

## Tadiran High Power Lithium Organic Cell Model TLM-1520HP

### 1. Scope

This data sheet describes the mechanical design and performance of Tadiran high power lithium organic cell model TLM-1520HP.

### 2. Characteristics

#### 2.1. Physical

- 2.1.1. Length: 20± 0.3 mm.
- 2.1.2. Diameter: 15.0 mm. max.
- 2.1.3. Weight: 8± 0.2 gr.

#### 2.2. Electrical

##### 2.2.1. Discharge

Discharge capacity at 25mA @ RT	135mAh
Maximum discharge current:	Continuous: 1.25 A Pulse: 2 A

- 2.2.2. Operating Temperature range: -40<sup>0</sup>C to 85<sup>0</sup>C

##### 2.2.3. Self discharge current:

Temperature [ <sup>0</sup> C]	Self-discharge rate [ $\mu$ A]
22	1.5
35	2.5
42	4
55	5
72	7
85	TBD

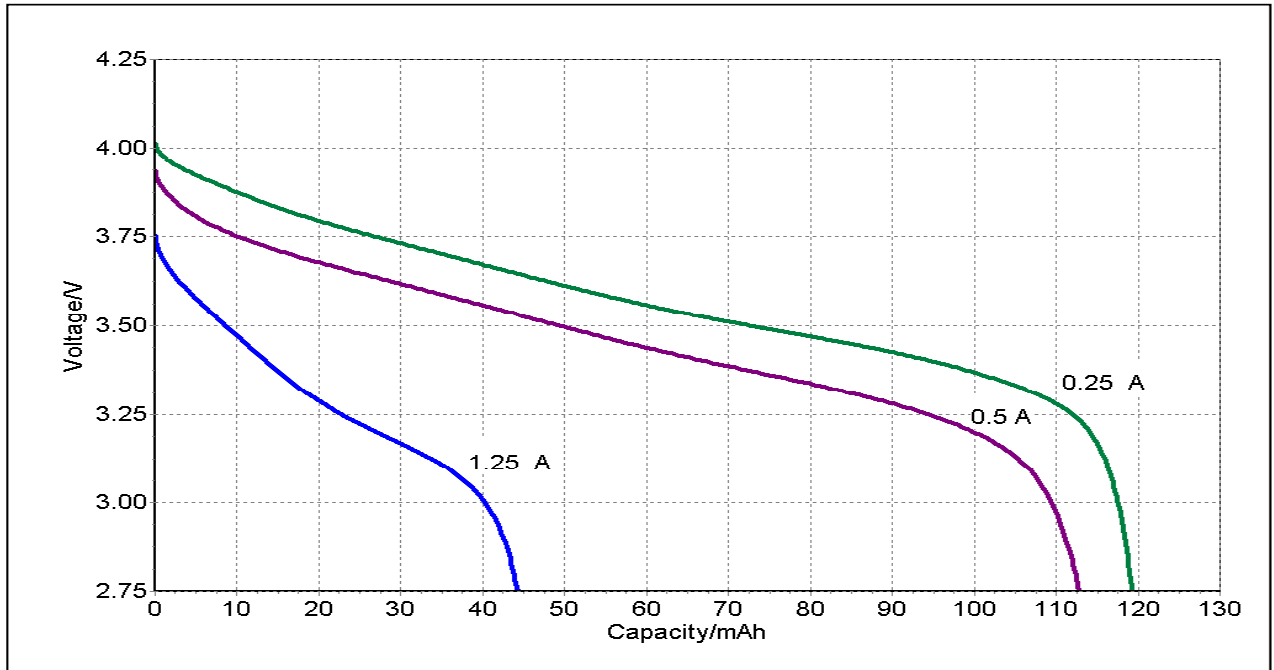
- 2.2.4. Capacity loss 1<sup>st</sup> year: 10 mAh

