

SPECIFICATION FOR APPROVAL

CUSTOMER:					
CUSTOMER P/N:					
CND-TEK P/N. :	G2412S				
DESCRIPTION:	1000 BASE-T MAGNETICS MODULES				
REF NO:	QTC-001				
REV/NO:	V1.02				
DATE:	2015/03/02				
ATTACHMENT:					
■ SPECIFICATION					
■ SAMPLE Q'TY OF SAMPLES PCS					
	V	CUSTOMER'S SIGNATURE	REMARK		

FULL APPROVED

CONDITIONAL APPROVED

REJECTED



G2412S

1000 BASE-T MAGNETICS MODULES



V1.0.2 Feb 2, 2015



Shenzhen CND-TEK Electronics Co.,Ltd

公司地址: 深圳市南山区西丽镇街道百旺社区牛城村牛城路221号505

TEL: 86-755-29016433 FAX:86-755-27652977

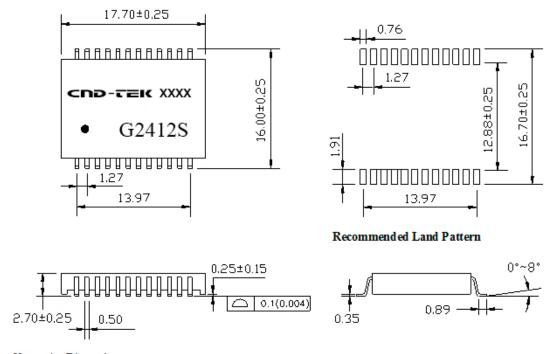
Email: sales2@cd-tek.com Http://www.cd-tek.com



1.FEATURES:

- 1.1 Designed for long haul Gigabit Ethernet 1000 Base-T, full duplex applications.
- 1.2 Supports four pairs of category 5 UTP cable.
- 1.3 Low profile Surface Mount Packaging designed for Hi-Temp Reflow Process
- 1.4 Suitable For End-apan and Mid-span POE Applications 550mA Current Capadility Per POE Port
- 1.5 Operating Temperature range: 0°CTO +70°C
- 1.6 Storage temperature range: -25°CTO +125°C

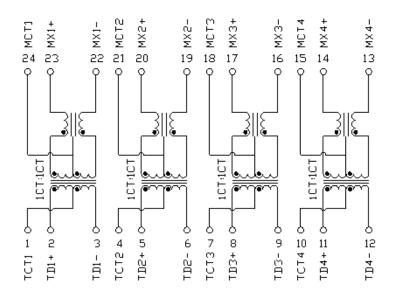
2. DIMENSIONS & MARKING



Note: 1. Dimension: mm

2. Unless otherwise specified, all tolerances are: ±0.05mm

3. SCHEMATICS:



4.ELECTRICAL SPECIFICATIONS @25℃

4.1 OCL: 350 μH Min. @ 100 KHz, 100mV with 8mA DC Bias

4.2 Leakage Inductance: 0.5 μH Max. @ 100KHz, 0.2V

4.3 Cw/w: 28pF Max. @ 100KHz, 0.2V

4.4 DCR: 0.9Ω Max.

4.5 Turns Ratio(± 5%): 1CT:1CT(TX), 1CT:1CT(RX)

4.6 Polarity 2-23, 5-20, 8-17, 11-14 In-Phase

4.7 Insertion Loss: -1.0 dB Max. @ 1-100MHz

4.8 Return Loss: -16 dB Min. @ 1-30MHz

-12 dB Min. @ 30-60 MHz

-10 dB Min.@ 60-80 MHz

4.9 Cross Talk: -42 dB Min.@ 1-60 MHz

-35 dB Min.@ 60-100 MHz

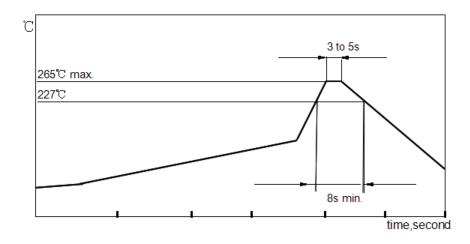
4.10 Common Mode Rejection: -40 dB Min.@ 1-30 MHz

-35dB Min.@ 60 MHz

-30dB Min.@ 80-100 MHz

4.11 Isolation HI-POT: 1500Vrms 1mA 1Second

5. Recommended Lead Free IR Reflow Soldering Curve:



Item	Soldertechnique simulation	Temperature (℃)	Time(s)	Temperature ramp/immersion and emersion rate
1	Solder iron	350 ± 10 (solder irno temp)	4~5	
2	Vapor phase reflow	215±5 (vapor temp)	60±5	
3	IR/convection reflow	255±5 (component temp)	30±5	1°C/s~4°C/s time above 183°C 90s~120s

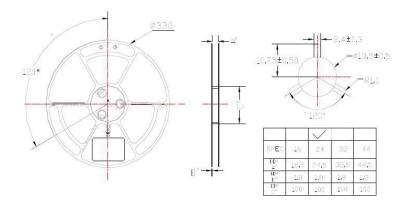
Note: The curve includes recommended value only, please adjust your equipment to make sure the solder process. Details please refers to the standard J-STD-020.

6. Reliability Test Criteria:

- **6.1 Terminal strength:** Pull test withstand 9.8N 60+/-0.5S no looseness or movement.
- **6.2 Solderbility:** Dipped in 245 °C+/-5 °C molten solder for 3+/-0.5 seconds,95% min shall be smooth any and bright.
- **6.3 Resistance to soldering heat :** Convection reflow condition setting: peak temperature at $260^{\circ}\text{C} + 0/-5^{\circ}\text{C}$ above 217°C for 90-180 seconds, ramp-up rate 2-3 °C/s. Ramp-down rate 6°C/s Max. No mechanical problem found. No electrical failure found per our specification.
- **6.4 Vibration:** 1.5mm amplitude total excursion 10-55-10 Hz traversed in 1minute, x.y.z, axis for 2 hours. Shall not be any abnormality.
- **6.5 Random drop (Packing condition):** Height 60cm, 3 times on the wood floorboard ,shall not be any abnormality.
- **6.6 Dry heat:** 100+/-2°C 96 hours.
- **6.7 Cold:** -20+/-2 °C 96 hours.
- **6.8 Damp Heat:** 60+/-2°C, 93+/-3% RH 96 hours.
- **6.9 Change of temperature:** exposed 5 cycle; each consisting of 30 minutes at $-20+/-2^{\circ}$ C, 2-3 minutes at 20+/-2°C, 30 minutes at 85+/-2°C, 2-3 minutes at 20+/-2°C.

Packing Specification

1、Each Reel Qty: 420pcs/pkg



2. Total unit transformer in carton:

 420×5 (Total Reel in Carton) = 2100 PCS

