

# 产品承认书

## SPECIFICATION FOR APPROVAL

CUSTOMER:

\_\_\_\_\_

CUSTOMER P/N:

\_\_\_\_\_

CND-TEK P/N.:

TF-1016DG

DESCRIPTION:

10/100 BASE-T MAGNETICS MODULES

REF NO:

\_\_\_\_\_

REV/NO:

A/0

DATE:

2017-8-27

ATTACHMENT:

■ SPECIFICATION

■ SAMPLE Q'TY OF SAMPLES 20 PCS

	√	CUSTOMER'S SIGNATURE	REMARK
FULL APPROVED			
CONDITIONAL APPROVED			
REJECTED			

**CND-TEK**

深圳磁联达电子有限公司

Shenzhen CND-TEK Industrial Co.,Ltd

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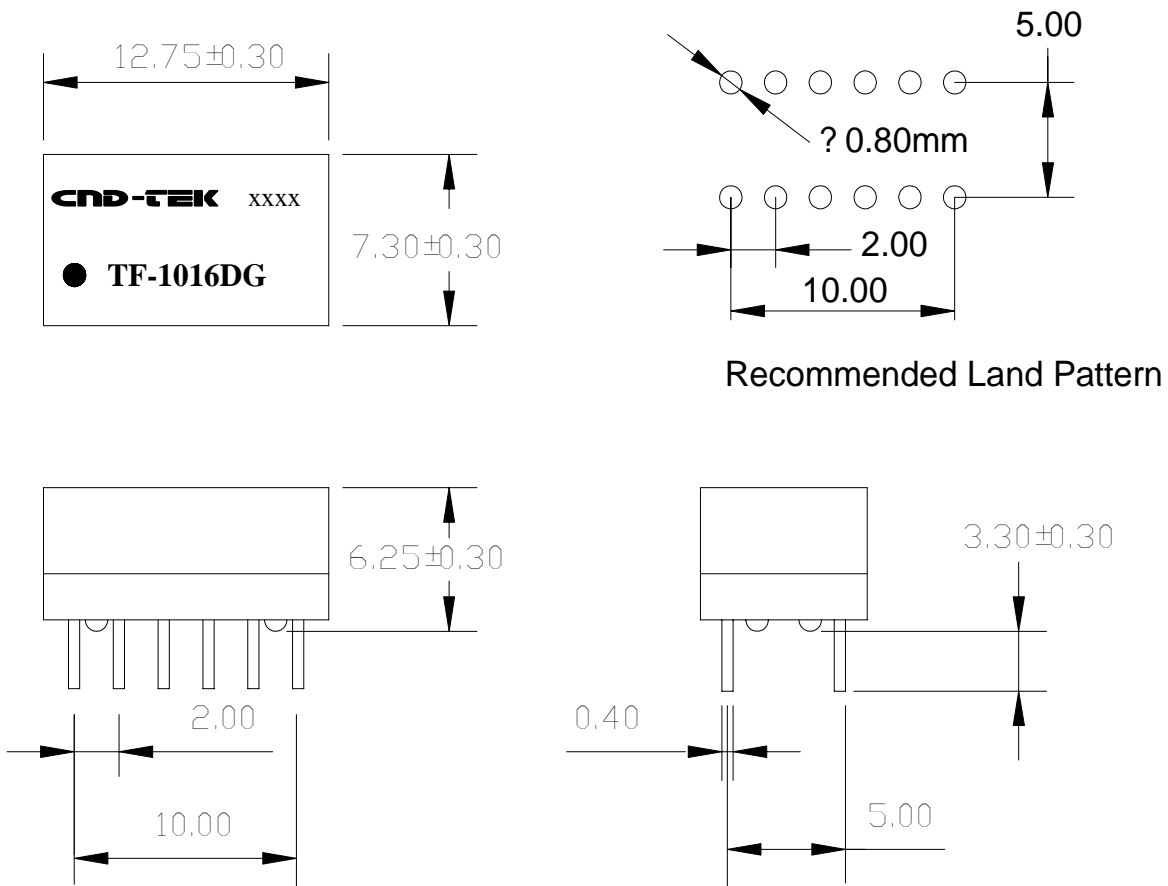
Http: //www.cd-tek.com



# 1. FEATURES:

- 1.1 Compatible with various 10/100 Base-TX transceiver requiring 1:1 transmit and receive turns ratio
- 1.2 Compliant with IEEE 802.3 standard including baseline wander compensation specification of 350μH OCL when Biased at 8mA from 0°C to 70°C
- 1.3 Single channel interface for 10/100Mbps Ethernet applications with CMC's tuned to Enhance EMC system performance
- 1.4 Available in Through Hole package.
- 1.5 Operating Temperature range: 0°C TO +70°C
- 1.6 Storage temperature range: -25°C TO +125°C

