

# APPROVAL SHEET

To :

Customer P/N :

UDE P/N : L22H006-2

Description : 2.5G Base -T

Single Port LAN Filter

Meet IEEE802.3 af standard



**HF**

Halogen  
Free

Spec No.  
LZ0281-00

Update Date  
2019/5/7

Revision  
C

Approved	Checked	Prepared



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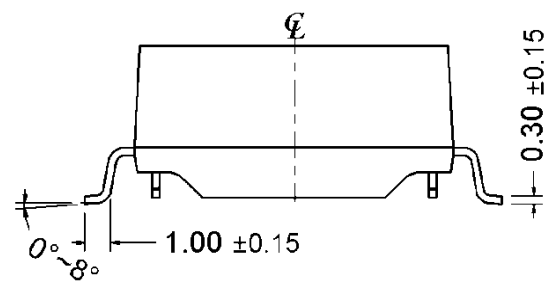
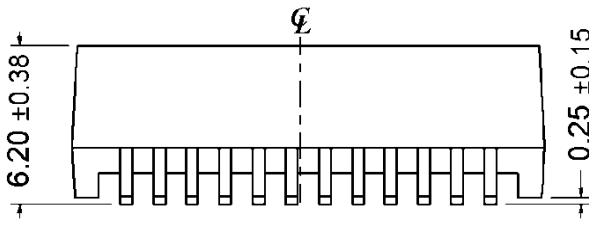
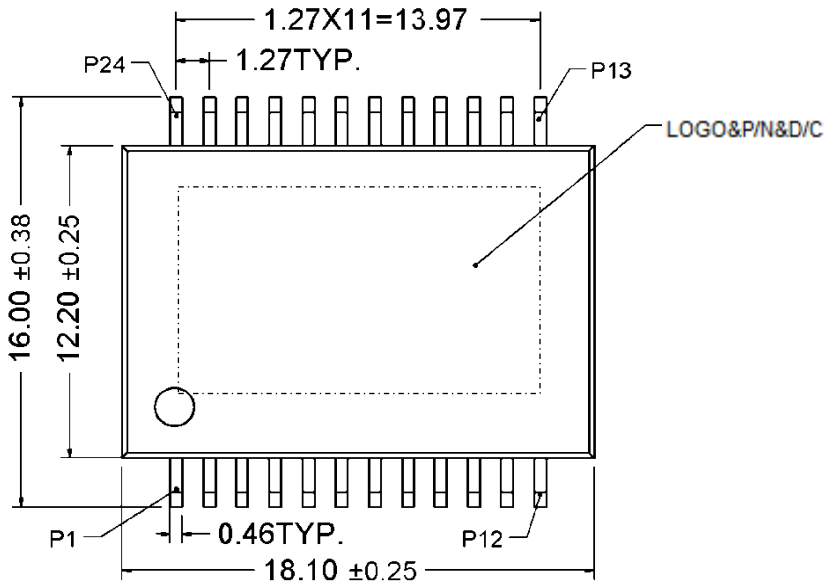
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# 1. MECHANICAL DIMENSION

