

检 测 报 告

TEST REPORT

报告编号 (No.) :UTS23060026R53 报告日期 (Report Date) : 2023/08/25

委托单位/Client : 浙江新富尔电子有限公司
Zhejiang Xinfuer Electron Co.,Ltd
地 址/Address : 浙江省乐清市虹桥镇溪西工业区标准厂区 9 号
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 : TG7 壳体的操作和功能可靠性(针座与胶壳);
TG7 Handling and functional reliability of the housing



签
Approve 樊建红 授权签字人

审 核
Reviewed by 毛贯南

编 制
Prepared by 王彭

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江苏省优联检测技术有限公司

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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

2023/07/11-2023/07/14

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
全自动插拔力试验机 Fully automatic insertion and extraction force testing machine	R-1-559	2024/08/12

4、测试条件/Test Condition

P0.1 目检;

P0.1 Visual inspection;

P7.1 外壳的防错设计(未配备外壳);

P7.1 Error-proof design of housings (unequipped housings);

按照委托方要求, 连接器分别以 90° 和 180° 对插。

According to the request of the client, the connectors are mated at 90° and 180° respectively.

P7.2 护套保持力(未装配护套);

P7.2 Holding force of the contact housing latching/locking

适用于用于直插式插头连接和设备安装式插头连接的触头外壳;

Applicable to contact housings for inline plug connections and device-mounted plug connections;

准备试样: 10 个无端子的连接器耦合, 如果护套有定位装置 CPA, 必须进行两种试验, 一是定位装置打开, 另一个是定位装置关闭状态;

Sample preparation: 10 complete connector couplings without contacts If the pin housings are equipped with a CPA, the tests must be performed both with open and closed CPA;

按照客户要求, 测量护套打开时的最大力值。

According to customer requirements, measure the maximum force when the sheath is opened.

P7.4 端子插入力;

P7.4 Insertion force or actuation force for insertion and extraction aids

P0.1 目检;

P0.1 Visual inspection;

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5、测试结果/Test Result(s)

外观检查 (测试前) Visual inspection before test

P7.1

样品编号 Sample No.			结果 Result
WRS	2pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	2pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	8pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	8pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	15pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	15pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.

P7.2

样品编号 Sample No.			结果 Result
WRS	2pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	2pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	3pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	3pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	7pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	7pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.

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P7.4

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

P7.1 外壳的防错设计 Error-proof design of the enclosure

样品编号 Sample No.			极化试验 Polarization Test		判定依据 Judgment Basis	判定 Determine
			对插角度 90° Interpolation angle (N)	对插角度 180° Interpolation angle (N)		
WRS	2pin	1#	83.46	138.86	防错对插力>80N，试验后 样品无功能性损坏； Error-proof design is at least greater than 80N, and the sample has no functional damage after the test.	符合 PASS
		2#	136.98	98.73		符合 PASS
		3#	116.53	130.91		符合 PASS
		4#	86.35	101.65		符合 PASS
		5#	121.23	144.45		符合 PASS
		6#	121.24	140.71		符合 PASS
		7#	102.50	141.51		符合 PASS
		8#	100.75	87.11		符合 PASS
		9#	120.43	109.63		符合 PASS
		10#	106.25	134.93		符合 PASS
平均值 Mean			109.57	122.85		符合 PASS

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样品编号 Sample No.			极化试验 Polarization Test		判定依据 Judgment Basis	判定 Determine
			对插角度 90° Interpolation angle (N)	对插角度 180° Interpolation angle (N)		
WVS	2pin	1#	97.54	112.43	防错对插力>80N，试验后 样品无功能性损坏； Error-proof design is at least greater than 80N, and the sample has no functional damage after the test.	符合 PASS
		2#	101.25	88.46		符合 PASS
		3#	83.37	89.55		符合 PASS
		4#	88.60	119.96		符合 PASS
		5#	97.93	114.67		符合 PASS
		6#	104.17	122.86		符合 PASS
		7#	94.56	119.68		符合 PASS
		8#	91.10	124.57		符合 PASS
		9#	88.37	104.57		符合 PASS
		10#	83.74	137.00		符合 PASS
平均值 Mean			93.06	113.37	符合 PASS	
WRS	8pin	1#	90.21	103.2	符合 PASS	
		2#	82.37	112.95	符合 PASS	
		3#	98.74	146.66	符合 PASS	
		4#	95.22	90.46	符合 PASS	
		5#	88.16	113.53	符合 PASS	
		6#	89.48	123.31	符合 PASS	
		7#	91.84	112.83	符合 PASS	
		8#	93.26	111.37	符合 PASS	
		9#	107.01	123.51	符合 PASS	
		10#	98.21	109.22	符合 PASS	
平均值 Mean			93.45	114.70	符合 PASS	

