



SPECIFICATION

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SPEC. NO.: PS-87214-Wx REVISION: D

PRODUCT NAME: 1.0mm CRIMPING TERMINAL

PRODUCT NO: 87214-Wx

PREPARED: SKY DATE: 2011/05/20	CHECKED: SAM DATE: 2011/05/20	APPROVED: JASON DATE: 2011/05/20
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Aces P/N: **87214 series**

TITLE: **1.0MM CRIMPING TERMINAL**

RELEASE DATE: 2011/05/20

REVISION: D

ECN No: ECN-1105405

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1 Revision History

Rev.	ECN #	Revision Description	Prepared	Date
A	ECN-0808093	REVISED	JASON	2008.8.15
B	ECN-0903126	ADD TABLE 1.	JASON	2009.3.16
C	ECN-0908003	FOR ENGLISH VERSION	JASON	2009.08.01
D	ECN-1105405	ADD 87214-W3	SKY	2011.05.20

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2 SCOPE

This specification covers Aces's 1.0mm pitch wire to board crimping terminal.
Aces ' r P/N:87214-WG ; 87214-W-L; **87214-W3** °

3 APPLICABLE DOCUMENTS

EIA-364: ELECTRONICS INDUSTRIES ASSOCIATION

4 REQUIREMENTS

4.1 Design and Construction

- 4.1.1 Product shall be of design, construction and physical dimensions specified on applicable product drawing.
- 4.1.2 All materials conform to R.o.H.S. and the standard depends on TQ-WI-140101.

4.2 Ratings

- 4.2.1 Voltage: **50 Volts AC (per pin)**
- 4.2.2 Current: **AWG #28:2.0 Amperes(per pin)**
AWG #30:1.0 Amperes(per pin)
AWG #32:1.0 Amperes(per pin)
- 4.2.3 Operating Temperature : **-25°C to +85°C**

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5 Performance

5.1. Test Requirements and Procedures Summary

Item	Requirement	Standard
Examination of Product	Product shall meet requirements of applicable product drawing and specification.	Visual, dimensional and functional per applicable quality inspection plan.
ELECTRICAL		
Item	Requirement	Standard
Low Level Contact Resistance	20 m Ω Max.	Mate connectors, measure by dry circuit, 20mV Max., 10mA Max. (EIA-364-23)
Insulation Resistance	100 M Ω Min.	Unmated connectors, apply 500 V DC between adjacent terminals. (EIA-364-21)
Dielectric Withstanding Voltage	No discharge, flashover or breakdown. Current leakage: 1 mA max.	250 VAC Min. at sea level for 1 minute. Test between adjacent contacts of unmated connectors. (EIA-364-20)
Temperature Rise	30°C Max. Change allowed	Mate connector: measure the temperature rise at rated current until temperature stable. The ambient condition is still air at 25°C (EIA-364-70, METHOD1, CONDITION1)
MECHANICAL		
Item	Requirement	Standard
Durability	30 cycles.	The sample should be mounted in the tester and fully mated and unmated the number of cycles specified at the rate of 25.4 \pm 3mm/min. (EIA-364-09)
Mating / Unmating Forces	See Table 1.	Operation Speed : 25.4 \pm 3 mm/minute.. Measure the force required to mate/Unmate connector. (EIA-364-13)
Terminal / Housing Retention Force	7N MIN.	Apply axial pull out force at the speed rate of 25.4 \pm 3 mm/minute. On the terminal assembled in the housing.
Crimping pull out Force	AWG #28: 10N MIN; AWG #30: 5N MIN; AWG #32: 3N MIN.	Apply axial pull out force at the speed rate of 25.4 \pm 3 mm/minute.
Vibration	1 μ s Max.	The electrical load condition shall be 100 mA maximum for all contacts. Subject to a simple harmonic motion

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		having amplitude of 0.76mm (1.52mm maximum total excursion) in frequency between the limits of 10 and 55 Hz . The entire frequency range, from 10 to 55 Hz and return to 10 Hz , shall be traversed in approximately 1 minute. This motion shall be applied for 2 hours in each of three mutually perpendicular directions. (EIA-364-28 Condition I)
Shock (Mechanical)	1 μs Max.	Subject mated connectors to 50 G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts. (EIA-364-27, test condition A)

ENVIRONMENTAL

Item	Requirement	Standard
Thermal Shock	No damage	Mate module and subject to follow condition for 5 cycles. 1 cycles: -55 +0/-3 °C , 30 minutes +85 +3/-0 °C , 30 minutes (EIA-364-32, test condition A)
Humidity	No damage	Mated Connector 40°C , 90~95% RH , 96 hours. (EIA-364-31,Condition A, Method II)
Temperature life	No damage	Subject mated connectors to temperature life at 85°C for 96 hours. (EIA-364-17, Test condition A)
Salt Spray	No damage	Subject mated/unmated connectors to 5% salt-solution concentration, 35°C for 8 hours. (EIA-364-26,Test condition B)
Solder ability	Solder able area shall have minimum of 95% solder coverage.	And then into solder bath, Temperature at 245 \pm5°C , for 4-5 sec. (EIA-364-52)

Note. Flowing Mixed Gas shall be conduct by customer request.

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Table 1.

Mating / Unmating Forces :

Unit : N

Number of circuits	At initial		At 30th
	I.F.(MAX.)	W.F.(MIN.)	W.F.(MIN.)
2	25	2	2
3	25	2	2
4	30	2	2
5	30	3	3
6	35	3	3
7	35	3	3
8	40	4	4
9	40	4	4
10	45	4	4
11	50	5	5
12	50	5	5
13	55	5	5
14	60	6	6
15	60	6	6
16	65	6	6
18	70	7	7
20	75	7	7
22	80	7	7
24	85	8	8
26	95	8	8