



東莞市洋瀚實業有限公司

承認書

客 戶 CUSTOMER				
客戶產品編碼/規格 PRODUCT SPECIFICATION				
品 名 PART NAME		2.5mm spacing pressure welding bar connectors		
型 號 MODEL		XH-NY/T		
制 樣 DSGD BY		張 燕		
審 核 CHKD BY		李萬平		
承認單位 DEPT	採購部 PURCHASE	品保部 Q C	工程部 R&D	零件承認章 APPROVAL SIGNET
審 核 CHKD BY				
承 認 APPD				
審核結果： APPROVAL RESULT: ☐ OK ☐ NG				
說 明 REMNRK: _____				
確認後敬請回簽 1 份				

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ENGINEERING DEPT:

日期：2019年11月01日

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SGS



PICC



XH/XHS SERIES

Scope: This specification covers the 2.5mm spacing WIRE TO BOARD connector series.

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FILE NO	ENS008	APPROVAL	CHECK	DRAWING
ECR/N NO	New spec			

[1. Product name and part number]

Product Name	Part Number
Terminal	XH-T
Housing	XH-NY/XHS-NY
Wafer Assembly ST. (DIP)	XH-NA/XHS-NA
Wafer Assembly R.A (DIP/SMT)	XH-NAW/XHS-NAW/XH-WT-NA

[2. Ratings and applicable wires]

ITEM	STANDARD
Rated Voltage	250V DC/AC (rms)
Rated Current	3A (AWG. #22)
Applicable wires	AWG. #22~#30
Insulation O.D	Ø0.90~1.90mm
Ambient Temperature	-25°C ~ +85°C *

* : Including terminal temperature rise.

[3. Performance]

3-1. Electrical Performance

ITEM		Test condition	Requirement
3-1-1	Contact resistance	Mate connectors, measure by dry circuit, 20mV MAX., 10mA. Mated Length : 50mm (AWG. #22) (Based upon JIS C5402 5.4)	20mΩ (max.)
3-1-2	Insulation resistance	Mate connectors, apply 500V DC between adjacent terminals or ground. (Based upon JIS C5402 5.2/MIL-STD-202 method 302 Cond.B)	1000MΩ (min.)
3-1-3	Dielectric strength	Mate connectors, apply 1000V AC for 1 minute between adjacent terminal or ground. (Based upon JIS C5402 5.1/MIL-STD-202 Method 301)	No breakdown and flashover
3-1-4	Contact resistance on crimped portion	Crimp the maximum applicable wire on to the terminal, measure by dry circuit, 20mV MAX., 10mA. Wire Length : 50mm (AWG. #22)	20mΩ (max.)

3-2. Mechanical Performance

ITEM		Test condition	Requirement
3-2-1	Insertion force and withdrawal force	Insert and extract connectors at a speed of 25 ± 3mm/minute	Refer to paragraph 5

3-2-2	Crimping pull out force	Fix the crimped terminal, apply axial pull out force on the wire at a speed of 25±3mm/minute (Based upon JIS C5402 6.22)	Wire size		#22	#24	#26	#28	#30
			1	width	1.5±0.1				
				height	0.74 ~0.85	0.69 ~0.78	0.63 ~0.72	0.59 ~0.68	0.46 ~0.50
			2	width	1.80				
				height	1.92	1.85	0.81	1.75	1.30
			Crimp strength	4.0kg min	3.0kg min	2.0kg min	1.5kg min	0.8kg min	
			1: CONDUCTOR(mm) 2: INSULATION(mm)						
3-2-3	Terminal insertion force	Insert the crimped terminal into the housing at a speed of 25±3mm/min.	1.5kgf (max.)						
3-2-4	Terminal/ Housing retention force	Apply axial pull out force at a speed of 25±3mm/minute on the terminal assembled In the housing.	2.0kgf (min.)						
3-2-5	Pin retention force	Apply axial push force at a speed of 25±3mm/minute on the contact pin assembled in the base wafer.	2.0kgf (min.)						

