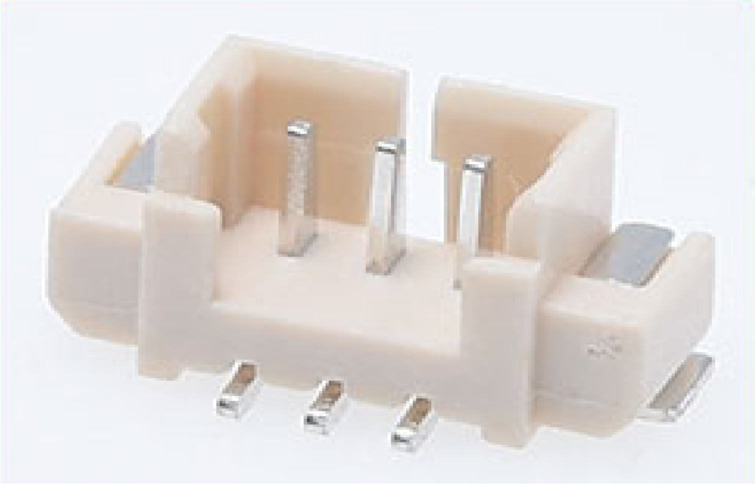
Product Specification

深圳臺華達科技有限公司

SHENZHEN THD Electronics Co., Ltd.



Product.No

THD1251-xxWV-SN

Pitch=1.25mm Wafer Connector

A	Release
Rev.	Description

Approved Signatures

■Prepared By : JIM	■Date: 2012.05.24
■Checked By : JIM	■Date: 2012.05.24
■Approved By : 黄德进	■Date: 2012.05.24

■Scope

This specification covers the 1.25 mm Pitch Wafer Connector **THD1251** series.

■Ordering information

THD1251- xx WV- SN

❶ ❷ ❸ ❹

❶	Series name：THD1251	❹	Plating： GF= 1µ″~3µ″ Gold Flash G3= 3µ″ Gold over Nickel G5= 5µ″ Gold over Nickel SN= Tin(Lead Free) over Nickel
❷	Number of contacts：2 TO 16		
❸	Contact type： WR:Right Angle SMT WV:Vertical Angle SMT		

■Rating

Item	Standard
Voltage Rating(Max.)	125 AC
Current Rating(Max.)	1.0A DC
Operating Temperature Range	-25°C ~ +105°C (Including terminal temperature rise)

■Material

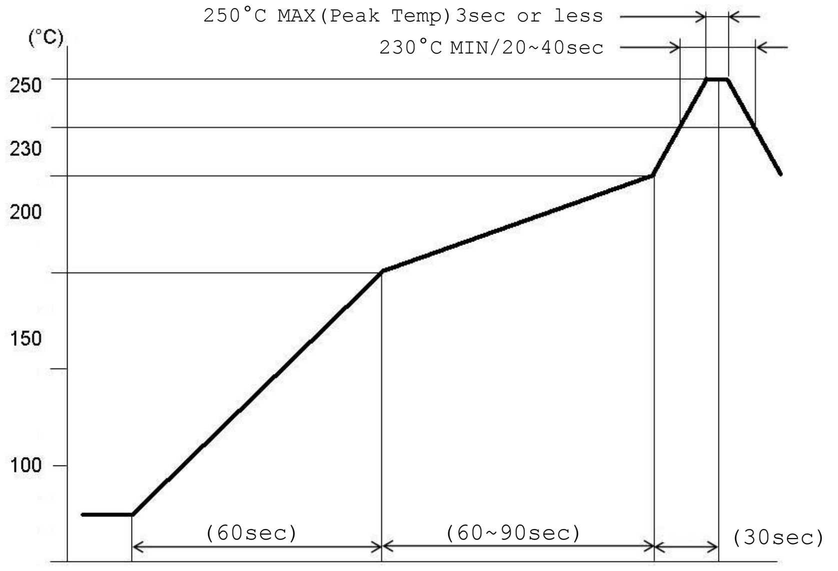
Housing	Actuator	Terminal	Solder pin	Plating
L.C.P (UL94V-0)		Copper alloy	Copper alloy	Tin(Lead Free) over Nickel
Color：Beige				

