

APPROVAL SHEET

To :

Customer P/N :

UDE P/N : L22N005-0

Description : 10G Base -T
Single Port LAN Filter



Spec No.
LZ0041-00

Update Date
2020/12/9

Revision
C

Approved	Checked	Prepared



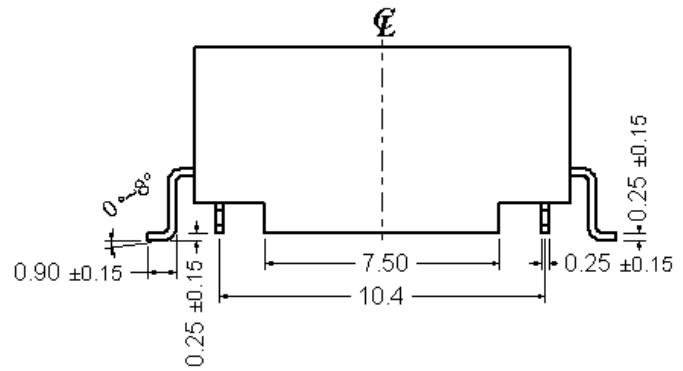
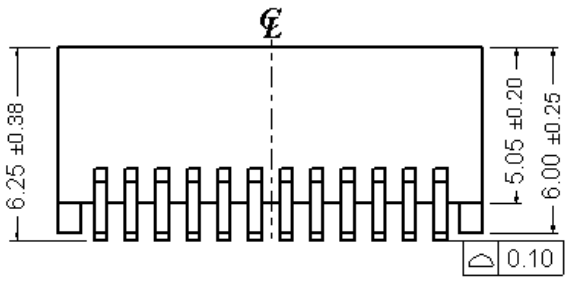
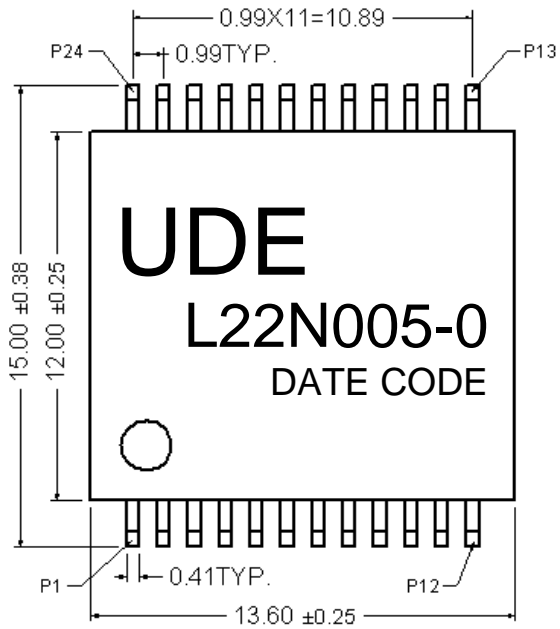
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1. MECHANICAL DIMENSION

