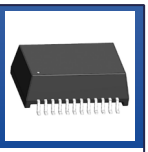
10/100/1000 Base-T Single PortType-2/POE+ LAN Transformer



ALAN210001

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18.3 x 12.4 x 6.4 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Meets IEEE 802.3at standards
- Supports speed up to 1 Gbps
- Power Over Ethernet up to 30 Watts
- Current capability up to 600 mA
- Operating temperature range up 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 and gigabit Ethernet
- Hubs, servers, switches, routers, access points
- IP cameras, surveillance, and phone
- Industrial computers and robotics
- Networking and communications
- Broadcast video
- Set top box

Electrical Specifications @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)		
	0.3-100 MHz	125 MHz	0.5-30 MHz	40-60 MHz	60-80 MHz	100 MHz	30 MHz	50 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
ALAN210001-3J41	1.2	2.0	16	14	12	10	35	28	23	55	36	31	43	36	31
ALAN210001-3J60	1.2	2.0	16	14	12	10	35	28	23	55	36	31	43	36	31
ALAN210001-3J61	1.2	2.0	16	14	12	10	35	28	23	55	36	31	43	36	31
ALAN210001-3JC0	1.2	2.0	16	14	12	10	35	28	23	55	36	31	43	36	31

Part Number	Inductance (uH Min)	Leakage Inductance (uH Max)	Interwinding Capacitance (pF Max)	DC Resistance (Ω Max)		Hi Pot (Vrms)	Weight (g)
Test Condition	@100kHz, 0.2V 8mA DC Bias	@ 100KHz, 0.1V Td to Mx	@ 100KHz, 0.1V Td to Mx	Primary	Secondary	6 sec.	Per Piece
ALAN210001-3J41	350	0.5	35	1.0	1.0	1500	2.1
ALAN210001-3J60	350	0.5	35	1.2	1.0	1500	2.1
ALAN210001-3J61	350	0.5	35	1.2	1.0	1500	2.1
ALAN210001-3JC0	350	0.5	35	1.0	1.2	1500	2.1

Standard	Current (mA Max)	Voltage (V)
IEEE 802.3at : Type-2 / POE+	600	@57 V Continuous

Part Identification

ALAN210001- □ □ □ □

Package Size
3: 24-pin

Schematic
J41
J60
J61
JC0

Operating Temp.
E: 0°C ~ +70°C
D: -40°C ~ +85°C
J: -40°C ~ +105°C
K: -40°C ~ +125°C

Packaging
T: 400 pcs/reel

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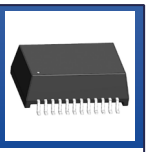
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Bee Cave, TX 78738
01 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858

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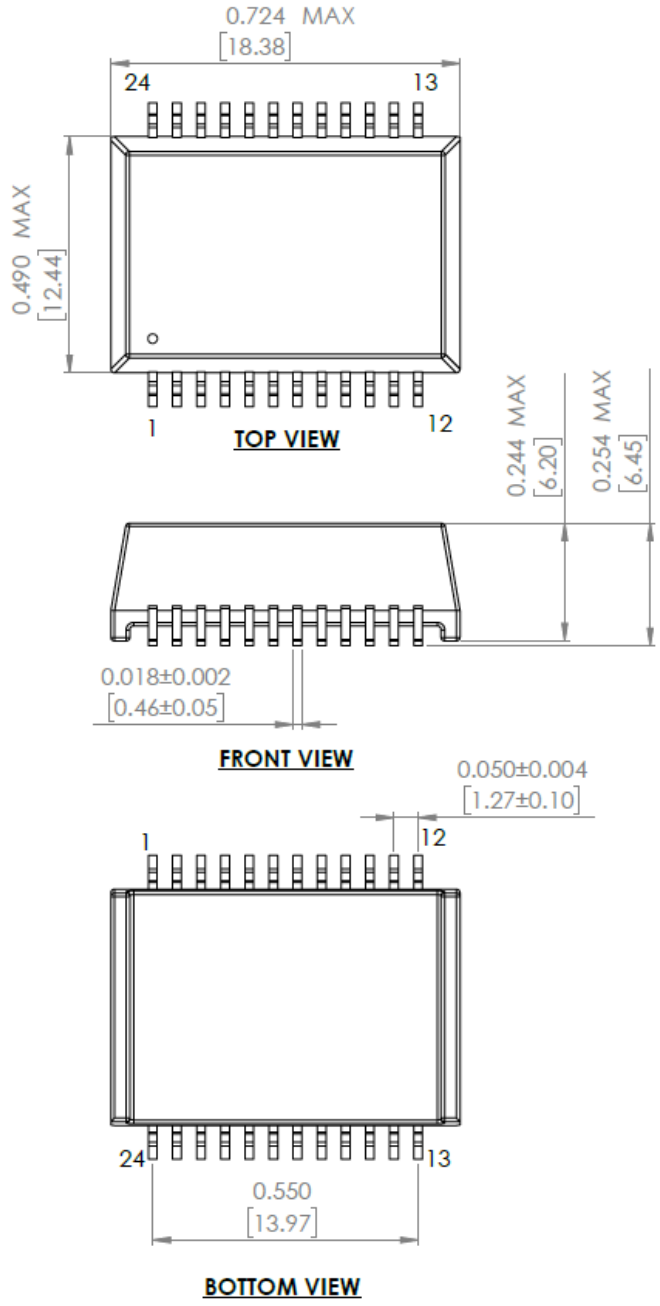
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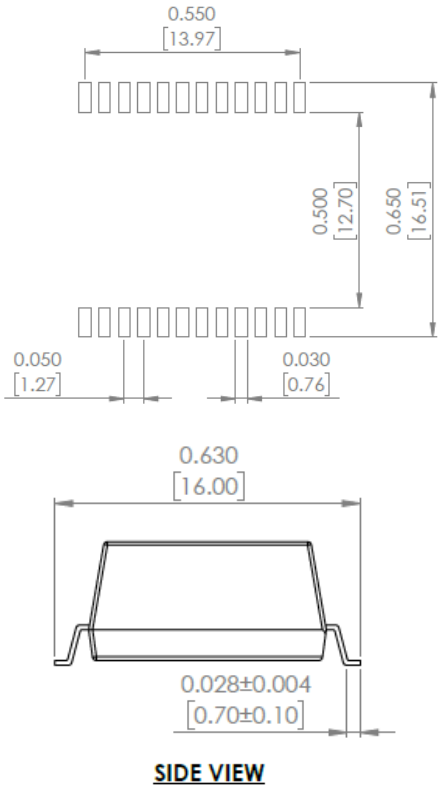
18.3 x 12.4 x 6.4 mm
RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications

