XKB 星坤 Connection	Doc. No.	SP-A0162-18	Page No.	1/14
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	Date revised	2024-08-29	checked by	SangShen
Product Specification	Rev. No.	A0	Approved by	Willy
Title	**1.0mm FFC/FPC Down contact connector(H=2.0m)**			

1. SCOPE（适用范围）

This specification covers the performance, tests and quality requirements for the 1.0mm FFC/FPC Down contact connector(H=2.0mm).

(本规范涵盖了1.0mm FFC/FPC Down contact connector(H=2.0mm) 的性能、测试和质量要求。)

2. PRODUCT DESCRIPTION（ 产品描述）

DESCRIPTION（描述）	Part Number（料号）
H=2.0mm applicable for 0.3mm thick cable(4-35pin)	X10A20L04G

3. APPLICABLE DOCUMENT （适用文件）

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.（下列文件构成本规范的一部分，在此规定的范围内。本规范要求与产品图纸有冲突时，以产品图纸为准。如果本规范的要求与参考文件发生冲突，应以本规范为准。）

- EIA-364（电子连接器及接插件测试程序）
- UL STD-94（关于塑胶材料设备零配件及器材阻燃性测试规范）

4. REQUIREMENTS （要求）

4.1. Design and Structure （设计和结构）

Product shall be of the design, structure and physical dimensions specified on the applicable product drawing.（产品的设计、结构和物理尺寸参考所适用的产品图纸）

- PIN Position（PIN 位）: See drawing （详见产品图纸）
- Contact（接触类型）: Down contact（下接触）
- TML Soldering（端子形状）: SMT（SMT 型）

- PCB Thickness（适合 FPC 厚）: T=0.3±0.02mm
- Coplanarity （焊锡共面度）: 0.10mm MAX.

4.2. Materials/ Finish (材料/表面处理)

Materials used in the structure of product shall be as specified on the applicable product drawing. (产品结构中使用的材料参考所适用的产品图纸)

- Housing（主体）: LCP Nature Color（本色）UL 94V-0
- Cover（锁扣）: LCP Black（黑色）UL 94V-0
- Terminal（端子）: COPPER ALLOY（铜合金）
- Stator（定位片）: COPPER ALLOY（铜合金）

4.3. Ratings （额定功率）

Item（项目）	Standard（标准）	
Rated Voltage (Maximum)额定电压	50V	AC/DC
Rated Current (Maximum)额定电流	0.5A	
Operating temperature range工作温度范围	-40 ～+85 From -40 to +85 degree centigrade	

5. TEST STANDARD （测试标准）

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows （除另有说明外，用以进行测量和测试的标准环境条件范围如下）

5.1 Ambient temperature（环境温度）: 5 to 35

5.2 Relative humidity （相对湿度）: 45% to 85%

5.3 Air pressure （气压）: 86Kpa to 106Kpa

6. HOWEVER, IF DOUBTS ARISE CONCERNING JUDGMENTS. PERFORM UNDER THE FOLLOWING STANDARD CONDITIONS.（但是，如果对判决产生疑问，按照下列标准条件执行）

Temperature（温度）: 23±1 .

Humidity（湿度）: 50%±2% RH.

Air Pressure（气压）: 86~106kPa

7. PERFORMANCE AND TEST DESCRIPTION（性能和测试类型）

7.1 APPRARANCE 观

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Appearance（外观）	Visual.（目视）	Should not have any flaw Scratch discoloration and crushed（无任何裂痕、刮伤、污染和变形）

7.2 ELECTRICAL

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Low Level Contact Resistance（接触电阻）	Mate applicable FPC and measure by dry circuit, 20mV Max. DC, 10mA.（同一根端子测试，电流：10mA，电压：DC 20mV 以下，使用电线适配 FFC 标准线）	30mΩ Max.
2	Insulation Resistance（绝缘电阻）	MIL-STD-202, Method 302,Condition B Apply 250±10% volts DC between adjacent terminal or ground （分别在相邻端子或壳体之间施加250V±10% DC的电压持续1分钟）	500 MΩ Min.
3	Dielectric Withstanding Voltage（耐电压）	MIL-STD-202, Method 301. Apply 250 Volts AC(RMS) between adjacent terminal or ground. Leakage current: 1mA Max.（分别在相邻端子或壳体之间施加250V AC 1mA 的电流持续1分钟，最大漏电电流1mA）	No Damage/Shorting（无击穿，无短路）

