产品名称 Description		

	产品料号 Part No.	产品型号规格 Description
包括但不仅限于右边所列产品	3720MXXX022XXXXXX	0.5BTB-NPin 公座H2.2
	3720MXXX012XXXXXX	P型0.5BTB-NPin 公座H1.23
	3720MXXX037XXXXXX	0.5BTB-NPin 公座H3.7
	3723-MXXX008XXXXXX	0.5BTB-NPin 双槽型 公座H3.7
	3723-MXXX010XXXXXX	0.5BTB-NPin 双槽型 公座H1.0
	3723-MXXX013XXXXXX	0.5BTB-NPin 双槽型 公座H1.3
	3723-MXXX020XXXXXX	0.5BTB-NPin 双槽型 公座H2.0
	3720FXXX013XXXXXX	0.5BTB-NPin 母座H1.32
	3720FXXX023XXXXXX	0.5BTB-NPin 母座H2.3
	3720FXXX043XXXXXX	0.5BTB-NPin 母座H4.3
	3720FXXX018XXXXXX	P型0.5BTB-NPin 母座H1.85
	3723-FXXX022XXXXXX	0.5BTB-NPin 双槽型 母座H2.2
	3723-FXXX030XXXXXX	0.5BTB-NPin 双槽型 母座H3.0
	3723-FXXX035XXXXXX	0.5BTB-NPin 双槽型 母座H3.5
	3723-FXXX040XXXXXX	0.5BTB-NPin 双槽型 母座H4.0
	3723-FXXX045XXXXXX	0.5BTB-NPin 双槽型 母座H4.5

1. SCOPE (' () *)

This product specification defines the product performance and the test methods to ascertain the performance of the (0.5mm Board To Board)Connector ,which si designed and manufactured by JILN Electronic Co.,Ltd.This product specification is applicable but not only for those part numbers which be shown in the cover page.

本产品规格书规定了由锦凌电子有限公司设计生产的（0.5mm板对板）型连接器，产品的特性及产品的测试方法。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 + , - .

MIL-STD-1344	Test method for electrical connector 电子连接器方法
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 镀锡规格
MIL-T-10727B	Specification for tin plating 镀锡规格
UL498	UL standard for safety of attachment plug and receptacle UL安规要求标准
IEC62321	Determination of total lead &cadmium content 总铅和总镉含量测定
IEC62321	Determination of total lead &cadmium content 总铅和总镉含量测定
IEC62321	Determination of heavy metals content 重金属含量测定
IEC62321	Determination of total lead &cadmium content 总铅和总镉含量测定

3. FEATURE &DIMENSIONS /01/2

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 (电 板 局)

The recommended PCB layout is shown in drawing.

本产品适用的 PCB layout 参见图面。

3. Cool Down ( )

Cool down shall not exceed 6 C per second.

(不 6 C/ .)

4.3. RESISTANCE TO SOLDER HEAT (接)

WAVE SOLDER (接)

Each cycle consists of three consecutive phases.

(接 包括 连 .)

1.Preheat ( )

The steady temperature of the preheat zone is 90 125 .

90 125 .

2. Soldering (接)

To avoid the secondary tin-melting, the temperature on PCB upper surface is 160 C Max. for products with lead, or 200 C Max. for lead-free products. The temperature of the PCB bottom surface shall not be exceed 100 C more than the temperature of the PCB upper surface. The peak temperature is during 230~250 C for products with lead, or 255~265 C for lead-free products. The tin dip time is duration for 3~5 seconds.

(有铅产品板面 不 160 , 铅产品板面 不的 200 , 零件 锡。板面 板 的 不 100 。板 有铅产品 230 250 , 铅 产品 260 270 . 锡 3 10 .)

3.Cool Down ( )

Cool down shall not exceed 6 per second.

(不 6)

Note:78

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

(设 量测 测量 准.)

PERFORMANCE AND TEST DESCRIPTION (29: ;)

REQUIREMENT (要求)

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

(本产品设计 所列的 , 电器及 要求)

TEST CONDITION (测试 件)

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

维 (特 ，所有测试的 件)

SAMPLE SELECTION (品)

Test samples shall be selected at random from current production. No test samples shall be reused.

Samples are pre-conditioned with 10cycles of durability. Each group shall be containing 5 test samples.

(测试 品 生产的产品 ，所有测试 的 品不 重 用。 品 10 ， 测试 有5 品.)

5.4. TEST SEQUENCE (测试)

Product qualification test sequence as shown in Table II.

(产品品 测试 见)

Table I: Test Requirements and Test Methods

：测试要求和测试方法

Items ( )	Requirements （要求）	Test Methods （测试方法）
1. Confirmation of Product (产品)	Product shall be conforming to the requirements of applicable product drawing 产品 相关产品图面的要求	Visually dimensions and functionally inspected per applicable product drawing. 产品相关图面， 产品的 尺寸及
2. Contact Resistance (接)	30 m Max.Inital 30 m	Subject mated contacts assembled in housing to closed circuit of 100 mA max.20 mV max. 所 定 的 子连接 封 测试：电流100mA max,电 20 mV max. 适用：MIL-STD-202，方法 307。
3. Insulation Resistance ( )	500 M Min 500 M	Measure by applying test potential between the adjacent contacts,and between the contacts and ground in the mated connector . MIL-STD-202, Method 302, Condition B (500 V DC 10%). 测试产品相 子 及 子 接 的电 适用：MIL-STD-202,方法 302， 件 B (500V DC 10%)
4. Dielectric Withstanding Strength (电)	Connector must withstand test potential os ,annec	

