

检 测 报 告

TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

委托单位/Client : 浙江新富尔电子有限公司
Zhejiang Xinfuer Electron Co.,Ltd
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No.9 Xixi industrial park,Hongqiao town,Yueqing,Zhejiang,China

以下样品信息由申请人提供及确认:

The sample(s) information below is/are provided and confirmed by client:

样品名称/Sample Name : PHC 系列连接器/PHC series connectors

料 号/Part No. : PHC-nAWB-NK
PHC-nAB-NK
PHC-T-NK
PHC-nY-NK
PHC-nYK

接样日期/Receiving Date : 2023/06/20

检测项目/Test Item : TG21 长时间的高温储存;
TG21 Long-term temperature aging

签 发 人
Approved by 授权签字人

审 核
Reviewed by 毛贯南

编 制
Prepared by 王彭

Page 1 of 15

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检 测 报 告
TEST REPORT

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报告日期 (Report Date) : 2023/08/30

1、测试标准/Test Standard

VW 75174 LV-214 2018 及客户要求; VW 75174 LV-214 2018 and customer requirements

2、测试日期/Test Date

2023/07/01-2023/08/28

3、测试仪器/Test Equipment

设备名称 Test Equipment	设备编号/型号 Equipment Number/Type	校准有效期 Calibration Period of Validity
滚筒跌落试验机 Roller drop tester	LX-1050B	2024/03/02
全自动插拔力试验机 Automatic insertion and withdrawal force testing machine	R-1-559	2024/08/12
电阻测试仪 Resistance tester	R-1-512	2024/02/21
高温试验箱 High temperature test chamber	R-1-074	2023/11/29

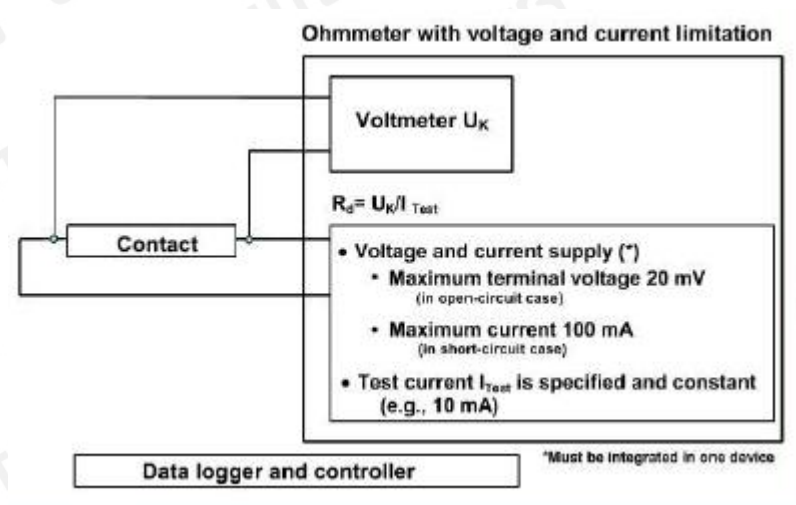
4、测试条件/Test Condition

P0.1 目检(所有组);

P0.1 Visual inspection (all parts);

P0.2 接触电阻(组 2);

P0.2 Volume resistance (group 2 only);



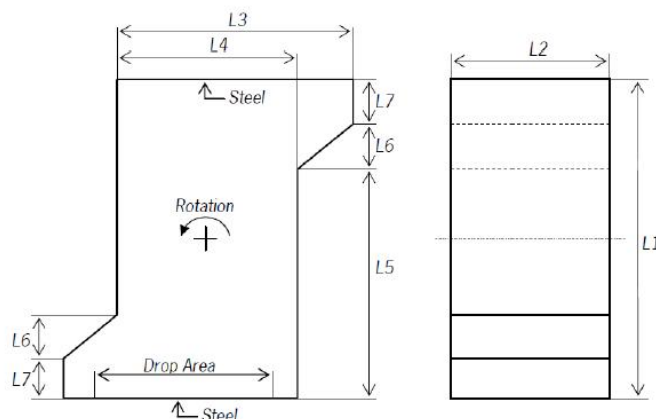
接触电阻测量图 Contact resistance test method

检 测 报 告
TEST REPORT

报告编号 (No.): UTS23060026R85 报告日期 (Report Date): 2023/08/30

L21.1 长期干热老化(所有部分);
L21.1 Long-term aging in dry heat (all parts);

持续时间: 1000 小时 / Duration: 1000h.