7.3 MECHANICAL （机械）

ITEM	DESCRIPTION（类型）	TEST CONDITION（测试条件）	REQUIREMENT（要求）

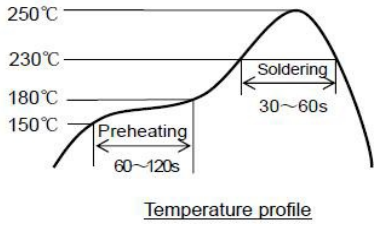
1	Retention Force of single Pin（端子单PIN保持力）	Apply axial pull out force at the rate of 25~100mm/minute. （以 25~100mm/分钟的速度，匀速垂直拔出）	0.2N/Pin Min.
1	Retention Force of GND Pin（固定片单PIN 保持力）	Apply axial pull out force at the rate of 25~100mm/minute. （以 25~100mm/分钟的速度，匀速垂直拔出）））	0.3N/Pin Min.
2	Retention force of FFC/FPC（FFC/FPC保持力）	Inserted FFC into connector, apply axial pull out force at the rate of 20~100mm/minute. （FFC 插入连接器后，以 20~100mm/分钟匀速垂直拔出）	0.3N Min/Pin (PIN 数X 0.3N Min.)
3	Shock（冲击）	Mate applicable FPC and subject to the following shock conditions. With acceleration 490m/s2 lasting 11ms, 3times of shocks shall be applied for each 6 directions along 3 mutually perpendicular axes. （测试速度 490m/s2， 持续时间 11ms XYZ 3 个轴 6各方向各 3 次（共 18 次）在FPC嵌合状态下测试）	1μsec Max. of discontinuity is ok .（试验中没有发生超过1μs 以上的断电） 50mΩ MAX. Of Contact resistance is ok, No Damage .（试验后阻抗值 50mΩ MAX.外观无异常）
4	Vibration（振动）	Mate connectors and subject to the following vibration conditions, for period of 2 hours in each of 3 mutually perpendicular axes. Amplitude: 1.52mm Frequency: 10~55~10Hz in 1 minutes. （频率 10-55-10Hz， 震幅 1.52mm，转换时间 1 分钟传递。 X/Y/Z 方向各 2 小时，共计 6 小时，在FPC 嵌合状态下测试）	

5	Duration（耐久）	lock/dis-lock 20 times with loading. （负荷状态下 20 次）	50mΩ MAX of Contact resistance is ok, No Damage. （试验后阻抗值 50mΩ MAX.，外观无异常）

7.4 ENVIRONMENTAL (环境)

ITEM	DESCRIPTION（类型）	TEST CONDITION（测试条件）	REQUIREMENT（要求）
1	Heat Resistance （耐热性）	Mate applicable FPC and expose to 85±2 for 96H, Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1H, After which the specified measurements shall be performed.（85±2℃条件下 放置 96 小时，然后在常温常湿下放置 1 小时后测试 FPC 嵌合状态下测试）	A. 1μsec Max. Of discontinuity is ok..（试验中没有发生超过 1μs 以上的断电） B. 50mΩ MAX of Contact resistance is ok.（试验后阻抗值 50mΩ MAX， 外观无异常） C. Retention force is above 0.3N/Pin（FPC 保持力强度在 PIN 数X 0.3N 以上）
2	Humidity	Mate applicable FPC and expose to 40±3 , relative humidity 90~95% for 96H, upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1H, after which the specified measurements shall be performed.（温度 40±3℃；湿度 90~95% RH，时间 96H 然后在常温常湿下放置 1 小时后测试FPC 嵌合状态下测）	A. 1μsec Max. Of discontinuity is ok..（试验中没有发生超过 1μs 以上的断电） B. 50mΩ MAX of Contact resistance is ok.（试验后阻抗值 50mΩ MAX， 外观无异常） C. Insulation Resistance（绝缘阻抗）：500 MΩ Min. D. Dielectric（耐电压）: No damage Shorting（无击穿，短路）

