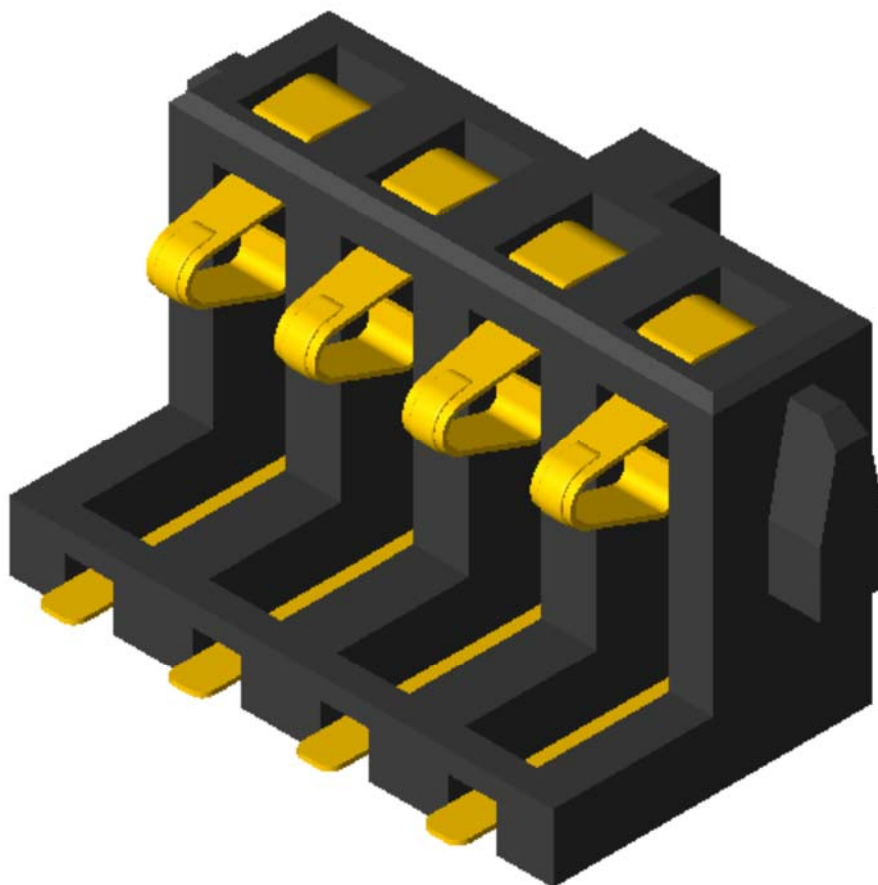




PRODUCT SPECIFICATION



育鼎精密工業股份有限公司

ACRON PRECISION INDUSTRIAL CO., LTD

桃園縣八德市廣德里新興路 55 號

No.55, SinSing Road., Bade City, Taoyuan County 334, Taiwan(R.O.C)

TEL : 886-3-3629889 FAX : 886-3-3664917

☐ 東莞睦永電子五金廠

☒ 東莞育鼎電子五金廠

☐ 東莞愷興電子科技電子有限公司

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	LTBTMXR-042-**	SHEET No
1	EC No:	2010/02/10	PRODUCT NAME	4 PIN BATTERY CONNECTOR PITCH 3.2mm	1 of 6
DOCUMENT NUMBER: PS-BC-00XX		CREATED / REVISED BY: DAVID.CHEN		CHECKED BY: KENNY.CHEN	APPROVED BY: DEVIN.CHEN



PRODUCT SPECIFICATION

1. SCOPE

1.1. Content

This specification covers performance, tests and quality requirements for Battery Connector. These connectors are used to mobile phone, PDA, and ...etc.

2. APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, latest edition of the specification applies. In the event of conflict between requirements of this specification and product drawing, product drawing shall take precedence.

2.1. Commercial standards, specifications and report

2.1.1 MIL-STD-1344A

2.1.2 MIL-STD-202F

3. REQUIREMENTS

3.1. Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.

3.2. Materials and Finish

3.2.1. Contact: High Performance Copper Alloy

Finish : (a) Contact Area: Gold Plated Based on order information

(b) Underplate: Nickel plated allover.

3.2.2. Housing : Thermoplastic, Color in Black, UL94V-0 Rated

3.3. Ratings

3.3.1. Voltage: 4.5 Volts DC (per pin) Max.

3.3.2. Current: 1 Amperes DC (per pin) Max.

3.3.3. Peak Current: 5 Amperes.

3.3.4. Operating Temperature: -55°C to 105°C

3.4. Performance and Test Description

Product is designed to meet electrical, mechanical and environmental performance requirements specified in paragraph 3.5. All tests are performed at ambient environmental Conditions per MIL-STD-1344A unless otherwise specified.

3.5. Test Requirements and Procedures Summary

Test Description	Requirement	Procedure
Examination of Product	Product shall meet requirements of applicable product drawing and specification.	Visual, dimensional and functional per applicable quality inspection plan.

