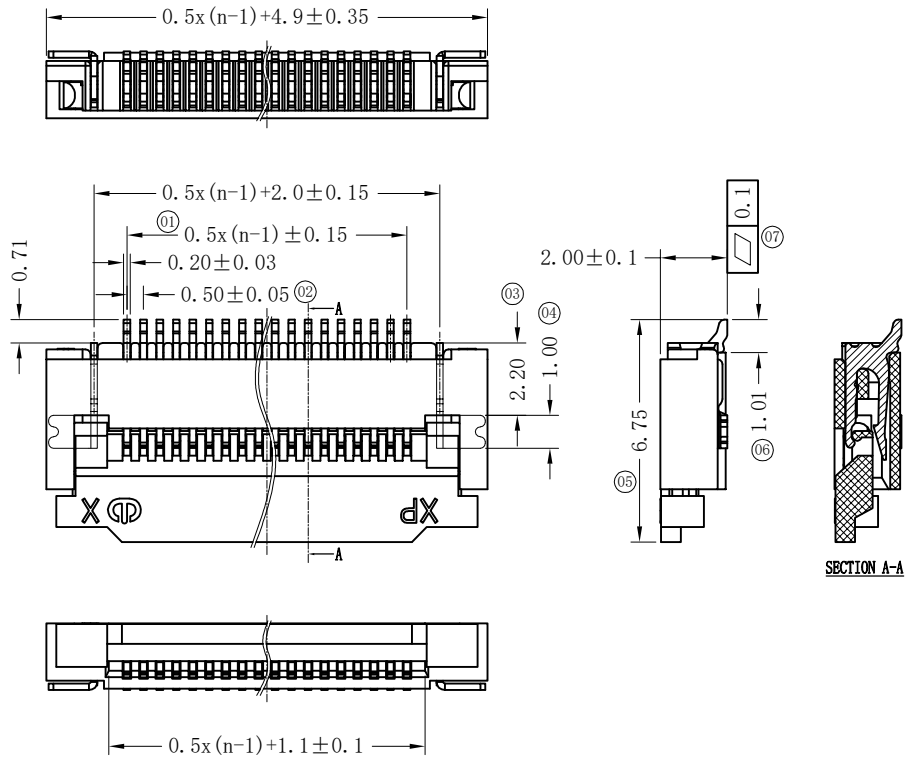
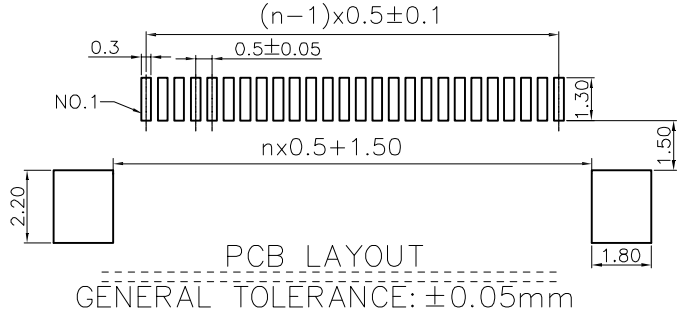
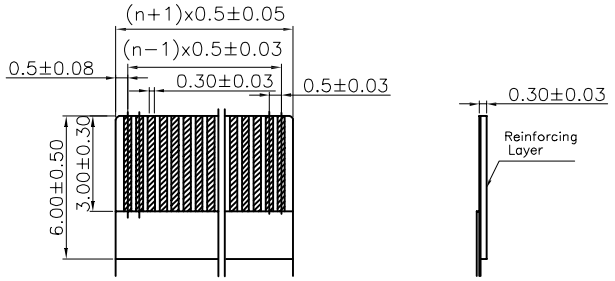






RECOMMENDED FFC/FPC DIM.

