

# APPROVAL SHEET

To :

Customer P/N :

UDE P/N : L22N001-0

Description : 1000 Base -T  
Single Port LAN Filter



**RoHS HF** Halogen Free

Spec No.  
LZ0014-00

Update Date  
2020/10/20

Revision  
E

Approved	Checked	Prepared



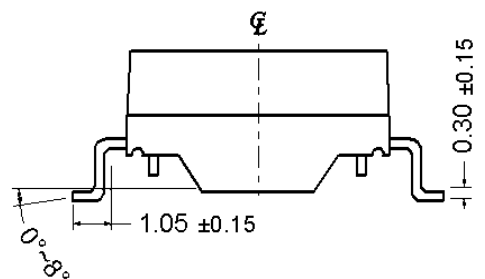
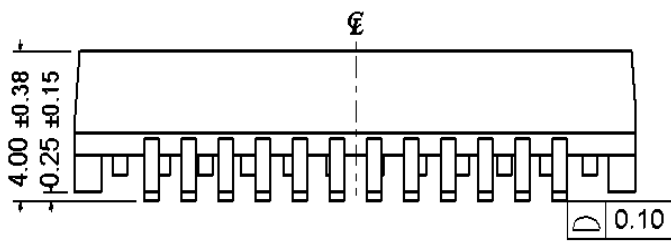
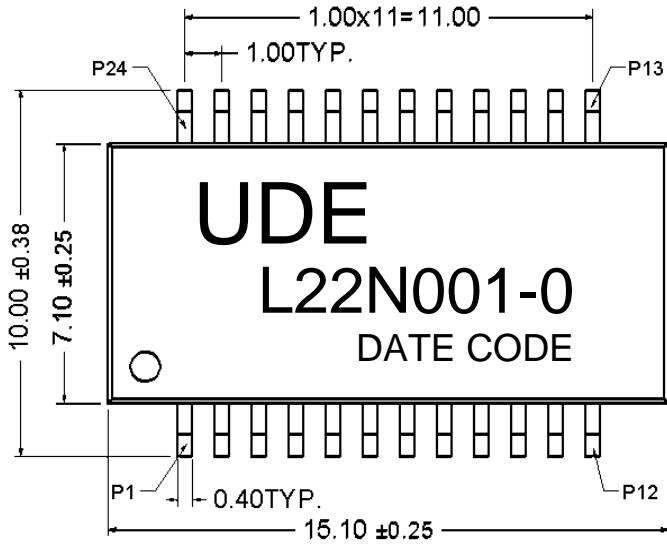
湧德電子 股份有限公司  
UDE Corp.

桃園市(33852) 蘆竹區內溪路 68 巷13號  
No.13, Ln. 68, Neixi Rd., Luzhu Dist., Taoyuan City (33852), Taiwan  
TEL: 886-3-3242000 FAX: 886-3-3246611  
<http://www.ude-corp.com/>

### 1. MECHANICAL DIMENSION

#### 1.1 Product Dimension

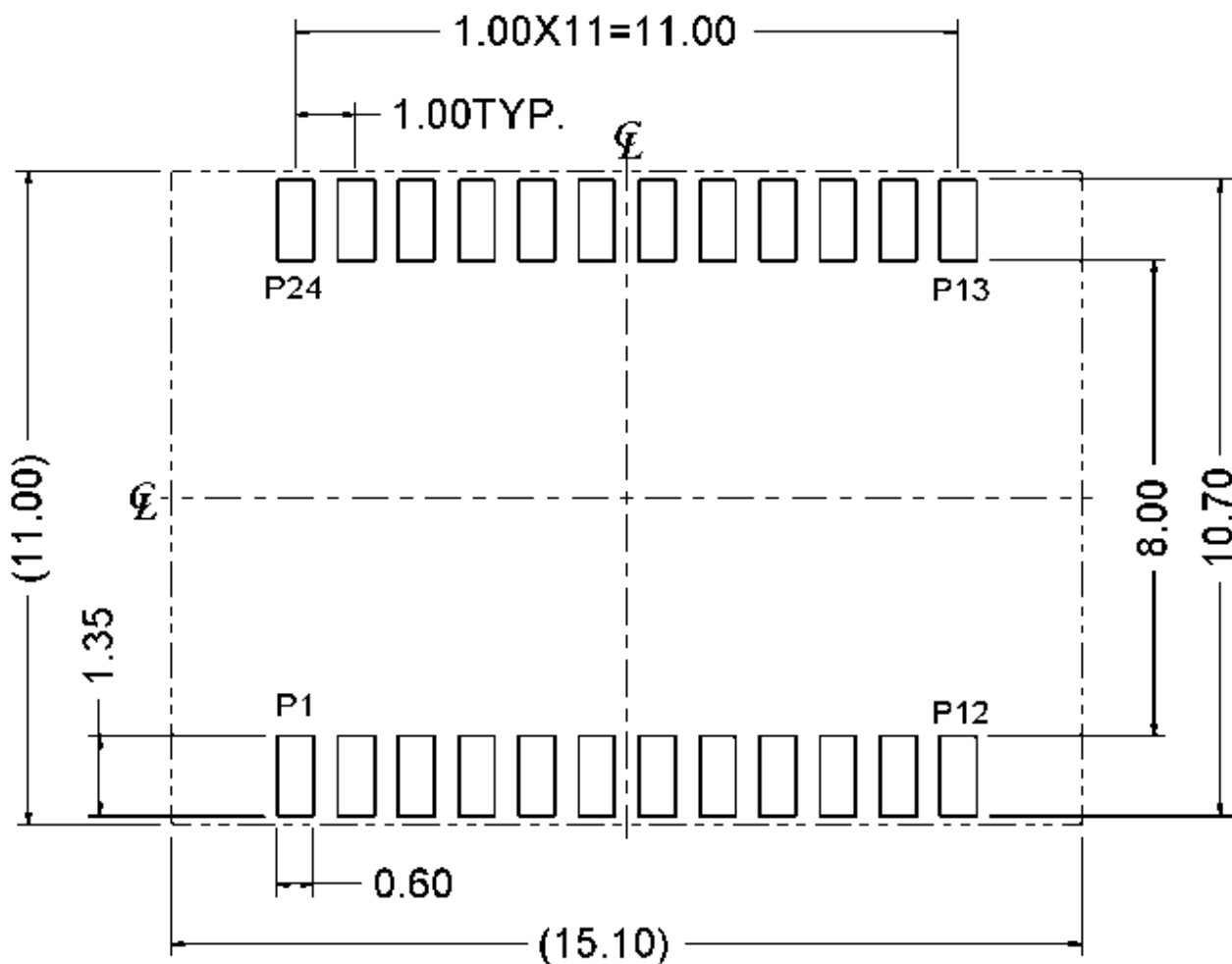
General Tolerance : X.X : ± 0.25  
X.XX : ± 0.13



