# 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 SA	AMPLES 20 PCS		

	V	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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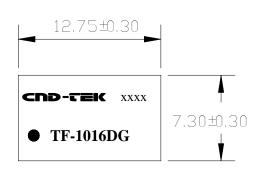


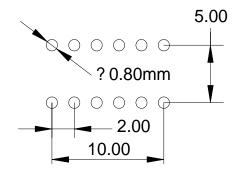
#### 1. FEATURES:

- 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 350 $\mu$ H 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 Availiable in Through Hole package.
- 1.5 Operating Temperature range: 0°C TO +70°C1.6

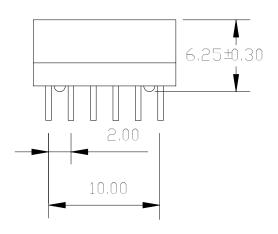
Storage temperature range: -25°C TO +125°C

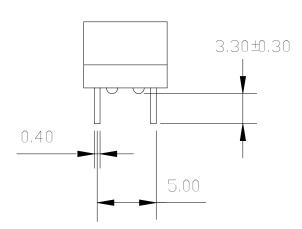
#### 2. DIMENSIONS & MARKING





Recommended Land Pattern



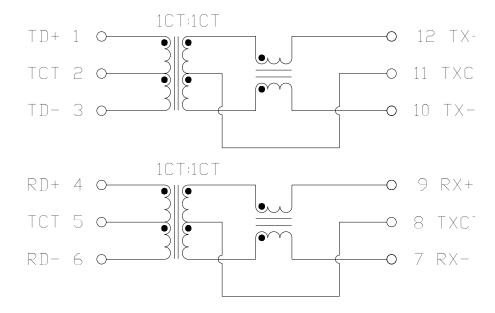


**Note:** 1, Dimension: mm

2. Unless otherwise specified, all tolerances are:  $\pm 0.05$ mm

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## 3. SCHEMATICS:



#### 4.ELECTRICAL SPECIFICATIONS @25℃

4.1 **OCL** : 350 μH 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(±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

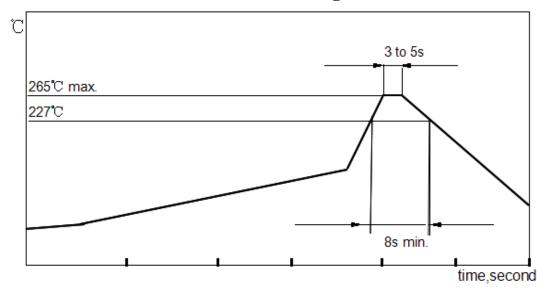
-37 dB Min.@ 60 MHz

-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	Soldertechnique simulation	Temperature (°C)	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)	10±1	25mm/s±6mm/s
3	Wave:TopsideBoar d- mount product	260±5 (solder temp)	20±1	
4	oard-mount	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 **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 :** 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 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  $20+/-2^{\circ}$ C,30 minutes at  $85+/-2^{\circ}$ C, 2-3 minutes at  $20+/-2^{\circ}$ C.

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