3-3. Environmental Performance and Others

ITEM		Test condition	Requirement	
3-3-1	Repeated insertion/ withdrawal	Mate connector up to 30 cycles repeatedly at a rate of 10 cycles/ minute. After which test the contact resistance	Contact resistance	40mΩ (max.)
3-3-2	Temperature rise	Apply rated current load on mated connector in series-connection. Measure change of temperature on contact using thermocouples for 4 hours. (Based upon UL 1977)		30°C (max.)
3-3-3	Vibration	Amplitude: 1.52mm Sweep time: 10-55-10Hz/minute Duration: 2 Hours in each X、Y、Z axlals. (Based upon MIL-STD-202 method 201)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Discontinui-ty	1μ sec (max.)
3-3-4	Shock	50G, 3 strokes in each X、Y、Z. axlals. (Based upon JIS C0041)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Discontinuity	1μ sec (max.)
3-3-5	Heat resistance	Mated connector shall be placed in an oven for 96±4 hours at +85±2°C. (Based upon JIS C5402 7.8)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
3-3-6	Cold resistance	Mated connector shall be placed in a temperature chamber for 96±4 hours at -25±3°C (Based upon JIS C5402 7.9)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)

3-3-7	Humidity	Mated connector shall be placed in a humidity chamber on the following conditions. Temperature: 40±2°C Relative humidity: 90~95% Duration : 96 Hours (Based upon JIS C0022/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Dielectric strength	Must meet 3-1-3
			Insulation resistance	100MΩ (min.)
3-3-8	Temperature cycling	Mated connector shall be set to temperature cycling for 5 cycles of which 1 cycle consists of: 1>. +25°C ~ 3 minutes 2>. -25°C ~ 30 minutes 2>. +25°C ~ 3 minutes 2>. +85°C ~ 30 minutes (Based upon JIS C5402 7.2)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
			Dielectric strength	Must meet 3-1-3
			Insulation resistance	100MΩ (min.)
3-3-9	Salt spray	Mated connector shall be placed in a salt spray chamber on the following conditions. Salt Solution Density : 5±1% Temperature : 35±2°C Duration : 24±4 hours (Based upon JIS C5402 7.1/MIL-STD-202 Method 101D Cond.B)	Appearance	No Damage
			Contact Resistance	40mΩ (max.)
3-3-10	Solderability	Immerse fluxed soldered section of contact pin into a solder bath for 3±0.5sec temperature: 230±5°C	95% of immersed area must show no voids nor pin holes.	
3-3-11	Resistance to soldering heat	Mated connector shall be dipped on solder bath for 5±0.5sec temperature: 260±5°C	No Damage in appearance	

[4. Insertion force and withdrawal force]

[UNIT:Kgf]

Circuits	Insertion(MAX.)	Withdrawal (MIN.)		
	Initial	Initial	10th	30th
1	0.5	0.20	0.20	0.20
2	2.5	0.80	0.60	0.60
3	3.0	1.00	0.80	0.80
4	3.5	1.20	0.90	0.90
5	4.0	1.20	0.90	0.90
6	4.5	1.40	1.00	1.00
7	5.0	1.40	1.00	1.00
8	5.5	1.60	1.20	1.20
9	6.0	1.60	1.20	1.20
10	6.5	1.80	1.40	1.40