温度: 125°C / Temperature: 125°C;
随后存放: 在室温下 48 小时 / Subsequent aging: 48 h at RT;P0.2 接触电阻(组 2);
P0.2 Volume resistance (group 2 only);P21.1 两组进行功能试验;
P21.1 Function check with both groups;触发: 完成自锁后才能连接连接器护套打开锁紧装置, 完成连接器护套分离循环次数: 5;
Actuating: Inserting the pin housings until completely latched, opening the lock and completely disconnecting the pin housings. Number of cycles: 5;L6.1 滚筒跌落(组 1);
L6.1 Drop test (group 1);

为检查护套稳定性和锁定, 在转筒中对护套(在护套后直接切断导线) 进行试验(参见 DIN EN60068-2-31 和 VDE 0468-2-31)。

To test the stability of the contact housing and the locks, the contact housings (with cables cut off right behind the contact housing) are tested in a rotating drum (see DIN EN 60068-2-31* VDE0468-2-31);

在常温下进行测试 / Test at RT;

同时对被测器件进行试验 / All DUTs are tested at the same time.

转速: 例如 3rpm(每分钟转动次数)(转速必须设定成所有部分都击打在跌落区域);
Rotational speed: e.g., 3 rpm (the speed must be set so that all parts strike in the drop area);

转数: 30 / Number of rotations: 30;

检 测 报 告
TEST REPORT

报告编号 (No.) :UTS23060026R85

报告日期 (Report Date) : 2023/08/30

跌落区域的钢板厚度: 至少 5mm /Thickness of the steel plate in the drop area: $\geq 5\text{mm}$;

宽度 /Width.

L5=1000mm

P8.2 所有组 2 端子拉拔力;

P8.2 Contact extraction forces for all contacts of group 2.

即使主锁和次级锁关闭, PG8 次级锁的值也适用;

The value for secondary locks from PG 8 applies as the limit even if the primary and secondarylocks are closed here.

端子拉拔力 Contact pull-out forces

Blade width	F _{prim} (latching pin)	F _{prim} (clean body)	F _{sec}
0.5	>35N	>25N	>35N
0,63/1,2	>55N	>44N	>55N
1,5 to 2,8 mm	>80N	>60N	>80N
>2,8 to 6,3 mm	>120N	>80N	>120N
>6,3 to 8,0 mm	>180N	>110N	>180N
>8,0 mm	>200N	>150N	>200N

P0.1 目检;

P0.1 Visual inspection;

5、测试结果/Test Result(s)

外观检查 (测试前) Visual inspection before test

样品编号 Sample No.		结果 Result
2pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
8pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
15pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.

检 测 报 告
TEST REPORT

报告编号 (No.) :UTS23060026R85

报告日期 (Report Date) : 2023/08/30

接触电阻 (测试前) Contact resistance before test

样品编号 Sample No.		结果 Result(mΩ)	判定依据 Judgment Basis	判定 Determine
2pin-1#	1	4.571	≤30mΩ	符合 PASS
	2	4.390		符合 PASS
2pin-2#	1	5.561		符合 PASS
	2	4.310		符合 PASS
2pin-3#	1	4.417		符合 PASS
	2	4.524		符合 PASS
2pin-4#	1	4.486		符合 PASS
	2	4.325		符合 PASS
2pin-5#	1	4.031		符合 PASS
	2	4.856		符合 PASS
8pin-1#	1	3.974		符合 PASS
	2	6.104		符合 PASS
	3	4.452		符合 PASS
	4	3.791		符合 PASS
	5	5.211		符合 PASS
8pin-2#	1	4.554		符合 PASS
	2	4.119		符合 PASS
	3	4.663		符合 PASS
	4	3.851		符合 PASS
	5	3.953		符合 PASS
8pin-3#	1	4.957		符合 PASS
	2	4.298		符合 PASS
	3	4.091		符合 PASS
	4	5.185		符合 PASS
	5	4.392		符合 PASS
8pin-4#	1	6.067		符合 PASS
	2	5.662		符合 PASS
	3	6.375		符合 PASS
	4	4.014		符合 PASS
	5	4.234		符合 PASS