0.5S−4S−nPWT−0.71X

T:管装
R:载带

1、n值代表Pin数
2、n最小为4，最大为60

技术参数(SPECIFICATIONS)：
极数(Poles)：5～60PIN;
额定电压(Voltage rating)：30V
额定电流（Current rating):0.5A
耐电压（Withstand Voltage):100V
工作温度（Working Temperature):-20℃～+70℃
绝缘电阻（Insultion Resistance）：>100MΩ
接触电阻（Contact Resistance):<30mΩ
材料：
端子（Contact):Phosphor bronze Tin-plated.
焊片（solder tab):Brass Tin-plated.
塑胶主体（Housing):Heat resistance plastic(UL94-V0)
锁条（Slider):Heat resistance plastic(UL94-V0)

符号	管控	数量
ⓧⓧ	CTQ	7个

序号	零件料号	名　称	材　料	数量	镀层/颜色	备　注
D	—	锁　扣	LCP	1	黑色	※
C	—	塑　座	LCP	1	本色	※
B	—	端子	Phosphor bronze	n	Sn	※
A	—	固定片	Brass	2	Sn	※

浙江金佳电子有限公司
ZHEJIANG JINJIA ELECTRONICS CO.,LTD.

变更单号	版本	日　期	内　容　描　述	变　更	审　核	批　准	未注公差
							UNIT:mm
							.X±0.15　X°±1°
							.XX±0.10
———	A0	———	———————	———	———	———	.XXX±0.05

条形连接器外形图

设计		日期		产品型号	FPC 0.5 PITCH
审核		日期		产品料号	0.5S-4S-28PWT-0.71R
批准		日期			
比例	1:1	单位	mm	页码	1 OF 1　A4

SPECIFICATION 规格书

Model Type: 类型型号：	FFC/FPC CONNECTOR

1. Scope / 适用范围
   This specification is applied to FFC/FPC FLAT CABLE CONNETOR which is used for electric products.
   本规格书适用于电子产品上的扁平电缆连接器。
2. Rated 额定值
   2-1 Rated voltage: 50V (AC . DC)
   额定电压：50V（AC.DC）
   2-2 Rated current:0.4A
   额定电流：0.4A
   2-3 Practical temperature range:-20°C to +85°C
   使用温度范围:-20°C 至 +85°C
   2-4 Storage temperature range:-10°C to +40°C
   储存温度范围:-10°C 至 +40°C
   2-5 Practical wire board thickness: t=1.6~0.8mm
   适用线路板厚度: t=1.6~0.8mm
3. Appearance : No scratches、soil、rust or discoloration shall be observed.
   外观：表面无划伤、脏污、生锈或变色等现象。
4. Construction / 说明
   4-1 Outline And Dimension / 外观和尺寸
   Outline and dimension of the connetor shown be as attached assembled drawing.
   连接器的外观和尺寸应与附件图纸相符。
   4-2 Part And Material 部件和材料
   The parts and materials shown be in material identification sheet and certification of material.
   部件和材料应与材料清单规格一致。
5. Electrical characteristics / 电气特性

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
5-1	Withstand voltage 耐电压	Withstand AV 200V(50~60Hz) for 1minute being applied between any open terminal and other terminal. Trip current :2mA 在两个不接触的端子之间承受交流电 200V (50～60Hz) 并持续1分钟。电流误差:2mA	No dielectric breakdown shall occur. 无击穿现象发生
5-2	Contact resistance 接触阻抗	Measurement current 1KHz±200Hz (200mV,100mA max.) measurement shall be made between each terminal and mating FFC or FPC 测量电流1KHz±200Hz(20mV,100mAmax.) 测量每一个端子与匹配的FFC 或FPC线之间	20mΩ Max. 最大20毫欧
5-3	Insulation resistance 绝缘电阻	Being measured with an insulation measuring device of DC 500V between any ope terminal and the other terminal for 1 minute±5seconds. 在任何一个不接触的端子与另一个端子之间施加500V直流电，用绝缘测量仪，并能持续1分钟±5秒。	500MΩ Min. (Between terminals) 最小500兆欧 (两端子之间)

SPECIFICATION 规格书

Model Type: 类型型号：	FFC/FPC CONNECTOR

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
5-4	Temperature rise 温度上升	All the displacement terminal shall be connected in a direct series by mating conductor.The temperature rise shall be measured by thermocouple when the temperature of the terminal reachs to rated current with resistive load. 所有转移的端子用相匹配的导线直接串联.当达到额定电流与相抵抗的负载一致时,再用热电偶测量端子的温度上升值。	30℃ Max. 最大30℃