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样品编号 Sample No.			极化试验 Polarization Test		判定依据 Judgment Basis	判定 Determine
			对插角度 90° Interpolation angle (N)	对插角度 180° Interpolation angle (N)		
WVS	8pin	1#	96.14	139.12	防错对插力>80N，试验后 样品无功能性损坏； Error-proof design is at least greater than 80N, and the sample has no functional damage after the test.	符合 PASS
		2#	96.66	145.13		符合 PASS
		3#	91.56	127.87		符合 PASS
		4#	90.58	100.04		符合 PASS
		5#	92.97	111.30		符合 PASS
		6#	84.57	127.60		符合 PASS
		7#	105.35	130.77		符合 PASS
		8#	86.22	119.39		符合 PASS
		9#	89.93	136.63		符合 PASS
		10#	96.10	100.75		符合 PASS
平均值 Mean		93.01	123.86		符合 PASS	
WRS	15pin	1#	112.95	131.56		符合 PASS
		2#	119.29	120.05		符合 PASS
		3#	94.93	111.36		符合 PASS
		4#	92.09	125.10		符合 PASS
		5#	90.75	113.27		符合 PASS
		6#	88.49	117.51		符合 PASS
		7#	94.16	128.19		符合 PASS
		8#	113.61	135.05		符合 PASS
		9#	99.40	137.48		符合 PASS
		10#	89.91	132.54		符合 PASS
平均值 Mean		99.56	125.21		符合 PASS	

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样品编号 Sample No.			极化试验 Polarization Test		判定依据 Judgment Basis	判定 Determine
			对插角度 90° Interpolation angle (N)	对插角度 180° Interpolation angle (N)		
WVS	15pin	1#	116.13	101.02	防错对插力>80N，试验后 样品无功能性损坏； Error-proof design is at least greater than 80N, and the sample has no functional damage after the test.	符合 PASS
		2#	113.54	93.56		符合 PASS
		3#	112.86	126.43		符合 PASS
		4#	111.82	123.92		符合 PASS
		5#	110.33	113.24		符合 PASS
		6#	86.48	122.94		符合 PASS
		7#	99.24	132.76		符合 PASS
		8#	99.46	129.78		符合 PASS
		9#	102.18	107.39		符合 PASS
		10#	107.95	98.74		符合 PASS
平均值 Mean			106.0	114.98		符合 PASS

7.2 保持力测试 Holding forces test

样品编号 Sample No.			保力力(N)Holding force	平均值(N)average value	判定依据 Judgment Basis	判定 Determine
WRS	2pin	1#	54.78	49.95	F (1 to 2pins)>40N; F (3 to 6pins)>50N; F (>6pins) >60N。	符合 PASS
		2#	45.20			符合 PASS
		3#	52.73			符合 PASS
		4#	45.83			符合 PASS
		5#	51.21			符合 PASS

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样品编号 Sample No.			保力力(N)Holding force	平均值(N)average value	判定依据 Judgment Basis	判定 Determine
WVS	2pin	1#	52.33	57.39	F (1 to 2pins)>40N; F (3 to 6pins)>50N; F (>6pins) >60N	符合 PASS
		2#	50.39			符合 PASS
		3#	55.74			符合 PASS
		4#	67.46			符合 PASS
		5#	61.02			符合 PASS
WRS	3pin	1#	59.06	60.85		符合 PASS
		2#	64.31			符合 PASS
		3#	54.41			符合 PASS
		4#	66.64			符合 PASS
		5#	59.83			符合 PASS
WVS	3pin	1#	87.42	69.87	符合 PASS	
		2#	69.69		符合 PASS	
		3#	67.55		符合 PASS	
		4#	56.35		符合 PASS	
		5#	68.32		符合 PASS	
WRS	7pin	1#	69.13	67.46	符合 PASS	
		2#	69.26		符合 PASS	
		3#	61.37		符合 PASS	
		4#	63.88		符合 PASS	
		5#	73.64		符合 PASS	

