



# 规格书

## SPECIFICATION

**CUSTOMER NAME** 客户名称: \_\_\_\_\_

**CUSTOMER NO. 客户编号:** \_\_\_\_\_

**SERIES** 系 列: 刀片电池连接器间距2.0mm

**MODEL NO.**      型      号:      **2.0 mm Pitch Battery Female Type**

**DRAWING NO.**      **图 形 号:**      **Blade battery holder connector**

**If specification of this product meets your request, please confirm all the items of it and return to us with signature and stamp, it will be basis of our production and record. Thanks your cooperation in advance!**

若此产品规格符合贵司要求，敬请确认此规格书内所有项目  
并签名和盖章后回传给我司，以作我司产品制作之

依据和存档之用，多谢合作！

**EXAMINE & APPROVAL 审批**

|                                                    |                        |
|----------------------------------------------------|------------------------|
| <b>APPROVE</b> 接受                                  | <b>NOT APPROVE</b> 不接受 |
|                                                    |                        |
| <b>SIGNATURE</b> 签署 <b>STAMP</b> 盖章 <b>DATE</b> 日期 |                        |

|                                                       |                                                       |                                                      |                                                      |
|-------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| PREPARED BY.制表人                                       | CHECKED BY.校对                                         | APPROVED BY.审核                                       | APPROVAL BY.批准                                       |
| <div>研发部</div> <div>戴海明</div> <div>2022. 06. 08</div> | <div>品质部</div> <div>黄自清</div> <div>2022. 06. 08</div> | <div>工程部</div> <div>庞军</div> <div>2022. 06. 08</div> | <div>总经办</div> <div>吴量</div> <div>2022. 06. 08</div> |

东莞市溪榜电子有限公司

# Dong guan Xi Bang Electronics Co., Ltd

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AccountNumber: 705540238

BankName: CitibankN.A.,HongKongBranch

Country/Region: Hong Kong

BankCode:006

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MAIL: HK@ALPSR.CN

XB@ALPSR. CN

Quality core! Afterburner for Made in China!

**File Name.**      **2.0mm Pitch Battery Female Type**

### 1. SCOPE

This specification covers performance, tests and quality requirements for **battery** connector.

### 2. APPLICABLE DOCUMENT

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

### 3. REQUIREMENTS

#### 3.1. DESIGN AND CONSTRUCTION

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

#### 3.2. MATERIALS

A. Housing : Nylon 9T GN2330, UL 94-V.

B. Contact : Copper Alloy, Selected Gold on Contact Area, Gold Flash on Solder Tails, Both over Nickel Under-plated Overall.

#### 3.3. RATINGS

A. Current Rating : **7 A**    **1 0 A** Max. / Pin

B. Voltage Rating : **1 2 V** DC Max.

C. Operating temperature: -25 °C to +85 °C

#### CONDITION

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1.

#### 3.5. TEST REQUIREMENTS AND PROCEDURES SUMMARY

| TEST DESCRIPTION | REQUIREMENT | PROCEDURED |
|------------------|-------------|------------|
|------------------|-------------|------------|