3	High/Low temperature	Mate applicable FPC and proceed 5cycles of high/low temperature based on below table, after that, the test specimens shall be conditioned at ambient room conditions for 1H before the specified measurements were performed.（按下面表格中的温度循环条件，实施 5 个周期，然后在常温常湿下放置 1 小时后测试FPC 嵌合状态下测试） 1: -55 $^{0}_{-3}$ ℃, 30min 2: 25 $^{+10}_{-5}$ ℃, 5min 3: 85 $^{+3}_{0}$ ℃, 30min 4: 25 $^{+10}_{-5}$ ℃, 5min	A. 1μsec Max. Of discontinuity is ok..（试验中没有发生超过 1μs 以上的断电） B. 50mΩ MAX of Contact resistance is ok.（试验后阻抗值 50mΩ MAX， 外观无异常） C. Retention force is above 0.3N/Pin（FPC 保持力强度在 PIN 数X 0.3N 以上）
4	Salt Spray （盐水喷雾）	In the salt water concentration of 5%, the temperature of 35℃±1℃ in the environment of gold plating for 48 hours, tin plating for 24 hours（在盐水浓度为 5%，温度 35℃±1℃的环境中镀金持续48小时，镀锡持续24小时）	No Corrosion.（试验后触点未发生异常腐蚀）
5	Solderability （可焊接性）	Dip soldering tail into Tin oven, Temperature of Tin oven is 245 ±5 . the test specimens shall be lasted 3sec.（将焊锡部分浸入温度为 245℃±5℃的锡炉中保持 3 秒）	Soldering tail shall be easy wetting by melted tin, Tin shall cover over 90% of dipping area of soldering leg.（焊接端应容易被熔融 料润湿，粘锡面积应占浸入面积的90%以上）
6	Resistance to soldering heat （焊接耐热性）	Heating temperature profile（预先加热）: 150 180 60~120Sec. Peak temperature（焊接）: 250±5 ,over 230 last 30±5Sec.（峰值温度 250±5 ℃，230℃以上 30±5 秒）	Contact resistance 50mΩ Max., no damage.（试验后连接阻抗值在 50mΩ以下，且外观无异常） Retention force is above 0.3N/Pin.（FPC 保持力强度在 PIN 数X0.3N 以上）

7	**Recommend Temperature profile**（推荐焊接条件（温度/焊接时间））	**Heating temperature profile**（预先加热）：**150 180 60~120Sec.** **Peak temperature**（焊接）：**250±5 , over 225 last 30 ± 5Sec.**（峰值温度250±5 ℃, 225℃以上 30±5 秒） **The profile is only for reference, lock cover shall be opened when proceed IR reflow.**（此温度曲线图仅为参考，可根据焊锡种类，数量等进行改变）	 Temperature profile

Note（备注）:

The test specimens shall be complied to the visual requirement and clause 8.
(产品测试后，应符合目视外观要求，无损伤，且需符合章 6 测试顺序规定的附加要求)

8. Product Qualification and TEST GROUP（产品验证和测试分组）

	Test Content/sequence（测试认证顺序）	TEST GROUP（测试分组）								
		A1	A2	A3	A4	A5	A6	A7	A8	A9
		TEST SEQENCE								
1	Appearance（外观）	1,6	1,5	1,5	1,7	1,9	1,6	1,3	1,5	1,7
2	Contact Resistance（接触电阻）	2,5		2,4	2,5	2,6	2,4		2,4	2,5
3	Insulation Resistance (绝缘电阻)					3,7				
4	Dielectric Withstanding Voltage（耐电压）					4,8				
5	TML Retention Force（端子保持力）		4							
6	GND Retention Force（固定片保持力）		3							
7	FFC/FPC Retention Force（FFC/FPC 保持力）		2		3,6		3,5			3,6
8	Shock（冲击）	4								
9	Vibration（耐震性）	3								

10	Duration（耐久）			3						
11	Heat Resistance（耐热性）				4					
12	Humidity（耐湿性）					5				
13	High/Low Temperature（冷热冲击）						4			
14	Salt Spray（盐雾）							2		
15	Solderability（可焊接性）								3	
16	Resistance To Soldering Heat（焊接耐热性）									4
17	Recommend Temperature Profile（推荐焊接条件（温度/焊接时间））									
	Number of Samples Required（所需样本数目）	B1	B2	B3	B4	B5	B6	B7	B8	B9

Note（备注）:

1. Sampling principle: Each test group shall include the representative sample, i.e: each group have one complete cavity of sample. If there are no cavity number or marking on sample, sample shall be applicable to the principle of randomness. 测试群组样品选定原则：指每一具体测试群组中，样品需具有全面性，如每一群组样品为完整同一模穴。若无法区分模号或编号者，则符合随机性原则。
2. Test group selection principle: test groups conform to the principle of randomness, 9 groups are selected randomly to test in the whole groups. 测试群组选定原则：测试群组分组符合随机性，指从若干群组中随机选取 9 组进行测试。
3. A1，A2，A3……A9 means test group number. 图表中A1，A2，A3……A9 表示为测试群组序号。
4. B1，B2，B3…….B9 means sample size, when sample has cavity mark or numbering, it means sample size is one complete cavity of sample. Otherwise, it means 8pcs sample. 图表中B1，B2，B3…….B9 表示为测试群组中每组样品之数量，当有模号或编号时，表示为完整的一模，无模号或编号时，B1，B2…….B9 每组表示为 8PCS 样品。