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ELECTRICAL

Low-Signal Level Contact Resistance	25 mΩ Initial. (per pin)	Mate subject connector with compatible connector as shown in <u>FIGURE 2</u> . MIL-STD-1344A, Method 3002.1
Insulation Resistance	100 MΩ minimum	Apply DC 500 ±10% Volts between adjacent contacts of mated connectors for one minute. MIL-STD-1344A, Method 3003.1
Dielectric Withstanding Voltage	500 VAC initial and 250 VAC final at sea level for 1 minute. No discharge, flashover or breakdown. Current leakage: 5 mA max.	Test between adjacent contacts of mated/unmated connectors. MIL-STD-1344A, Method 3001.1, Test Condition I

MECHANICAL

Normal Force	100 Gram minimum.(Traveling of battery contact point=0.85mm) 70 Gram minimum.(Traveling of PCB contact point=1.10mm) Excluding Y38-114-0009	Mate connector with a suitable gauge for each pin at rate of 25 mm /min. Measure force when gauge reaches surface of connector. MIL-STD-1344A, Method 2012.1
Durability	10000 cycles. See Note (a).	The sample should be mounted on the tester and fully mated and unmated the number of cycles specified at the rate of 25mm/min. MIL-STD-1344A, Method 2016
Vibration, Random	No electrical discontinuity greater than 1μ second. See Note (a).	The electrical load condition shall be 100 mA maximum for all contacts. Subject to a simple harmonic motion having an amplitude of 0.76 mm (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. MIL-STD-1344A, Method 2005.1, Condition I

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Physical Shock	No electrical discontinuity greater than 1μ second. See Note (a)..	Subject mated connectors to 30 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. MIL-STD-1344A, Method 2004.1, Condition E
ENVIRONMENTAL		
Temperature Cycling	See Note (a).	Subject mated connectors to 5 cycles between -55°C and 85°C, 30 minutes duration at both temperature extremes. MIL-STD-1344A, Method 1003.1, Condition A
Humidity-Temperature Cycling	See Note (a).	Subject mated connectors to 10 humidity-temperature cycles between 25°C and 65°C, at 80-98% RH. MIL-STD-1344A, Method 1002.2, Tye II
Salt Spray	See Note (a).	Subject mated/unmated connectors to 5% salt-solution concentration, , 35°C for 48 hours. MIL-STD-1344A, Method 1001.1, condition B
Solderability	Solderable area shall have Minimum of 95% solder coverage Only for Y38-114-0009	Subject the test area of contacts into flux for 5~10 seconds and then into solder bath, controlled at 250±5°C for 5±0.5 seconds

(a) Shell meet visual requirements, show no physical damage and shall meet requirements of additional tests as specified in Test Sequence in Figure 1.

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3.6 Product Qualification and Test Sequence

TEST OR EXAMINATION	TEST GROUP							
	1	2	3	4	5	6	7	8
	TEST SEQUENCE							
Examination of Product	1,7	1,6	1,10	1,5	1,9			
Low-Signal Level Contact Resistance	3,6	2,5	2,7	2,4	2,6			
Insulation Resistance			3,8		3,7			
Dielectric Withstanding Voltage			4,9		4,8			
Vibration		3						
Physical Shock		4						
Normal Force	2,5							
Durability	4							
Solderability						1*		
Temperature Cycling			5					
Humidity-Temperature Cycling			6					
Salt Spray				3				
Temperature Life(Heat Aging)					5			
Sample Size	2	2	2	2	2			

Figure 1

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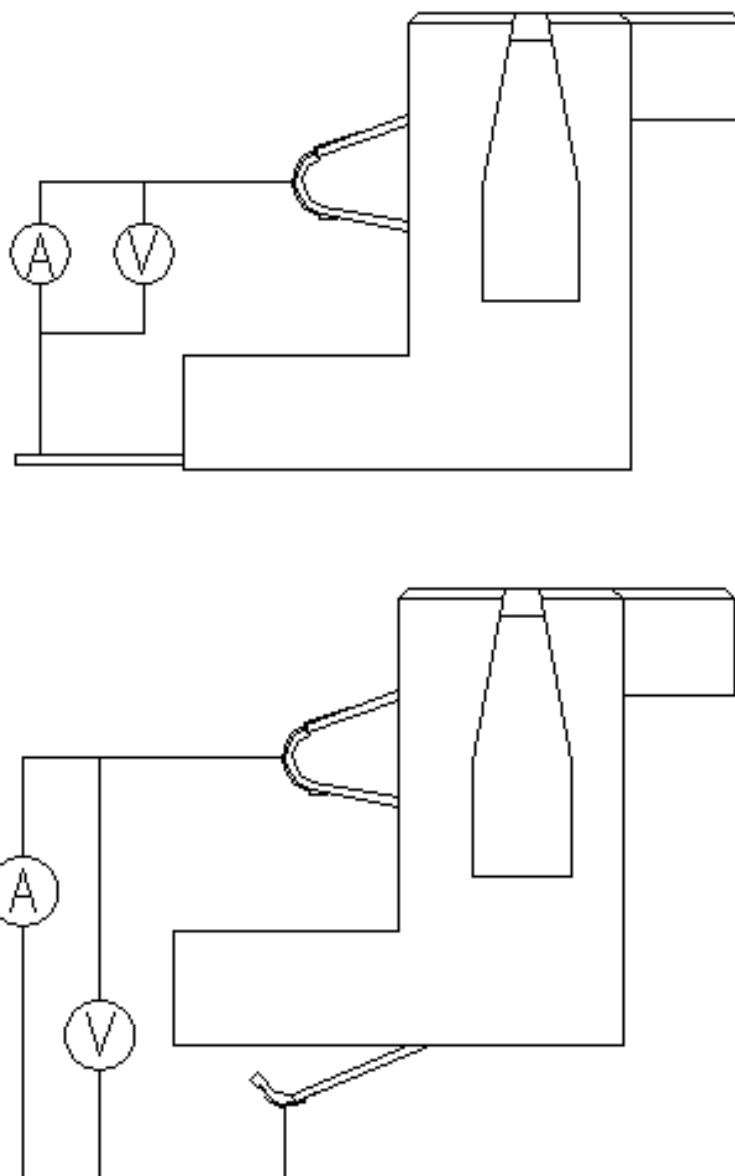


Figure 2 Contact Resistance Measuring Point

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