

**产 品 规 格 书**  
**PRODUCT SPECIFICATION**

This specification is referred to the 4.20mm series wire to board connector

**索引【INDEX】**

1. 适用范围 【Scope】
2. 规格与料号 【Spec and Part number】
3. 材质与表面处理 【Disposal of Material and surface】
4. 额定等级 【Ratings and applicable wires】
5. 性能 【 Performance 】
  - 5-1. 电气的性能【Electrical Performance.】
  - 5-2. 机械的性能【Mechanical Performance】
  - 5-3. 环境性能及其它【Environmental Performance and Others】
6. 综合插入力及拔出力 【Insertion Force & Withdrawal Force】

# XFCN兴飞连接器有限公司

CONNECTORS XFCN CONNECTORS CO., LTD.

TEL:0769-82001899 FAX:0769-87929170

|  |                             |            |
|--|-----------------------------|------------|
| Product Specification [产品规格书]:   | ISSUED BY: Engineering Dept |            |
| Subject [主题]:<br>4.20mm Pitch 4201&4202 Series Connector Specification | Date Issued                 | 2012/09/08 |
|  | Date Revised                | 2013/07/28 |

## 【1.适用范围 Scope】

此种规格包括 4.20mm Pitch 4201 4202 Series 连接器规格说明

This Specification Covers the 4.20mm Pitch 4201 4202 Series Connector Specification.

## 【2.规格与料号 Spec and Part number】

| 规格内容<br>Specification | 产品料号<br>Production No.   | 产品图示<br>Picture of Product |
|-----------------------|--|----------------------------|
| 端子/Terminal           | P4201-1*XX-XXX<br>P4202-1*XX-XXX<br>P4201-2*XX-XXX<br>P4202-2*XX-XXX         | NONE                       |
| 胶壳/Housing            | T4201BS-XX<br>T4202BS-XX   | NONE                       |
| 针座/Wafer              | M4202V-1*XX-XXXX<br>M4202V-2*XX-XXXX<br>M4202R-1*XX-XXXX<br>M4202R-2*XX-XXXX | NONE                       |

## 【3.材质与表面处理 Disposal of Material and surface】

| 规格内容<br>Specification | 材质<br>Materials                 | 表面处理<br>Disposal of Surface  |
|-----------------------|---------------------------------|--|
| 端子/Terminal           | 磷铜/Phosphor Bronze<br>黄铜/ Brass | Tin Plated: Over 40μ" .Nickel: Over 10μ" .<br>Tin Plated: Over 70μ" .Nickel: Over 30μ" . |
| 胶壳/Housing            | PA66                            | UL 94V-2/UL94V-0   |
| 针座/Wafer              | Base                            | PA66   |
|                       | PIN                             | 黄铜/Brass   |
|                       |                                 | Over Tin 70μ" Plated ; Over 30μ" Nickel  |

(上述参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

## 【4. 额定等级 Ratings and applicable wires】

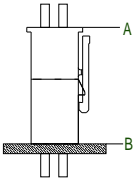
| 项目【Item】                            | 规格【Standard】                             |         |
|-------------------------------------|--|---------|
| 额定电压 Rated Voltage (Max.)           | 600V                                     | [AC/DC] |
| 额定电流 Rated Current (Max.)           | 9A                                       |         |
| 使用温度范围 Ambient temperature Range    | -25°C~+85°C                              |         |
| 适用线径 Applicable wire insulation O.D | AWG 16#~24# Insulation O.D. 3.10mm(Max.) |         |

【 \*升温时含端子.Including terminal temperature rise. 】

|  |                             |            |
|--|-----------------------------|------------|
| Product Specification [产品规格书]:   | ISSUED BY: Engineering Dept |            |
| Subject [主题]:<br>4.20mm Pitch 4201&4202 Series Connector Specification | Date Issued                 | 2012/09/08 |
|  | Date Revised                | 2013/07/28 |

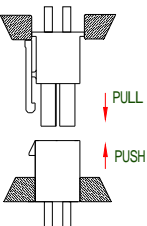
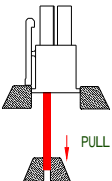
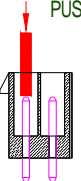
## 【5.性能 PERFORMANCE】