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样品编号 Sample No.			保力力(N)Holding force	平均值(N)average value	判定依据 Judgment Basis	判定 Determine
WVS	7pin	1#	67.12	72.86	F (1 to 2pins)>40N; F (3 to 6pins)>50N; F (>6pins) >60N。	符合 PASS
		2#	85.20			符合 PASS
		3#	73.67			符合 PASS
		4#	63.50			符合 PASS
		5#	74.80			符合 PASS

7.4 插入力 Insertion force or actuation

样品编号 Sample No.			结果 Result(N)	判定依据 Judgment Basis	判定 Determine
WRS	15pin	1#	51.39	≤75N	符合 PASS
		2#	44.07		符合 PASS
		3#	55.30		符合 PASS
		4#	49.99		符合 PASS
		5#	51.13		符合 PASS
WVS	15pin	1#	49.78		符合 PASS
		2#	44.89		符合 PASS
		3#	44.33		符合 PASS
		4#	45.46		符合 PASS
		5#	50.47		符合 PASS

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.

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外观检查 (测试后) Visual inspection after test

P7.1

样品编号 Sample No.			结果 Result
WRS	2pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	2pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	8pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	8pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	15pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	15pin	1#-10#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.

P7.2

样品编号 Sample No.			结果 Result
WRS	2pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	2pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	3pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	3pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WRS	7pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.
WVS	7pin	1#-5#	没有松动、裂纹、变形等缺陷。 No detrimental looseness, cracks, flaws, deformation, etc.

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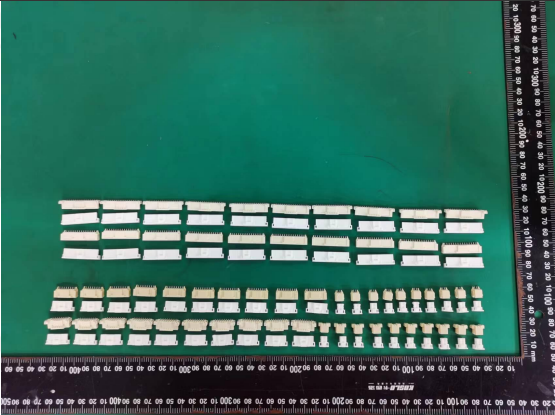
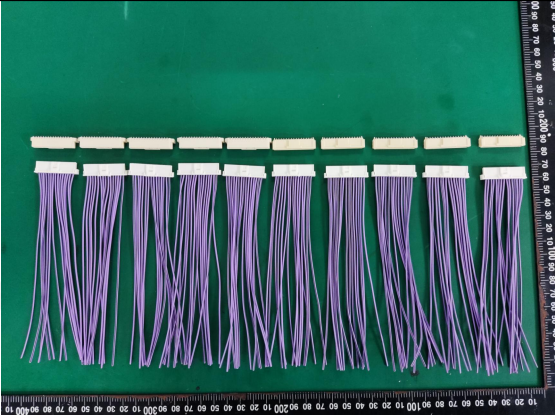
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P7.4

