

# 产品承认书

## SPECIFICATION FOR APPROVAL

CUSTOMER:

CUSTOMER P/N:

CND-TEK P/N.:

FG2431S

DESCRIPTION:

2.5/5G BASE-T SINGLE PORT SURFACE MOUNT MAGNETICS

REF NO:

REV/NO:

A/0

DATE:

2021/5/7

ATTACHMENT:

■ SPECIFICATION

■ SAMPLE Q'TY OF SAMPLES \_\_\_\_\_ PCS

	√	CUSTOMER'S SIGNATURE	REMARK
FULL APPROVED			
CONDITIONAL APPROVED			
REJECTED			



深圳磁联达电子有限公司

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## 1. FEATURES:

1.1 2.5/5G Base-T Single Port Surface Mount Magnetics

1.2 Supports four pairs of category 5 UTP cable, Cable interface for isolation and low common mode emissions.

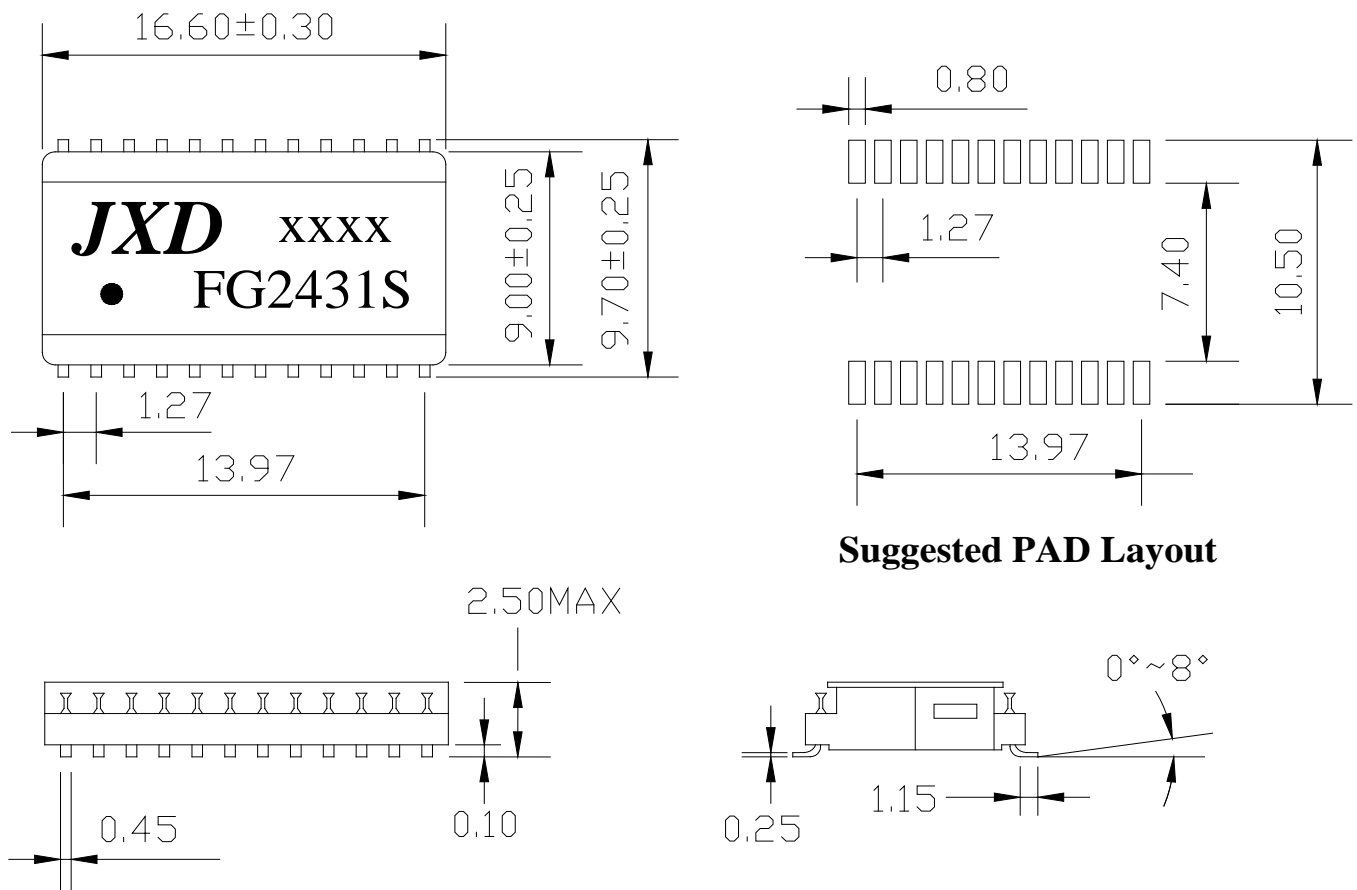
1.3 Low profile Surface Mount Packaging designed for Hi-Temp Reflow Process

