

# APPROVAL SHEET

To :

Customer P/N :

UDE P/N : L22N006-0

Description : 1000 BASE -T  
Single Port LAN Filter



**HF**

Halogen  
Free

Spec No.  
LZ0045-00

Update Date  
2020/4/11

Revision  
B

Approved	Checked	Prepared



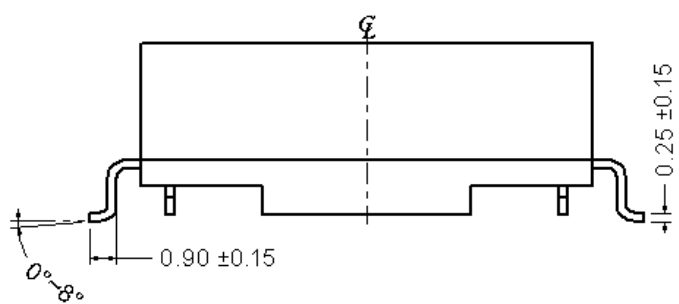
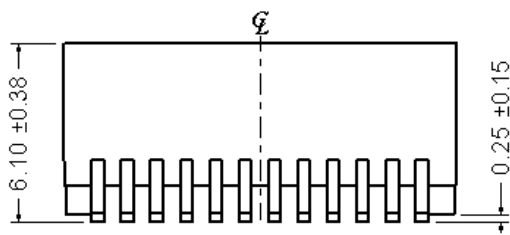
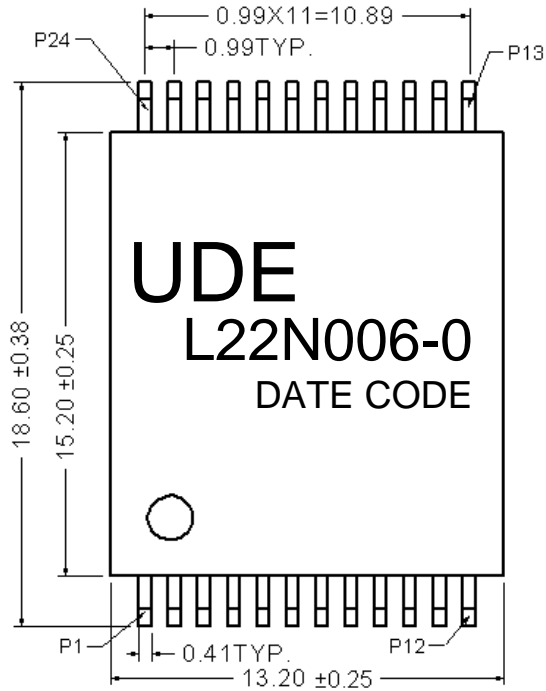
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# 1. MECHANICAL DIMENSION

## 1.1 Product Dimension

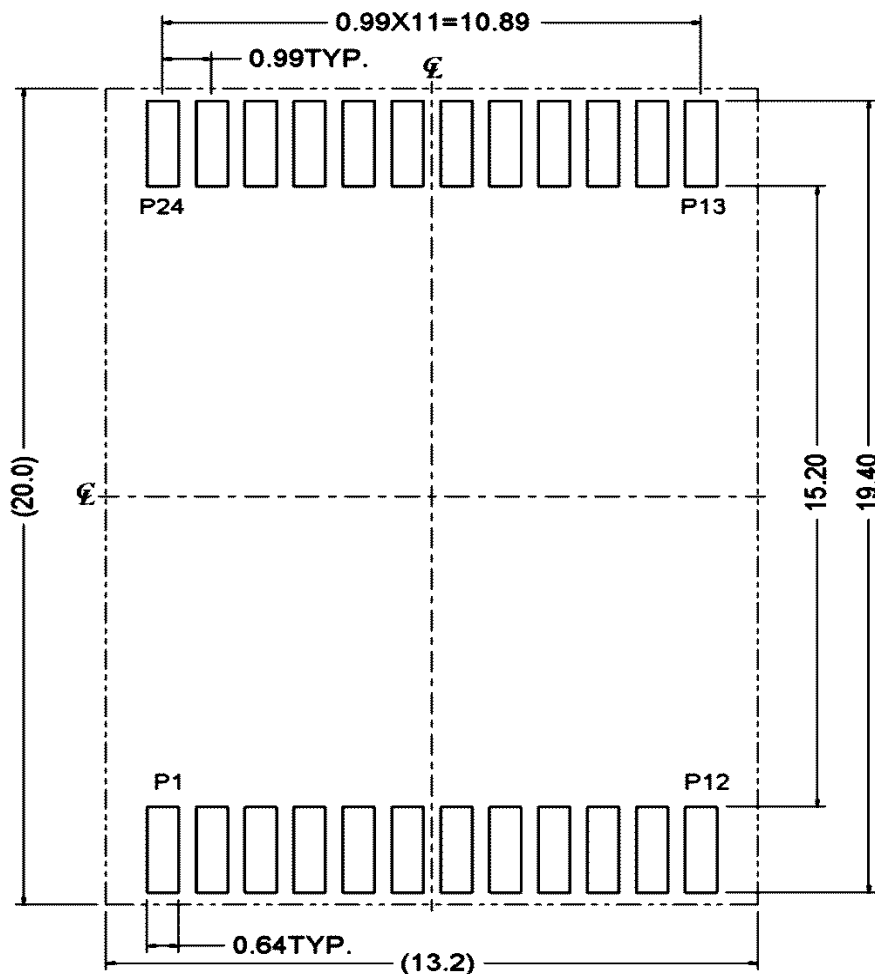
General Tolerance : X.X : ± 0.25  
X.XX : ± 0.13