6.Mechanical characteristics / 机械特性

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
6-1	Insertion force 插入力	Insert the FFC or FPC to the connector at a speed of 10 cycles per 1 min or less . 以每分钟10次或更慢的速度,将FFC或FPC线插入到连接器里	3.92N(0.4Kgf) Max. 最大3.92N(0.4Kgf)
6-2	Extraction force 拔出力	Extract the FFC or FPC to the connector at a speed of 10 cycles per 1 min or less . 以每分钟10次或更慢的速度,将FFC或FPC线从连接器里拔出.	1.27N (0.12Kgf) Min. 最小1.27N(0.12Kgf) After insertion and extraction 30 cycles: 4.7N (0.48Kgf) Min. 插入和拔出30次后:最小1.0N(0.1Kgf)
6-3	Withdrawal force terminal of 端子锁固强度	Each terminal shall be pulled at speed of 25 ±3mm per minute form the housing.The withdrawal shall be measured force when the terminal is extracted. 每个端子以每分钟25±3mm的速度从基座里被拔出,当端子被拔出时,锁固强度能被测量出.	4.9N(0.5kgf) MIN. 最小4.9N(0.5kgf)
6-4	Terminal Strength 端子强度	Tensile static load of 5N (0.51kgf) shall be applied to the connector housing in the terminal direction for 1 minute. 给连接器的基座施加5N(0.51kgf)的力,并能沿着端子方向持续1分钟。	Without damage such as detachment looseness or breakdown 没有脱落和损坏现象

SPECIFICATION 规格书

Model Type: 类型型号：	FFC/FPC CONNECTOR

7. Solderability / 焊锡试验

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
7-1	Resistance to soldering heat 耐焊性	temperature of solder:260±3°C dip time:5±0.5 seconds length of dip: 1.2mm(from bottom of terminal) 焊接温度：260±3°C 浸入时间：5±0.5秒 浸入深度：1.2mm(从端子末端）	housing and terminal without lossing and breakdown 基座和端子没有脱落和损伤的现象发生
7-2	Solderability 可焊性	Temperature of solder: 245±3°C. Time of dip: 3±0.5 seconds. 焊锡温度: 245±3°C. 浸入时间: 3±0.5 秒	A new uniform coating of solder shall cover 95% or more of the surface being immersed. 焊锡面积要求达到95%以上

8. Environment test / 环境试验

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
8-1	Cold test 低温测试	The housing shall be stored at a temperature of -25±3°C for 48 h. Then it shall be subjected to standard atmospheric conditions for 1 h, after which measurement shall be made. 在-25±3℃低温条件下将基座放置48小时，再在标准大气条件下放置1小时，然后再测试。	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. 外观没有损伤，接触电阻少于以前规格值的2倍。
8-2	Heat test 高温测试	The housing shall be stored at a temperature of 85±2℃ for 96 h. Then it shall be subjected to standard atmospheric conditions for 1 h, after which measurement shall be made. 在85±℃高温条件下将基座放置96小时，再在标准大气条件下放置1小时，然后再测试。	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. 外观没有损伤，接触电阻少于以前规格值的2倍.