1.1 Product Dimension (Unit mm)

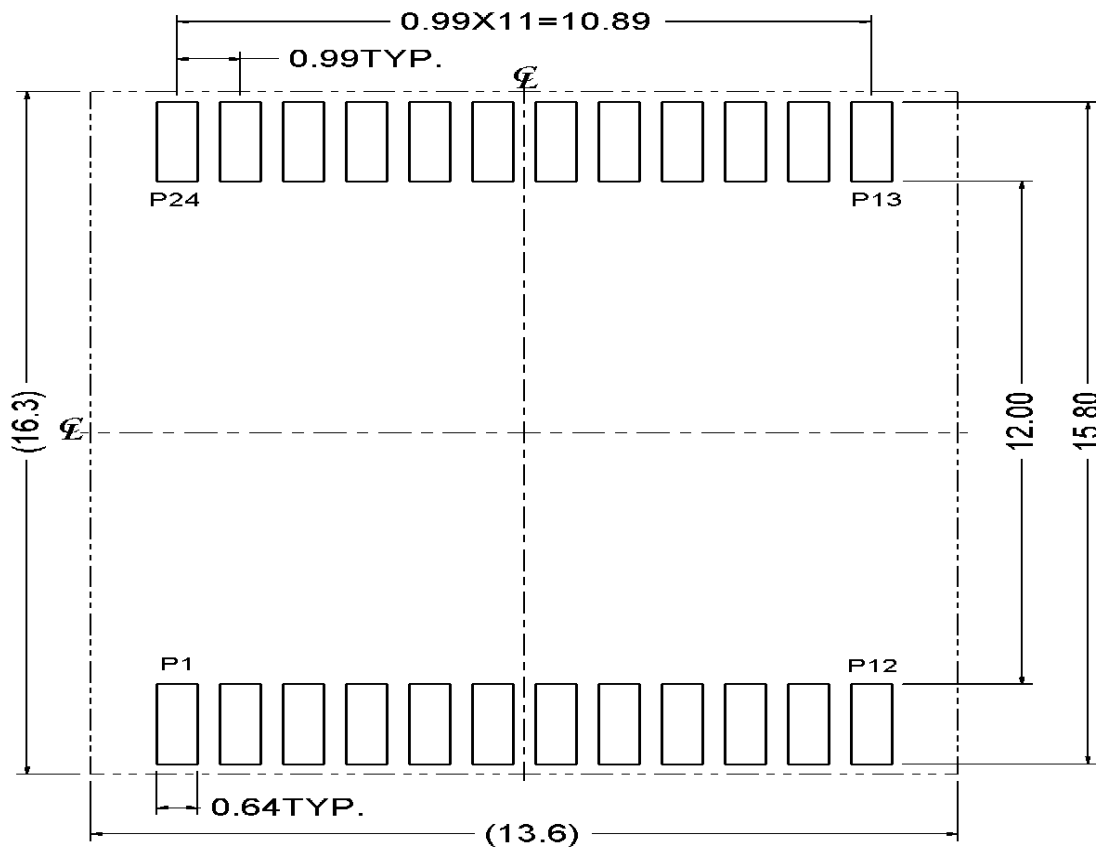
General Tolerance : X.X : ± 0.25
 X.XX : ± 0.13



1.2 Recommended PCB Layout (Unit mm)

Component Side of Board

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



1.3 Order Information

L 2 2 N 005 - 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 10G Base-T,full Single port applications.