### 5-1. 电气的性能 Electrical Performance.

| 项目<br>【Item】  | 条 件<br>【Test Condition】   | 规 格<br>【Requirement】  |
|---|---|---|
| 5-1-1<br>接触阻抗<br>Contact Resistance                         | 公母配合,开放电压 20mV 以下,电流 10mA 检测连接器 A~B 区.<br>Mate connectors, measure by dry circuit, 20mV MAX, 10mA.<br>(Based upon EIA-364-06A).<br> | Initial:<br>10 milliohms Max.<br>After Test:<br>20 milliohms Max. |
| 5-1-2<br>绝缘阻抗<br>Insulation Resistance                      | 公母配合,在相邻端子,端子与地片之间,使用 500V 的直流电,检测连接器.<br>Mate connectors, apply 500V DC between adjacent terminal or ground.<br>(Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)   | 1000 Megohms Min.   |
| 5-1-3<br>耐电压<br>Dielectric Strength                         | 公母配合,在相邻端子,端子与地片之间,使用 1500V 的交流电 1 分钟,检测连接器.<br>Mate connectors, apply 1500V AC for 1 minute between adjacent terminal or ground.<br>(Based upon EIA-364-20A / MIL-STD-202 Method 301)                                | 不出现中断等情况<br>No Breakdown and Flashover                            |
| 5-1-4<br>铆线后端子接触阻抗<br>Contact resistance on crimped portion | 铆线后之端子,开放电压 20mV 以下,电流 10mA 检测连接器.<br>Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.   | 10 milliohms Max.   |

|  |                             |            |
|--|-----------------------------|------------|
| Product Specification [产品规格书]:   | ISSUED BY: Engineering Dept |            |
| Subject [主题]:<br>4.20mm Pitch 4201&4202 Series Connector Specification | Date Issued                 | 2012/09/08 |
|  | Date Revised                | 2013/07/28 |

## 5-2. 机械的性能 Mechanical Performance.

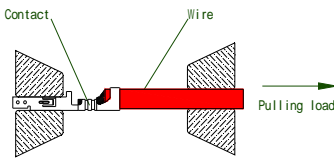
| 项目<br>【Item】 | 条 件<br>【Test Condition】   | 规 格<br>【Requirement】                    |
|--------------|---|---|
| 5-2-1        | <p>插拔力<br/>Insertion<br/>&amp; Retention<br/>Force</p> <p>以每分 25.4±3mm 的速率插入和拔出。<br/>Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute.</p> <div style="text-align: center;">  </div>   | <p>参照第 6 项<br/>Refer to paragraph 6</p> |
| 5-2-2        | <p>端子保持力<br/>Terminal/<br/>Housing<br/>Retention<br/>Force</p> <p>以每分 25.4±3mm 的速率, 将端子从 Housing 内轴向拔出的力量。<br/>Apply axial pull out force at the speed rate of 25.4±3mm/minute on the terminal assembled in the housing.</p> <div style="text-align: center;">  </div> | <p>30N {3.0kgf} Min.</p>                |
| 5-2-3        | <p>端子插入力<br/>Terminal<br/>Insertion<br/>Force</p> <p>铆线后之端子插入 Housing 所需最大力量。<br/>Insert the crimped terminal into the housing.</p>   | <p>14.7N {1.5kgf} Max.</p>              |
| 5-2-4        | <p>Pin<br/>针保持力<br/>Pin Retention<br/>Force</p> <p>以每分 25.4±3mm 的速率, 将 PIN 针从 Wafer 内轴向拔出的力量。<br/>Apply axial push force at the speed rate of 25.4±3mm/minute.</p> <div style="text-align: center;">  </div>   | <p>9.8N {1.0kgf} min.</p>               |

# XFCN兴飞连接器有限公司

CONNECTORS XFCN CONNECTORS CO., LTD.

TEL:0769-82001899 FAX:0769-87929170

|  |                             |            |
|--|-----------------------------|------------|
| Product Specification [产品规格书]:   | ISSUED BY: Engineering Dept |            |
| Subject [主题]:<br>4.20mm Pitch 4201&4202 Series Connector Specification | Date Issued                 | 2012/09/08 |
|  | Date Revised                | 2013/07/28 |

| 项目<br>【Item】 |   | 条件<br>【Test Condition】  | 规格<br>【Requirement】  |     |     |     |     |     |
|--------------|---|---|--|-----|-----|-----|-----|-----|
| 5-2-5        | 端子压着强度<br>Tensile strength<br>(Crimped connections) | 固定铆线后的端子，使电线与端子分离时所需的最小力量。<br>Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part). | AWG#   | #16 | #18 | #20 | #22 | #24 |
|              |   |   | Spec.<br>.kgf.<br>Min.   | 9.0 | 9.0 | 6.0 | 4.0 | 3.0 |
|              |   |    | Note> As for unspecified wire sizes in this specification define values with clients |     |     |     |     |     |

