

# **Celxpert Energy(KunShan)Corporation**

## ***Battery Pack***

### ***UN38.3 Test Report***

|                  |                                                                |
|------------------|----------------------------------------------------------------|
| Customer:        | Lenovo                                                         |
| Model:           | L19C4PDC                                                       |
| Nominal voltage: | 15.36V                                                         |
| Rating Capacity: | Rated capacity:68.7Wh/4535mAh<br>Typical capacity:71Wh/4675mAh |
| Issue Date:      | Feb.28.2020                                                    |







# UN38.3 试验概要

## UN38.3 Test Summary



812000400257066

### 单位信息 Company information

|                      |                                                                                                                                                                                                                          |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 委托单位<br>Consignor    | 加百裕(昆山)电子有限公司 Celxpert (Kunshan) Energy Co.,Ltd<br>江苏省昆山市玉山镇汉浦路1111号 NO.1111, Hanpu Road, Yushan Town, Kunshan<br>City, Jiangsu Province, P.R. China<br>0512-57775999-8239 frank_gao@cn.celxpert.com www.celxpert.com.tw |
| 生产单位<br>Manufacturer | 加百裕(昆山)电子有限公司 Celxpert (Kunshan) Energy Co.,Ltd<br>江苏省昆山市玉山镇汉浦路1111号 NO.1111, Hanpu Road, Yushan Town, Kunshan<br>City, Jiangsu Province, P.R. China<br>0512-57775999-8239 frank_gao@cn.celxpert.com www.celxpert.com.tw |
| 测试单位<br>Test lab     | 加百裕(昆山)电子有限公司 Celxpert (Kunshan) Energy Co.,Ltd<br>江苏省昆山市玉山镇汉浦路1111号 NO.1111, Hanpu Road, Yushan Town, Kunshan<br>City, Jiangsu Province, P.R. China<br>0512-57775999-8239 frank_gao@cn.celxpert.com www.celxpert.com.tw |

### 电池信息 Battery information

|                            |                                                                                                       |                                |                                                                   |
|----------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------|
| 名称<br>Name                 | Lenovo 二次鋰電池組/鋰電池/<br>鋰離子電池/鋰離子電池組/充<br>電電池/鋰電池組/可充電式鋰<br>離子電池組 Lenovo<br>Rechargeable Li-ion battery | 品牌<br>Brand                    | Lenovo                                                            |
| 型号<br>Type                 | L19C4PDC                                                                                              | 原始测试型号<br>Original tested type | /                                                                 |
| 标称电压(V)<br>Nominal voltage | 15.36                                                                                                 | 容量/能量<br>Capacity/energy       | Rated Capacity:4535mAh<br>68.7Wh/Typical<br>Capacity:4675mAh 71Wh |
| 描述<br>Description          | 可充电锂离子电池组<br>Rechargeable Li-ion battery                                                              | 锂含量(g)<br>Li content           | /                                                                 |
| 质量(kg)<br>Mass             | 0.274                                                                                                 | 外观<br>Appearance               | 黑色塑料薄膜外壳 Black<br>plastic film shell                              |

### 测试信息 Test information

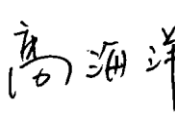
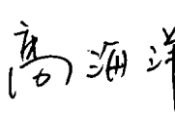
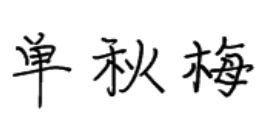
|                                    |                                                                                                                                                                     |                               |            |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|
| 原报告编号<br>Original test report No.  | CPK-Lab-UN383PACK20005-A1                                                                                                                                           | 测试报告日期<br>Date of test report | 2020-02-28 |
| 测试标准<br>Test standard              | 联合国《关于危险货物运输的建议书 试验和标准手册》第38.3章 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria 38.3 ST/SG/AC.10/11/Rev.6/Amend.1 |                               |            |
| T.1 高度模拟<br>Altitude simulation    | 合格 Passed                                                                                                                                                           | T.2 温度测试<br>Thermal test      | 合格 Passed  |
| T.3 振动测试<br>Vibration              | 合格 Passed                                                                                                                                                           | T.4 冲击测试<br>Shock             | 合格 Passed  |
| T.5 外部短路<br>External short circuit | 合格 Passed                                                                                                                                                           | T.6 挤压<br>Crush               | 合格 Passed  |
| T.7 过度充电<br>Overcharge             | 合格 Passed                                                                                                                                                           | T.8 强制放电<br>Forced discharge  | 合格 Passed  |
| 38.3.3 (f)                         | /                                                                                                                                                                   | 38.3.3 (g)                    | /          |





## 1.UN38.3 Lithium Battery Test Summary

|                                                 |                                                                              |                              |                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------|
| Edition of UN Manual of Tests and Criteria Used |                                                                              | ST/SG/AC.10/11/Rev.6/Amend.1 |                                                                              |
| Customer                                        | Lenovo                                                                       | Sample type                  | Rechargeable Li- ion Battery                                                 |
| Model Name                                      | L19C4PDC                                                                     | Pack Configuration           | 4S1P                                                                         |
| Rating                                          | Rated capacity:68.7Wh/4535mAh<br>Typical capacity:71Wh/4675mAh               | Battery weight               | 273g                                                                         |
| Cell Factory/Model                              | BYD CSL5040D2                                                                | Physical Description         | Prismatic                                                                    |
| Factory Address                                 | NO.1111, Hanpu Road, Yushan Town, Kunshan City, Jiangsu Province, P.R. China | Laboratory Address           | NO.1111, Hanpu Road, Yushan Town, Kunshan City, Jiangsu Province, P.R. China |
| Factory Name                                    | Celxpert ( kunshan ) Enengy.Co,Ltd.                                          | Laboratory Name              | CPK LAB                                                                      |
| Factory Tel                                     | +86-512-57775999                                                             | Laboratory Tel               | +86-512-57775999                                                             |
| Factory E-mail                                  | Frank_Gao@cn.celxpert.com                                                    | Lab E-mail                   | Frank_Gao@cn.celxpert.com                                                    |
| Factory Web                                     | www. celxpert.com.tw                                                         | Laboratory Web               | www. celxpert.com.tw                                                         |
| Client Date                                     | 2020/01/10                                                                   | Completing Data              | 2020/02/27                                                                   |
| Item                                            | Test Item                                                                    | Test Result(Pass/Fail)       |                                                                              |
| 38.3.4.1 T1                                     | Altitude simulation                                                          | Pass                         |                                                                              |
| 38.3.4.1 T2                                     | Thermal                                                                      | Pass                         |                                                                              |
| 38.3.4.1 T3                                     | Vibration                                                                    | Pass                         |                                                                              |
| 38.3.4.1 T4                                     | Shock                                                                        | Pass                         |                                                                              |
| 38.3.4.1 T5                                     | External Short Circuit                                                       | Pass                         |                                                                              |
| 38.3.4.1 T6                                     | Crush                                                                        | Pass                         |                                                                              |
| 38.3.4.1 T7                                     | Overcharge                                                                   | Pass                         |                                                                              |
| 38.3.4.1 T8                                     | Forced Discharge                                                             | Pass                         |                                                                              |

|                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Approved By                                                                         | Checked By                                                                          | Prepared By                                                                           |
|  |  |  |
| Section manager                                                                     | Section manager<br>2 / 12                                                           | Engineer                                                                              |