

APPROVAL SHEET

To :

Customer P/N :

Part Number : L12H003-0

Description : 10G Base -T
Single Port LAN Filter



Spec No.
LZ0342-00

Update Date
2018/6/20

Revision
A

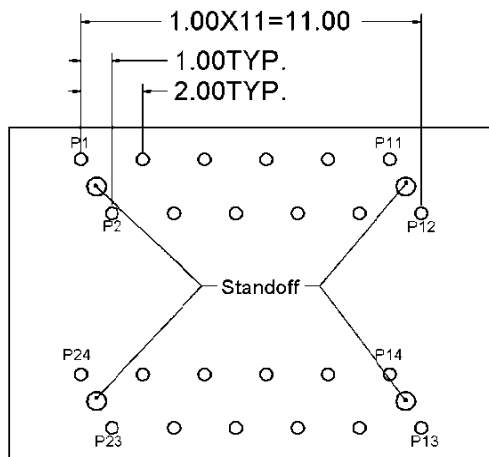
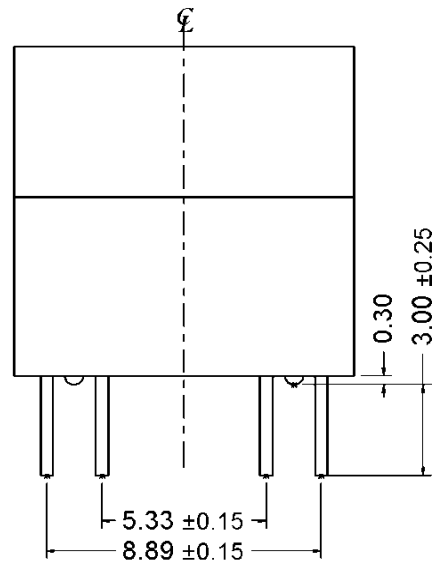
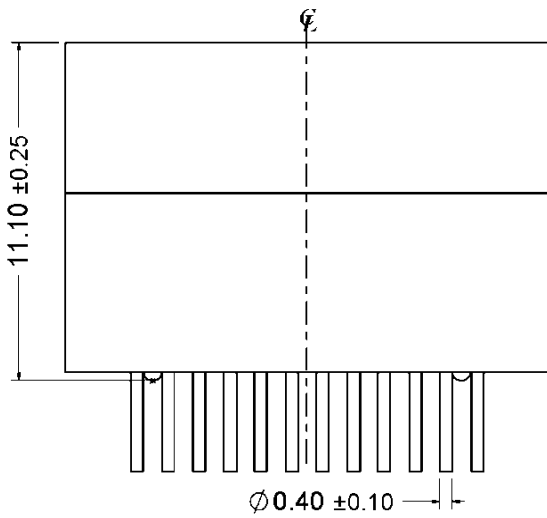
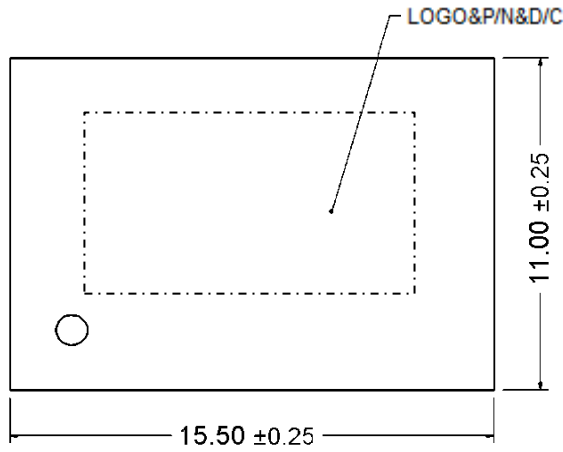
Approved	Checked	Prepared