1.4 Compliant with IEEE 802.3 standard for 2.5/5G Base-T, Designed to support 1:1 Turns Ratio Transceivers.

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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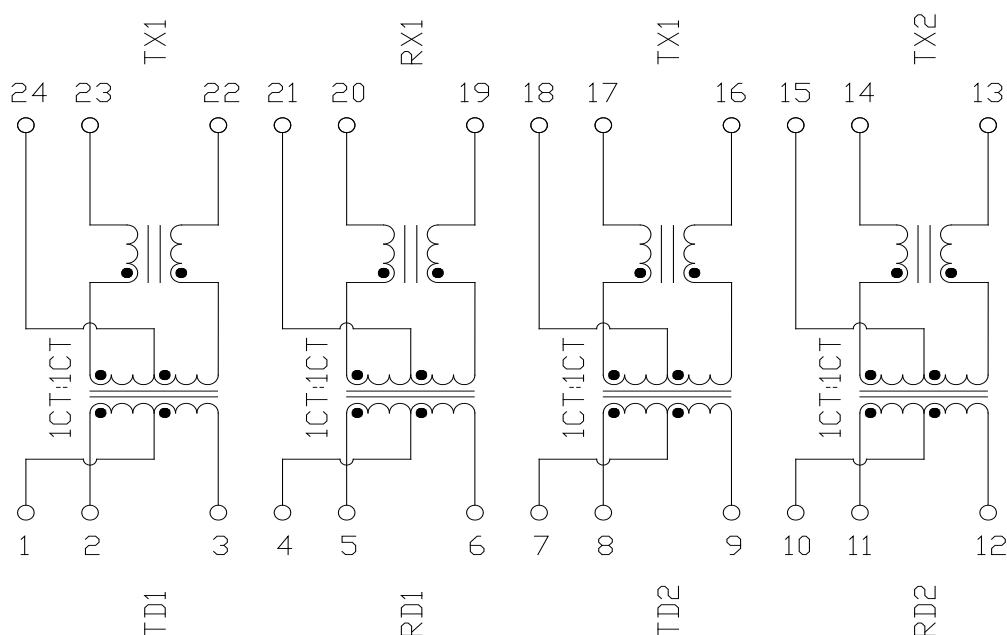
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### 3. SCHEMATICS:



### 4. ELECTRICAL SPECIFICATIONS @25°C

4.1 OCL : 120  $\mu$ 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: 30 pF Max. @ 100KHz, 0.2V

4.4 DCR: 1.20 $\Omega$  Max.

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

4.6 Polarity: 1-24, 5-20, 7-18, 11-14 In-Phase

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

-2.5 dB Max. @ 101-250MHz

4.8 Return Loss: -20 dB Min. @ 1-40MHz

-20+15\*Log(f/40)dB Min. @ 41-250 MHz

4.9 Cross Talk: -39 dB Min. @ 1-100 MHz

-30 dB Min. @ 101-250 MHz

4.10 Common Mode Rejection : -30 dB Min. @ 1-250 MHz

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

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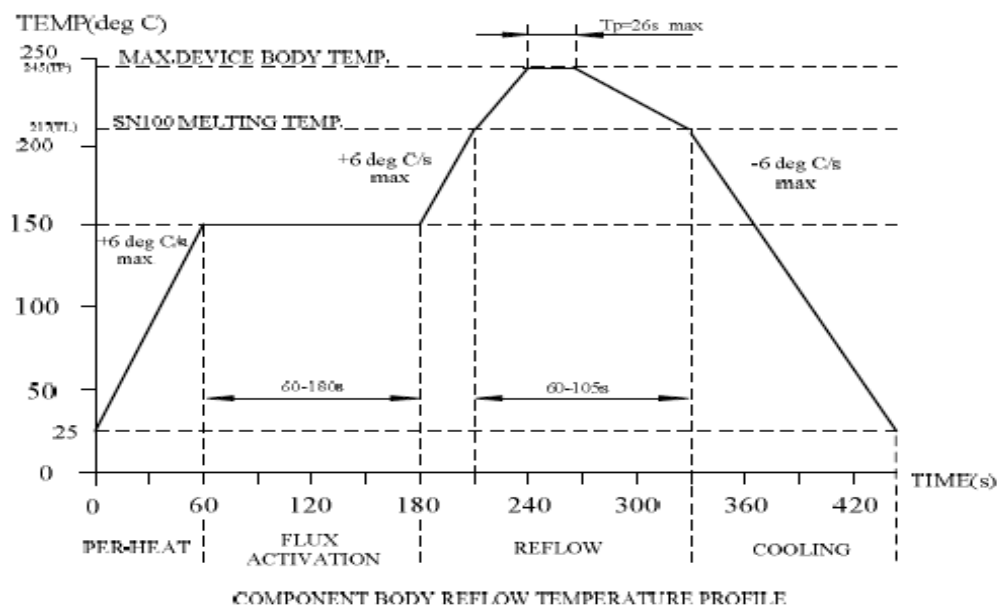
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## 5. Recommended Lead Free IR Reflow Soldering Curve:



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)	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°C+0/-5°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°C,2-3minutes at 20+/-2°C,30 minutes at 85+/-2°C, 2-3 minutes at 20+/-2°C.

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