## UN 38.3 Test Summary Report

Lithium Cell or Battery Test Summary in Accordance with Section 2.9.4 UN Model Regulations and Sub-section 38.3 of the UN Manual of Tests and Criteria, Part III, subsection 38.3.5

### [a] □ Cell □ Battery □ Product
☑ Tested Type Part #: TLP-93181/D
☐ Same Type Part #:

### [b] Manufacturer
Tadiran Batteries Ltd.
44 Yitzhak Rabin Blvd,
Kiryat Ekron,
Israel 7695001
T. +972 8 9 44 503
sales@tadiran-batt.com
www.tadiran.com

### [c] Test Laboratory
Tadiran Batteries Ltd.
44 Yitzhak Rabin Blvd,
Kiryat Ekron,
Israel 7695001
T. +972 8 9 44 560
aya-d@tadiran-batt.com
www.tadiran.com

☐ Same Type Part Numbers # (all): covers all the TLP-93181/D/xxxx part numbers with harness/cables.

### [d] Unique report ID: 15Q-653

### [e] Report date: October 2003

### [f] [i] □ Li-ion ☒ Li-metal.

(iv) **Description:** Primary (non-rechargeable) 14.8 V Lithium Thionyl Chloride (Li-SOCl2) hybrid battery, assembled from a group of 8 (eight) “D” size cell and 1 (one) HLC-1550 cell in parallel connection and 4 groups of this in serial connection. Dangerous reverse current between the parallel D cells and HLC-1550 does not occur because of presence of parallel diode in each group.

The TLP-93181/D battery may come with optional suffixes consisting of a “/” followed by one or more letters and a digit. These suffixes indicate different types of finishing to the battery, e.g. harness.

(ii) Mass: 3.2 kg
(iii) ☒ Watt hour rating or ☒ Lithium content: 3.44 Wh and 162 g
(v) □ Cell ☒ Battery □ Product. Model number/Part number: TLP-93181/D

### [g] List of Tests Conducted

<table>
<thead>
<tr>
<th>Test Record Number</th>
<th>Result (Pass / Fail / N.A.)</th>
<th>Test Record Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.3.4.1 T.1: Altitude simulation</td>
<td>Pass</td>
<td>15Q-653</td>
</tr>
<tr>
<td>38.3.4.2 T.2: Thermal test</td>
<td>Pass</td>
<td>15Q-653</td>
</tr>
<tr>
<td>38.3.4.3 T.3: Vibration</td>
<td>Pass</td>
<td>15Q-653</td>
</tr>
<tr>
<td>38.3.4.4 T.4: Shock</td>
<td>Pass</td>
<td>15Q-653</td>
</tr>
<tr>
<td>38.3.4.5 T.5: External short circuit</td>
<td>Pass</td>
<td>15Q-653</td>
</tr>
<tr>
<td>38.3.4.6 T.6: Impact/Crush (cell only test)</td>
<td>Pass</td>
<td>15Q-610.852</td>
</tr>
<tr>
<td>38.3.4.7 T.7: Overcharge (N.A for Li-metal only)</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>38.3.4.8 T.8: Forced discharge (cell only test)</td>
<td>Pass</td>
<td>15Q-610.852</td>
</tr>
</tbody>
</table>

### [h] Battery assembly: □ Not Applicable. ☒ UN38.3.3 (f) □ UN38.3.3 (g)


### [j] Signatory A. Date: 2019.04.04
Name: Aya Daniel
Title: Quality Manager
Signature.

### [k] Signatory B. Date: 2019.04.04
Name: Kobi Pinsky
Title: VP Marketing and Sales
Signature.

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**Important!** The above signatory / signatories affirm that this document is a true and correct summary of the original individual tests and test data. The original test data is confidential information available to competent State Authorities with valid identification and only upon their formal request. Disclosure of the original test data to any other entity upon its request will be considered by Tadiran and, should Tadiran consider this request is with merit, may be subject to the prior execution of a nondisclosure agreement.