9. QUALITY WARRANTY 质量保证的规定：

Unless otherwise specified, we comply with the quality of samples submitted for customer qualification, we will follow up the released process, in order to ensure that products meet specifications when customer start to purchase product from us. In case any material or design changed, we will provide changed sample to get customer's approval, before sample was qualified, we will not ship changed product to customer. 除非特别规定，在合约或采购中，我们将遵守提交于客户产品的质量，我们将按照已控制的制程作业过程，以保证产品符合规格的要求。若组成材料出现替用或变更时，一定将变理之样品预先提交客户批准再执行。

9.1. Re-qualification（二次承认检查）:

If there are any changes that impact the structure, function and quality, product need proceed new product developing process to verify product quality and reliability by Engineer. 如果制造过程中有较大的变更影响到产品形式或功能产品质量等，将按组成配件的测试要求做再认证测试，产品测试将按照开发产品质量及可靠性的要求由工程师再认证。

9.2. Quality Requirement（质量要求）:

If test device setting up mistake or improper operation lead into misjudgment, need re-qualify product by new sample. 由于设备测试设置或操作不当等导致不良判定，可再送样认证.。

If XKB sample is NG, XKB shall improve sample before XKB send sample to customer for verification purpose. 当产品不良发生时，应采取矫正措施及再送样，再送样前应测试确认矫正措施。

9.3. Test Data（检验数据）: Test data shall be recorded, evaluated and as evidence of above clause. 检查测试数据应记录，评估，并作为以上条款的证据。

9.4. Package & Shipment（出货准备）: Product should be adequately protected from damage by packaging material during product convey, which affects appearance and function of product . 所有包装应予充分保护，以免运输过程中产品受损伤，从而影响产品外观及功能。

10. PRODUCT NOTES产品注意要点：

10.1. Storage Instruction（长时间保存时注意）:

A. Storage place need control dust and moisture. 保存场所注意防尘防潮

B. Do not Store product near the object which could generate ammonia, sulfide gas. 请勿将产品置于氨气、硫化气体的产生源附近

10.2. Use Instruction（使用注意事项）:

10.2.1. Operation Instruction（操作时的注意事项）:

(1). Insert FPC in parallelly with connector, please note that contact point of connector is slightly prominent, if conductor of FPC do not engage with contact point properly, device will not transmit signal and operate smoothly. FPC 排线平行插入，请注意，连接器的触点稍突出，如果不能正确插入使 FPC 排线导电部分与触点接触,端子信号不匹配导致设备将无法正常工作。

(2). Need make sure that FPC is fully inserted, otherwise it will result contacting issue.确认 FPC 排线完全插入，否则可能导致接触不良。

(3). Lock cover shall be opened before FPC cable is inserted. 未插入 FPC 排线时请不要压下锁扣。

(4). Do not use excessive force when insert/withdraw FPC cable, it may damage connector or result contacting issue. 拔插 FPC 排线时不要用力过大，否则可能导致连接器损坏或接触不良。

(5). Once lock cover separated from HSG body or broken, please do not use this product. 一旦锁扣与主体发生脱离、断裂，该连接器请勿再使用。

(6). When press down lock cover, fixed moderate position on both sides of connector with finger and ensure that use uniform force to press lock cover. If lock cover is not pressed down to right position, it may lead to contact issue. 下压锁扣时，请用手指头固定两边适中位置，确保锁扣完全平均受力下压，如果锁扣未完全下压，可能导致接触不良。

(7). When press down lock cover, applied horizontal force(in parallel with PCB) is acceptable.下压锁扣时，可在水平方向（平行于基板的方向）用力。

(8). When release lock cover, seized moderate position on both sides of connect with finger or entire of lock cover to flip up slowly. It may lead to damage or contacting issue, if only flip up lock cover unevenly. 解除锁扣时，应同时抓住锁扣两端适中位置，或抓住整个锁扣慢慢掀起，不可仅掀起一边过多，这样会导致 损坏及接触不良。

