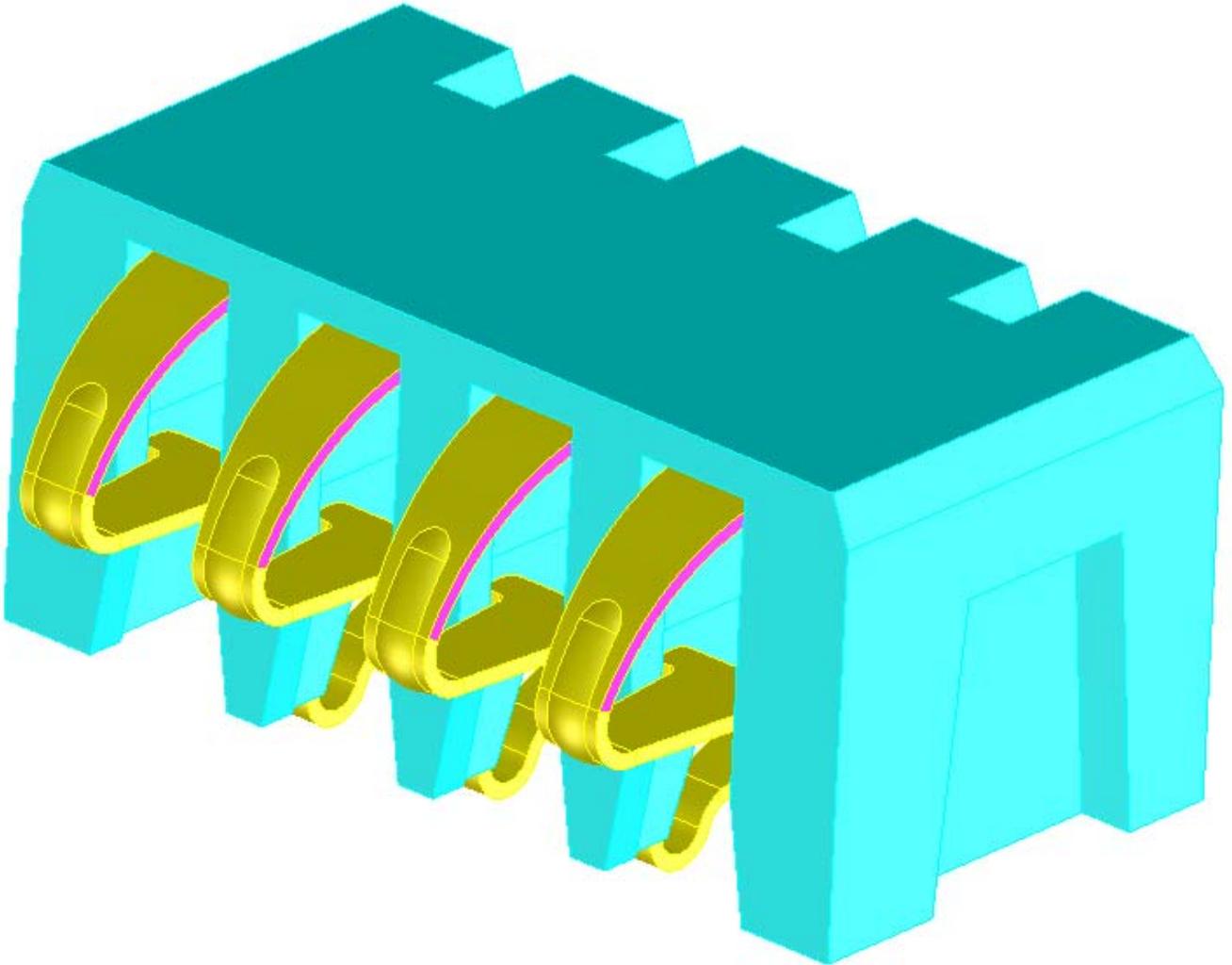




# PRODUCT SPECIFICATION



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REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	BTM28 SERIES	SHEET No
<b>A</b>	EC No:	2010/06/29	PRODUCT NAME	4 Pin 2.0mm Pitch Battery Connector	1 of 4
	DATE:				
DOCUMENT NUMBER: <b>PS-BC-0035</b>		CREATED / REVISED BY: <b>ANNE.YANG</b>		CHECKED BY: <b>KENNY.CHEN</b>	APPROVED BY: <b>DEVIN.CHEN</b>



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This Product Specification covers the performance requirements for 4pin 2.0mm pitch battery connector series. .