3: 24-pin



Recommended Landing Pattern



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

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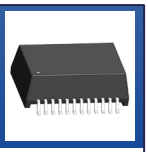
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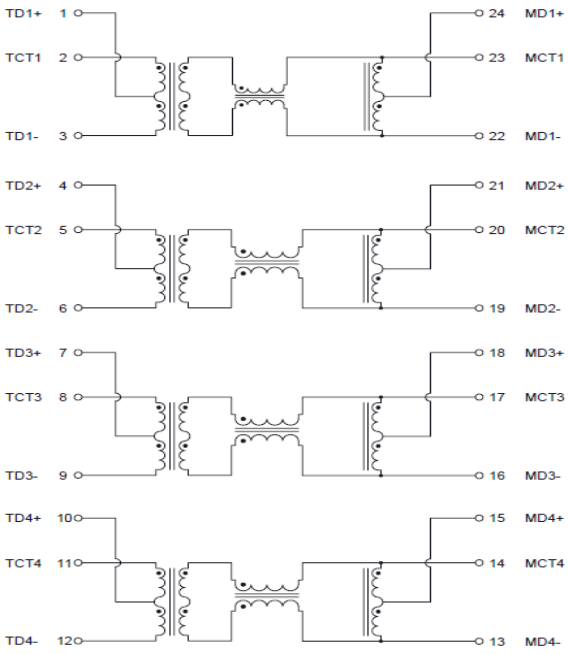
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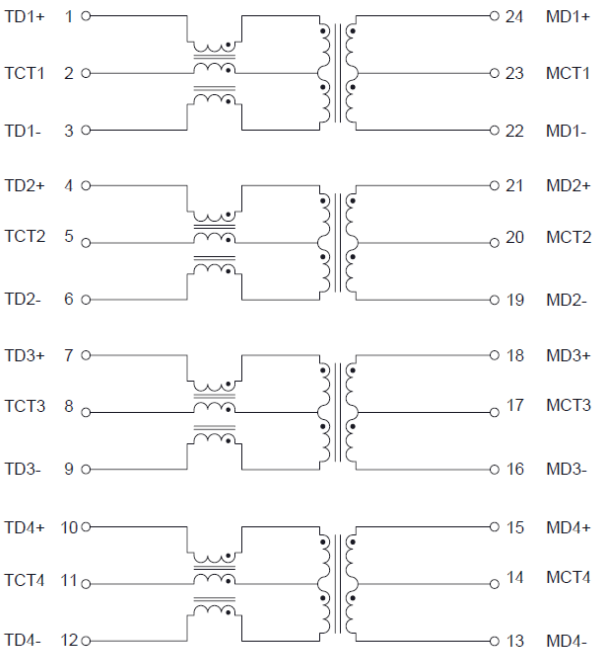
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RoHS/RoHS II Compliant
MSL Level = 1