2.2 Cable interface for isolation and low common mode emissions.

2.3 Compliant with IEEE 802.3an Specification.

2.4 Compliant with RoHS&Halogen Free requirements.

2.5 Operating and Storage Temperature

Operating Temperature : 0°C to +70°C

Storage Temperature : -25°C to +105°C

2.7 Packing Information

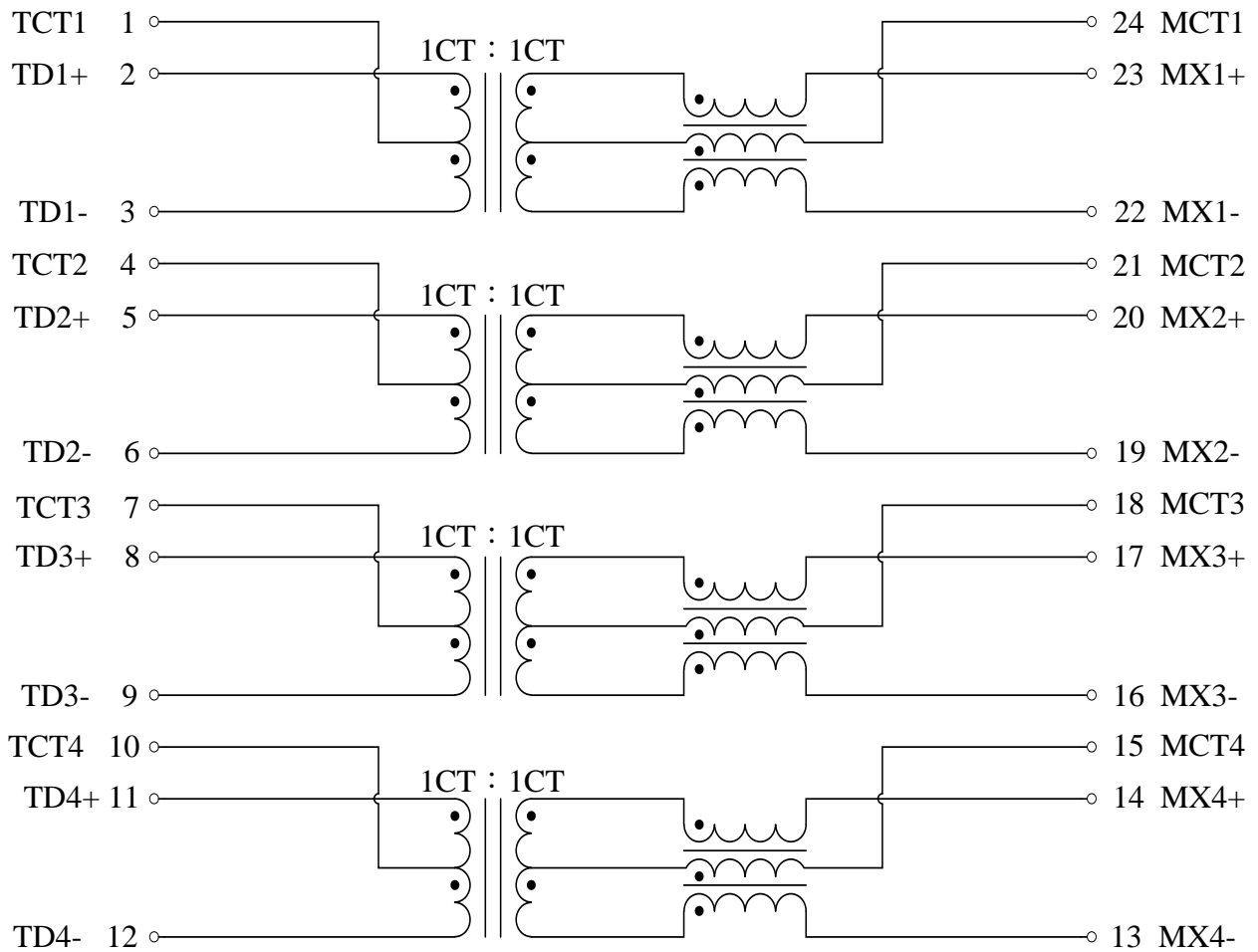
500 pcs finished goods per reel

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

3.2.1 Insertion Loss

1MHZ -0.8 dB Max

20MHZ -0.8 dB Max

50MHZ -1.0 dB Max

200MHZ -1.2 dB Max

400MHZ -2.0 dB Max

500MHZ -3.0 dB Max

3.2.2 Return Loss

1MHz -20 dB Min load 100Ω

100MHz -20 dB Min load 100Ω

200MHz -18 dB Min load 100Ω

300MHz -15 dB Min load 100Ω

400MHz -10 dB Min load 100Ω

500MHz - 8 dB Min load 100Ω

3.2.3 Reflected CM to Diff Conversion (REF)

50MHZ -30 dB Min

100MHZ -27 dB Min

200MHZ -24 dB Min

300MHZ -22 dB Min

400MHZ -21 dB Min

500MHZ -20 dB Min

3.2.4 Reflected Diff to CM Conversion (REF)

1MHZ -48 dB Min

100MHZ -35 dB Min

400MHZ -24 dB Min

500MHZ -24 dB Min

3.2.5 CM to DM Conversion (REF)

50MHZ -48 dB Min

100MHZ -42 dB Min

200MHZ -36 dB Min

300MHZ -33 dB Min

400MHZ -30 dB Min

500MHZ -28 dB Min

3.2.6 CM to CM Attenuation

1MHZ -22 dB Min

500MHZ -20 dB Min

800MHZ -20 dB Min

1000MHZ -17 dB Min

3.2.7 Cross Talk

1MHZ -34 dB Min

350MHZ -23 dB Min

500MHZ -23 dB Min

3.3 Inductance

@ 100KHz, 0.1V, 8mA DC BIAS 160uHMin

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 mm3 <350	Volume mm3 350-2000	Volume mm3 >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