**File Name.**      **2.0mm Pitch Battery Female Type**

|                                 |                                                                                                         |                                                                                                                                               |
|---------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Examination of product          | Meets requirements of product drawing and Specification.                                                | Visual inspection<br>No physical damage                                                                                                       |
| <b>ELECTRICAL</b>               |                                                                                                         |                                                                                                                                               |
| Contact Resistance              | 40mΩ Max.<br>(After Test $\Delta$ 20 mΩ Max.)                                                           | EIA-364-23C                                                                                                                                   |
| Insulation Resistance           | 1000MΩ Min. at 500V DC / 2min.                                                                          | EIA-364-21D                                                                                                                                   |
| Dielectric Withstanding Voltage | No breakdown at 1000V rms                                                                               | EIA-364-20D                                                                                                                                   |
| <b>MECHANICAL</b>               |                                                                                                         |                                                                                                                                               |
| Durability                      | 5000 Cycles                                                                                             | EIA-364-09C                                                                                                                                   |
| Mating Force                    | 400g Max. /Pin                                                                                          | EIA-364-13D                                                                                                                                   |
| Unmating Force                  | 18g Min. /Pin                                                                                           | Speed 25 ± 3mm/minute                                                                                                                         |
| Contact Retention Force         | 300g Min./Pin                                                                                           | EIA-364-29C                                                                                                                                   |
| <b>ENVIRONMENTAL</b>            |                                                                                                         |                                                                                                                                               |
| Humidity                        | Meets requirements of product drawing and electrical specification.                                     | EIA-364-31B<br>Method II, Condition A                                                                                                         |
| Salt spray                      | Meets requirements of product drawing and electrical specification.                                     | Temperature: 35°C ± 2°C<br>Density of salt water: 5 ± 1%<br>Duration: 4hours ± 15min.                                                         |
| Cold                            | Meets requirements of product drawing and electrical specification                                      | The connector housing shall be store at temperature of -25 ± 3°C for 48hours                                                                  |
| Dry heat                        | Meets requirements of product drawing and electrical specification                                      | The connector housing shall be store at temperature of 85 ± 2°C for 96hours                                                                   |
| <b>PHYSICAL</b>                 |                                                                                                         |                                                                                                                                               |
| Solderability                   | The test area shall be covered more than 95% of immersed area with flash solder                         | Solder Temperature: 245°C ± 5°C<br>Immersion Period: 3 ± 0.5sec.                                                                              |
| Resistance to Soldering Heat    | 1. Without deformation of case or excessive loosen.<br>2. Electrical characteristics shall be satisfied | Place the connector on the P.C. Board, then immerse the solder pin up to the surface of the board in the solder bath at 260°C ± 5°C for 5sec. |

Figure 1

NOTE: Shall meet visual requirements, show no physical damages.

**File Name.**     **2.0mm Pitch Battery Female Type**

### 3.6. PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

| Test or Examination             | Test Group        |     |     |     |     |     |     |     |
|---------------------------------|-------------------|-----|-----|-----|-----|-----|-----|-----|
|                                 | A                 | B   | C   | D   | E   | F   | G   | H   |
|                                 | Test Sequence (a) |     |     |     |     |     |     |     |
| Examination of Product          | 1,9               | 1,9 | 1,9 | 1,9 | 1,9 | 1,7 | 1,3 | 1,3 |
| Contact Resistance              | 2,8               | 2,8 | 2,8 | 2,8 | 2,8 | 2,6 |     |     |
| Insulation Resistance           | 3,7               | 3,7 | 3,7 | 3,7 | 3,7 |     |     |     |
| Dielectric Withstanding Voltage | 4,6               | 4,6 | 4,6 | 4,6 | 4,6 |     |     |     |
| Durability                      |                   |     |     |     |     | 4   |     |     |
| Mating Force & Unmating Force   |                   |     |     |     |     | 3,5 |     |     |
| Contact Retention Force         |                   |     |     |     |     |     | 2   |     |
| Humidity                        | 5                 |     |     |     |     |     |     |     |
| Salt spray                      |                   | 5   |     |     |     |     |     |     |
| Cold                            |                   |     | 5   |     |     |     |     |     |
| Dry heat                        |                   |     |     | 5   |     |     |     |     |
| Solderability                   |                   |     |     |     |     |     |     | 2   |
| Resistance to Soldering Heat    |                   |     |     |     | 5   |     |     |     |

Figure 2

NOTE :

(a) Numbers indicate sequence in which tests are performed.