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

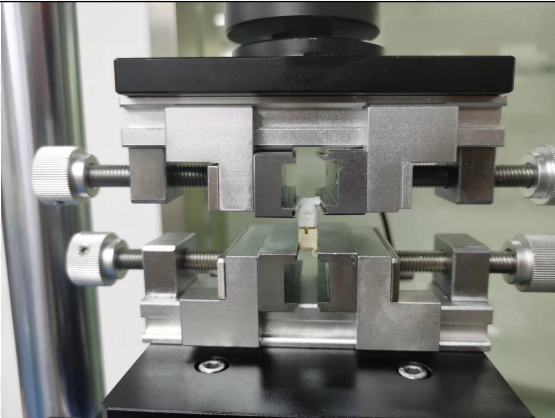
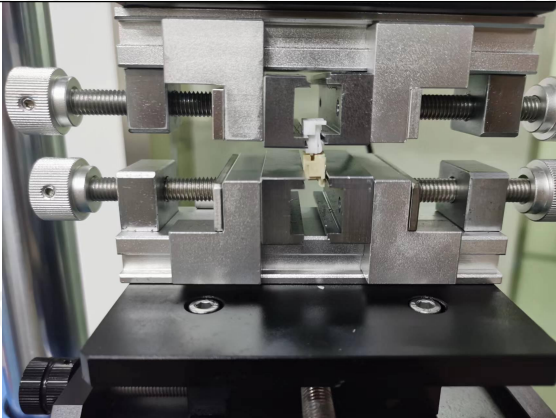
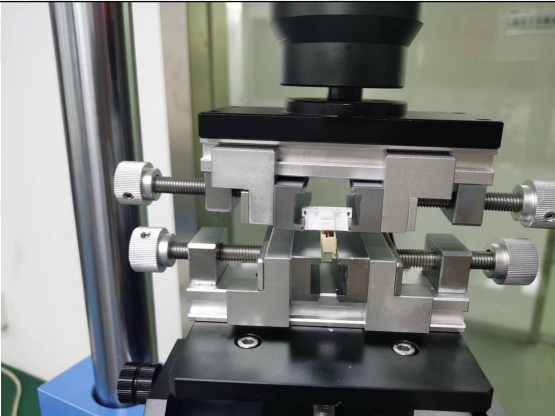
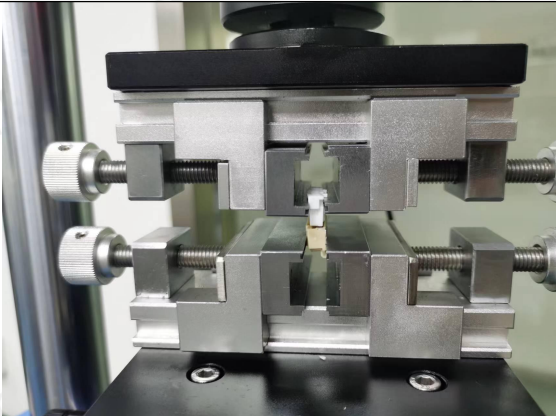
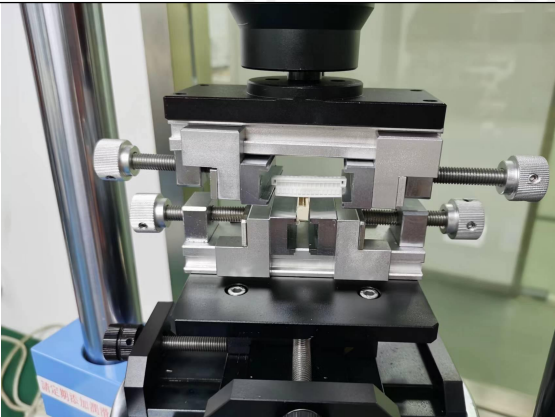
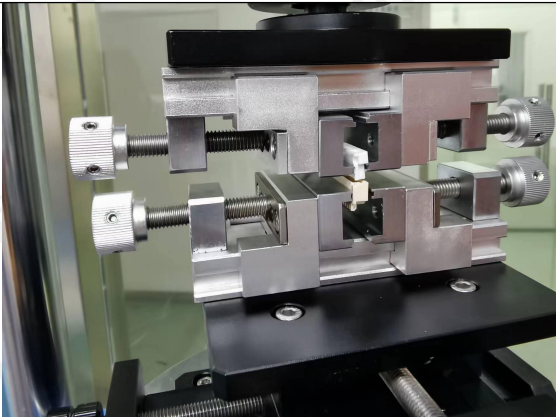
6、测试照片/Test Photo(s)

	
测试前外观检查;Visual inspection before test 7.1	测试前外观检查;Visual inspection before test 7.2
	/
测试前外观检查;Visual inspection before test 7.4	/