Annual capacity loss: 6 mAh

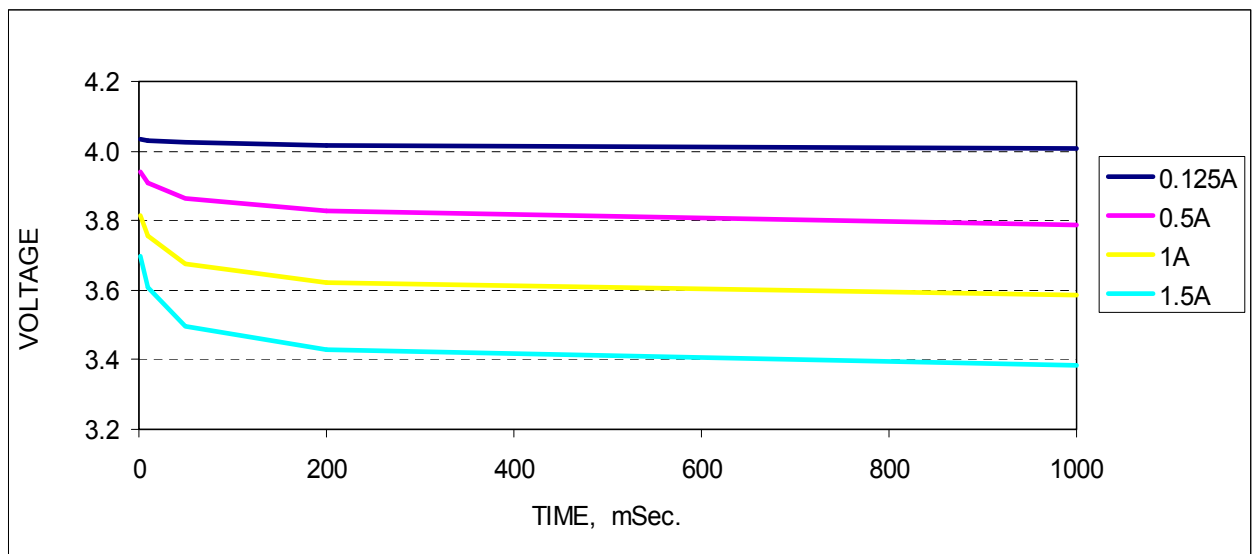
- 2.2.5. Cell impedance: Less than 250 mOhm @ 1kHz at room temperature.