### 5-3. 环境性能及其它 Environmental Performance and Others.

| 项目<br>【Item】 |                                       | 条件<br>【Test Condition】  | 规格<br>【Requirement】        |                     |
|--------------|---------------------------------------|---|----------------------------|---------------------|
| 5-3-1        | 重复插拔<br>Repeated Insertion/Withdrawal | 以每分钟不超过 10 次的速率,将公母插拔 30 次。<br>When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute.   | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
| 5-3-2        | 温升测试<br>Temperature Rise              | 公母对插后,在通过额定电流下,所测定的温度。<br>Carrying rated current load. (UL 1977)  | 温升测试<br>Temperature rise   | 30°C Max.           |
| 5-3-3        | 耐振动性<br>Vibration                     | 振幅: 1.5mm P-P<br>时间: 10~55~10 HZ in 1 minute<br>持续时间: 每轴向 2 小时<br>Amplitude: 1.5mm P-P<br>Sweep time: 10~55~10 HZ in 1 minute<br>Duration: 2 hours in each X.Y.Z axials.<br>(Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A) | 外观<br>Appearance           | 无异状<br>No Damage    |
|              |                                       |   | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
|              |                                       |   | 瞬断<br>Discontinuity        | 1 micro-second Max. |
| 5-3-4        | 耐冲击性<br>Shock                         | 在 X.Y.Z 上 6 个方向上,以 490m/s <sup>2</sup> (50g 的力量)冲击下各 3 回.490m/s <sup>2</sup> {50G}, 3 strokes in each X.Y.Z. axes.<br>(Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)   | 外观<br>Appearance           | 无异状<br>No Damage    |
|              |                                       |   | 接触阻抗<br>Contact Resistance | 20 milliohms Max.   |
|              |                                       |   | 瞬断<br>Discontinuity        | 1 micro-second Max. |

# XFCN兴飞连接器有限公司

CONNECTORS XFCN CONNECTORS CO., LTD.

TEL:0769-82001899 FAX:0769-87929170

|  |                             |            |
|--|-----------------------------|------------|
| Product Specification [产品规格书]:   | ISSUED BY: Engineering Dept |            |
| Subject [主题]:<br>4.20mm Pitch 4201&4202 Series Connector Specification | Date Issued                 | 2012/09/08 |
|  | Date Revised                | 2013/07/28 |

| 项目<br>【Item】 |                             | 条件<br>【Test Condition】   | 规格<br>【Requirement】           |  |
|--------------|-----------------------------|--|-------------------------------|--|
| 5-3-5        | 耐热性<br>Heat Resistance      | 85±2 ,96 hours.<br>(Based upon MIL-STD-202 Method 108A Cond.A)   | 外观<br>Appearance              | 无异状<br>No Damage   |
|              |                             |  | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.   |
| 5-3-6        | 耐寒性<br>Cold Resistance      | -25±5 ,96 hours.<br>( Based upon EIA-364-105)  | 外观<br>Appearance              | 无异状<br>No Damage   |
|              |                             |  | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.   |
| 5-3-7        | 耐湿性<br>Humidity             | 温度: 40±2<br>湿度: 90~95%(RH)<br>持续时间: 96 hours<br>Temperature: 40±2<br>Relative Humidity: 90~95%<br>Duration: 96 hours<br>(Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)              | 外观<br>Appearance              | 无异状<br>No Damage   |
|              |                             |  | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.   |
|              |                             |  | 耐电压<br>Dielectric Strength    | Must meet<br>5-1-3   |
|              |                             |  | 绝缘阻抗<br>Insulation Resistance | 500 Megohms<br>Min.  |
| 5-3-8        | 温度变化<br>Temperature Cycling | 从-55 持续 30 分钟升至+85 持续 30 分钟,循环 5 次.<br>5 cycles of: a) -55 30 minutes.<br>b) +85 30 minutes.<br>(Based upon EIA-364-32B)   | 外观<br>Appearance              | 无异状<br>No Damage   |
|              |                             |  | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.   |
| 5-3-9        | 盐水喷雾<br>Salt Spray          | 在温度 35±2°C,盐水浓度 5±1%下,盐水喷雾 24±1 小时.<br>24±1 hours exposure to a salt spray from the 5±1% solution at 35±2°C.<br>(Based upon EIA-364-26A/MIL-STD-202 Method 101D Cond.B).<br>注: 此项测试只针对先冲后镀端子 | 外观<br>Appearance              | 无异状<br>No Damage   |
|              |                             |  | 接触阻抗<br>Contact Resistance    | 20 milliohms<br>Max.   |
| 5-3-10       | 焊锡附着性<br>Solder-ability     | 焊接时间: 3±0.5 秒.<br>焊接温度: 245±5 .<br>Soldering Time: 3±0.5second.<br>Solder Temperature: 245±5 .<br>(Based upon EIA-364-52)  | Solder Wetting                | 浸渍面积需 95%以上<br>95% of immersed area must show no voids, pin holes. |

# XFCN兴飞连接器有限公司

CONNECTORS XFCN CONNECTORS CO., LTD.