## 1.1 Product Dimension

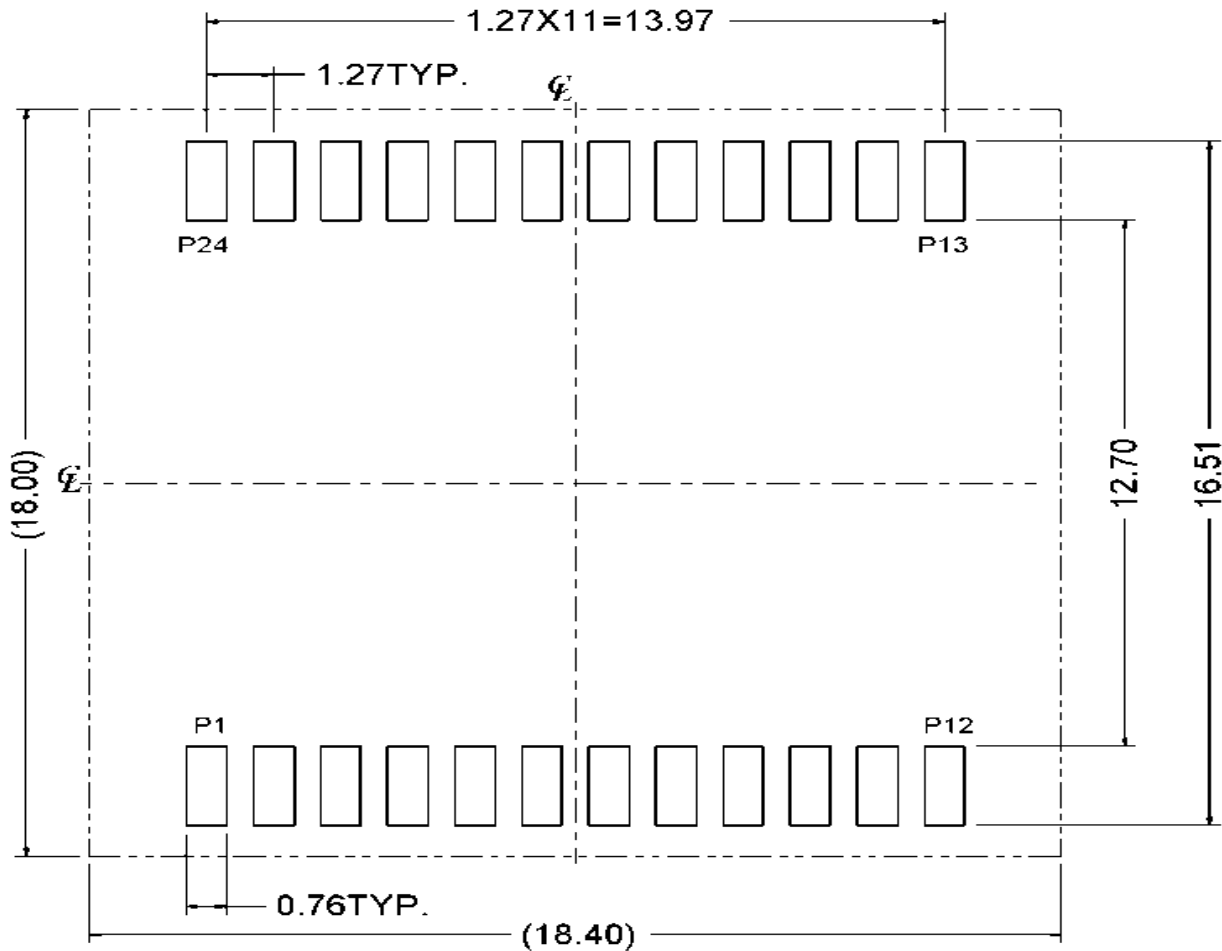
General Tolerance : X.X : ± 0.25  
X.XX : ± 0.13



### 1.2 Recommended PCB Layout

#### Component Side of Board

All dimension tolerances are  $\pm 0.08\text{mm}$  unless otherwise specified



### 1.3 Order Information

L 2 2 H 006 - 2  
 A B C D E F

- A、 Filter
- B、 SMD
- C、 24PIN
- D、 Normal
- E、 Product Numbering
- F、 PoE

## 2. SPECIFICATION

- 2.1 Designed for Ethernet 2.5G Base-T, Single port applications.
- 2.2 Supports 4 pairs of category 5 UTP cable.
- 2.3 Cable interface for isolation and low common mode emissions.
- 2.4 Design to meet IEEE 802.3af with 350mA balanced current.
- 2.5 Compliant with RoHS&Halogen Free requirements.