### 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

<u>L</u>	<u>2</u>	<u>2</u>	<u>N</u>	<u>001</u>	-	<u>0</u>
A	B	C	D	E		F

A、 Filter

B、 SMD

C、 24PIN

D、 Normal

E、 Product Numbering

F、 Normal

## 2. SPECIFICATION

2.1 Designed for Ethernet 1000 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 802.3ab standard for 1000 Base-T.

2.5 Compliance 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

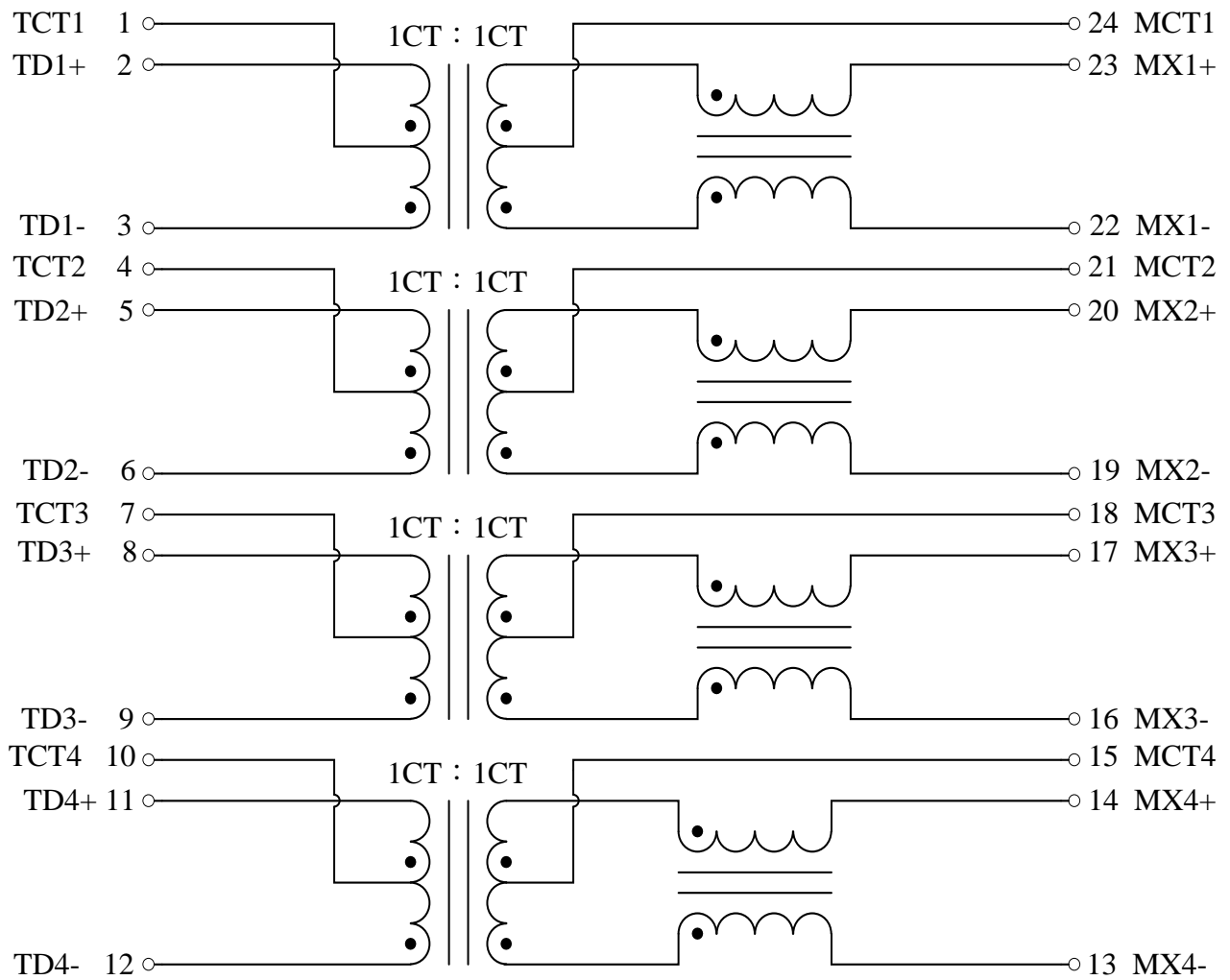
800 pcs finished goods per reel

3 reels(2400 pcs finished goods) per inner box

2 Inner boxes(4800 pcs finished goods) per master carton

### 3. ELECTRICAL CHARACTERISTICS

#### 3.1 Schematic



### 3.2 Electrical Specifications @25°C

Type : Balance low pass 100Ω impedance

