深圳市金维益电子有限公司

产品规格书

产品名称：2.54排针/排母系列规格书	文件编码：ME3-EN-TS0004	版本：A
制作：**金承鑫**	审核：	制作部门：工程部

1.SCOPE 适用范围

This product specification defines the product performance and the test methods to ascertain the performance of the (2.54PH/FH)Connector ,which si designed and manufactured by JWY Electronic Co.,Ltd.This product specification is applicabie but not only for those part numbers which be shown in the cover page.

本产品规格书规定了由金维益电子有限公司设计生产的（2.54PH/FH）型连接器，产品的特性及测试方法。本产品规格书适用于但不局限于封面所显示的产品料号

2.REFERENCE DOCUMENTS 参考文件

MIL-STD-1344	Test method for electrical connector 电子连接器测试方法
MIL-STD-202	Test method for electrical connectors 电子零件测试方法
EIA364	Test method for electrical connectors 电子零件测试方法
JIS C 0051	Test method for electrical connectors 电子零件测试方法
MIL-G-45204C	Specification for gold plating 镀金规格
IEC-512-3	IEC standard for current carrying capacity tests IEC 电流测试标准
QQ-N-290A	Specification for nickel plating 镀镍规格
MIL-P-81728A	Specification for tin/lead plating 镀锡铅规格
MIL-T-10727B	Specification for tin plating 镀锡规格
UL498	UL standard for safety of attachment plug ang receptacle UL安规要求标准
EN/ISO5961	Determination of total lead &cadmium content 总铅和总镉含量测定
EN1122	Determination of total lead &cadmium content 总铅和总镉含量测定
EN13346	Determination of heavy metals content 重金属含量测定
EPA3052	Determination of total lead &cadmium content 总铅和总镉含量测定

3.FEATURE &DIMENSIONS 特征及特性

3.1.PRODUCT DIMENSION 产品尺寸

These connectors shall have the dimensions as shown in drawing.

本产品的相关尺寸参见图面

3.2.PCB/panel layout 印刷电路板布局

The recommended PCB layout is shown in drawing.

本产品适用的 PCB layout 参见图面。

3.3.BILL OF MATERIAL材料清单

Harmful material controlling follows the requirements of RoHS. The bill of material is described in drawing.

有害物质控制符合RoHS指令要求。本产品适用的材料参见图面。

3.4.MECHANICAL & ELECTRICAL CHARACTERISTIC 机械及电器特性

The connector shall have the mechanical and electrical performance as described in drawing.

本产品的机械及电器特性参见下方附表一（测试要求与方法）.

3.5.PACKAGING 包装

Products shall be packaged according to requirements specified in purchase order for safe delivery,conneector container and the packaging method are shown in package specification.

产品可依照客户指定要求包装，包装材料与包装方式参见产品包装规范.

3.6.RATING CURRENT AND RATING VOLTAGE 额定电流与额定电压

Rating current is (3.0)A, rating voltage is （1000)V DC/AC RMS.

额定电流（3.0）A，额定电压（1000）V DC/AC RMS.

3.7.STORAGE AND OPERATING TEMPERATURE 存储与使用温度

Temperature range:-(40)℃～+(105)℃, including terminal temperature rise for rating curre

温度范围：-(40)℃～+(105)℃，包含接触端子的额定电流温升

4.Environmental 环境温度

4.1.SOLDERABILITY 可焊性

Connectors meet solder-ability to MIL-STD-202,and shall be free of contaminants.

产品可焊性符合MIL-STD-202标准规定的相关要求，表面不得有污染物.

4.2.RESISTANCE TO SOLDER HEAT 耐焊接热

4.2.1.WAVE SOLDER波峰焊接

Each cycle consists of three consecutive phases.

每个焊接周期包括三个连续阶段.

4.2.1.1.Preheat预热

The steady temperature of the preheat zone is 90～125℃

预热区最终温度控制在90～125℃

4.2.1.2.Soldering焊接

To avoid the secondary tin-melting,the temperature on PCB upper surface is 160℃ Max.for products with lead,or200℃ Max.for lead-free products. The temperature of the PCB bottom surface shall not be exceed 100℃ more than the temperature of the PCB upper surface. The peak temperature is during 230～250℃ for products with lead, or 255～270℃ forlead-free products.The tin dip time is duration for 3～10 seconds.

有铅产品板面温度不得超过160℃，无铅产品板面温度不的超过200℃，以防止贴片零件二次熔锡。板面温度与板底的温度温差不得超过100℃。板下温度峰值有铅产品维持在230～250℃，无铅产品控制在255～270℃.浸锡时间控制在3～10秒.

4.2.1.3.Cool Down冷却

Cool down shall not xeceed 6℃ per second.

冷却速度不超过6℃秒

Note:说明

Device temperature measurements are referenced from the top-center of the package outer surface

设备温度量测时以从顶部中间位置测量爲准.