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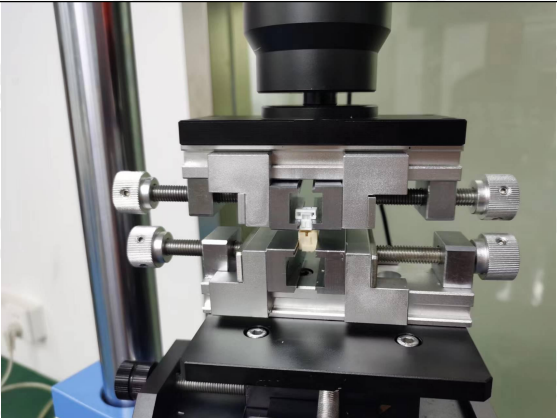
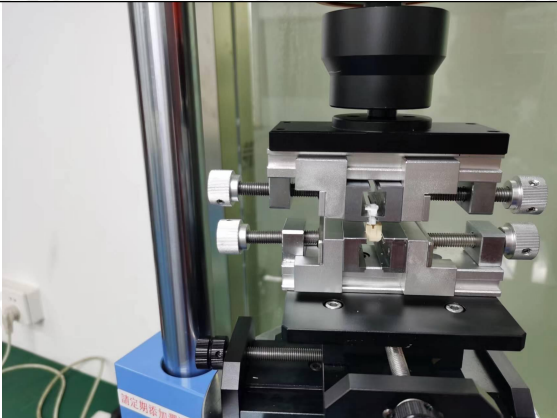
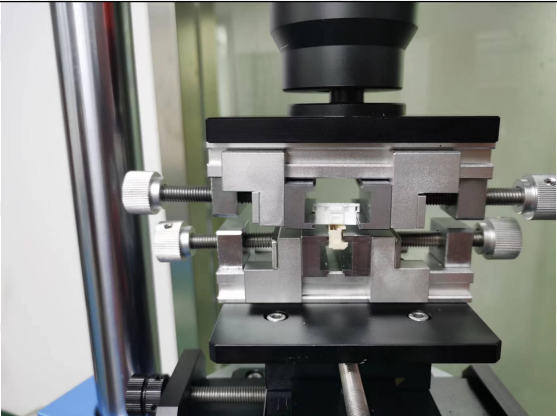
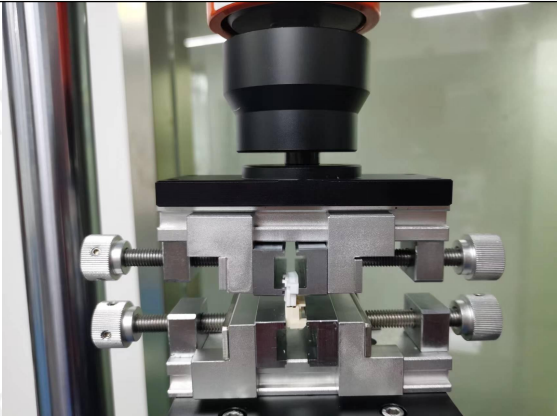
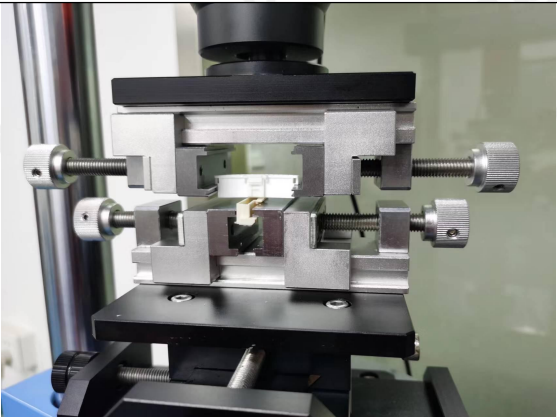
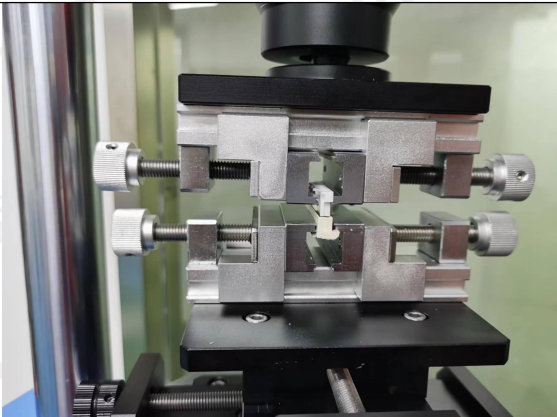
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外壳的防错设计 Error-proof design of housings (WRS-2pin-90°)	外壳的防错设计 Error-proof design of housings (WRS-2pin-180°)
	