检 测 报 告

TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

样品编号 Sample No.	结果 Result(mΩ)	判定依据 Judgment Basis	判定 Determine
8pin-5#	1	5.133	符合 PASS
	2	4.559	符合 PASS
	3	4.175	符合 PASS
	4	4.378	符合 PASS
	5	4.356	符合 PASS
15pin-1#	1	4.486	符合 PASS
	2	4.349	符合 PASS
	3	5.197	符合 PASS
	4	4.475	符合 PASS
	5	4.625	符合 PASS
15pin-2#	1	4.364	符合 PASS
	2	4.573	符合 PASS
	3	4.678	符合 PASS
	4	4.640	符合 PASS
	5	4.290	符合 PASS
15pin-3#	1	3.838	符合 PASS
	2	3.970	符合 PASS
	3	4.119	符合 PASS
	4	4.528	符合 PASS
	5	4.189	符合 PASS
15pin-4#	1	4.110	符合 PASS
	2	3.714	符合 PASS
	3	4.305	符合 PASS
	4	4.199	符合 PASS
	5	3.929	符合 PASS
15pin-5#	1	3.759	符合 PASS
	2	3.728	符合 PASS
	3	4.212	符合 PASS
	4	4.001	符合 PASS
	5	4.302	符合 PASS

≤30mΩ

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TEST REPORT

报告编号 (No.) :UTS23060026R85

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接触电阻 (测试后) Contact resistance after test

样品编号 Sample No.		结果 Result(mΩ)	判定依据 Judgment Basis	判定 Determine
2pin-1#	1	5.862	≤30mΩ	符合 PASS
	2	6.828		符合 PASS
2pin-2#	1	4.719		符合 PASS
	2	4.560		符合 PASS
2pin-3#	1	6.158		符合 PASS
	2	6.533		符合 PASS
2pin-4#	1	5.512		符合 PASS
	2	5.629		符合 PASS
2pin-5#	1	4.818		符合 PASS
	2	4.924		符合 PASS
8pin-1#	1	6.089		符合 PASS
	2	5.647		符合 PASS
	3	5.659		符合 PASS
	4	5.790		符合 PASS
	5	6.491		符合 PASS
8pin-2#	1	5.769		符合 PASS
	2	6.237		符合 PASS
	3	6.010		符合 PASS
	4	6.070		符合 PASS
	5	6.895		符合 PASS
8pin-3#	1	4.410		符合 PASS
	2	5.062		符合 PASS
	3	6.769		符合 PASS
	4	6.878		符合 PASS
	5	5.092		符合 PASS
8pin-4#	1	6.192		符合 PASS
	2	5.686		符合 PASS
	3	5.459		符合 PASS
	4	5.818		符合 PASS
	5	6.154		符合 PASS

检 测 报 告

TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

样品编号 Sample No.	结果 Result(mΩ)	判定依据 Judgment Basis	判定 Determine
8pin-5#	1	5.256	符合 PASS
	2	6.151	符合 PASS
	3	5.443	符合 PASS
	4	5.840	符合 PASS
	5	6.179	符合 PASS
15pin-1#	1	6.231	符合 PASS
	2	5.785	符合 PASS
	3	5.633	符合 PASS
	4	6.839	符合 PASS
	5	5.161	符合 PASS
15pin-2#	1	5.582	符合 PASS
	2	5.380	符合 PASS
	3	5.478	符合 PASS
	4	7.039	符合 PASS
	5	6.176	符合 PASS
15pin-3#	1	6.030	符合 PASS
	2	4.588	符合 PASS
	3	4.311	符合 PASS
	4	4.384	符合 PASS
	5	5.343	符合 PASS
15pin-4#	1	4.277	符合 PASS
	2	4.731	符合 PASS
	3	5.017	符合 PASS
	4	5.419	符合 PASS
	5	5.250	符合 PASS
15pin-5#	1	4.900	符合 PASS
	2	6.199	符合 PASS
	3	6.050	符合 PASS
	4	5.836	符合 PASS
	5	5.980	符合 PASS

