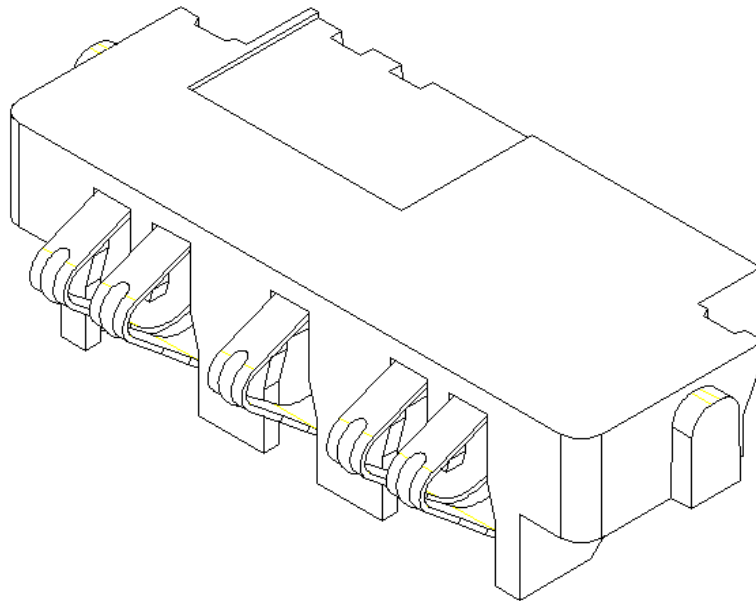


# AcRON PRODUCT SPECIFICATION



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

東莞睦永電子有限公司  
(AMMI)

東莞育鼎電子有限公司  
(ACRON)

東莞愷興電子科技電子有限公司  
(NUCONN)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTM10 SERIES	SHEET No
<b>A</b>	EC No:	<b>NEW SPEC</b>	PRODUCT NAME	<b>5 PIN BATTERY CONNECTOR SKIN TYPE</b>	<b>1 of 4</b>
	DATE:	<b>2013/08/30</b>			
DOCUMENT NUMBER:		CREATED / REVISED BY:		CHECKED BY:	APPROVED BY:
<b>PS-BC-0076</b>		<b>ANDELEE.YANG</b>		<b>JEFF.YANG</b>	<b>KIMI.HSU</b>

# **PRODUCT SPECIFICATION**

## 1. SCOPE

This specification defines the performances for **5Pin BATTERY CONNECTOR SKIN TYPE**

## 2. PRODUCT DESCRIPTION:

### 2.1 PRODUCT NAME AND SERIES NUMBER(S)

5 PIN BATTERY CONNECTOR SKIN TYPE **BTM10** series

### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See appropriate sales drawings for details on dimensions ,materials , plating and markings.

### 2.3 SAFETY AGENCY APPROVALS

See appropriate sales drawings

## 3. APPLICABLE DOCUMENTS AND SPECIFICATIONS

See product drawing and other sections of this specification for the relevant reference documents and specifications. In cases where the specification differs from the product drawings, the product drawings take precedence.

## 4. RATINGS

### 4.1 VOLTAGE

12V DC RMS.

### 4.2 CURRENT

1A MAX.

### 4.3 TEMPERATURE:

Operating Temperature Range: - 40°C to + 85°C

Storage Temperature Range: - 40°C to + 85°C

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## 5. PERFORMANCE (Test Requirements and procedures Summary)

	Test Items	Requirement	Procedures
1	<b>Examination of Product</b>	Meets requirements of product drawing. No physical damage.	Specimens shall be investigated by 10x (or higher) microscope.