### 2.6 Operating and Storage Temperature

Operating Temperature : 0°C to +70°C

Storage Temperature : -25°C to +105°C

### 2.7 Packing Information

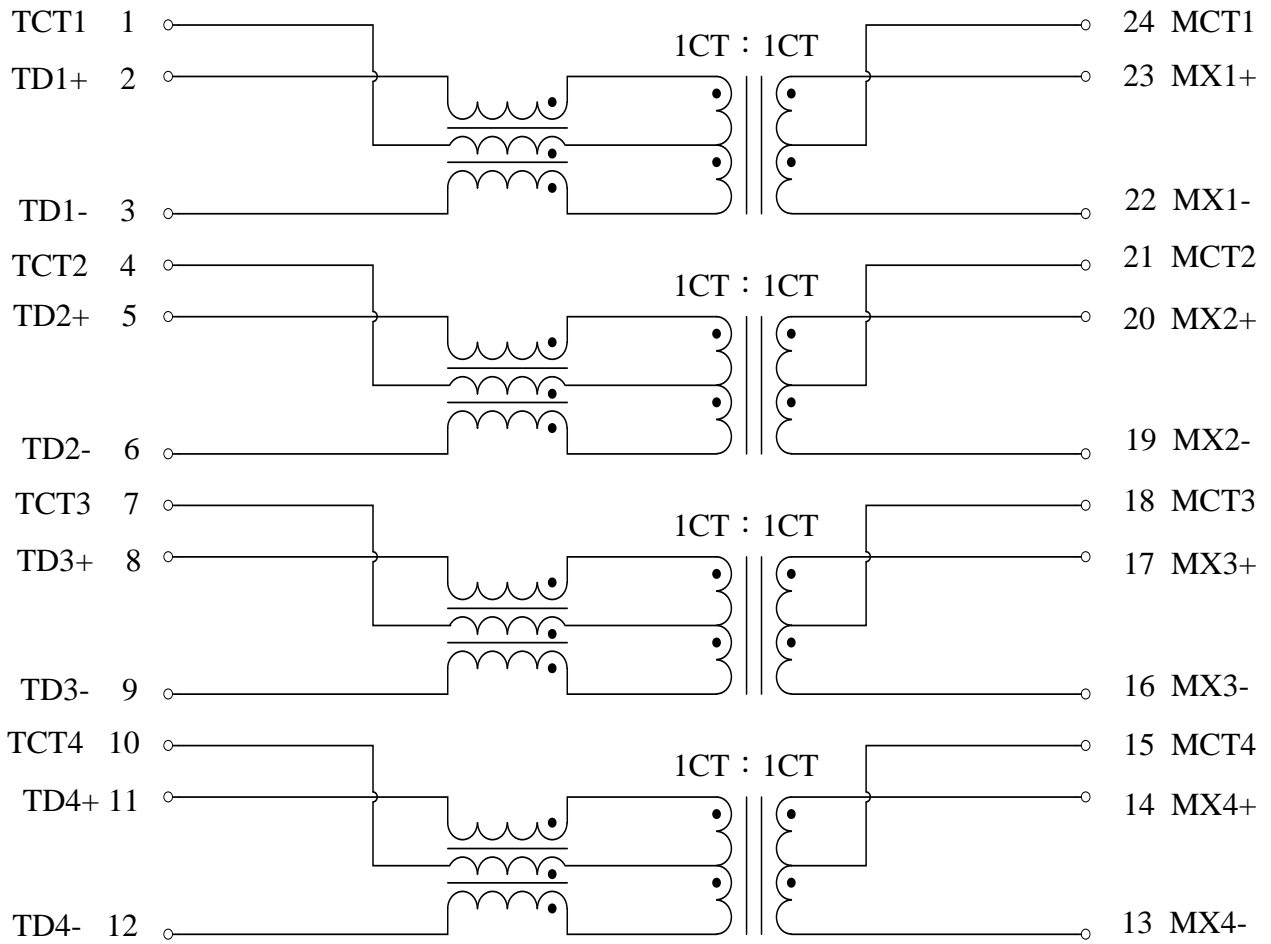
400 pcs finished goods per reel

3 reels(1200 pcs finished goods) per inner box

2 Inner boxes(2400 pcs finished goods) per master carton

### 3. ELECTRICAL CHARACTERISTICS

#### 3.1 Schematic



### 3.2 Electrical Specifications @25°C

Type : Balance low pass 100Ω impedance

#### 3.2.1 Insertion loss :

1-50MHz	-0.5 dB Max
50-125MHz	-1.0 dB Max
125-200MHz	-2.0 dB Max

#### 3.2.2 Return loss :

1~40MHz	-20 dB Minload 100Ω
40-200MHz	$-20+15*\log(\text{Freq MHz}/40\text{MHz})$ dB Minload 100Ω

#### 3.2.3 Reflected CM to Diff Conversion(REF)

1MHz	-30 dB Min
50MHz	-30 dB Min
100MHz	-27 dB Min
200MHz	-24 dB Min

#### 3.2.4 CM to DM Conversion(REF)

1-125MHz	-35 dB Min
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#### 3.2.5 Reflected Diff to CM Conversion(REF)

