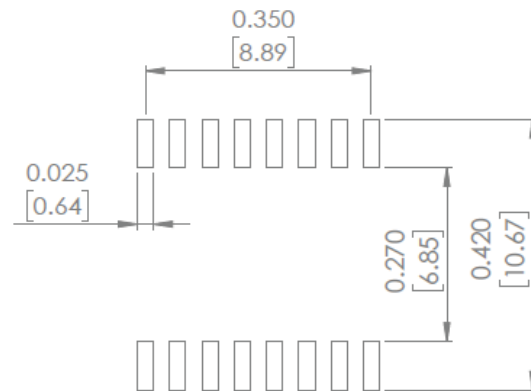
12.8 x 6.9 x 5.6 mm
RoHS/RoHS II Compliant
MSL = 1

Mechanical Dimensions

2: 16-pin

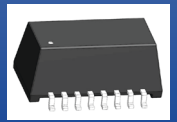


RECOMMENDED LAND PATTERN



Unless otherwise specified, all tolerances are ± 0.010 [0.25]
Dimensions: inch [mm]

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



ALAN1100X1

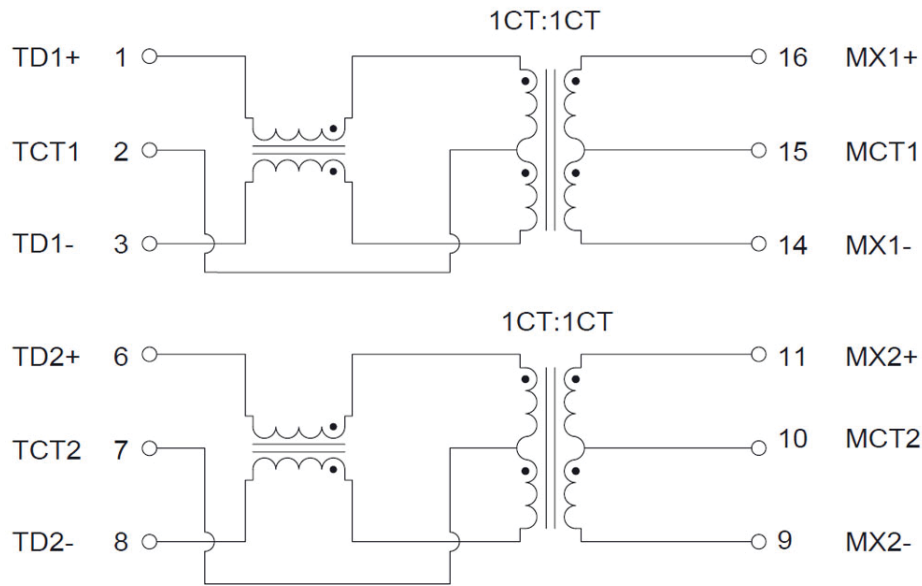


12.8 x 6.9 x 5.6 mm
RoHS/RoHS II Compliant
MSL = 1

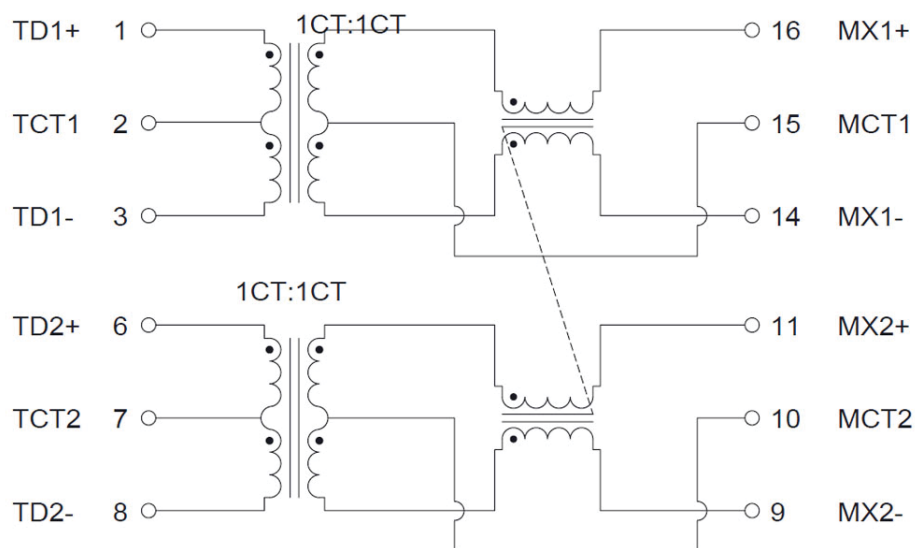
Schematics

16-Pin

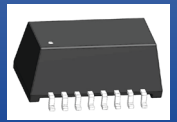
F00



F30



Contact Abracon for additional options.

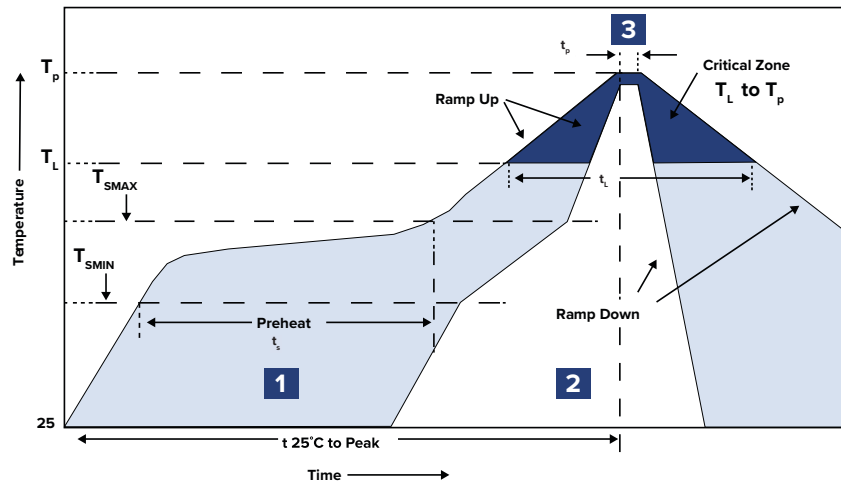


ALAN1100X1



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_S 150 °C ~ 200 °C | t_s 60 ~ 120 sec. |
| 2 | Reflow | T_L 217 °C | t_L 60 ~ 150 sec. |
| 3 | Peak heat | T_P 245 ± 5 °C | t_p 20 ~ 40 sec. |