外壳的防错设计 Error-proof design of housings (WRS-8pin-90°)	外壳的防错设计 Error-proof design of housings (WRS-8pin-180°)
	
外壳的防错设计 Error-proof design of housings (WRS-15pin-90°)	外壳的防错设计 Error-proof design of housings (WRS-15pin-180°)

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外壳的防错设计 Error-proof design of housings (WVS-2pin-90°)	外壳的防错设计 Error-proof design of housings (WVS-2pin-180°)
	
外壳的防错设计 Error-proof design of housings (WVS-8pin-90°)	外壳的防错设计 Error-proof design of housings (WVS-8pin-180°)
	
外壳的防错设计 Error-proof design of housings (WVS-15pin-90°)	外壳的防错设计 Error-proof design of housings (WVS-15pin-180°)

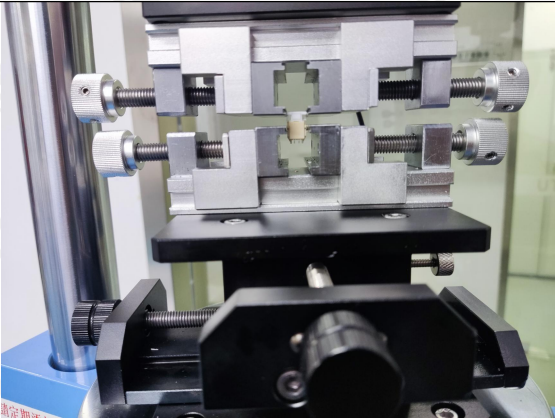
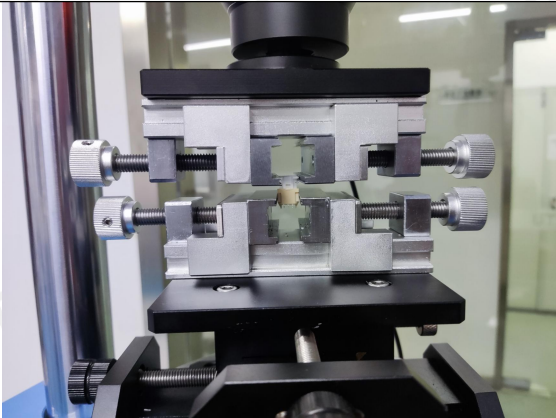
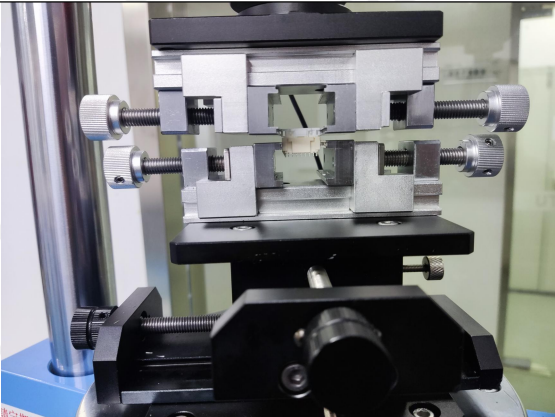
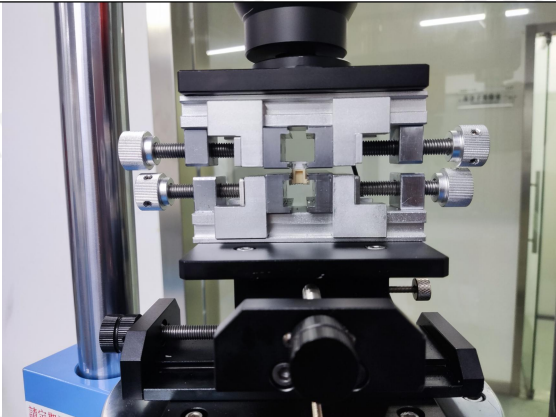
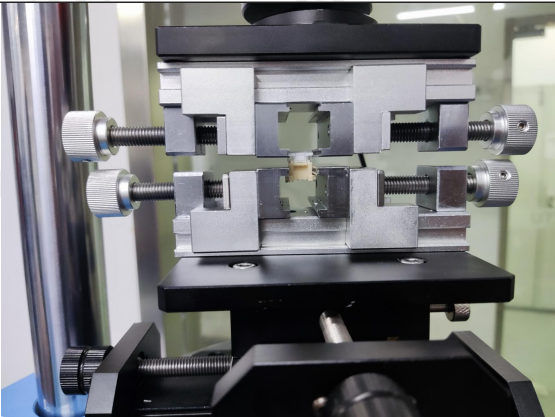
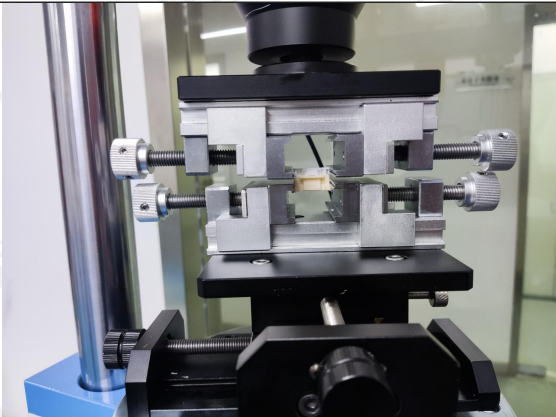
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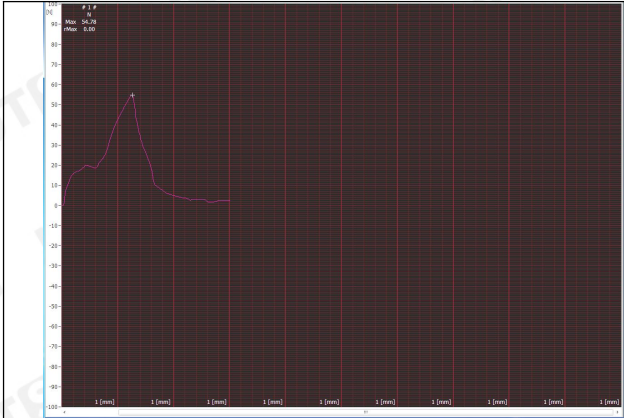
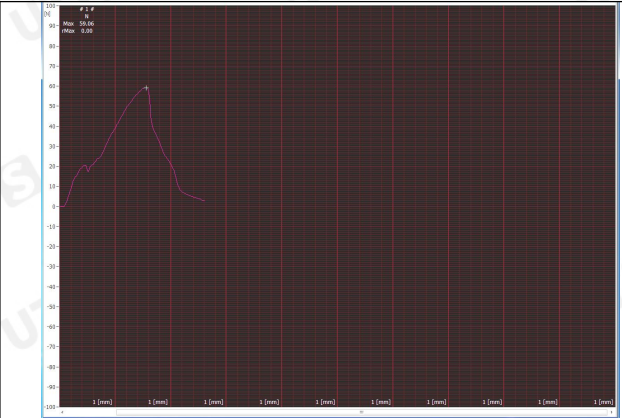
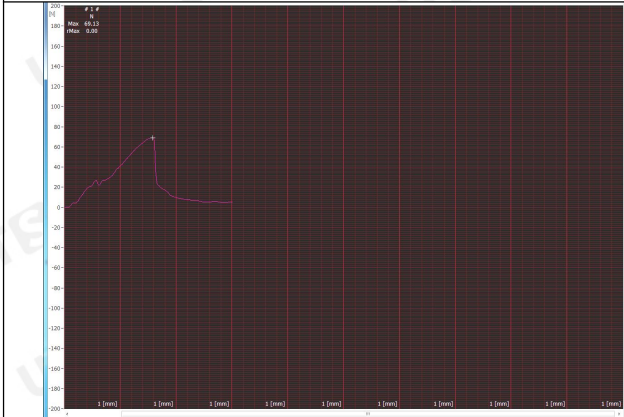
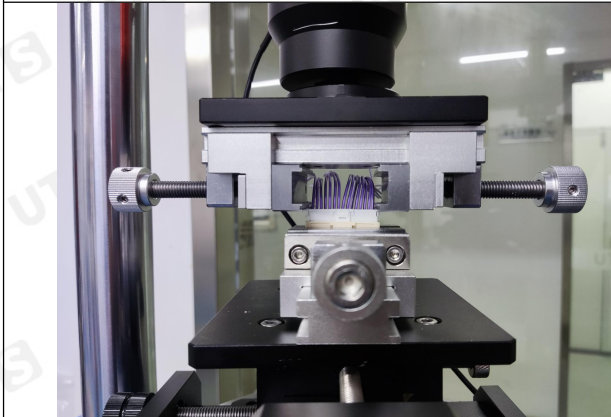
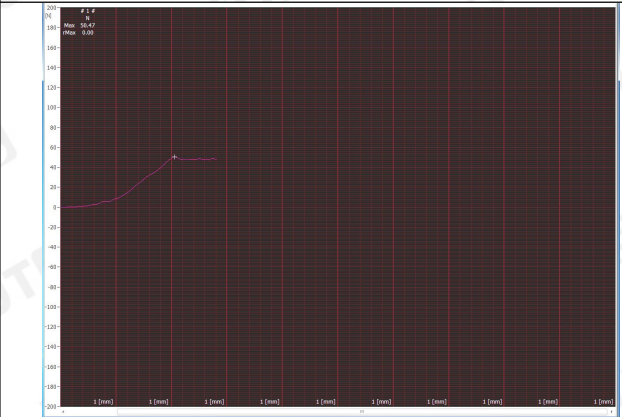
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保持力测试 Holding forces test (WRS 2pin)	保持力测试 Holding forces test (WRS 3pin)
	