### Electrical Requirements

	Test Items	Requirement	Procedures
2	<b>Contact Resistance (Contact-1)</b>	40 milli Ohm Max (Initial) 60 milli Ohm Max (Final)	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100mA maximum. EIA 364-23;
3	<b>Insulation Resistance</b>	1000 Mega Ohm Min.	After 500 VDC for 1 minute, measure the insulation resistance between the adjacent contacts of mated and unmated connector assemblies. EIA 364-21
4	<b>Dielectric Withstanding Voltage</b>	No breakdown; current leakage < 5mA	Apply a voltage 1000 VAC for 1 minute between adjacent terminals and between terminals to ground. EIA 364-20
5	<b>Current Rating</b>	Temperature rise: 30°C Max.	Apply the rated current to connector, EIA 364-70

### Mechanical Requirements

	Test Items	Requirement	Procedures
6	<b>Durability (BAT SIDE)</b>	△R: 20 milli Ohm Max (change from initial)	Operation Speed: 25 mm/min. Durability Cycles: 10,000 Cycles EIA 364-09.Refer to Fig.1
6-1	<b>Durability (PCB SIDE)</b>	△R: 20 milli Ohm Max (change from initial)	Operation Speed: 25 mm/min. Durability Cycles: 200 Cycles EIA 364-09.Refer to Fig.1
7	<b>Vibration (Random)</b>	△R: 20 milli Ohm Max (change from initial) & Discontinuity < 1 microsecond	Subject mated connectors to 10-55-10 Hz traversed in 1minutes at 1.52mm amplitude 2 Hours each of 3 mutually perpendicular planes. EIA 364-28; Test condition I
8	<b>Mechanical Shock</b>	△R: 20 milli Ohm Max (change from initial) & Discontinuity < 1 microsecond	Accelerate Velocity: 980m/ s <sup>2</sup> (100G) Waveform: Half-sine shock plus No. of Drops: 3 drops each to normal and reversed directions of X,Y and Z axes, totally 18 drops, passing DC 1mA current during the test. EIA 364-27;Test Condition C

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9	<b>Normal Force (BAT SIDE)</b>	100±0.15 gf/pin.	Apply a perpendicular force at 0.8 mm from housing. Refer to Fig.1
9	<b>Normal Force (PCB SIDE)</b>	90±0.15 gf/pin.	Apply a perpendicular force at 0 mm from housing. Refer to Fig.1
10	<b>Terminal Retention Force (in Housing)</b>	200 gf/Pin Min.	Axial pullout force on the terminal and nail in the housing at a rate of 25 mm per minute. EIA 364-29

## Environment Requirements

	Test Items	Requirement	Procedures
11	<b>Thermal Shock</b>	No physical damage	Test the mated connector with 5 cycles. One duration:-55°C/(1.5h)~ 85°C/(1.5h). EIA-364-32
12	<b>Static Humidity</b>	△R: 20 milli Ohm Max. (change from initial) & Appearance: no damage	Expose to a temperature of 50 ± 2°C with a relative humidity of 90-95% for 96 hours. Note: Remove surface moisture and air dry for 1 hour prior to measurements. EIA 364-31
13	<b>Salt Spray</b>	△R: 20 milli Ohm Max. (change from initial) & Appearance: no damage	Duration: 48 hours exposure; Atmosphere:salt spray from a 5% solution. Temperature: 35 +1/-2°C EIA 364-26
14	<b>Temperature Life (Steady State)</b>	△R: 20 milli Ohm Max. (change from initial) & Appearance: no damage	85°C for 240 hours EIA 364-17

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**AcRON** 文件制訂、修訂、廢止申請單

文件編號	PS-BC-0076	文件名稱	BTM10 Series		
申請部門	業務部	申請人	Saoly	日期	8.30 2013
制訂單位	研發部	制訂人	Andrew Lee	日期	8.30 2013
<input checked="" type="checkbox"/> 制訂 <input type="checkbox"/> 修訂 <input type="checkbox"/> 廢止原因說明	<p>首訂 New SPEC</p> <p>( 5 Pin Battery Connector Skin Type )</p> <p>( for - 一般客戶 )</p>				
相關單位審查	<p>Saoly 9/30/13</p> <p style="text-align: right;">JSL 8/30/13</p>				
核准	<p>Limas 9/13</p>				