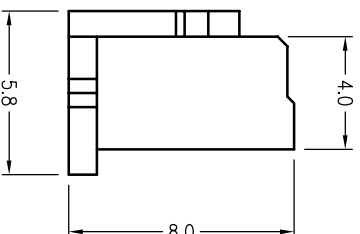
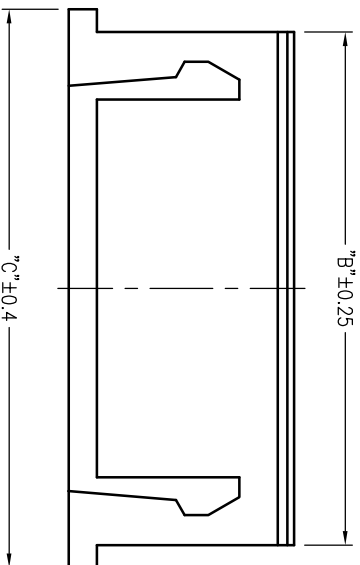
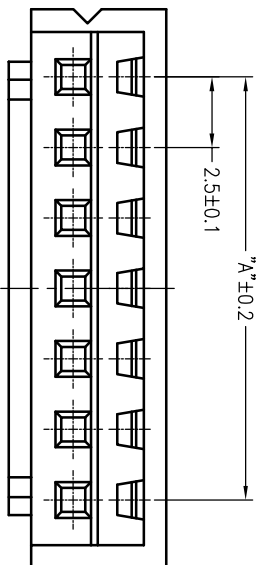
[UNIT:Kgf]

Circuits	Insertion(MAX.)	Withdrawal (MIN.)		
	Initial	Initial	10th	30th
11	7.0	1.80	1.40	1.40
12	7.5	2.00	1.60	1.60
13	8.0	2.00	1.60	1.60
14	8.5	2.20	1.80	1.80
15	9.0	2.40	2.00	2.00
16	9.5	2.60	2.00	2.00
17	10.0	2.80	2.20	2.20
18	10.5	3.00	2.20	2.20
19	11.0	3.20	2.40	2.40
20	11.5	3.40	2.60	2.60

[5. Product shape, Dimensions and materials]

<REFER TO THE DRAWING>

Poles	DIM.A	DIM.B	DIM.C
2P	2.5	5.7	7.5
3P	5.0	8.2	10.0
4P	7.5	10.7	12.5
5P	10.0	13.2	15.0
6P	12.5	15.7	17.5
7P	15.0	18.2	20.0
8P	17.5	20.7	22.5
9P	20.0	23.2	25.0
10P	22.5	25.7	27.5
11P	25.0	28.2	30.0
12P	27.5	30.7	32.5
13P	30.0	33.2	35.0
14P	32.5	35.7	37.5
15P	35.0	38.2	40.0



■ 技术参数 SPECIFICATIONS

- ◆ 适用线规: AWG#28~#22
Applicable Wire: AWG#28~#22
- ◆ 额定电压: 250V DC/AC(rms)
Rated voltage: 250V DC/AC(rms)
- ◆ 额定电流: 3A (AWG #22)
Rated Current: 3A (AWG #22)
- ◆ 耐压值: 1000V AC/minute
Withstand voltage: 1000V AC/min.
- ◆ 工作温度: -25℃ ~ +85℃
Working Temp : -25℃ ~ +85℃
- ◆ 绝缘电阻: $\geq 1000\text{ M}\Omega$
Insulation resistance: $\geq 1000\text{ M}\Omega$
- ◆ 接触电阻: $\leq 20\text{ m}\Omega$
Contact resistance: $\leq 20\text{ m}\Omega$

■ 材料 MATERIAL

- ◆ 绝缘体 尼龙66, UL94-V2
Insulator: Nylon66, UL94-V2



GENERAL TOLERANCE			
XX. ± 0.40			
X. ± 0.30			
.X ± 0.25	X.* $\pm 2^{\circ}$		
.XX ± 0.15	.X* $\pm 1^{\circ}$		