■Performance

Item	Test Condition	Specification	
Contact Resistance	Mate applicable FPC and measure by dry circuit, 20mV Max, 1mA.	20 mΩ Max.	
Insulation Resistance	Mate applicable FPC and apply 500V DC between adjacent terminal or ground.	1000 MΩ Min.	
Dielectric Strength	Mate applicable FPC, apply 500V AC(rms) for 1 minute between adjacent terminal or ground.	No Breakdown	
FPC Retention Force	Insert the actuator, pull the FPC at a rate of 25±3mm per minute.	Per pin x 0.15N Min.	
Terminal Retention Force	Apply axial pull out force at the rate of 25±3 mm/minute on the terminal assembled in the housing.	Per pin x 0.06Kgf {0.6N} Min.	
Vibration	Mate connectors and subject to the following vibration conditions, for period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during the test. Amplitude : 1.5mm P-P Frequency : 10～55～10 Hz in 1 minute. Duration : 2 hours in each of X,Y,Z axes.	Appearance	No Damage
		Contact Resistance	100 mΩ Max.
		Discontinuity	1 µsec Max.
Shock	Mate applicable FPC and subject to the following shock conditions. 3 times of shocks shall be applied for each 6 directions along 3 mutually perpendicular axes, passing DC 1 mA current during the test. Peak value : 490m/s^2 {50G}	Appearance	No Damage
		Contact Resistance	100 mΩ Max.
		Discontinuity	1 µsec Max.
Salt Spray	Mate applicable FPC and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. NaCl solution Concentration : 5 ± 1% Spray time :48 ± 4 hours Ambient temperature : 35 ± 2°C	Appearance	No Damage
		Contact Resistance	100 mΩ Max.

Item	Test Condition	Specification	
Heat Resistance	Mate applicable FPC and expose to 85±2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	100 mΩ Max.
Cold Resistance	Mate applicable FPC and expose to -40±2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	100 mΩ Max.
Humidity	Mate applicable FPC and expose to 60 ± 2°C, relative humidity 90 to 95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	100 mΩ Max.
		Dielectric Strength	No Breakdown
		Insulation Resistance	50 MΩ Min.
Temperature Rise	Mate applicable FPC and measure the temperature rise of contact when the maximum AC rated current is passed.	Temperature rise	30°C Max.
Temperature Cycling	Mate applicable FPC and subject to the following conditions for 5 cycles. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. 1 cycle a) -55±3°C 30minutes b) +85±3°C 30minutes (Transit time shall be with in 3 minutes)	Appearance	No Damage
		Contact Resistance	100 mΩ Max.
Solderability	Tip of solder tails and fitting nails into the molten solder (held at 245±5°C) up to 0.1mm from the bottom of the housing for 3±0.5 seconds.	Solder Wetting	95% of immersed area must show no voids, pin holes.
Resistance to Soldering	When reflowing refer to Infrared reflow condition *Soldering iron method* 0.2mm from terminal tip and fitting nail tip. Soldering time : 5 seconds Max. Solder temperature : 370～400°C	Appearance	No Damage

■Recommended Temperature Profile

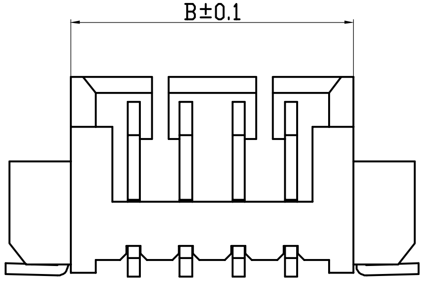


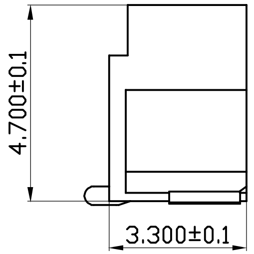
Emperature Condition Graph

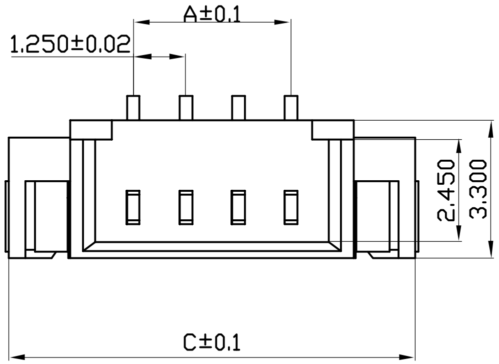
(Temperature On Board Pattern Side)

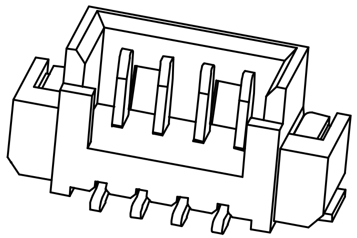
RoHS Compliant
2011/65/EU

Pb Process Capable









备注:
1. 电气性能:
  1-1. 额定流: 1.0A
  1-2. 额定电压: 125V
  1-3. 耐 电 压: 250V
  1-4. 接触电阻: 20mΩ
  1-5. 绝缘电阻: 100 MΩ
2. 工作温度: -25℃～+85℃