≤30mΩ

检测报告

TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

滚筒跌落测试 Drop test

样品编号 Sample No.		测试前二级锁状 secondary lock status before test	测试后二级锁状态 secondary lock status after test	测试后外观检 Visual inspection after test	判定依据 Judgment Basis	判定 Determine
2pin	1#-5#	Close	Close	没有结构损伤 no structural damage	跌落试验不能引起任何对试样功能造成影响的损坏, 不能打开锁。/The drop test must cause no function-impairing damage to the DUTs. Locks must not open.	符合 PASS
8pin	1#-5#	Close	Close			符合 PASS
15pin	1#-5#	Close	Close			符合 PASS

端子拔出力(组 2)Contact pull-out force (group 2)

样品编号 Sample No.		结果 Result (N)	判定依据 Judgment Basis	判定 Determine
2pin	1#	44.36	≥35N	符合 PASS
	2#	40.92		符合 PASS
	3#	56.77		符合 PASS
	4#	57.55		符合 PASS
	5#	64.22		符合 PASS
8pin	1#	63.50		符合 PASS
	2#	72.74		符合 PASS
	3#	73.29		符合 PASS
	4#	57.11		符合 PASS
	5#	68.11		符合 PASS
15pin	1#	72.93		符合 PASS
	2#	65.75		符合 PASS
	3#	70.06		符合 PASS
	4#	66.51		符合 PASS
	5#	70.92		符合 PASS

检 测 报 告
TEST REPORT

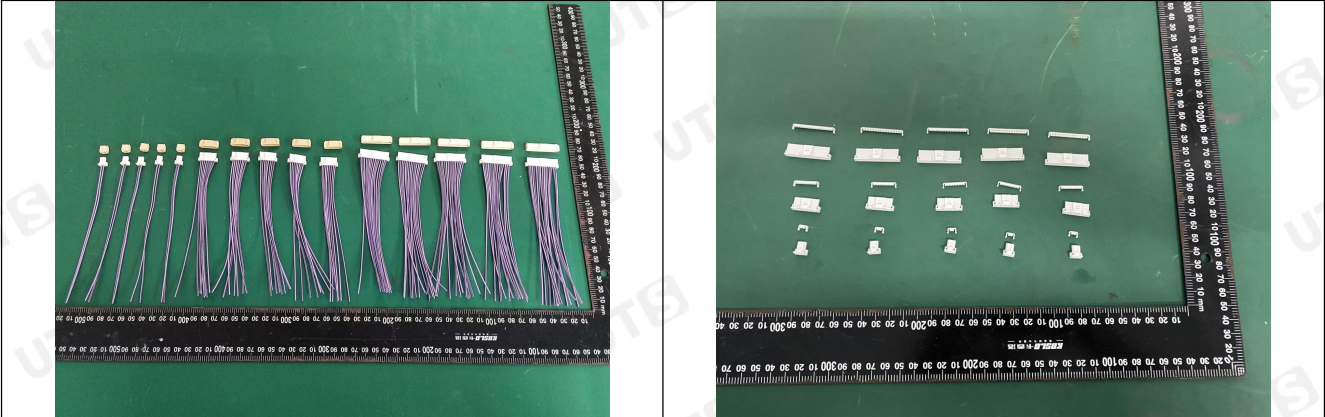
报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