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1. MECHANICAL DIMENSION

1.1 Product Dimension

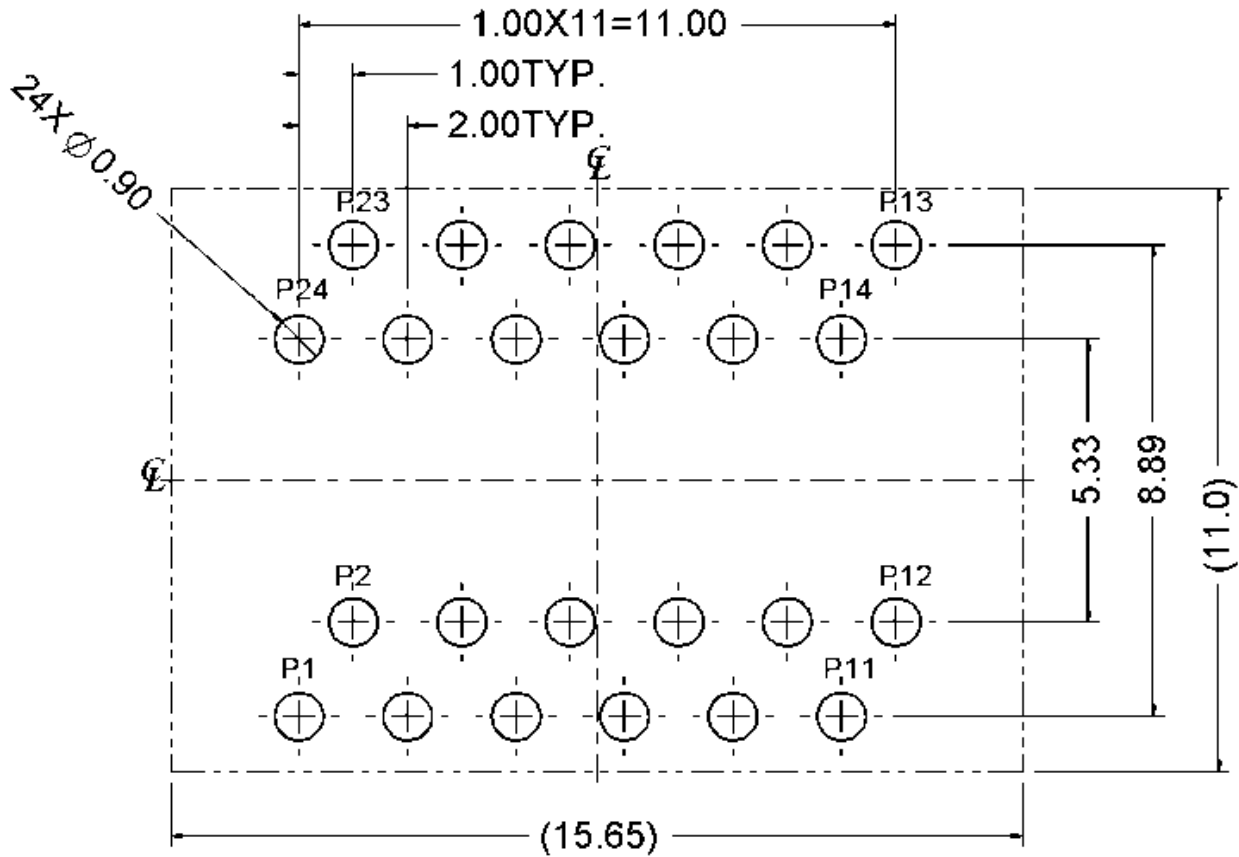
General Tolerance : X.X : ± 0.25
X.XX : ± 0.13