TEL:0769-82001899 FAX:0769-87929170

|  |                             |            |
|--|-----------------------------|------------|
| Product Specification [产品规格书]:   | ISSUED BY: Engineering Dept |            |
| Subject [主题]:<br>4.20mm Pitch 4201&4202 Series Connector Specification | Date Issued                 | 2012/09/08 |
|  | Date Revised                | 2013/07/28 |

| 项目<br>【Item】                         | 条件<br>【Test Condition】   | 规格<br>【Requirement】 |                  |
|--------------------------------------|--|---------------------|------------------|
| 5-3-11<br>焊锡耐热性<br>Solder-Resistance | 焊接时间: 3~5 秒.<br>焊接温度: 255+5/-5 .<br>Soldering time:3~5 sec solder.<br>Temperature:255+5/-5 .<br>(Based upon EIA-364-56A) | 外观<br>Appearance    | 无异状<br>No Damage |

## 【6.综合插入力及拔出力 INSERTION/WITHDRAWAL FORCE】 <Connector mating force>

| PIN 数<br>No. of<br>CKT | 初次插入力(最大值)<br>First Insertion<br>(kgf Max.) | 30 次拔出力(最小值)<br>30 <sup>th</sup> Withdrawal<br>(kgf Min.) | PIN 数<br>No. of<br>CKT | 初次插入力(最大值)<br>First Insertion<br>(kgf Max.) | 30 次拔出力(最小值)<br>30 <sup>th</sup> Withdrawal<br>(kgf Min.) |
|------------------------|---|---|------------------------|---|---|
| 02                     | 3.00  | 0.10  | 08                     | 9.00  | 0.70  |
| 03                     | 4.00  | 0.20  | 09                     | 10.00                                       | 0.80  |
| 04                     | 5.00  | 0.30  | 10                     | 11.00                                       | 0.90  |
| 05                     | 6.00  | 0.40  | 11                     | 12.00                                       | 1.00  |
| 06                     | 7.00  | 0.50  | 12                     | 13.00                                       | 1.10  |
| 07                     | 8.00  | 0.60  |                        |   |   |
| 双排 ( Double Row )      |   |   |                        |   |   |
| 2*01                   | 3.00  | 0.1   | 2*07                   | 15.00                                       | 0.7   |
| 2*02                   | 5.00  | 0.2   | 2*08                   | 17.00                                       | 0.8   |
| 2*03                   | 7.00  | 0.3   | 2*09                   | 19.00                                       | 0.9   |
| 2*04                   | 9.00  | 0.4   | 2*10                   | 21.00                                       | 1.0   |
| 2*05                   | 11.00                                       | 0.5   | 2*11                   | 23.00                                       | 1.1   |
| 2*06                   | 13.00                                       | 0.6   | 2*12                   | 25.00                                       | 1.2   |

注：以上插拔次数为 30 次

Note : Insertion and Withdrawal for 30Cycles

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Headers & Wire Housings](#) category:*

*Click to view products by [XFCN](#) manufacturer:*

Other Similar products are found below :

[95000-104TRLF](#) [10135584-644402LF](#) [DF62W-EP2022PCA](#) [95000-106TRLF](#) [DF62W-2022SCA](#) [DF62W-EP2022PC](#) [2203348](#) [DF62W-2022SC](#) [1084018](#) [1029039](#) [1084017](#) [802-10-012-10-002000](#) [1112640](#) [1112639](#) [891-007-9SS-BST1T](#) [000-34000](#) [0008550134](#) [0009482033](#) [0009507031](#) [57102-F02-18ULF](#) [57102-S06-03LF](#) [57202-S52-04LF](#) [PCN6-15S-2.5E](#) [0039019024](#) [58102-G61-06LF](#) [582553-1](#) [0009485154](#) [0009508121](#) [0022285053](#) [0050291907](#) [018731A](#) [LY20-4P-DT1-P1E-BR](#) [02.125.8002.8](#) [60101931](#) [60598-1 \(Cut Strip\)](#) [M1625-3R/100](#) [61062-3](#) [61082-181009](#) [CSU011177004](#) [636-1427](#) [638009-1](#) [641938-9](#) [641991-4](#) [644168-1](#) [644827-2](#) [647662-1](#) [65039-019ELF](#) [65692-001LF](#) [65781-018](#) [65781-047](#)