| SP 昆旺精密连接器有限公司 VIGORCONN PRECISION CONNECTOR CO., LTD | 文件編號: | KWRD-AJC | | |
|--|-------|------------|--|--|
| VIGORCONN PRECISION CONNECTOR CO., LTD | 修訂日期: | 2019-03-16 | | |
| Product Specification | 版 次: | A | | |
| PHONE JACK CONNECTOR SERIES | 頁 次: | 01 OF 05 | | |

1. SCOPE (范围)

1.1. CONTENTS (目录)

This specification covers the performance, methods and quality requirements for **PHONE JACK Plug** and **Receptacle** Connector.

此份规格书包含了 PHONE JACK 插头和母座连接器的性能、测试及品质要求。

1.2. QUALIFICATION (条件)

When tests are performed on the subject product line, the procedures specified specifications shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

当所有测试项目被应用于生产线时,规格书上的这些指定程序将被使用,所有的检验须按对应的检验规范及产品 图纸执行。

2. APPLICABLE DOCUMENT (使用文件)

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. 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.

来至此规格书的部分文件仅限用于此,除非有最新版本文件指定发行,当此规格书标准与产品图纸相冲突时,以产品图纸为准,当此规格书与参考文献相冲突时,以此规格书为准。

3. REQUIREMENTS (要求)

3.1. DESIGN AND CONSTRUCTION (结构设计)

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

产品的设计、结构和物理尺寸须详细的标示在产品图纸上。

3.2. MATERIALS (材质)

A. Housing: Refer To VIGORCONN Drawings

胶芯:参考昆旺图纸

B. Contact: Refer To VIGORCONN Drawings

端子:参考昆旺图纸

C.Shell/Latch: Refer To VIGORCONN Drawings

外壳/挂钩:参考昆旺图纸

3.3. RATINGS (额定)

A. Voltage: 12 V DC (RMS. max)

电压: 直流电 12V

B. Current: 1 A ampere for contact rating

电流:额定电流为1安培

C. Operating Temperature: -30 °C to +80°C

工作温度: -30 °C~ +80°C

3.4. PERFOMANCE REQUEIREMENT AND TEST DESCRIPTION(性能测试要求与条件)

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1. All tests shall be performed at ambient environmental conditions.

表 1 详述了产品的电气、机械和环境的测试要求,所有测试都须在室温下执行。

3.5. TEST REQUIREMENTS AND PROCEDURES SUMMARY (测试条件与步骤摘要)



| TE | ST ITEM(测试项目) | REQUIREMENT(规格) | PROCEDURE (步骤) | | | | | |
|----|--|---|--|--|--|--|--|--|
| 1 | Appearance of Product 产品外观 | Meets requirements of product drawing. No physical damage. 对照产品图纸,无物理损伤 | Visual inspection. EIA-364-18 目视检查,参考 EIA-364-18 | | | | | |
| EL | ECTRICAL REQUIRI | | | | | | | |
| 2 | Contact Resistance 接触阻抗 | 30 mΩMax(Initial) 20 mΩMax change for post test 初始时最大 30 毫欧姆 测试后最大改变 20 毫欧姆 | Subject mated contacts assembled in housing to 20mV Max open circuit at 100mA Max. EIA-364-23B. 成对的端子与胶芯组装后,最大电压 20 毫伏,短路电路最大 100 毫安培,参考 EIA-364-23B | | | | | |
| 3 | Dielectric withstanding Voltage 耐电压 | No flashover & spark over & excess leakage &breakdown 不可跳火、不可有火花,不可超出泄漏额,不可击穿 | Test voltage 500V AC between adjacent contacts of mated and unmated connector assemblies for one minute. Interval of shield case and contacts too, in the same way EIA-364-20B 500 伏交流电下测试未配对连接器间相邻端子电路一分钟, | | | | | |
| 4 | Insulation Resistance 绝缘阻抗 | Initial :1,000 MΩ min. Final(post test) 100 MΩ min. 初始: 最小 1000 兆欧姆 最终(测试后)最小 100 兆欧姆 | Test voltage 100±10V DC between adjacent contacts of mated and unmated connector assemblies. Interval of shield case and contacts too, in the same way. EIA-364-21C. 100±10 伏交流电下测试相邻未配对连接器间路,参考 EIA-364-21C | | | | | |
| 5 | Temperature Rising 30°C Max. Under loaded rating current | | Contact series-wired, apply test current of loaded rating current to the circuit, and measure the temperature rising by probing on soldered areas of contacts, after the temperature becomes stabilized deduct ambient temperature from the measured value. EIA-364-70,method B | | | | | |
| ME | CHANICAL REQUIR | REMENT | | | | | | |
| 6 | Mating Force 插入力 | 2.94~29.4 N 2.94~29.4 牛顿 | Measure force necessary to mate connector assemblies at maximum rate of 12.5 mm(0.492)/min. EIA-364-13 测量插入力需配对的连接器完全契合运行速度 12.5 毫米每分钟参考 EIA-364-13 | | | | | |
| 7 | Unmating Force 拔出力 | 2.94~29.4 N 2.94~29.4 牛顿 | Measure force necessary to mate connector assemblies at maximum rate of 12.5 mm(0.492)/min. EIA-364-13 测量拔出力须配对的额连接器完全脱离运行速度 12.5 毫米每分钟参考 EIA-364-13 | | | | | |
| 8 | Durability 寿命测试 | Mating Force:29.4N Max. Unmating Force:2.94N Min. Contcat Resistance: 20 mΩMax change for post test Appearance:No breakdown | Mate and unmated connector assemblies for 5000 cycles at. Cycle rate of 500 cycles per hour if done automatically and 200 if manual cycle EIA-364-09 | | | | | |