SPECIFICATION 规格书

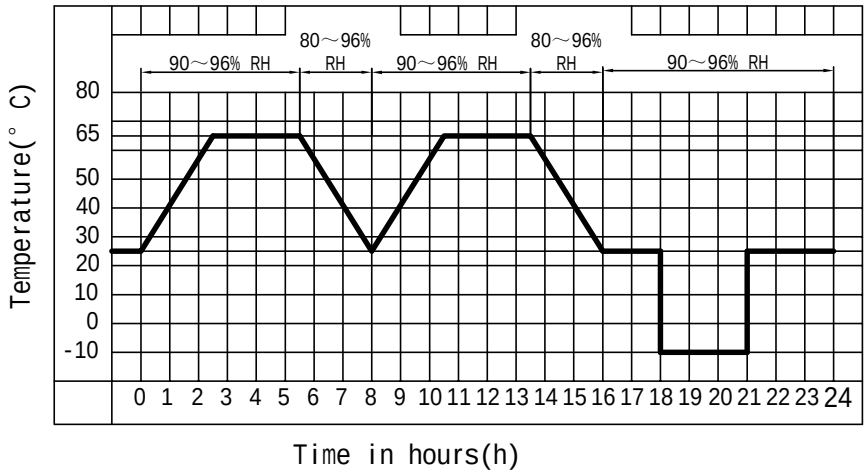
Model Type: 类型型号：	FFC/FPC CONNECTOR

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
8-3	Humidity test 耐湿试验	The housing shall be stored at a temperature of 40±3℃with relative humidity of 90% ~ 95% for 96 h. Then it shall be subjected to standard atmospheric conditions for 1 h, after which measurement shall be made. 在温度为40 ±3℃，相对湿度为90%~95%条件下,将基座放置96小时，再在标准大气条件下放置1小时，然后再测试。	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. The previously specified value shall be satistied such as insulation resistance and withstanding voltage. 外观没有损伤，接触电阻少于以前规格值的2倍.绝缘电阻和耐电压满足以前的规格值。
8-4	Vibration 振动测试	The housing shall be soldered on the PC. board after which following condition shall be made .It shall be applied 0.1A 。 d.c .Onlyendurance conditioning by a frequencysweep shall be made. The entire frequency range. from 10 Hz to 55 Hz and return to10 Hz. shall be transversed in 1 min. Amplitude(total excursion):1.5 mm.This motion shall be applied for a period of 2h in each of 3 mutually perpendicular axis (a total of 6h).For other procedures. refer to IEC Pub.68-2-6. 将基座插PCB板焊接好后,按下面条件测试。它应能承受0.1A的直流电。用同一频率振动作为耐久性条件。整个频率排列是从10Hz到55Hz,再回到10Hz,且横向振动1分钟。 振幅（整个偏移）：1.5mm 这运动应用于每3个相交垂直轴线之间2个小时一周期（一共6个小时）。 其它程序可参考IEC Pub.68-2-6.	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. Discontinuity:1μs max 外观没有损伤，接触电阻少于以前规格值的2倍. 中断时间：最大1微秒
8-5	Shock 震动测试	The housing shall be soldered on the PC. board after which following conditin shall be made . It shall be applied 0.1A d.c . Peak acceleration:490m/s (50G) Duration of the pulse:11ms Three successive shocks shall be applied in both diectin to 3 mutually perpendicular axis (a total of 18 shocks). For other procedures trfer to IEC Pub.68-2-27. 将基座焊上PC板后，按下面条件测试，它能承受直流电0.1A 最大加速度：490m/s (50G) 脉冲持续时间：11ms 连续震动应用在3个相互垂直轴线的两个方向。其它程序可参照IEC Pub.68-2-27	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. Discontinuity:1μs max 外观没有损伤，接触电阻少于以前规格值的2倍。 中断时间：最大1微秒

SPECIFICATION 规格书

Model Type: 类型型号：	FFC/FPC CONNECTOR

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
8-6	Composite temperature humidity cyclic test 温度和湿度循环测试	The repetition of the insertion and the withdrawing of the connector housing and the mating shall be subjected to 30 cycles without load at a speed of 10 cycles per minute.Then following cyclic test shall be operated for 2 cycles in mating condition. Then the housing shall be subjected to ambient temperature for 1~2h,after which measurement shall be made Temperature shall be reduced from 25 ℃ to -10℃ within 30 min. Humidity umcontrolled at a temperature less than 25℃ . 以每分钟10次的速度,连续重复插拔30次。接下来的循环测试在适宜条件下插拔5次,那基座应能承受周围的温度,并能持续1~2小时,再测试。在30分钟内，温度循环从25℃到-10℃，能还原。在温度小于25℃时,湿度没有被控制。	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. 外观没有损伤，接触电阻少于以前规格值的2倍。