外观检查 (测试后) Visual inspection after test

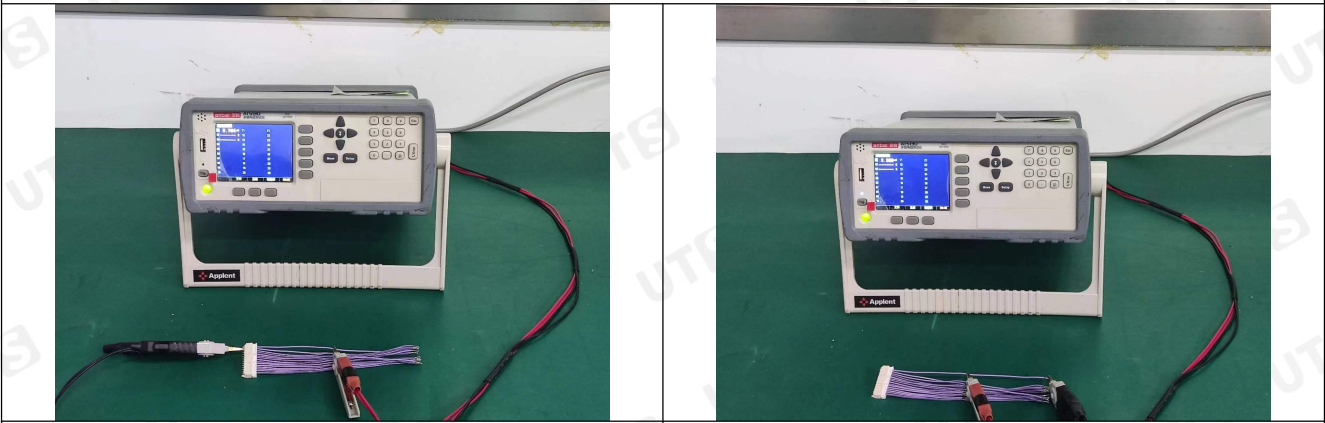
样品编号 Sample No.		结果 Result
2pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
8pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
15pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.

备注/Remark: 判定限值依 VW 75174 LV-214 2018。/The prescribed limit(s) is/are according to VW 75174 LV-214 2018.

6、测试照片/Test Photo(s)



测试前外观检查;Visual inspection before test

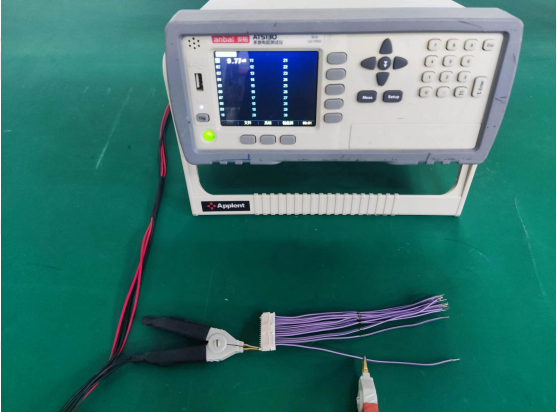
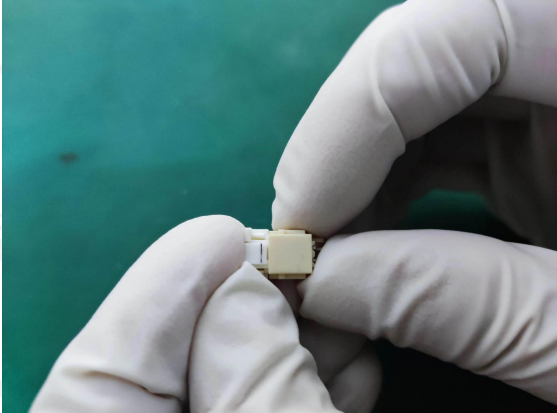


高温试验前接触电阻试验(组 2)-1;
Contact resistance before high temperature test
-1

高温试验前接触电阻试验-2;
Contact resistance before high temperature test
-2

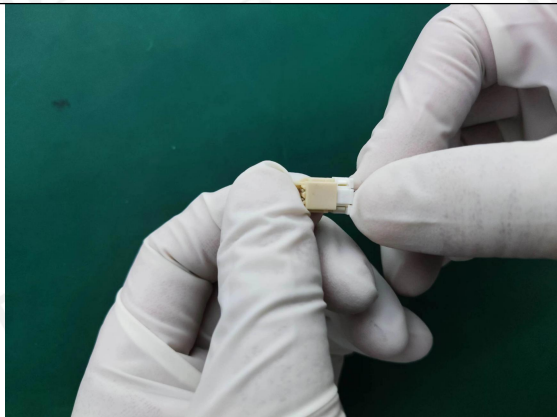
检 测 报 告
TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