| | 1.5 | 插入力:最大 29.4 牛顿 发出力:最小 2.94 牛顿 接触阻抗:测试完成后改变最大 20 毫 欧 | 插拔次数 5000 次, 若械循环速度 500 次每小时, 若手动循环 200 次每小时 参考 EIA-364-09 | | | | |
|----|---|---|--|--|--|--|--|
| 9 | Random Vibration 耐振动 | No discontinuities of 1μs or onger duration Contcat Resistance: 20 mΩMax shange for post test 及有超过一微秒的断电 接触阻抗: 测试完成后改变最大 20 毫 | Mated connectors are subjected to 5.35Ggrms ,15 minutes in each of 3 mutually perpendicular planes. 100mA Max. Applied. EIA-364-28 | | | | |
| 10 | Physical shock 物理冲击 | No discontinuities of 1μs or conger duration Contcat Resistance: 20 mΩMax change for post test Appearance:No breakdown 没有超过一微秒的断电 接触阻抗:测试完成后改变最大 20 毫 | Mated connectors are subjected to 11ms duration 30G half-sine shock pulses .Three shocks in each direction applied along three mutually perpendicular planes for 18 shocks EIA-364-27B condition. H | | | | |
| | TEST ITEM | REQUIREMENT | PROCEDURE | | | | |
| 11 | Solderability 可焊性 | Solder tails shall pass 95% Min coverage 粘锡面积最小 95% | Solder temperature: 245±5°C Duration: 3~5sec. EIA-364-52 | | | | |
| EN | VIRONMENTAL REQ | UIREMENTS | | | | | |
| | | No physical damage shall occur. 无外观损伤 | Pre Heat: 150~180°C, 90±30sec. Heat: 230°C Min., 35±5sec. Peak Temp.: 260°C Max. 10±5sec. Duration: 2 cycles 初始温度: 150~180 摄氏度, 90±30 秒. 温度: 最小 230 摄氏度., 35±5 秒 最高温度: 最大 260 摄氏度., 10±5 秒 周期: 2次 | | | | |
| 13 | Withstand Voltage: 100VAC Insulation resistance:100 MΩ Min. There shall be no evidence of damage 抵抗电压: 100 伏交流电 绝缘阻抗:最小 100 兆欧姆 无明显损伤 | | Mated Connector -55+/-3°C(30 minutes), +85+/-2°C(30 minutes) Perform this 1 cycle, repeat 10 cycles EIA-364-32C condition I 将连接器置于-55±3 摄氏度环境中三十分钟,再置于+85±2 环境中三十分钟,如此为一次,重复 10 次 参考 EIA-364-32C 条件 I | | | | |
| 14 | Humidity Life 恒温恒湿 | Withstand Voltage: No breakdown Insulation resistance:100 MΩ Min. Contcat Resistance: 20 mΩMax change for post test Appearance:No breakdown 抵抗电压:不可击穿 | Mated Connector 25~65℃, 90~95% RH, 1 Cycle:24 hours ,7 Cycles. EIA-364-31B 将连接器放于温度 25~65 摄氏度, 90~95% RH 中, 一次 24 小时, 共 7 次 参考 EIA-364-31B | | | | |