保持力测试 Holding forces test (WRS 7pin)	保持力测试 Holding forces test (WVS 2pin)
	
保持力测试 Holding forces test (WVS 3pin)	保持力测试 Holding forces test (WVS 7pin)

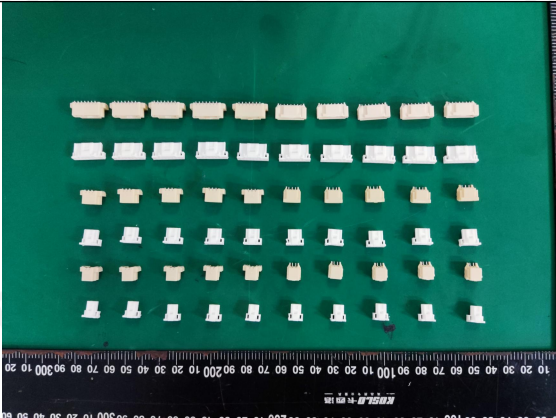
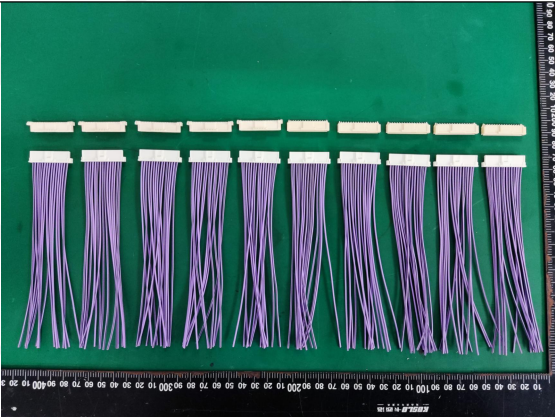
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保持力测试曲线 Holding force test curve (2pin)	保持力测试曲线 Holding force test curve (3pin)
	/
保持力测试曲线 Holding force test curve (7pin)	/
	
插入力 Insertion force test	插入力曲线 Insertion force test curve

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测试后外观检查; Visual inspection after test 7.1	测试后外观检查; Visual inspection after test 7.2
	/
测试后外观检查; Visual inspection after test 7.4	/

.....报告结束/End of Report.....

本报告中结果仅作为科研、教学或内部质量控制之用。

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