工艺要求

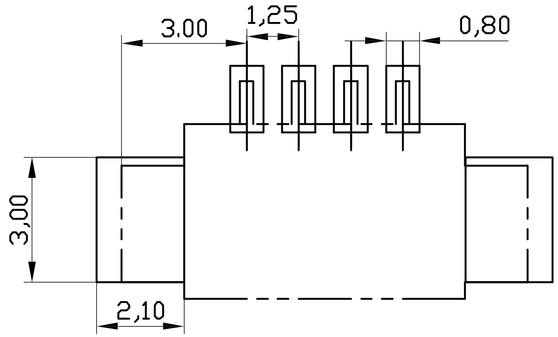
电镀:PIN针黄铜镀锡

焊片:黄铜镀锡

耐热性:适合嵌合状态;85±2℃的空气中;
放置96小时;再回到室温中放置
1-2小时85±2℃,96 小时 外观无损伤

耐盐雾性:适合嵌合状态;35±2℃、5±1%的
盐水喷雾24小时;试验后常温水洗;
再室温干燥。外观无损坏,无腐蚀;

Circuit	A- mm)	B- mm)	C- mm)
2P	1.25mm	4.30mm	7.30mm
3P	2.50mm	5.55mm	8.55mm
4P	3.75mm	6.80mm	9.80mm
5P	5.00mm	8.05mm	11.05mm
6P	6.25mm	9.30mm	12.30mm
7P	7.50mm	10.55mm	13.55mm
8P	8.75mm	11.80mm	14.80mm
9P	10.00mm	13.05mm	16.05mm
10P	11.25mm	14.30mm	17.30mm
11P	12.50mm	15.55mm	18.55mm
12P	13.75mm	16.80mm	19.80mm
13P	15.00mm	18.05mm	21.05mm
14P	16.25mm	19.30mm	22.30mm
15P	17.50mm	20.55mm	23.55mm
16P	18.75mm	21.80mm	24.80mm
17P	20.00mm	23.05mm	26.05mm
18P	21.25mm	24.30mm	27.30mm
19P	22.50mm	25.55mm	28.55mm
20P	23.75mm	26.80mm	29.80mm



序号	材料名称	数量	材 质	镀 涂	REMARK
①	插针	n	黄铜	镍底，镀锡	GP PASS
②	基座	1	LCP无卤	UL 94V-0	GP PASS
③	焊片	2	黄铜	镍底，镀锡	GP PASS

REV.	REVISIONS	CHK	DATE

CUSTOMER

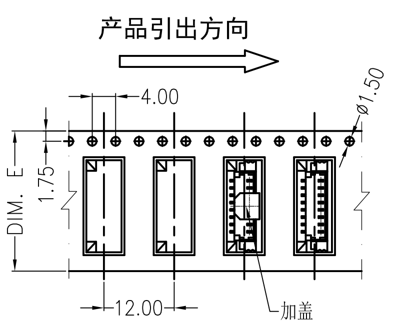
深圳市臺華達科技有限公司
SHENZHENSHI THD TECHNOLOGY CO., LTD.

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

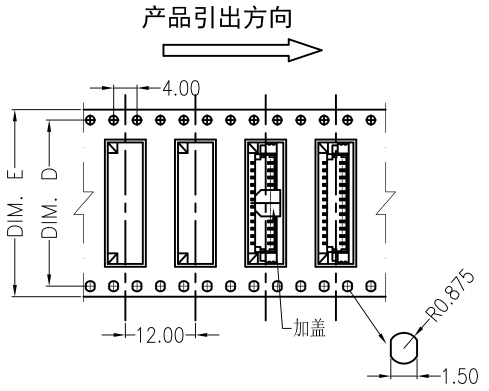
X.X	±0.20
X.XX	±0.15
X.XXX	±0.10
ANG.	±2°

DRAWN: Kavin 2016.06.28
CHECKED: JIM 2016.06.28
APPROVED: 黄德进 2016.06.28
PART NO. THD1251-xxWV-SN
TITLE: 1.25间距wafer立贴
SHEET: 1/1
UNIT: mm
SCALE: 1:1
SIZE: A4
REV: X1