1.2 Recommended PCB Layout

Component Side of Board

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



1.3 Order Information

<u>L</u>	<u>1</u>	<u>2</u>	<u>H</u>	<u>003</u>	-	<u>0</u>
A	B	C	D	E		F

A、 Filter

B、 DIP

C、 24pin

D、 Normal

E、 Product Numbering

F、 Normal

2. SPECIFICATION

2.1 Designed for Ethernet 10G Base-T, Single port applications.

2.2 Supports 4 pairs of category 6A or greater cable.

2.3 Cable interface for isolation and low common mode emissions.

2.4 Compliant with IEEE 802.3 standard.

2.5 Compliant with RoHS&Halogen Free requirements.

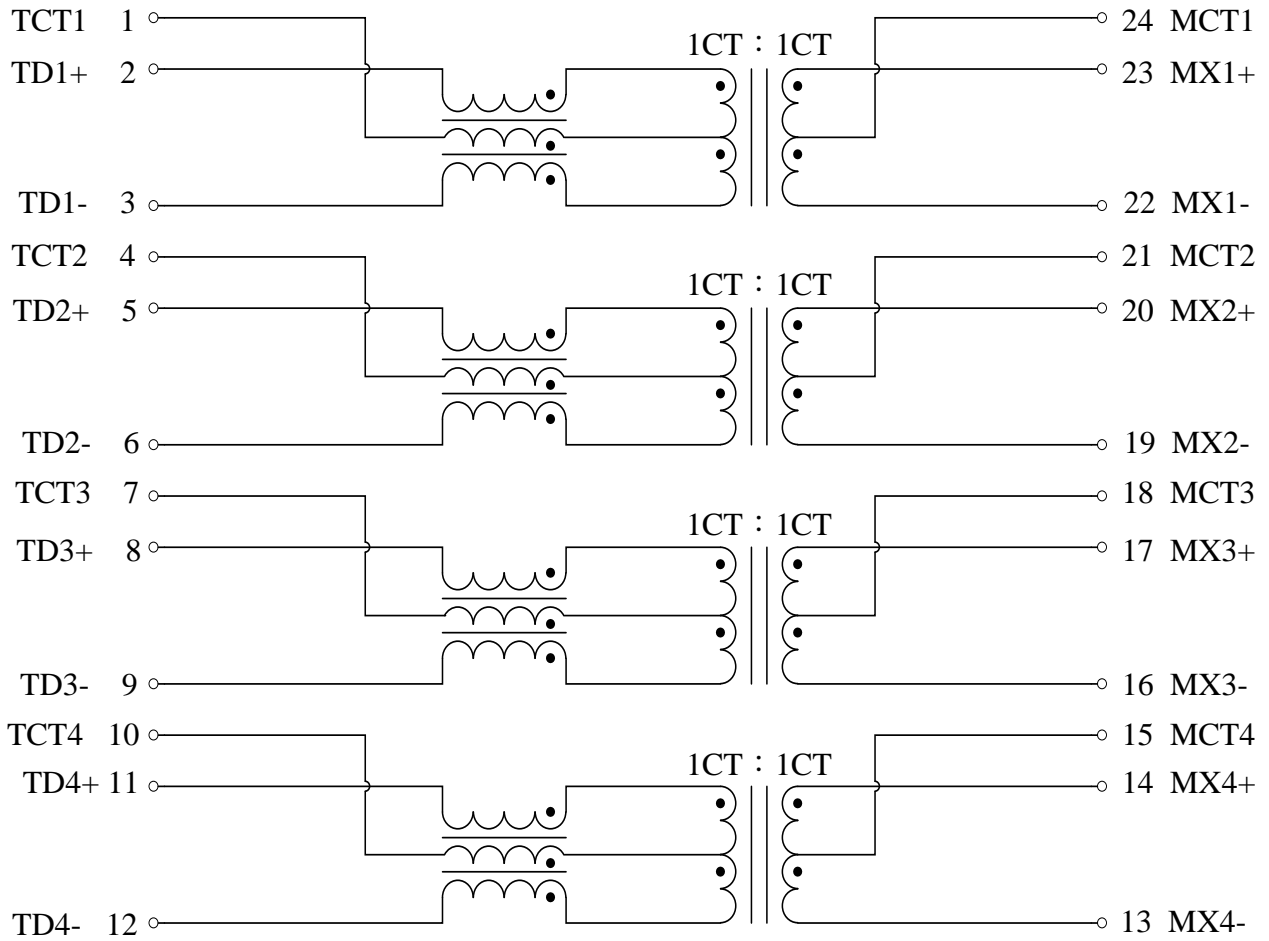
2.6 Operating and Storage Temperature

Operating Temperature : 0°C to +70°C

Storage Temperature : -25°C to +105°C

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

3.4 HiPot Test

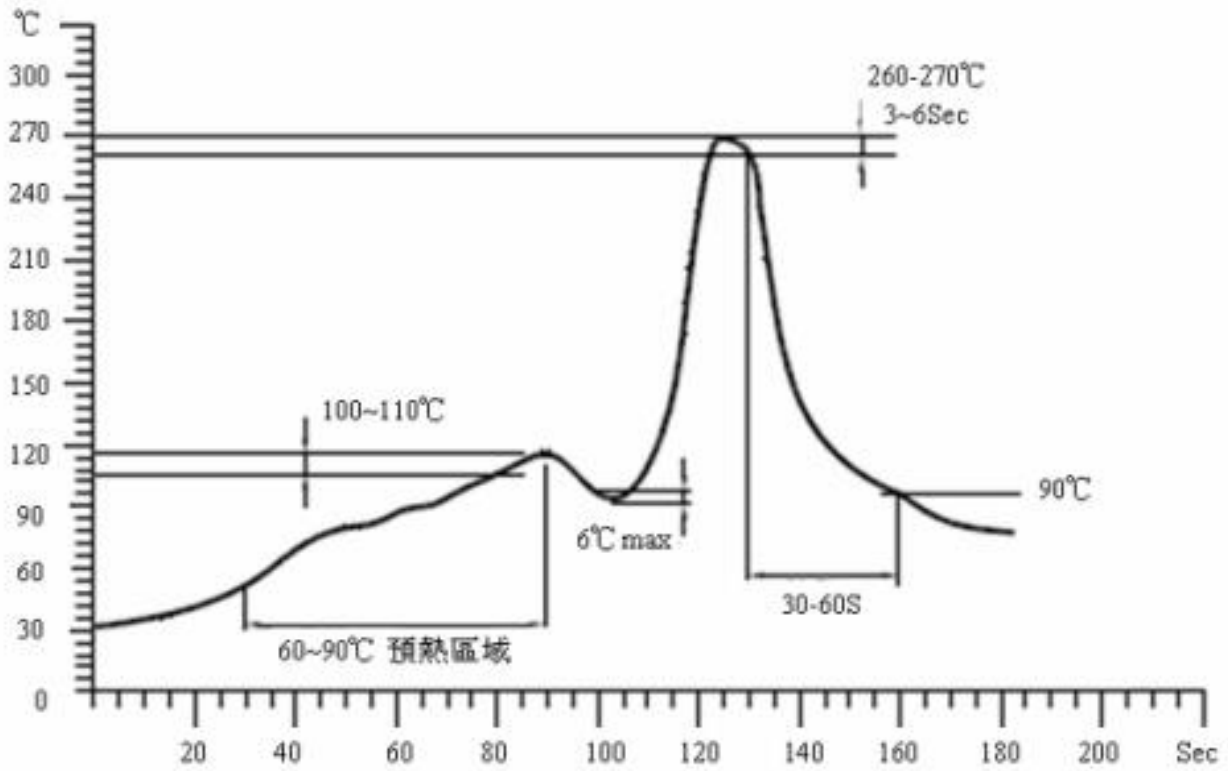
@ 1500 Vrms

3.5 Turns Ratio

@ 1:1±5%

4. WAVE SOLDERING TEMPERATURE PROFILE

Recommend Wave Soldering Curve:



5. Revision History			
Issue Date	Revision	Comments	Operator
2018/6/21	A	Initial Release .	Sandy