	
长期干热老化;Long-term aging in dry heat	温度界面;Temperature interface
	
高温试验后接触电阻试验-1; Contact resistance after high temperature test-1	高温试验后接触电阻试验-2; Contact resistance after high temperature test -2
	
拔插功能检查 5 次 (组 1) -2pin; Check the unplug function 5 times(Group 1)-2pin	

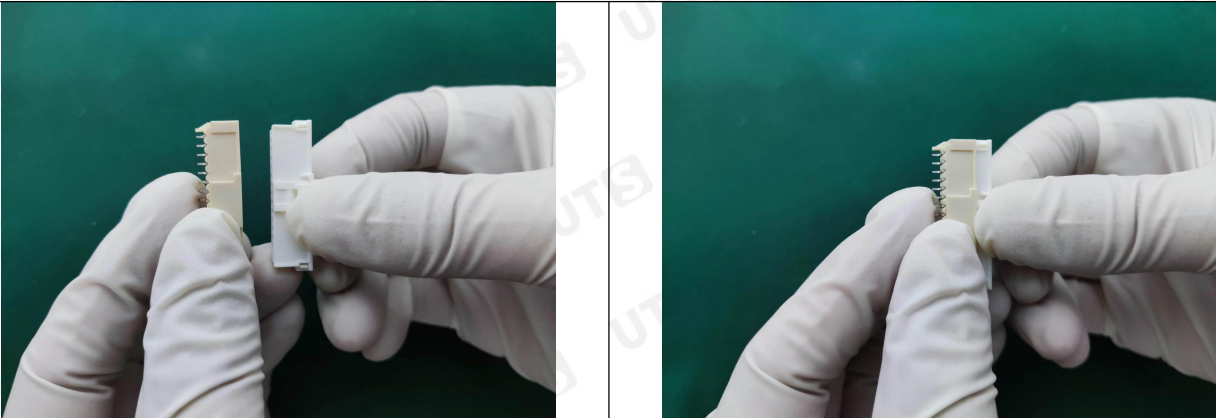
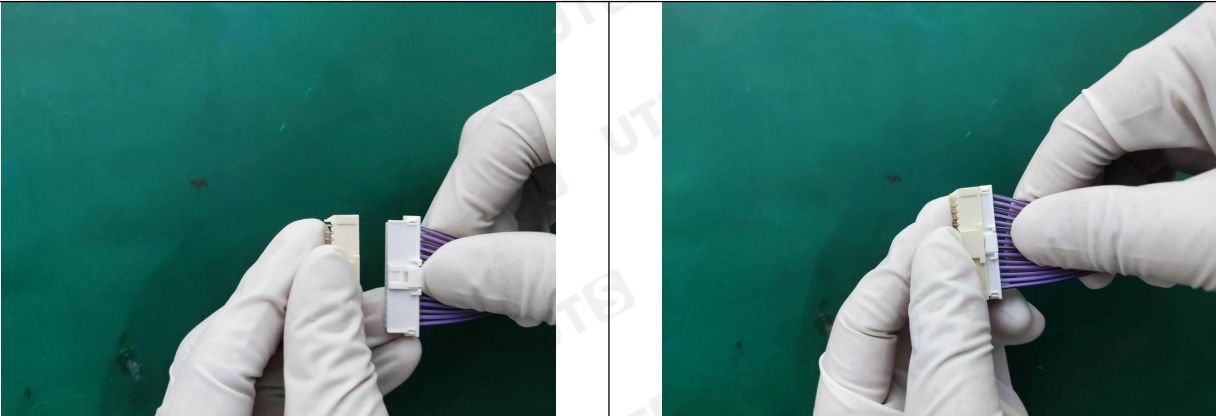
检 测 报 告
TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