(9). The following operation which may lead to connector damage, TML deforming and contacting issue should be taken to avoid when flip up lock cover,

insert/withdraw FPC cable.起锁扣、拔插 FPC 排线时，应注意避免以下可能导致连接器损坏、端子变形及接触不良的操作：

-- Pull out cable before lock cover released. 未掀起锁扣就拔插 FPC 排线。

-- Cable is tilted at the direction of up and down, left and right when insert/withdraw cable. 拔插 FPC 排线时在上下、左右方向发生倾斜。

10.3. Concerns on Designing（设计时的注意事项）

(1). Do not apply force to cable directly when assemble FPC cable with connector. Do not over-bend cable at the joint area between cable and connector, Ensure that cable do not withstand loading. 放置 FPC 排线时，不要直接对连接器施加力，不要在靠近连接器部份过度弯曲 FPC 排线，确认排线未被直接承受负荷。

(2). Please fix FPC cable firmly if connector contact with vibrating component, or is the equipped components of mobile device, sites. 连接器若持续与振动部位接触，或作为移动设备、活动场所的搭载部品，请固定好 FPC 排线。

(3). Please use our recommended cable dimension. 请使用我们公司推荐的 FPC 排线式样尺寸。

(4) . When Design PCB board, please ensure that there are enough room for connector mounting and cable assembly. 设计 PCB 基板的时候，请确保足够的空间，以及下压、掀开锁扣的操作空间。

(5) . Tin plating product may result tin whisker, need evaluate the risk when Engineer design.镀锡产品可能会产生锡须的风险，工程设计时请评估风险。

10.4. Soldering instruction（焊接时的注意事项）

(1) . Do not proceed IR reflow process or manual soldering process when lock cover flip down or FPC cable inserted into connector, it will lead to contacting issue.不要在锁扣下压或 FPC 插入时进行回流焊、手工焊接作业，如此可导致接触不良。

(2) . Please use the recommended IR reflow temperature profile.请尽可能使用本公司推荐回流焊条件规格。

P.S: Reflow parameter will be changed depending on variance of Tin types, welding material, Tin thickness, PCB base and other welding material, please check and use the suitable reflow parameter before soldering. (注意：回流焊条件依赖于焊锡种类、焊接材料、焊锡量、焊接基板大小、其他焊接材料的不同而发生变化，实施回流焊之前请确认实际的焊接条件。)

(3). Please use the recommended IR reflow temperature profile.When using manual soldering process, please ensure that soldering parameter can make sure the soldering

area is reliable.采用手工焊接时，请注意确保焊点接触可靠性焊接条件。

Do not excessive welding, avoid flux remaining on the TML. 请勿过度焊接，以免助焊剂残留到端子上

Do not use iron press on soldering part, avoid soldering part deforming.请勿将焊接烙铁用力按压在焊接部位上，以免导致变形

Do not use iron heat outside of soldering area of TML, avoid soldering part deforming 请勿过度焊接，以免助焊剂残留到端子上

11. COMMITMENT 本品使用承诺

Thank you for using XKB Technology products.（感谢使用星坤科技的产品。）

Unless otherwise there are written assessment, agreement or illustration, the following clause and warrant will apply to XKB technology products.（除非另有书面评估、约定或说明，以下条件和保证信息将适用于星坤科技的产品。）

11.1. Warrant Warranty 保证内容：

11.1.1. Period（保证期限）: Warranty period of solderability is 3months when product docked designated destination. 保证（可焊性）期限为送达指定地点后的 3 个月内。

11.1.2. Scope（保证范围）: Within warranty period, XKB technology agree to offer free maintenance service or spare parts if the quality issue belong to our responsibility, but the responsibility do not take charge of the following situation: 保证期限内，发生本公司责任的故障，星坤科技将免费维修或提供备品。但不包含以下原因导致的问题:

A. Use product at circumstance other than those specified in this specification. 在本规格书规定以外的环境条件下使用。

B. The issue do not result from XKB product. 非本公司产品原因所导致的问题。

C. The modification, repairmen do not carry out by XKB. 非本公司进行的改造、修理。

D. Beyond the design purpose use product. 超出设计用途使用本公司产品。

E. The situation based on the current science and technology can not be predicted in advance when XKB ship out product. 由于本公司产品发货时的科学技术水平所限，无法提前预知的原因。