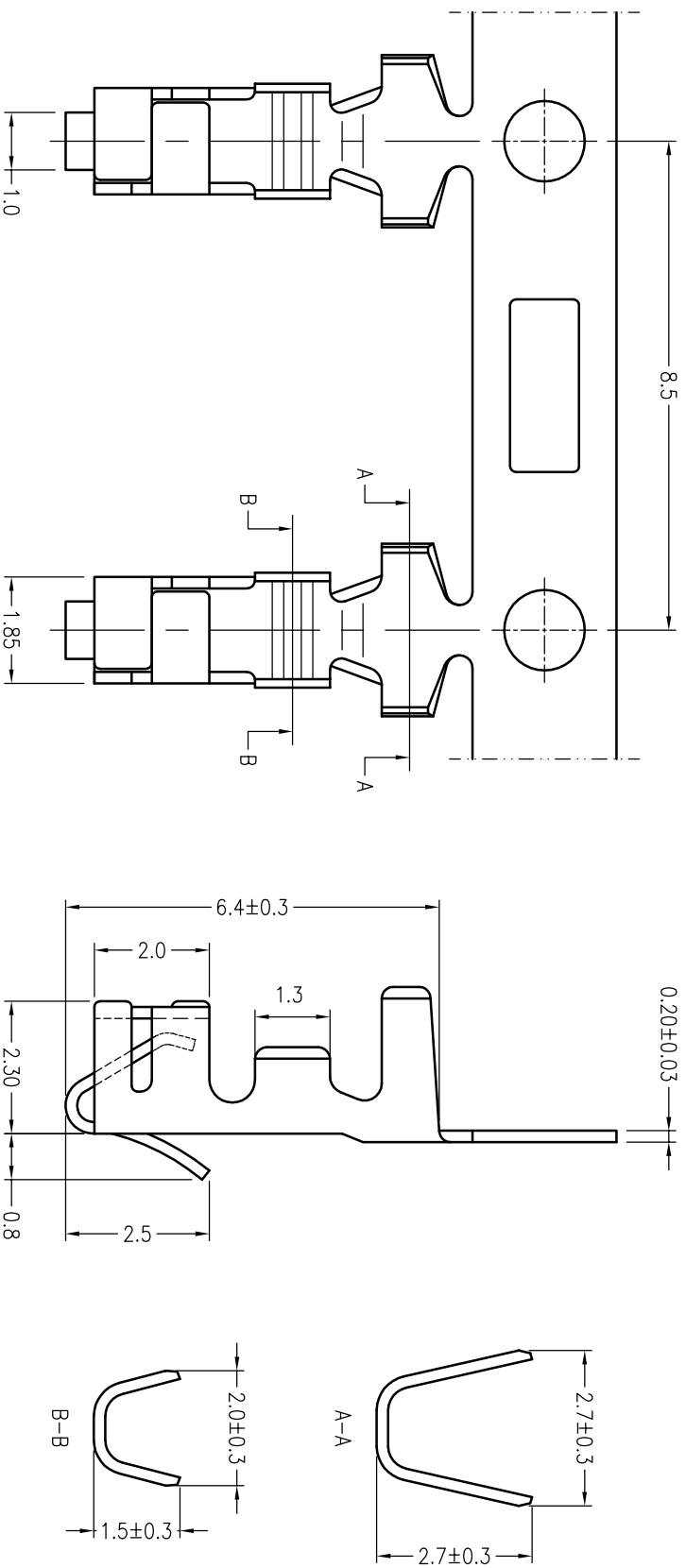
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UNIT: mm	CHECK: 于 腾	DATE: 2014.1.6
SIZE: A4	APPROVE: 肖志军	DATE: 2014.1.6

DOC. NO: JD-Y-E67	PARTS NO: XH-NV
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TITLE: 工程图

REV. A
SHEET: 1/1

- NOTES:
1. Material: Phosphor bronze, JIS C5191R-H
 2. Applicable wires: AWG#22~#30
 3. Finish: Tin-plated



GENERAL TOLERANCE

SCALE: 9:1

DRAWN: 子勝

DATE: 2014.1.6

DOC. NO:

TITLE:

REV.

XX. ±0.40

UNIT: mm

CHECK: 子勝

DATE: 2014.1.6

JID-Y-E001

工程图

A

X. ±0.30

SIZE: A4

APPROVE: 肖志军

DATE: 2014.1.6

PARTS NO:

工程图

SHEET:

.X ±0.25

APPROVE: 肖志军

DATE: 2014.1.6

PARTS NO:

工程图

1/1

.XX ±0.15

APPROVE: 肖志军

DATE: 2014.1.6

PARTS NO:

工程图

1/1