			
拔插功能检查 5 次（组 2） -2pin; Check the unplug function 5 times(Group 2)-2pin			
			
拔插功能检查 5 次（组 1） -8pin; Check the unplug function 5 times(Group 1)-8pin			
			
拔插功能检查 5 次（组 2） -8pin; Check the unplug function 5 times(Group 2)-8pin			

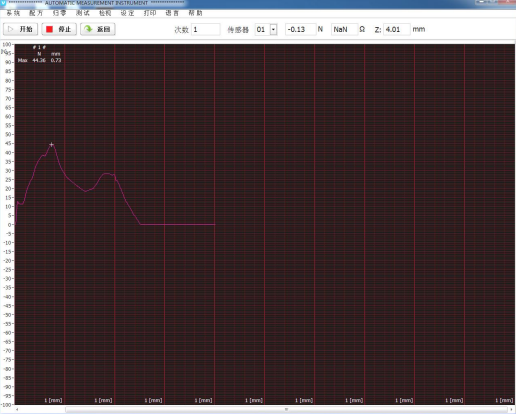
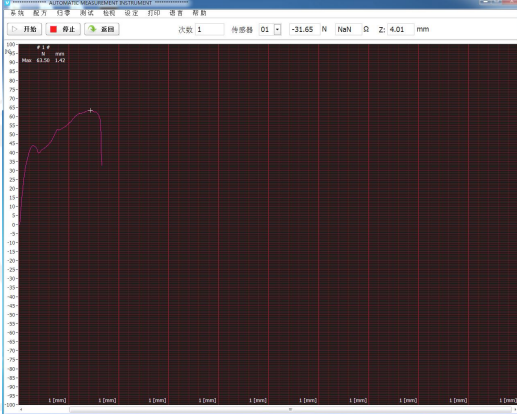
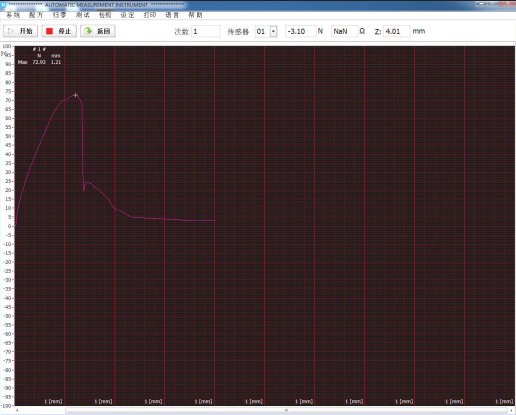
检 测 报 告
TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

	
拔插功能检查 5 次 (组 1) -15pin; Check the unplug function 5 times(Group 1)-15pin	
	
拔插功能检查 5 次 (组 2) -15pin; Check the unplug function 5 times(Group 2)-15pin	
滚筒跌落;Drop test	
	
测试中; During test	测试中; During test

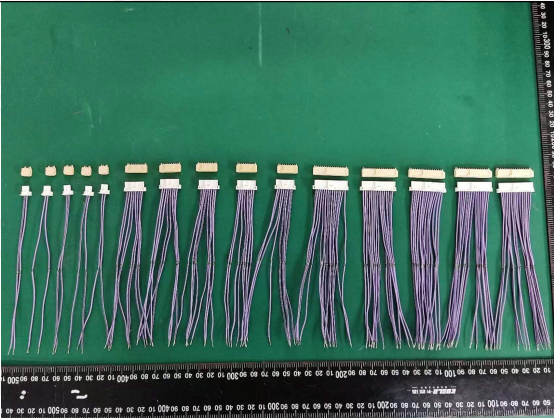
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TEST REPORT

报告编号 (No.) :UTS23060026R85 报告日期 (Report Date) : 2023/08/30

			
测试中; During test		测试中; During test	
			
拔出曲线-2pin; pull-out force curve-2pin		拔出曲线-8pin; pull-out force curve-8pin	
		/	
拔出曲线-15pin; pull-out force curve-15pin		/	

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	/
测试后外观检查;Visual inspection after test	/

.....报告结束/End of Report.....

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Test results in this report are only used for scientific research, teaching and internal quality control.