F. Other situations such as natural disaster which situation XKB can not control.其他诸如自然环境灾害等本公司无法承担责任的情况。

11.2. Limitation of Liability（责任限定）: For special, indirect damages which caused by XKB product,XKB do not take the responsibilit. 星坤科技对因本公司产品所发造成的特别损害、间接损害、消极损害等不承担责任。

11.3. Conditions of appropriated use.适当用途的条件

11.3.1. When XKB and other company product combine to use in customer side, customer need take the responsibility to confirm that the product is suitable for customers system, mechanical devices and equipment. 星坤科技的产品和其他公司产品组合使用时，用户有责任确认符合适用的标准和规则。客户有责任确认本产品适用于客户使用的系统，机械装置和设备。

11.3.2. When products are used in the following situations, please consult XKB customer service representative to ensure that XKB product performance have sufficient margin compared with customer application request, and have safety monitoring system such as safety circuits to minimize the risk in case breakdown take place. 在以下场合下使用时，请向星坤科技的客服代表咨询，以检查产品规格在性能等级上有足够的余量，以及适合的安全监测，如安全回路、万一故障发生时将危险降低到最小等。

A. Used in outdoor, the place with potential chemical contamination or electrical interference, or the environment which beyond specified specification. 户外使用，存在潜在化学污染或电气干扰，或超出目录记载的条件、环境使用。

B. Used in nuclear reaction systems, railway systems, aviation, transportation equipment, medical equipment, entertainment equipment, safety devices, or standard equipment of government, industry .户外使用，用于核反应系统、铁路系统、航空、交通设备、医疗器械、娱乐器械、安全装置，或政府、工业界标准设备。

C. Used in the systems, instruments and equipment which have dangerous effects on human life and property.对于人类生命财产存在危险影响的系统、器械、设备。

D. Used in the gas, water, electricity supply system and the system require 24H continuous operation, the system require high reliability. 气、水、电供给系统，以及需要 24 小时连续运转的系统等，对可靠性要求高的系统。

E. Used in all above 4 situations, other application environment which require high security. 对应于以上 4 条，其他要求高度安全性的用途。

11.3.3. When XKB product is used those occasions which have a significant risk for human lives and property, customer must take full account that the system has been deigned to meet the needs of security, ensure that the design contains the hazard warning and has safty redundancy, make sure that the connection and fix of product is properly to meet the intended purpose. 星坤科技的产品用于对人生命财产安全有重大风险的场合时,必须全面考虑系统设计已符合需要的安全性。确保设计中包含危险警示和安全冗余,确保本产品的连接及固定适当以符合预期用途。

11.3.4. Particular case shown in this specification is for reference only, the functionality, safety

of equipment shall be confirmed before it is used. 目录中提供的具体事例仅供参考。装置设备实际使用前请确认其功能性、安全性。

11.3.5. In order to avoid unexpected damage to the user or other parties when XKB product is used,please make sure you understand and fully comply with all the relevant prohibitions and precautions. 为避免本公司产品在使用中发生不测造成用户或其他方的损害，请确保您已理解并充分遵守全部的有关禁令和注意事项。

11.3.6. The rating parameter specified in this document is determined in a separate experiment,it can not repeat the same result under complex conditions. The specification may be changed as product improvement as other reasons,please check the latest specification with XKB customer service representative before you purchase. 目录中记载了产品额定性能值，该数值在独立试验中测定，不能同时保证在复合条件下达到同样的表现值。为改进产品或其他原因可能修改目录中的规格和配件，购买时请与星坤的客服代表检查实际的产品规格。产品规格书发行仅供参考，在实际使用前请和星坤客服代表咨询已确认最新版的产品规格书。

12. RECOMMENDED FPC CABLE推荐的 FPC 排线结构：

Part Name 品名	Material 材料	
Base Film 带基薄膜	Polyimide 聚酰亚胺	t=25μm
Copper Foil 铜箔	Copper foil plate Gold(under plate Nickel) 铜箔 镀金（下层镀镍）	t=35μm Gold plating 0.1μm Min.
Cover Film 覆盖膜	Polyimide 聚酰亚胺	t=25μm
Stiffener 补强材	polyethylene glycol terephthalate 聚对苯二甲酸乙二醇酯Polyimide 聚酰亚胺	t=188μm Min. t=175μm Min.
Note注: Recommended FPC thickness:0.3±0.02mm 适合的 FPC 厚度：0.3±0.02mm		

Rev.	Description	Date revised	Created/ Revised by
A0	New Release	2024/08/29	Shanzha