Insertion loss : 1~100 MHz -1.0dB max.

Return loss : 1~30 MHz -18dB min. load 100Ω

30~60MHz -14dB min. load 100Ω

60~80MHz -12dB min. load 100Ω

80~100MHz -10dB min. load 100Ω

### 3.3 DCMR

@ 30 MHz -40dB min.

@ 60 MHz -35dB min.

@ 100 MHz -30dB min.

### 3.4 Cross Talk

@ 30 MHz -40dB min.

@60 MHz -35dB min.

@ 100 MHz -30dB min.

### 3.5 Inductance

@ 100KHz, 0.1V, 8mA DC BIAS 350uHMin

### 3.6 HiPot Test

@ 1500 Vrms

### 3.7 Turns Ratio

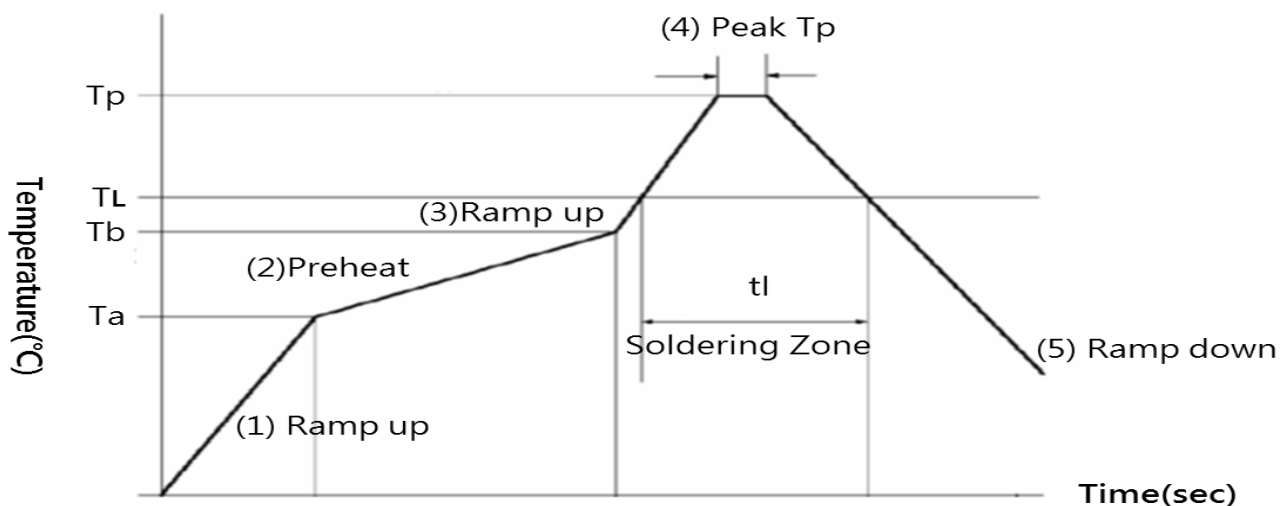
@ 1:1±5%

## 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
2016/3/15	A	Initial Release .	Sandy
2017/5/3	B	Add the HF label	Sandy
2019/6/28	C	Update Product Dimension	Wells
2020/4/11	D	Add Logo Label	AiAi
2020/10/20	E	Added Shell Flatness Indicator	AiAi