CJTconn 長江連接器有限公司
CHANGJIANG CONNECTORS CO.,LTD.

PRODUCT SPECIFICATION

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			APPROVED	CHECKED	WRITTEN
			BY	BY	BY
			Jack Yin	*Diankui Wan*	*Haisen Li*
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1.SCOPE:

This specification covers the requirements for product performance of 1.25 mm pitch wire to board connector series.

2.PART NAME & PART NUMBERS

Part name	Part number
Housing	A1256HD
Terminal	A1256-T
Wafer	A1256WRDA

3. CONSTRUCTION. DIMENSIONS . MATERIAL & SURFACE FINISH

Construction and dimensions shall be in accordance with the referenced drawings.
Material and surface finish shall be as specified below.

Part name	Material		Surface finish
Housing	Nylon 66		UL94V-0
Terminal	Phosphor bronze		Tin over Nickel/Gold over Nickel
Wafer	Post	Brass/Phosphor bronze	Tin over Nickel/Gold over Nickel
	Body	Nylon 6T	UL94V-0

4. RATINGS & APPLICABLE WIRES

Item	Standard		
Rated Voltage (Max.)	200V AC DC		Insulation O.D. 0.90mm
Rated Current (Max.) and Applicable Wires	AWG #28	1.0A AC DC	
	AWG #30	1.0A AC DC	
	AWG #32	1.0A AC DC	
Ambient Temperature Range	-40℃~105℃*		

*: Including terMinal temperature rise

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5. CONDITIONS：

The conditions shall be in accordance with the referenced data of next table.

Number	Item	Requirement
(1)	Bend up	4°Max.
	Bend down	4°Max.
	Twisting	3°Max.
	Rolling	8°Max.
(2)	Bell mouth (flare)	0.2-0.5 mm
(3)	Cut-off tab length	0.2 mm Max.
(4)	Extruded wire length	0.2-0.5 mm
(5)	Seam	Seam shall not be opened and no wire allowed out of crimping area
(6)	Wire strip length	1.2-1.7 mm ref.
(7)	Lance height	0.3 mm ref.

After crimping，the crimped areas [(5)、(6)] should be as follows.

Wire Size (AWG)	Terminal Part Number	Conductor(mm)		Insulation(mm)		Crimp Strength (kgf)
		Crimp Width	Crimp Height	Crimp Width	Crimp Height	
#28	A1256-T	0.80±0.15	0.59~0.68	0.95(max)	0.80(Max.)	1.00(Min.)
#30			0.55~0.64		0.70(Max.)	0.50(Min.)
#32			0.51~0.60		0.60(Max.)	0.40(Min.)

6. PERFORMANCE

6.1 ELECTRICAL PERFORMANCE

Test Description		Procedure	Requirement
6-1-1	Contact Resistance	Mate connectors, measure by dry circuit, 20mV Max. 10mA. (Based upon JIS C5402 5.4)	40mΩ Max.
6-1-2	Insulation Resistance	Mate connectors, apply 250V DC between adjacent terminal or ground. (Based upon JIS C5402 5.2/MIL-STD-202 Method 302 Cond. B)	100MΩ Min.
6-1-3	Dielectric Withstanding Voltage	Mate connectors, apply 500V AC (rms) for 1 minute between adjacent terminal or ground. (Based upon JIS C5402 5.1/MIL-STD-202 Method 301)	No Breakdown
6-1-4	Contact Resistance on Crimped Portion	Crimp the applicable wire to the terMinal, measured by dry circuit, 20mV Max, 10 mA Max.	5mΩ Max.

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6.2 MECHANICAL PERFORMANCE

Test Description		Procedure		Requirement
6-2-1	Insertion & Withdrawal Force	Insert and withdraw connectors at the speed rate of 25 ± 3mm/minute.		Refer to section 7
6-2-2	Crimping Pull Out Force	Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of 25 ± 3mm/minute. (Based upon JIS C5402 6.8)	AWG #28	1.0kgf Min.
			AWG #30	0.8kgf Min.
			AWG #32	0.5kgf Min.
6-2-3	Terminal/Housing Retention Force	Apply axial pull out force at the speed rate of 25 ± 3mm/minute on the terminal assembled in the housing.		0.5kgf Min.
6-2-4	Header Terminal Retention Force	Apply axial push force at the speed rate of 25 ± 3mm/minute.		0.5kgf Min.
6-2-5	Pin Retention Force	Apply axial push force at the speed rate of 25 ± 3mm/minute.		0.5kgf min.
6-2-6	Durability	When mated up to 50 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	80mΩ Max.
6-2-7	Vibration	Amplitude: 1.50mm P-P Sweep time: 10-55-10 Hz in 1 minute Duration: 2 hours in each X.Y.Z. axes (Based upon MIL-STD-202 Method 201A)	Appearance	No Damage
			Contact Resistance	80mΩ Max.
			Discontinuity	1μsec. Max.

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6.3 ENVIRONMENTAL PERFORMANCE AND OTHERS

Test Description		Procedure		Requirement
6-3-1	Temperature Rise	Carrying rated current load. (Based upon UL 498)	Temperature Rise	30°C Max.
6-3-2	Heat Resistance	85 ± 2°C, 96 hours (Based upon JIS C0021/MIL-STD-202 Method 108A Cond. A)	Appearance	No Damage
			Contact Resistance	80mΩ Max.
6-3-3	Cold Resistance	−25℃ ± 3°C, 96 hours (Based upon JIS C0020)	Appearance	No Damage
			Contact Resistance	80mΩ max.
6-3-4	Humidity	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	80mΩ Max.
			Insulation Resistance	100MΩ Min.
			Dielectric Withstanding Voltage	Must meet 6-1-3
6-3-5	Temperature Cycling	5 cycles of: a) - 55°C 30 minutes b) +85°C 30 minutes (Based upon JIS C0025)	Appearance	No Damage
			Contact Resistance	80mΩ Max.
6-3-6	Salt Spray	24 hours exposure to a salt spray from the 5 % solution at 35 ± 2°C. (Based upon JIS C0023/MIL-STD-202 Method 101D Cond. B)	Appearance	No Damage
			Contact Resistance	80mΩ Max.
6-3-7	SO2 Gas	24 hours exposure to 50 ± 5ppm. SO2 gas at 40 ± 2°C.	Appearance	No Damage
			Contact Resistance	80mΩ Max.
6-3-8	Solderability	Soldering Time: 3~5 sec. Solder Temperature: 245 ± 5°C	Solder Wetting	95% of immersed area must show no voids, pin holes
6-3-9	Resistance to Soldering Heat	High temperature resistant materials Soldering Time:3~5 sec. Solder Temperature: 260 ± 5°C	Appearance	No Damage

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7. INSERTION AND WITHDRAWAL FORCE

unit:kg

Number of Circuits (W-B)	Insertion (Max.)	Withdrawal (Min.)
	1 th	1 th
5P	1.00	0.125
7P	1.40	0.175
9P	1.80	0.225
11P	2.20	0.275
13P	2.60	0.325
15P	3.00	0.375
17P	3.40	0.425
19P	3.80	0.475
21P	4.20	0.525
31P	6.20	0.775
41P	8.20	1.025