Schematics

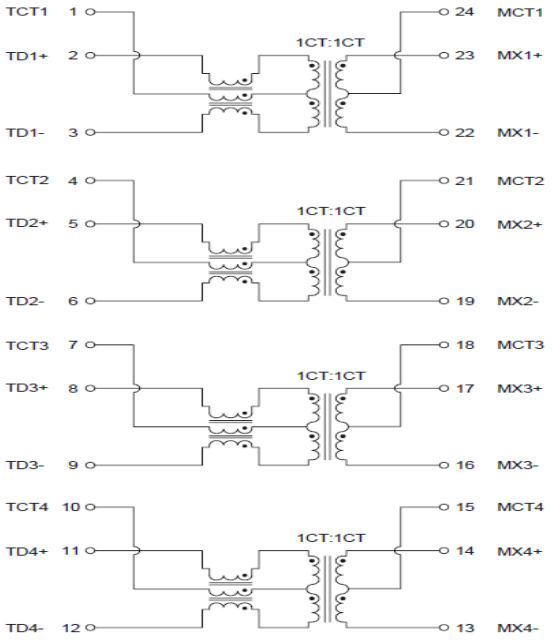
J41



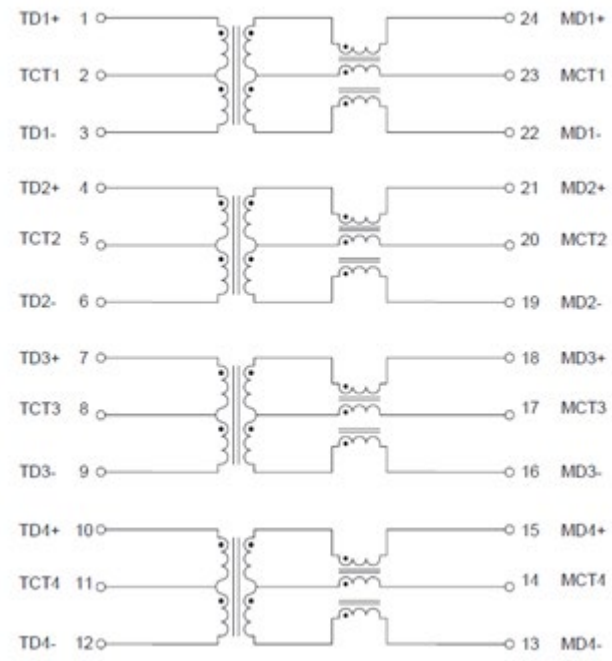
J60



J61



JC0



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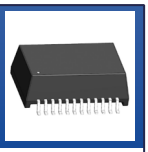
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Reflow Profile

Reflow standard: [JEDEC J-STD-020]

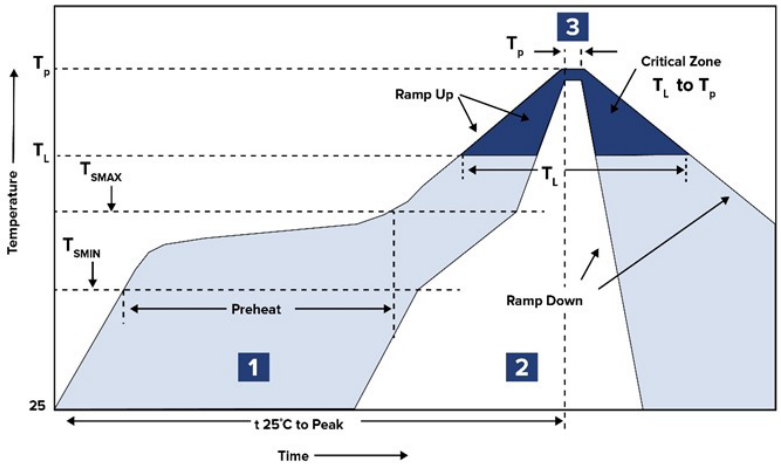


Table 1

SnPb Eutectic Process Classification Temperatures (T_c)		
Package Thickness	**Volume mm³ <350**	**Volume mm³ ≥350**
<2.5 mm	235 °C	220 °C
≥2.5 mm	220 °C	220 °C

Table 2

Pb-Free Process Classification Temperatures (T_c)			
Package Thickness	**Volume mm³ <350**	**Volume mm³ 350-2000**	**Volume mm³ >2000**
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T_{smin})	100°C	150°C
Temperature maximum (T_{smax})	150°C	200°C
Time (T_{smin} to T_{smax}) (t_s)	60 - 120 sec.	60 - 120 sec.
Average ramp-up rate (T_{smax} to T_P)	3°C/sec. max	3°C/sec. max
Liquidous temperature (T_L)	183°C	217°C
Time at liquidous (t_L)	60 - 150 sec.	60 - 150 sec.
Peak package body temperature (T_P)*	**see Table 1**	**see Table 2**
Time (t_p)** within 5°C of the specified classification temperature (T_C)	20 sec.	30 sec.
Ramp-down rate (T_p to T_{smax})	6°C/sec. max	6°C/sec. max
Time 25°C to peak temperature	6 min. max	8 min. max
Reflow cycles	2 max	2 max

*Tolerance for peak profile temperature (T_P) is defined as a supplier minimum and a user maximum.