1-10MHz	-48 dB Min
10-200MHz	$-48+19*\log(\text{Freq MHz}/10\text{MHz})$ dB Min

#### 3.2.6 CM to CM Attenuation (REF)

1-200MHz	-25 dB Min
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#### 3.2.7 Cross Talk (REF)

1-125 MHz	-30 dB Min
125-200 MHz	-25 dB Min

3.3 Inductance

@ 100KHz, 0.1V, 8mA DC BIAS 180uHMin

3.4 HiPot Test

@ 1500 Vrms

3.5 Turns Ratio

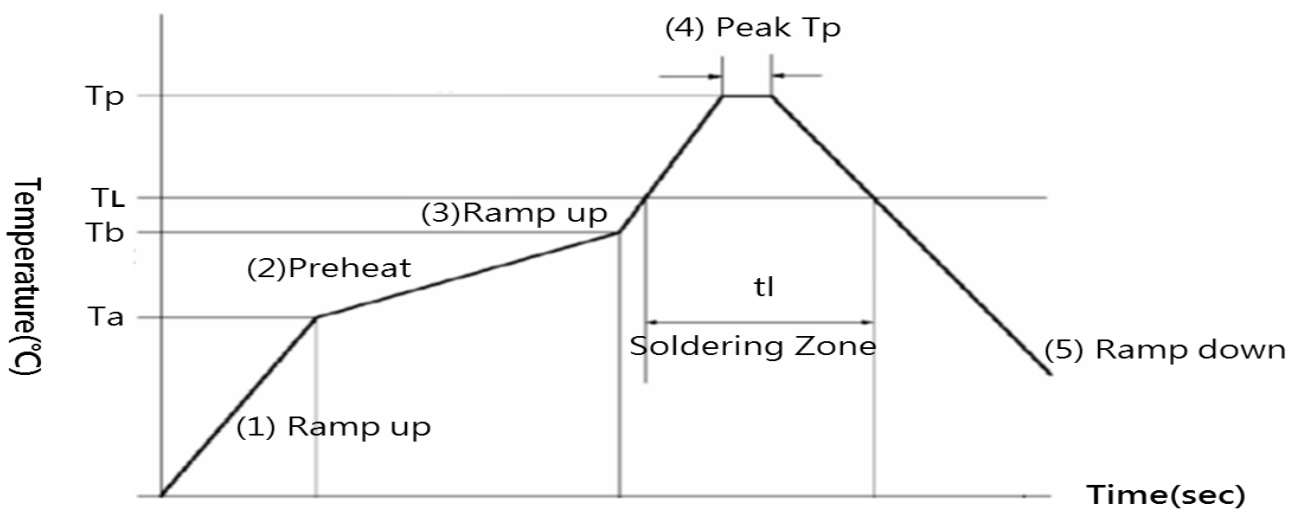
@ 1:1±5%

4. IR REFLOW TEMPERATURE PROFILE

Step#	Profile Feature	Condition/Duration
Step1	Ramp-up rate	3°C/sec max
Step2	Preheat : 150~200°C	Ta-Tb : 60-180sec
Step3	Ramp-up rate ( TL to Tp )	3°C/sec max
	Temperature maintained above 217°C ( TL )	tl : 60-150sec
Step4	Measured Peak temperature of pin ( Tp ) Set Reflow Peak Temp.	260°C
	The Time of Actual Peak temperature	20-40sec
Step5	Ramp-down rate	6°C/sec max
Note1	All temperatures refer to topside of the package, measured on the package body surface	
Note2	Time 25°C to peak temperature : 8 minutes max.	
Note3	It is not allowed to make a forced cooling in temperature falling range.	
Note4	The applicable condition refer to IPC/JEDEC J-STD-020D standard	

**Table 1 Pb-Free Process-Classification Temperatures ( Tp )**

Package Thickness	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350-2000	Volume mm <sup>3</sup> >2000
<1.6mm	260°C	260°C	260°C
1.6mm-2.5mm	260°C	260°C	260°C
>2.5mm	260°C	260°C	260°C





5. Revision History

Issue Date	Revision	Comments	Operator
2018/1/17	A	Initial Release .	Sandy
2018/9/5	B	Modify the PoE specification description	Sandy
2019/5/7	C	Add packing information	Sandy