2.2.6. Performance Data:

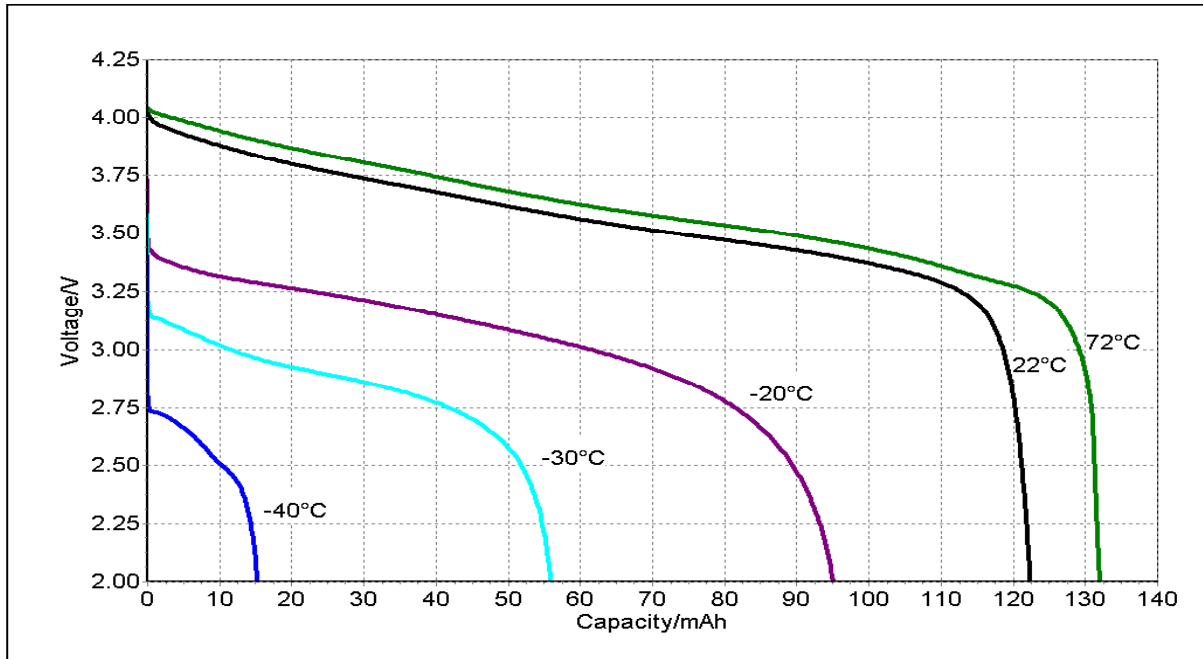
**Discharge capability at RT**



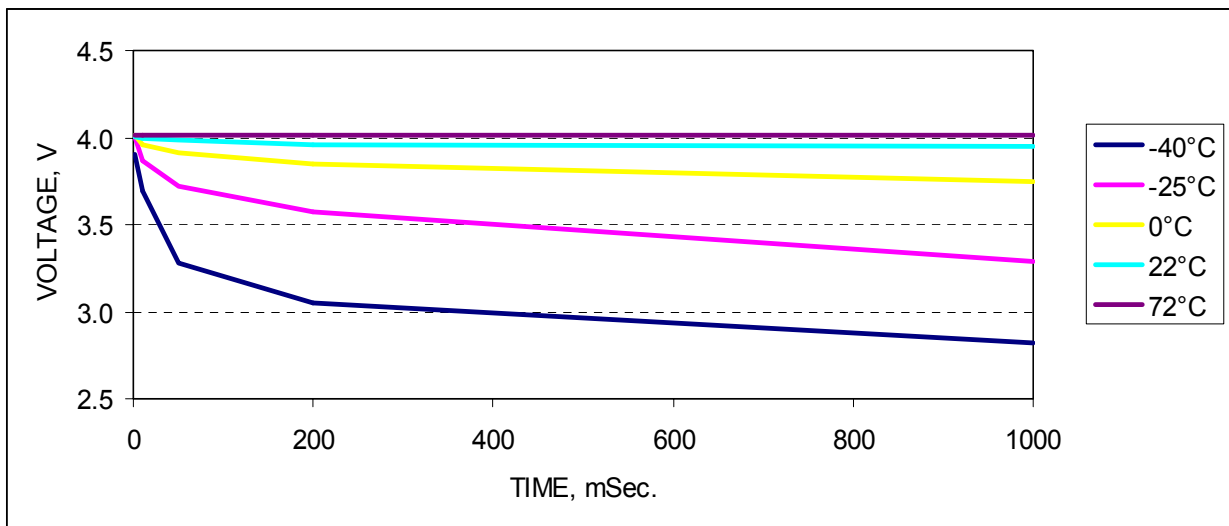
**Pulse capability at RT**



**Discharge capability @ 0.25A at several temperatures**



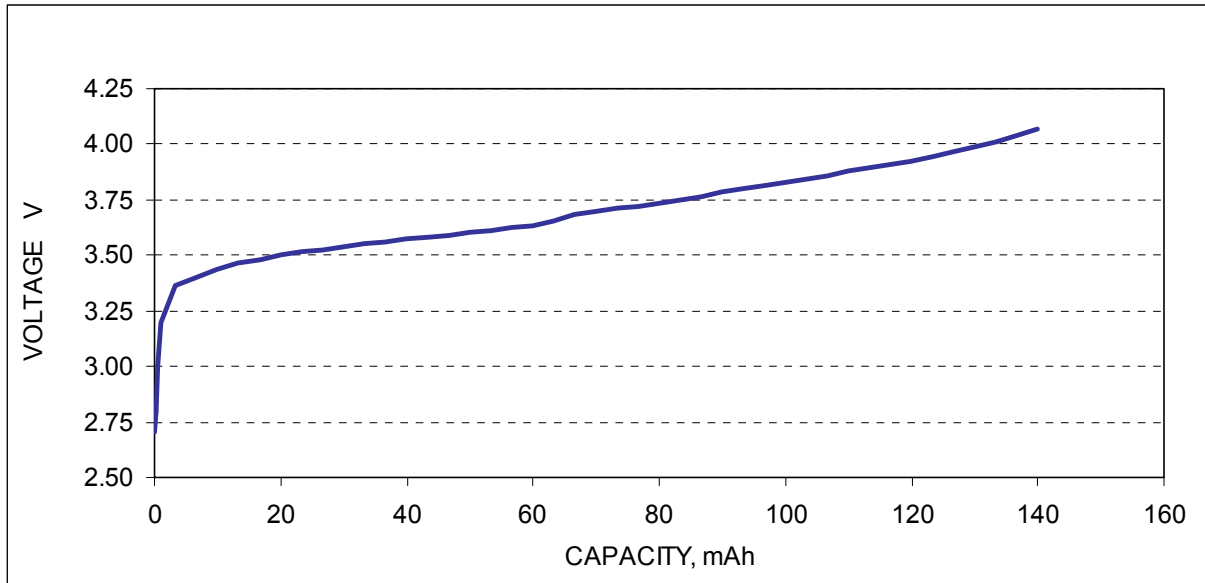
**Pulse capability @ 0.25A at several temperatures**



**End of life indication:**

OCV measurements can provide a good estimation for the remaining capacity of the cell as shown below:

**Capacity vs. OCV**



**Safety tests:**

The cell has successfully passed the following safety tests:

- Short circuit at RT and at 55°C.
- Oven at 150°C.
- Impact.
- Nail penetration.
- Over charge and over discharge.