**Tolerance for time at peak profile temperature (t_p) is defined as supplier minimum and a user maximum.

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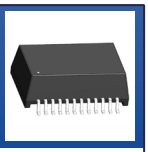
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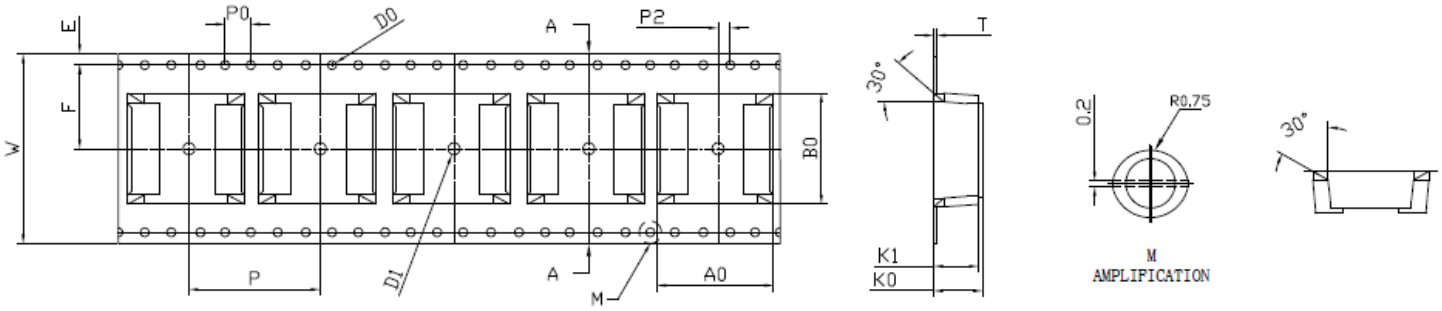
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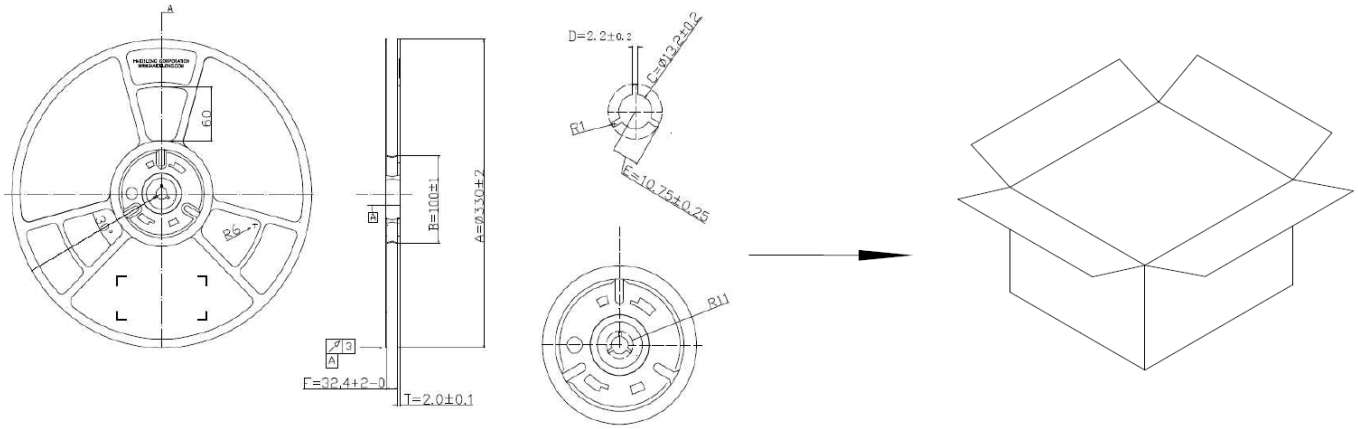
18.3 x 12.4 x 6.4 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape and Reel : 400 pcs/reel
Pieces per Carton : 1600
T&R per Carton : 4
Weight per carton : 6 Kg
Weight per piece : 2.1 g
Dimension of the carton : 365 x 365 x 250 mm



W	A0	B0	K0	K1	P	F	E	D0	D1	P0	P2	T
32±0.3	17±0.1	18±0.1	6.7±0.1	6.2±0.1	20.0±0.1	14.2±0.1	1.75±0.1	1.50±0.1	2.00±0.1	4.00±0.1	2.00±0.1	0.40±0.05



Unit : mm

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