**\*PLEASE PROVIDE MORE DETAIL FIGURES IF NECESSARY.**

| REV. | REV. RECORD | DATE | EC NO. | WRITTEN BY | APPROVED BY |
|------|-------------|------|--------|------------|-------------|
|      |             |      |        |            |             |
|      |             |      |        |            |             |
|      |             |      |        |            |             |
|      |             |      |        |            |             |
|      |             |      |        |            |             |

F

E

D

C

B

A

RoHS  
Compliant

SYMBOL

REVISION

APPROVAL

DATE

17.70 (DIM:A)

15.30 (DIM:B)

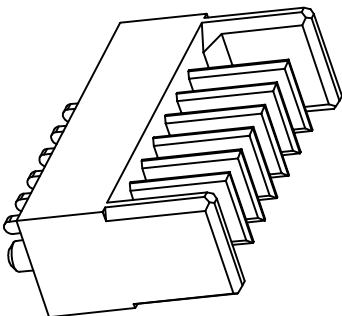
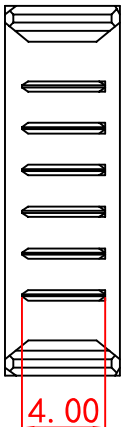
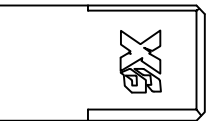
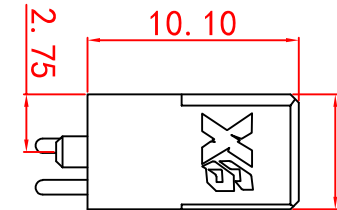
2.00

0.50

5.20  
5.60

2.50  
1.50

15.00 (DIM:C)



| No: of pins | Dimension |        |        |
|-------------|-----------|--------|--------|
|             | DIM. A    | DIM. B | DIM. C |
| 03          | 11.70     | 9.30   | 9.00   |
| 04          | 13.70     | 11.30  | 11.00  |
| 05          | 15.70     | 13.30  | 13.00  |
| 06          | 17.70     | 15.30  | 15.00  |
| 07          | 19.70     | 17.30  | 17.00  |
| 08          | 21.70     | 19.30  | 19.00  |
| 09          | 23.70     | 21.30  | 21.00  |
| 10          | 25.70     | 23.30  | 23.00  |
| 11          | 27.70     | 25.30  | 25.00  |
| 12          | 29.70     | 27.30  | 27.00  |

NOTE:

Material

Insulator: LCP

Contact: C2680

Contact Plated: Gold over Nickel or Tin

Specification

Current rating: 7A

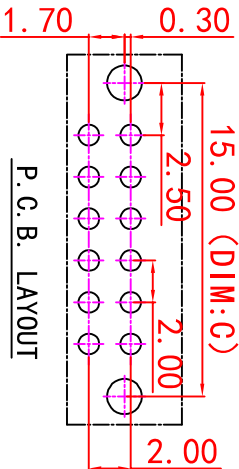
Instant CURRENT: 10A

Contact Resistance: 30mΩ

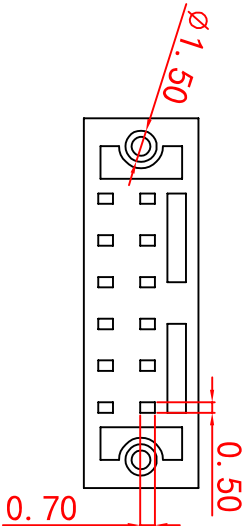
Insulation Resistance: 100MΩ

Dielectric Voltage: 500V

Operating Temperature: -40° ~105°



P. C. B. LAYOUT



4

3

2

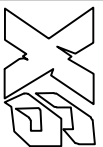
1

4

3

2

1



东莞市溪榜电子有限公司  
DONG GUAN XI BANG ELECTRONI CS CO., LTD.

F

E

D

C

B

A

PART NAME

PART NO.

UNIT: TOLERANCE  
OTHERWISE

CONNECTOR

XB-A05M-3-12PIN系列

UP: 10.5  
30  
±0.2  
±0.3  
±0.5  
±3°

DRAWING

CHECK

APPROVAL

ZENG, CHEN

JUN, YANG

DONG, PANG

DWG. No.

REV.

DATE

QTY.

FINISHING

PAGE

1

GRAY

Au PLATED

6

15-09-2020

1 OF 1