For other procedures refer to IEC Pub. 68-2-11

其它程序参考IEC Pub.68-2-11

SPECIFICATION 规格书

Model Type: 类型型号：	FFC/FPC CONNECTOR

Item 项目	Property 特性	Test condition 测试条件	Performance 判定
8-7	Salt mist test 盐雾测试	The connector housing shall be subjected contimuously to a fine mist of salt solution at a temperature of 35±2°C for 12 h (salt solutionconcentration:5±1% by weight).Then it shall be subjected to standard atmospheric conditions for 1h .After removing the salt deposits by water .For other procedures refer to IEC Pub.68-2-11 在温度为35±2°C条件下，基座应能承受被连续喷雾12小时（盐溶液浓度：占重量的5±1%），再在标准大气条件下放置1小时。除去基座上的水珠。其它程序参考IEC Pub.68-2-11	Appearance shall not be extremely rust. 外观无明显生锈现象。
8-8	Sulfuration 硫化测试	Refer to Sony Technical Standard SS-00126-4"Parts Design Standards-Test Method for Electronic Component PART 4 Sulfuration Test Method" 参考索尼电器标准SS-00126-4"部件设计标准-电子的组成测试方法4硫化测试方法	Contact resistance get to twice or less from the previously specified value. 接触电阻少于以前规格值的2倍 .
8-9	Fretting corrosion 接触腐蚀	Refer to Sony Technical Standard SS-00126-5"Parts Design Standards-Test Method for Electronic Component PART 5 Test method for Fretting Corrosion" 参考索尼电器标准SS-00126-5"部件设计标准-电子的组成测试方法5接触腐蚀方法	Contact resistance get to twice or less from the previously specified value. 接触电阻少于以前规格值的2倍 。
8-10	Change of temperature 温度转换测试	The connector housing shall be subjected to 5 successive changes of temperature cycles.each as shown in figure below.Then it shall be subjected to standard atmospheric conditions for 1 h.after which measurements shall be made. 按下面的条件，基座应能承受5次连续 温度转换。在标准大气条件下放置1小时，再测试。	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. 外观没有损伤，接触电阻少于以前规格值的2倍。
8-11	Stress corrosion cracking of copper or copper alloy 铜或铜的合金应力腐蚀裂纹	Refer to Sony Technical Standard SS-00126-6"Parts Design Standards-Test Method for Electronic Component PART 6 Stress Corrosion Cracking Test Method " 参考索尼电器标准SS-00126-6"部件设计标准-电子的组成测试方法6应力腐蚀裂纹测试方法"	Without distinct damage such as appearance and contact resistance get to twice or less from the previously specified value. 外观没有损伤，接触电阻少于以前规格值的2倍。

Step 步骤	Temperature 温度	Duration 持续时间
1	-55±3°C	30 min
2	Standard atmospheric conditions 标准大气条件	10～15 min
3	-55±3°C	30 min
4	Standard atmospheric conditions 标准大气条件	10～15 min

SPECIFICATION 规格书

Model Type: 类型型号：	FFC/FPC CONNECTOR

9. Test condition / 测试条件

The test and measurement,unless otherwise specified,shall be carry out at a temperature of 15℃～35℃，,relative humidity of 25%～85%，and atmospheric pressure of 86kPa～106kPa.

However,when any doubt arises on the judgment value under it.the test and measurement shall be carry out a temperature of 20±1℃,relative humidity of 63% ～67%，and atmospheric pressure of 86kPa～106kPa.

除非另有指定，否则测试和测量温度在15℃~35℃，相对湿度在25%~85%，气压在86kPa~106kPa条件下进行。

当在这个条件下判定出现疑问时，测试和测量在20±1℃，相对湿度63%~67%，气压在86kPa~106kPa条件下进行。

10. Keep in storage / 贮存

Packaged products, storage without acid and alkali and other corrosive gases in the air cycle in the warehouse, the storage period from the date of manufacture of less than one year

包装产品，储存不含酸碱等腐蚀性气体在空气循环中的仓库，储存期限自制造之日起不到一年。

11. Amendment / 变更修正

When the amendment of this specification comes into necessity, it shall made by the mutual consultation and agreement between manufacture and customer.

当有必要对规格书进行变更修正时，应该在制造商和客户共同商议及同意后才可以进行。

※ This specification is state with Chinese & English, Chinese is preferential while doubt in interpretation.

规格书同时记入中英文，但发生疑义的场合以中文优先。