5.Durability (Repeated Mating/Un-mating) 性	Contact Resistance:50 m Max.after testing. 测试 接 50m	Repeat mate and unmated for connector 500 cycles,At a speed of 300 mm/minute 重 行 产品500 , 300mm/ 的 测试。
6.Connector Pin Mating/Un-mating Force /	Mating force:(60)gf/Pin Max. Un-mating force:(10)gf/Pin Min. (60) gf/Pin (10) gf/Pin	At a speed of 25 3 mm/minute,apply axial insert the mating part into fully or pull out from the subject product. 25 3mm/ 的 , 对 件 测产品 测产品 .
7.Contact Retention Force (子)	(0.20)kgf/Pin Min. (0.20)kgf/Pin	Apply axial pull out force at a 25 3mm/minute On the contact assembled in the housing. 25 3mm/ 的 本 子.
8. Thermal shock ( )	After testing, no damage,Contact Resistance 35 m max.. Dielectric Strength should be OK,Insulation Resistance should be 500 M min. (测试 ,产品 ! " , 接 : 35 m # 电 测试 OK, $% 500M ;)	is no more than 30 seconds. Total 5 cycles. MIL-STD-202, Method 107D, condition A. (&' : -55 C ~ +85 C# -55 C (, 30) +85 C#*) 不 30 #+ 10 , . - 用 : MIL-STD-202 , 方法 107 , 件 A.)
9. Humidity (. . /)	After testing, no damage,Contact Resistance 35m max.. Dielectric Strength should be OK,Insulation Resistance should be 500M min. 测试 ,产品 ! " , 接 : 35 m # 电 测试 OK, $% 500M ;	Temperature: 40 2 C. Relative Humidity: 90-95%. Duration: 96 Hours. MIL-STD-202, Method 103, condition B. : 40 2 C。 相对/ : 90-95%。 : 96 O。 适用 : MIL-STD-202 , 方法 103 , 件 B。
10. Solder ability (性)	giving a magnification of 10 X for any damage such as pinholes, void or rough surface. 品 测试 , 1 23 10 2的显45 , ! "6 : 7 , 8 , 9: #)	Soldering time: 4 to 6 seconds. Temperature: 260 5 C. MIL-STD-202, Method 208. 接 : 4~6 。 : 260 5 C。 锡面; : 95% 适用 : MIL-STD-202 , 方法 208。

11. Humidity (. . /)	After testing, no damage,Contact Resistance 35m max.. Dielectric Strength should be OK,Insulation Resistance should be 500M min. 测试 ,产品 ! " , 接 : 35 m # 电 测试 OK, $% 500M ;	Temperature: 40 2 C. Relative Humidity: 90-95%. Duration: 96 Hours. MIL-STD-202, Method 103, condition B. : 40 2 C。 相对/ : 90-95%。 : 96 O。 适用：MIL-STD-202，方法 103， 件 B。
12. Solder ability (性)	giving a magnification of 10 X for any damage such as pinholes, void or rough surface. 品 测试 , 1 23 10 2的显45 , ! "6 : 7 , 8 , 9: #)	Soldering time: 4 to 6 seconds. Temperature: 260 5 C. MIL-STD-202, Method 208. 接 : 4~6 。 : 260 5 C。 锡面; : 95% 适用：MIL-STD-202，方法 208。

Table II: Product Qualification Test Sequence
:产品测试

Test Description 测 试 <	TestGroup 测试						
	A	B	C	D	E	F	G
1. Conformation of Product 产品	1,7	1,4	1,9	1,9	1,3	1,9	1,9
2. Contact Resistance 接	2,6		2,6	2,6		2,6	2,6
3. Insulation Resistance	3		3,7	3,7		3,7	3,7
4.Dielectric Withstanding Voltage 电	4		4,8	4,8		4,8	4,8
5.Durability (Repeated Mating/Un-mating) 性	5						
6. Connector Pin Mating/Un-mating Force = 子 / ''		2					
7. Contact Retention Force 子 ''		3					
8. Thermal Shock			5				
9. Humidity (Steady State) . . /				5			
10. Solder-ability 性					2		
11. Salt Spray >?						5	
12. High Temperature Life #'							5

Table III: Reflow Soldering Profile
附表三：回流焊接曲线图

Lead-free reflow profile requirements:

铅 流 接@ ：

Parameter 参3	Reference 参A	Specification 规格
Ramp-up	25 C ~150 C	3 C /S Max
(Pre-heatimg) Temperature Min(Tsmin) Temperature Max(Tsmax) Time(Tsmin to tsmax)	150 ~200	60~180sec
Time maintained above( ) Temperature(TL) Time(tL)	217 C	60~150sec
Time within 5 C of actual peak Temperature(tp)	260-/+5 C	20~40sec
Cooling	Ramp-Down Rate	6 C /S(Max)
Time 25 C to Peak Temperature	25 C ~ Peak Temp.	8 minutes maximum

This profile is the minimum requirement for evaluating soldering heat resistance of components.Heat transfer method used for reflow soldering is hot air convection.The actual air temperatures used to achieve the specified profile largely dependent on the reflow equipment.

B @ 图CDEF件器件 接 的G本要求。H用 对 接 的 I J方 C K对流。L 特定@ 图 MN O要 P 流 接设 。

5. <=>?@ABC

5.1 料的包 对 料有 定的 QR用和S封R用， T 料 UV W 不X ! "。

5.2 包 YHZ[\，] ^ 和 _` 要求。

5.3 包 F的标a 有bcd标^产品型号^名称^ 料ef 和3量。

5.4 包 Y的产品，H 维 -10 +40 ，相对/ 80% ， 8K g性，h性 i j kl 性K 的mn o ， 件 ，p生产q r s t o ， Bstu 料v 维格品。