### 1.2 Recommended PCB Layout

Component Side of Board

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



### 1.3 Order Information

L 2 2 N 006 - 0  
 A B C D E F

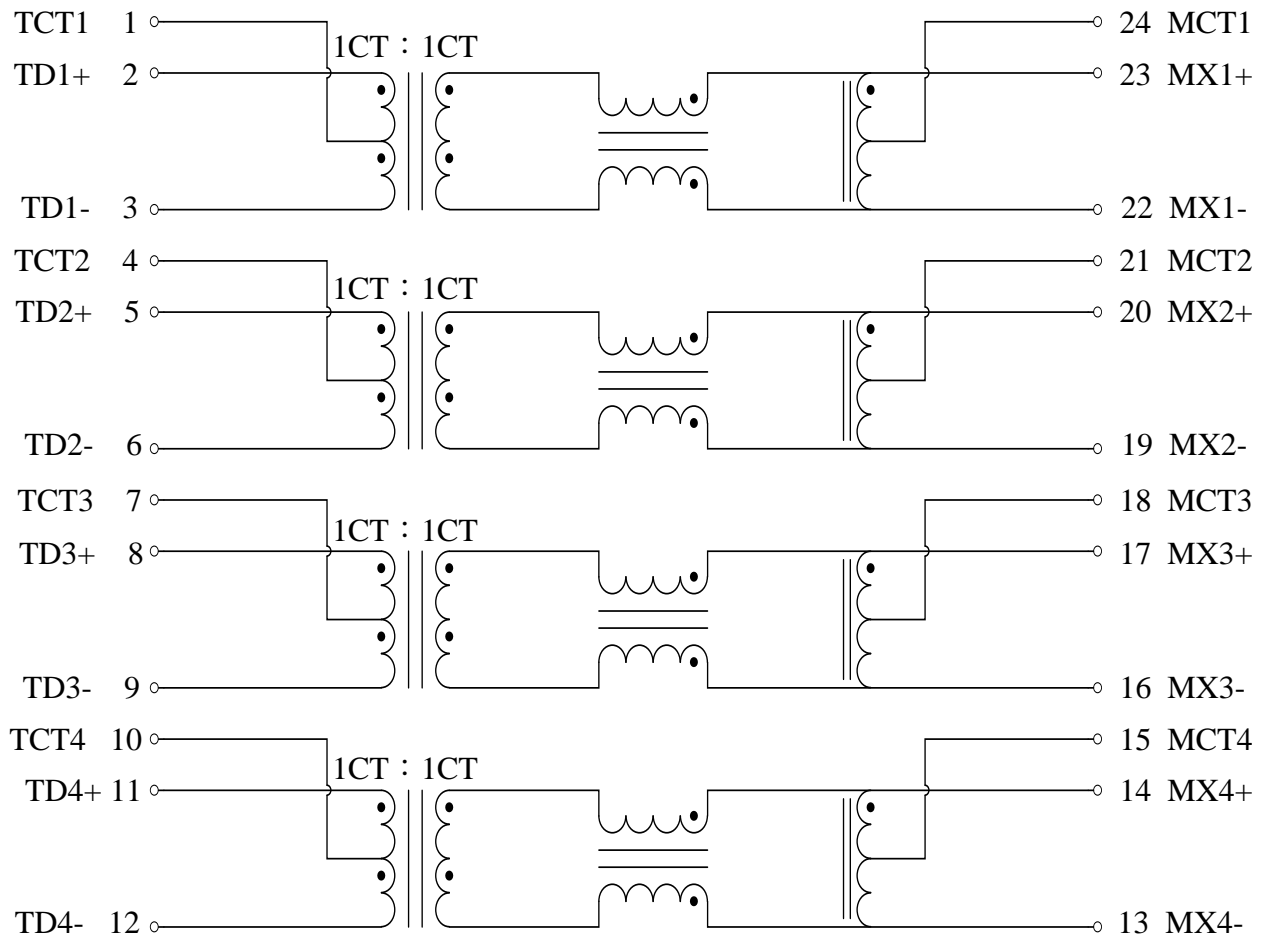
- A、 Filter
- B、 SMD
- C、 24PIN
- D、 Normal
- E、 Product Numbering
- F、 Normal

## 2. FEATURES

- 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 Compliant with IEEE 802.3ab standard for 1000 Base-T.
- 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
  - 500 pcs finished goods per reel
  - 3 reels(1500 pcs finished goods) per inner box
  - 2 Inner boxes(3000 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

