# LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY

IN ACCORDANCE WITH SUB-SECTION 38.3 OF MANUAL OF TESTS AND CRITERIA

| Name/Description of cell / modeln o. of Product | |
|---|---|
| Lithium-ion polymer battery | TX-159 |

**Manufacturer of cell**

| | |
|---|---|
| Name | Shenzhen thanksun technology Co., Ltd. |
| Address | 4th Floor, Building A, Heshengjia Industrial Park, Huating Road 154, Dalang street, Baoan District, Shenzhen City China |
| Phone | 0755-83223133 |
| E-Mail | info@thank-sun.com |
| Website | http://www.thank-sun.com/ |

**Manufacturer**

| | |
|---|---|
| Name | Technaxx Deutschland GmbH & Co. KG |
| Address | Kruppstraße 105, 60388 Frankfurt am Main |
| Phone | +49 [69] 90 47552 0 |
| E-Mail | Zentrale@technaxx.de |
| Website | http://www.technaxx.de/ |

**Test laboratory of cell 电池测试实验室**

| | |
|---|---|
| **Name** | Shenzhen NCT Testing Technology Co., Ltd. |
| Address | 1/F No.B Buliding Mianshang Younger Pioneer Park Hangcheng Road Gushu Xixiang Street Baoan District Shenzhen Guangdong China |
| Phone | 0755-27790922 |
| E-Mail | service@nct-testing.com |
| Website | www.nct-testing.com |

**ID-number and date**

| | |
|---|---|
| Unique test report identification number | NCT17025395B1-1 |
| Date of test report | 2017-06-23 |

**DESCRIPTION OF CELL ( Mark with an"X")**

| | |
|---|---|
| **Lithium ion cell** | **X** |
| Lithium metal cell | |

**Parameters**

| | |
|---|---|
| **Mass in gram (g): 重量（g）** | **31.8** |
| **Lithium ion:** Indicate watt-hour rating (Wh): | 2.96 |
| **Lithium metal:** Indicate lithium metal content in gram (g): | |

**Physical description of cell**

| |
|---|
| Rechargeable lithium-ion polymer battery |

**Model numbers**

| |
|---|
| **523450AR** |

**TESTS AND RESULTS**

| **List of tests conducted and results - Mark N/A, pass or fail with an "X"** | **N/A** | **Pass** | **Fail** |
|---|---|---|---|
| T1 - Altitude simulation | | **X** | |
| T2 - Thermal Test | | **X** | |
| T3 – Vibration | | **X** | |
| T4 – Shock | | **X** | |
| T5 - External Short Circuit | | **X** | |
| T6 - Impact - for cylindrical cells having a diameter of at least 18 mm | | **X** | |
| T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm | | **X** | |
| T7 – Overcharge | | **X** | |
| T8 - Forced Discharge | | **X** | |

**Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto**

| |
|---|
| |

**ADDITIONAL SUPPLIER INQUIRY**

| **Mark Yes or no with an "X"** | **Yes** | **No** |
|---|---|---|
| **Quality management system for manufacturing cells**<br>Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations? | **X** | |
| **Are the following parameters exceeded?**<br>Lithium ion cell: more than 20 Wh<br>Lithium metal cell: more than 1 g Lithium | **X** | |

**Check point 13 – 15 need to be answered when 12 has been ticked "YES":**

| Mark Yes or no with an "X" | **Yes** | **No** |
|---|---|---|
| Does each cell incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage? | **X** | |
| Is each cell equipped with an effective means of preventing external short circuits? | **X** | |
| Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.) **Not relevant for cells** | **X** | |

**Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells and lithium polymer cells**

| | | |
|---|---|---|
| State of Charge (SoC) max. 30 % | **X** | |

**CELLS INSTALLED IN EQUIPMENT**

| Check point 17 needs to be answered when the cells are installed in articles: Mark N/A, pass or fail with an "X" | **N/A** | **Pass** | **Fail** |
|---|---|---|---|
| 17c) Only button cells enclosed? | | **X** | |
| 17b) Number of enclosed cells (other than button cells) per equipment | **1** | | |
| | | | |
| When the equipment is intentionally active/switched on during transport e.g. data loggers: | | | |
| 17c) Confirmation that no dangerous amount of heat is emitted from the equipment | | **X** | |
| 17d)Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160 | | **X** | |

| **Please markt he correct column with an X** | | |
|---|---|---|
| | **X** | |
| **Single Cell or Battery** | **Build in Cell/ Battery** | **Over 100Wh** |
|  |  |  |

| **Place, Date** | **Signature** | **Company stamp and Signature** |
|---|---|---|
| **Frankfurt, 04.12.2020** | | Technaxx Deutschland GmbH & Co. KG<br>Kruppstr. 105<br>60388 Frankfurt a.M.<br>Fon +49(0)69/90 47 55 2-0 · Fax -16 |