## 2.0 PRODUCT DESCRIPTION

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

4 pin 2.0mm pitch battery connector **BTM28** 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

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Please refer to the Sales Drawings , and other sections of this Specification for specific references to applicable documents and specifications. In cases where the Product Specification differs from the Sales Drawings, the Sales Drawing will take precedence

**EIA-364 TEST METHODS FOR ELECTRICAL CONNECTORS**

## 4.0 RATINGS

### 4.1 VOLTAGE

15 Volts DC

### 4.2 CURRENT

1.0 A Max.

### 4.3 TEMPERATURE

Operating Temperature Range: - 55°C to + 85°C

Storage Temperature Range: - 55°C to + 105°C

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## 5.0 PERFORMANCE

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

### Electrical Requirements

2	Contact Resistance (LLCR)	40 milliohms Max(Initial)	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100mA maximum. EIA 364-23;
3	Insulation Resistance	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	Dielectric Withstanding Voltage	No breakdown; current leakage < 5mA	Apply a voltage 500 V DC for 1 minute between adjacent terminals and between terminals to ground. EIA 364-20
5	Current Rating	Temperature rise: 30°C Max.	Apply the rated current to connector, EIA 364-70

### Mechanical Requirements

6	Durability (Battery Side)	$\Delta$ R: 20 milliohms Max (change from initial)	Operation Speed: 500 cycles/hr. Durability Cycles: 5000 Cycles EIA 364-09.
6-1	Durability (PCB Side)	$\Delta$ R: 20 milliohms Max (change from initial)	Operation Speed: 500 cycles/hr. Durability Cycles: 500 Cycles EIA 364-09.
7	Vibration	$\Delta$ R: 20 milliohms Max (change from initial) & No electrical discontinuity greater than 1 $\mu$ sec.	Subject mated connectors to 10-55-10 Hz traversed in 1minutes at 1.52mm amplitude for 2 Hour each of 3 mutually perpendicular planes. EIA 364-28; Test condition I
8	Mechanical	$\Delta$ R: 20 milliohms Max (change from initial) & No electrical discontinuity greater than 1 $\mu$ sec.	Accelerate Velocity: 980m/ s <sup>2</sup> (100G) Waveform: Half-sine shock plus Duration: 6msec No. of Drops: 3 drops each to normal and reversed directions of X,Y and Z axes, totally 18 drops, passing DC1mA current during the test. EIA 364-27;Test Condition C

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9	<b>Normal Force (Battery Side)</b>	1.5N Min. / pin	Apply a perpendicular force at <u>0.60</u> mm from housing.
9-1	<b>Normal Force (PCB Side)</b>	1N±0.15N / Pin	Apply a perpendicular force at <u>0.20</u> mm from housing.
10	<b>Terminal Retention Force</b>	300 gf / Pin Min.	Axial pullout force on the terminal and nail in the housing at a rate of 25 mm per minute. <a href="#">EIA 364-29</a>

## Environment Requirements

11	<b>Thermal Shock</b>	△R: 20 milliohms Max. (change from initial) & Appearance: no damage	Test the mated connector with 5 cycles. One duration: -55°C/(30min.) ~ 85°C/(30min.). <a href="#">EIA-364-32; Test condition I</a>
12	<b>Static Humidity</b>	△R: 20 milliohms 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. <a href="#">EIA 364-31</a>
13	<b>Salt Spray</b>	△R: 20 milliohms Max. (change from initial) & Appearance: no damage	Duration: 48 hours exposure; Atmosphere: salt spray from a 5+/-1% solution. Temperature: 35°C +1/-2°C <a href="#">EIA 364-26</a>
14	<b>Temperature Life</b>	△R: 20 milliohms Max. (change from initial) & Appearance: no damage	Treat samples with 85°C for 250 hours <a href="#">EIA 364-17</a>

### 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. See packaging appropriate drawings

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