5.PERFORMANCE AND TEST DESCRIPTION性能测试

5.1.REQUIREMENT 要求

Product is designed to meet electrical,mechanical,and environmental performance requirements specified in Table 1

本产品设计符合附表一所列的机械，电器及环境要求

5.2.TEST CONDITION 测试条件

Unless otherwise specified,all tests shall be performed at ambient environmental conditions.

除非特别注明，所有测试的室温条件下完成

5.3.SAMPLE SELECTION 样品选择

Test samples shall be selected at random form current production.Notest samples shall be reused.Samples are pre-conditioned with 10cycles of durability.Each group shall be containing 5 test samples at least.

测试样品从现生产的产品中随机抽取，所有测试过的样品不得重复使用。样品以预先插拔10次，每组测试至少有5个样品.

Table 1: Test Requirements and Methods

附表一：测试要求与方法

Items 项目	Requirements 要求	Test Methods 测试方法
1 Confirmation of Product 产品确认	Product shall be conforming to the requirements of applicable product drawing 产品必须符合相关产品图面的要求	Visually dimensions and functionally inspected per applicable product drawing. 依照产品相关图面，检查产品的外观 尺寸及功能

2 Contact Resistance 接触抗阻	20 mΩ Max.Inital 初始状态最大20 mΩ	Subject mated contacts assembled in housing to closed circuit of 100 mA max.20 mV max. 所述固定在外壳里的端子连接到一个封闭回路中测试，电流100mA max,电压20 mV max.
3 Insulation Resistance 绝缘阻抗	1000 MΩ Min 最小 1000 MΩ	Measure by applying test potential between the adjacent contacts,and between the contacts and ground in the mated connector . 测试产品相邻端子间以及端子与接地间的电阻，
4 Diecectric Withstanding Voltage 耐电压	Connector must withstand test potential of 500 VAC RMS for 1 minute,No spark no smoking no breakdown 产品必须承受测试电压500 VAC RMS，时间1分钟，无火花无冒烟无击穿	Measure by applying test potential between the adjacent contacts,and between the contacts and ground in the mated connector . 对产品相邻端子间以及端子与接地间加载电压，并测试其漏电流。
5 Durability (Repeated Mating /Un-mating)耐久性	Contact Resistance:40 mΩ Max.after testing. 测试后接触电阻抗40 mΩ	重复进行配合产品50次插拔，以每分钟25±3mm的速度来回拉.
6 Connector Pin Mating/Un-mating Force 单支端子插入/拔出力	Mating force:(0.30)kg/Pin Max. Un-mating force:(0.05)kg/Pin Mi 插入了最大（0.30）kg/Pin 拔出力最小（0.05）kg/Pin	At a speed of 25±3 mm/minute,apply axial insert the mating part into fully or pull out from the subject product. 以25±3mm/分钟的速度，轴向完全插入对配插件到被测产品中或从被测产品中拔出.
7 Contact Retention Force 端子保持力	Male：（0.70）kg/Pin Min. Female：（0.35）kg/Pin Min. 公座 最小（0.70）kg/Pin 母座 最小（0.35）kg/Pin	Apply axial pull out force at a speed of 25±3 mm/minute on the contact assembled in the housing. 以25±3mm/分钟的速度施加轴向拉力从塑胶本体上拔出端子.
8 Solder-ability 可焊性	Appearance of the specimen shall be inspected after the test with the assistance of a magnification of 10 X for any damage such as pinholes,void or rough surface. 产品在测试完成后，在放大倍数为10倍的显微镜下，检查外观损坏如：小孔，空焊，外观粗糙度等。	Soldering time:4 to 6 seconds. Temperature:260±5℃ 焊接时间：4-6秒. 温度：260±5℃

9 Sait Spray 盐雾	There is no blue-green corrosionproduct on plating is OK. 实验后镀层无蓝绿色腐蚀物或生锈现象为合格	5±1% salt concentration 12 huors 35±2℃ 盐水浓度5±1%，时间12小时，温度35±2℃.
10 solder after steam aging 蒸气老化后焊锡	testing product isn't falling-off, broken,rust ,oxidation;Tin after,Solder plating is full and brilliance 实验品无脱落、龟裂、生锈、氧化、露出底材等不良现象；沾锡后，实验样品沾锡饱满、光泽、亮泽	Put products into steam aging machine of temperatur 98℃,Test water must be steam water or pure water,24 hours;Parts of samples is to dip soldering 将产品放入蒸气老化机，实验温度保持98℃，实验形成蒸气之用水必须为蒸馏水或纯净水24h;将蒸气老化实验品实验部分沾锡

6.包装存储运输要求

1) 物料的包装对物料有一定的保护作用和密封作用，保证物料在运输过程中不会受到损坏。

2)包装箱应满足防潮，防振、防压和防霉等要求。

3)最小包装单元的标识必须有厂家商标、产品型号、名称、物料编码和数量。

4)包装成箱的产品，应在环境温度为-10℃～+40℃，相对湿度在80%以下，周围空气中无酸性，碱性或其它腐蚀性气体的库房里贮存，在上述条件下，自生产日期能够半年贮存期，在这半年内物料仍为合格品。