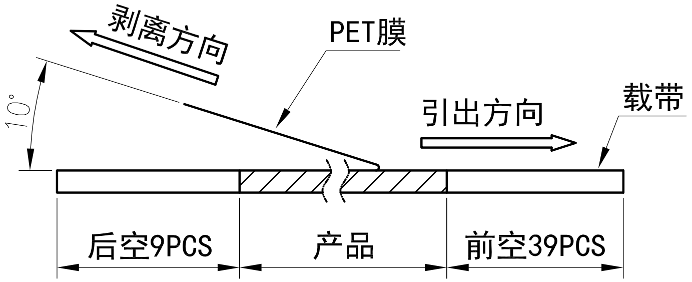
RoHS Compliant 2011/65/EU



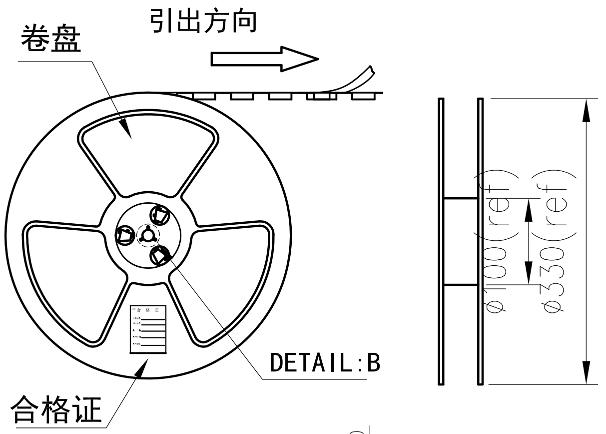
02~09 CONTACTS

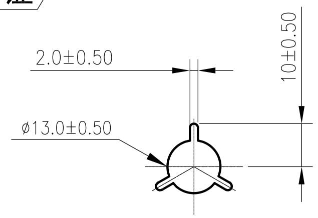


10~16 CONTACTS

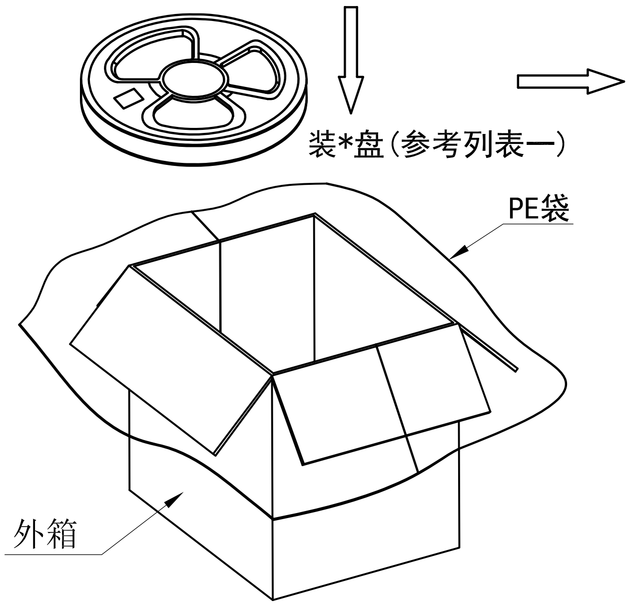


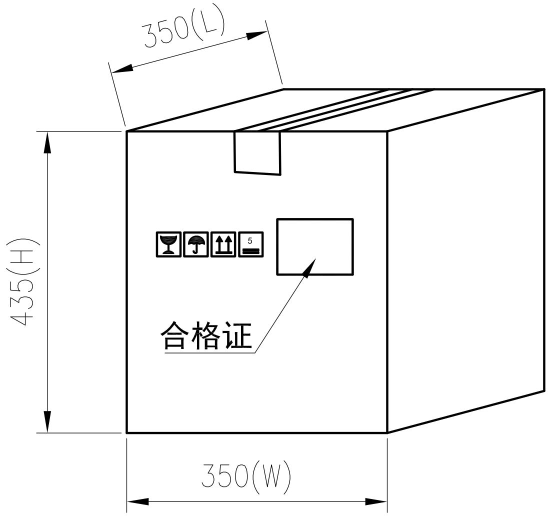
(PET膜剥离示意图)





DETAIL:B





列表一

Circuits	DIM. D	DIM. E	Q'ty/Reel	Packing (Reel/Caton)
02-03PIN	–	16	1000PCS	20/Reel
04-09PIN	–	24	1000PCS	15/Reel
10-13PIN	28.4	32	1000PCS	11/Reel
14-16PIN	40.4	44	1000PCS	8/Reel

包装说明:

1. 把成品包入卷盘中，每盘装1500PCS，卷盘上贴上合格证，将装好产品的卷盘放进外箱中，外箱内先套一个大PE袋，外箱上贴贴上合格证.
2. 所有材料有害物控制需符合RoHS标准。

REV.	REVISIONS	CHK	DATE

CUSTOMER

臺華達 TAIHUADA

深圳市臺華達科技有限公司

SHENZHENSHI THD TECHNOLOGY CO., LTD.

GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED

X.X	±0.50
X.XX	±0.35
X.XXX	±0.25
ANG.	±2°

DRAWN: Kavin 2016.06.28

CHECKED: 胡文 2016.06.28

APPROVED: 黄德 2016.06.28

PART NO. THD1251 -xxWV-SN

TITLE: 1.25mmPITCH 180°WAFER PACKING

SHEET: 1/1

UNIT: mm

SCALE: 1:1

SIZE: A4

REV: X1