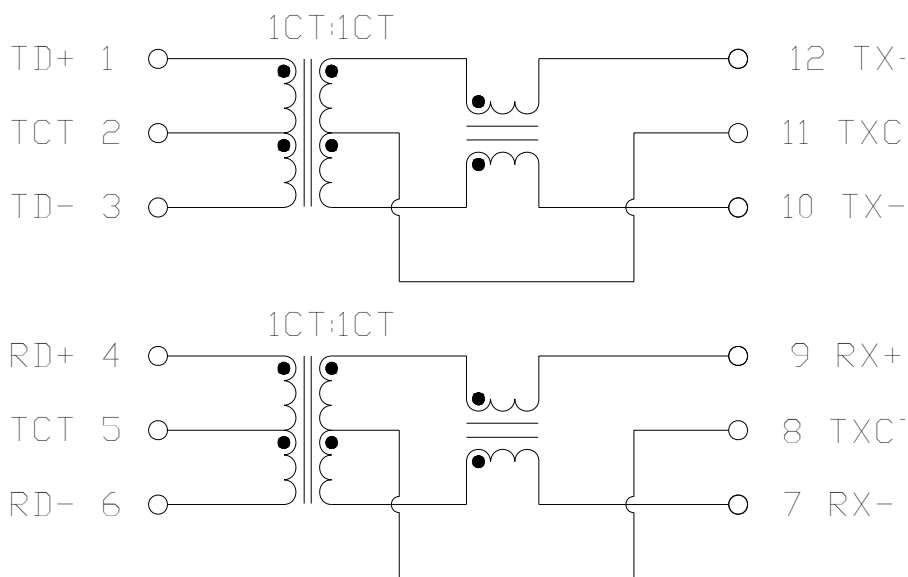
# 2. DIMENSIONS & MARKING



- Note:** 1、 Dimension: mm  
 2、 Unless otherwise specified, all tolerances are:  $\pm 0.05$ mm

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### 3. SCHEMATICS:



### 4. ELECTRICAL SPECIFICATIONS @25°C

4.1 OCL : 350  $\mu$ H Min. @ 100 KHz, 100mV with 8mA DC Bias

4.2 Leakage Inductance: 0.5  $\mu$ H Max. @ 100KHz, 0.2V

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

4.4 DCR: 0.9 Max.

4.5 Turns Ratio( $\pm$ 5%): 1CT:1(TX), 1CT:1(RX)

4.6 Polarity: 1-12, 4-9 In-Phase

4.7 Insertion Loss: -1.1 dB Max. (TX & RX)@ 1-100 MHz

4.8 Return Loss: -18 dB Min @ 0.5-30MHz  
 -15 dB Min @ 40 MHz -13  
 dB Min @ 60 MHz -11 dB  
 Min @ 80 MHz

-10 dB Min.@ 100 MHz

4.9 Cross Talk: -45 dB Min.@ 30 MHz

-40 dB Min.@ 60 MHz

-35 dB Min.@ 100 MHz

4.10 Common Mode Rejection : -43 dB Min.@ 1-30 MHz

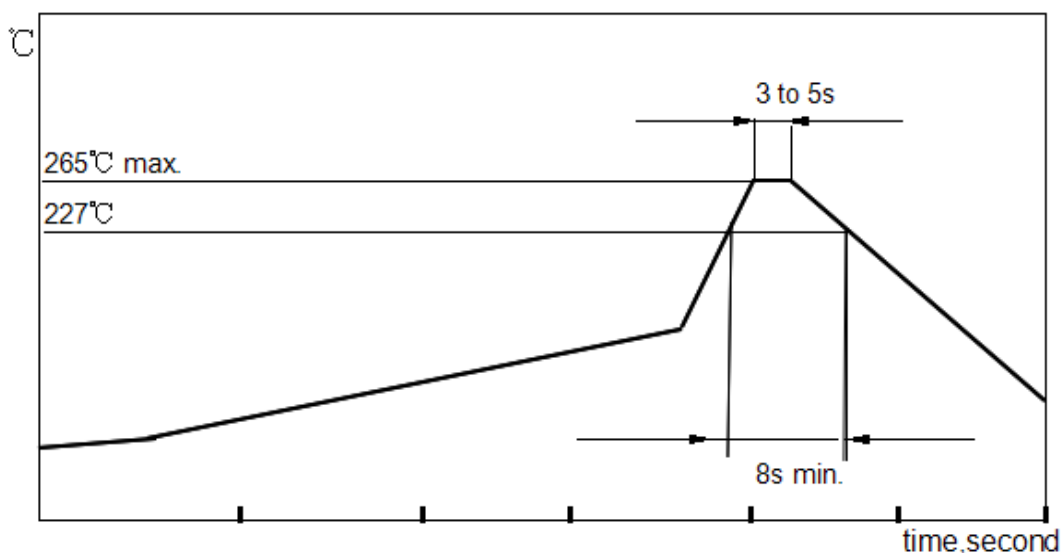
-37 dB Min.@ 60 MHz

-33 dB Min.@ 80-100 MHz

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

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## 5. Recommended Lead Free Wave Soldering Curve :



Item	Solder technique simulation	Temperature (°C)	Time(s)	Temperature ramp/immersion and emersion rate
1	Solder iron	350±10 (solder iron temp)	4~5	
2	Vapor phase reflow	215±5 (vapor temp)	10±1	25mm/s±6mm/s
3	Wave: Topside Board-mount product	260±5 (solder temp)	20±1	
4	Wave: Bottomside Board-mount product	260±5 (solder temp)	10±1	Preheat 1°C/s~4°C/s to within 100°C of solder temp 25mm/s±6mm/s
5	Vapor phase reflow	215±5 (vapor temp)	215±5 (vapor temp)	

## 6. Reliability Test Criteria:

6.1 **Terminal strength:** Pull test withstand 9.8N 60+/-0.5S no looseness or movement.

6.2 **Solderability:** 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 :** Dip in 260°C+/- 5°C molten solder for 5+/- 0.5 seconds. Shall not be any abnormality.

6.4 **Vibration:** 1.5mm amplitude total excursion 10-55-10 Hz traversed in 1 minute, 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°C, 2-3 minutes at 20+/- 2°C, 30 minutes at 85+/-2°C, 2-3 minutes at 20+/-2°C.

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