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| | | 绝缘阻抗:最小 100 兆欧姆 | |
|----|--|---|---|
| | | 接触阻抗: 测试完成后最大改变 20 | |
| | | 毫欧姆 | |
| | | 外观:无损伤 | |
| | | Withstand Voltage: No | |
| 15 | Temperature Life (Heat Aging) 高温老化 | Insulation resistance:100 MΩ Min. Contcat Resistance: 20 mΩMax change for post test Appearance:No breakdown 抵抗电压:不可击穿 绝缘阻抗:最小 100 兆欧姆 | Mated Connector to 85±2℃ for 120 hours Upon Completion of the exposure period,the test Specimens shall be conditioned at ambient room, conditions for 1 to 2 hours, after which the Specified measurements shall be performed. EIA-364-17B. 将连接器放于 85±2 摄氏度温度下 120 小时后,取出放于室温下 1 到 2 小时后按指定方法测量参考 EIA-364-17B |
| 16 | Salt Spray 盐雾测试 | Contcat Resistance: 20 mΩMax change for post test Appearance:By visual inspection without noticeable | Subject mated connectors to 35+/-2 °C and 5+/-1% salt condition for 48hours. After test, rinse the sample with water and recondition the room temperature for 1 hour, EIA-364-26B. 将连接器置于温度 35±2 摄氏度, 盐雾浓度 5±1%条件下 48 小时后,用清水清洗样品置于室温下一小时参考 EIA-364-26B |

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

注释:满足视觉要求,外观无物理损伤

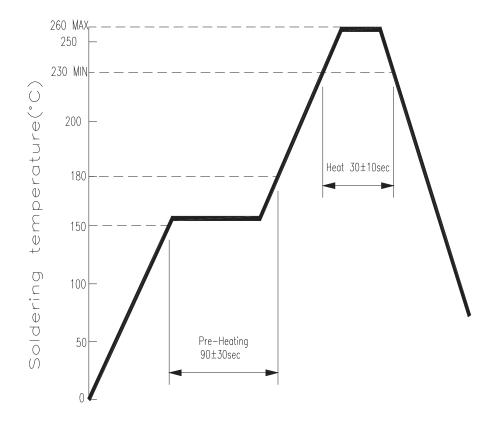
3.6.TEST SEQUENCES (测试顺序):

| 3.6. TEST SEQUENCES (| 测试顺 | <u> (</u>) : | | | | | | | | | |
|--|---------------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Test Group(测试组) | | | | | | | | | | |
| Test Item 测试项目 | Α | В | С | D | Е | F | G | Н | I | J | K |
| NA PO A PI | Test Sequence(测试顺序) | | | | | | | | | | |
| 1.Appearance 外观 | 1,3 | 1,8 | 1,9 | 1,5 | 1,5 | 1,9 | 1,9 | 1,9 | 1,5 | 1,3 | 1,3 |
| 2. Contact Resistance 接触阻抗 | | 2,5 | 2,8 | 2,4 | 2,4 | 2,6 | 2,6 | 2,6 | 2,4 | | |
| 3. Dielectric withstanding Voltage 耐电压 | | 4,7 | | | | 4,8 | 4,8 | 4,8 | | | |
| 4. Insulation Resistance 绝缘阻抗 | | 3,6 | | | | 3,7 | 3,7 | 3,7 | | | |
| 5. Temperature Rising 温度上升 | 2 | | | | | | | | | | |
| 6. Mating Force 插入力 | | | 3,6 | | | | | | | | |
| 7. Unmating Force 拔出力 | | | 4,7 | | | | | | | | |
| 8. Durability 耐久性 | | | 5 | | | | | | | | |
| 9. Random Vibration 耐振动性 | | | | 3 | | | | | | | |
| 10. Physical shock 物理冲击 | | | | | 3 | | | | | | |

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| 11. Solderability 可焊性 | | | | | | | 2 | |
|---------------------------------------|--|--|---|---|---|---|---|---|
| 12. Resistance to Soldering Heat 耐焊锡热 | | | | | | | | 2 |
| 13. Thermal Shock 热冲击 | | | | 5 | | | | |
| 14. Humidity Life 恒温恒湿 | | | 5 | | | | | |
| 15. Temperature Life 高温老化 | | | | | 5 | | | |
| 16. Salt Spray 盐雾测试 | | | | | | 3 | | |

5. Resistance to flow solder heat



NOTE: Please check the re-flow soldering condition by your own devices beforehand.

Because the condition changes by the soldering devices, p.c. boards, and so on.