



PRODUCT SPECIFICATION

PRODUCT SERIES NAME: A1276 SERIES

PAGE : 1/4

Index

1. Scope
2. Part name & part numbers
3. Construction. dimensions. material & surface finish
4. Ratings & applicable wires
5. Performance
 - 5.1 Electrical performance
 - 5.2 Mechanical performance
 - 5.3 Environmental performance and others

			APPROVED	CHECKED	WRITTEN
			BY	BY	BY
			Jack Yin	Lailin	Diankui Wan
A1	REVISE	2019.10.15			
A0	NEW RELEASE	2010.07.20			
REV.	DESCRIPTION	DATE	DOCUMENT NO: PS-1276-002		

PRODUCT SPECIFICATION

PRODUCT SERIES NAME: A1276 SERIES

PAGE : 2/4

1.SCOPE:

This specification covers the requirements for product performance of 1.27mm pitch board to board connector series.

2.PART NAME & PART NUMBERS

Part name	Part number
Box Header	A1276HWV(-2) A1276HWR(-2) A1276HWV-S(-2) A1276HWR-S(-2)
	A1276HWV-S-F-2 A1276HWR-S-F A1276HWV-S-F1-2
	A1276HWRA-2 A1276HWVA-S-2 A1276HWVA-S-F-2
	A1276HWRA-S-2 A1276HWRA-S-F-2
Pin Header	A1276WV(-2) A1276WR(-2) A1276WVA(-2) A1276WRA(-2)
	A1276WRC A1276WV-S(-2) A1276WR-S(-2) A1276WV-N-S-2
	A1276WV-S-F-2 A1276WR-S-F(-2) A1276WVA-S(-2)
	A1276WVB-S-2 A1276WVA-S-F-2 A1276WVB-S-F-2 A1276WVK-S-2
	A1276WV-N-2 A1276WR-N-2 A1276WVA-N-2 A1276WRA-N-2 A1276WVE-S-F-2

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
Box Header	Base	PBT/Nylon 6T/Nylon9T	UL94V-0
	PIN	Phosphor Bronze	Gold over Nickel/Tin over Nickel
Pin Header	Base	PBT/Nylon 6T/Nylon9T	UL94V-0
	PIN	Brass	Gold over Nickel/Tin over Nickel

4. RATINGS & APPLICABLE WIRES

Item	Standard
Rated Voltage (max.)	30V AC DC
Rated Current (max.)	1A AC DC
Ambient Temperature Range	-40℃~+105℃*

*: Including terminal temperature rise

PRODUCT SPECIFICATION

PRODUCT SERIES NAME: A1276 SERIES

PAGE : 3/4

5. PERFORMANCE

5.1 ELECTRICAL PERFORMANCE

Test Description		Procedure	Requirement
5-1-1	Contact Resistance	Mate connectors, measure by dry circuit, 20mV MAX, 10mA.(Based upon EIA-364-06A).	20mΩ max.
5-1-2	Insulation Resistance	Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon JIS C5402 5.2/MIL-STD-202 Method 302 Cond. B)	1000MΩ min.
5-1-3	Dielectric Withstanding Voltage	Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A / MIL-STD-202 Method 301)	No Breakdown

5.2 MECHANICAL PERFORMANCE

Test Description		Procedure		Requirement
5-2-1	Insertion & Retention Force	Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute.		Mating Force: 0.3kgf Max per circuit Unmating Force: 0.012 Kgf Min per circuit
5-2-2	Pin Retention Force	Apply axial push force at the speed rate of 25.4 ± 3mm/minute.		0.3kgf min.
5-2-3	Durability	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute	Contact Resistance	40mΩ max.
5-2-4	Vibration	Amplitude: 1.52mm 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	40mΩ max.
			Discontinuity	1μsec. max.
5-2-5	Shock	490m/s ² {50G}, 3 strokes in each X.Y.Z. axes. (Based upon JIS C0041/MIL-STD-202 Method 213B Cond. A)	Appearance	No Damage
			Contact Resistance	40mΩ max.
			Discontinuity	1μsec. max.

PRODUCT SPECIFICATION
PRODUCT SERIES NAME: A1276 SERIES

PAGE : 4/4

5.3 ENVIRONMENTAL PERFORMANCE AND OTHERS

Test Description		Procedure		Requirement
5-3-1	Temperature Rise	Carrying rated current load. (Based upon UL 498)	Temperature Rise	30°C max.
5-3-2	Heat Resistance	85 ± 2°C, 96 hours (Based upon JIS C0021/MIL-STD-202 Method 108A Cond. A)	Appearance	No Damage
			Contact Resistance	30mΩ max.
5-3-3	Cold Resistance	-25 ± 5°C, 96 hours (Based upon JIS C0020)	Appearance	No Damage
			Contact Resistance	40mΩ max.
5-3-4	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	40mΩ max.
			Insulation Resistance	500MΩ min.
			Dielectric Withstanding	Must meet 5-1-3
5-3-5	Temperature Cycling	5 cycles of: a) - 55°C 30 minutes b) +85°C 30 minutes (Based upon JIS C0025)	Appearance	No Damage
			Contact Resistance	40mΩ max.
5-3-6	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	40mΩ max.
5-3-7	Solderability	Soldering Time: 3~5 sec. Solder Temperature: 240 ± 5°C	Solder Wetting	Solder coverage: 95% MIN
5-3-8	Resistance to Soldering Heat	<u>Normal materials</u> Soldering Time: 3~5 sec. Solder Temperature: 250 ± 5°C	Appearance	No Damage
		<u>High temperature resistant materials</u> Soldering Time: 3~5 sec. Solder Temperature: 260 ± 5°C		