

# Tadiran High Power Lithium Organic Cell Model TLM-1550HP

## 1. Scope

This data sheet describes the mechanical design and performance of Tadiran high power lithium organic cell model TLM-1550HP.

### 2. Characteristics

### 2.1. Physical

2.1. Thysical							
2.1.1.	Length:	51 -1 mm.					
2.1.2.	Diameter:	14.8 ±0.3 mm.					
2.1.3.	Weight:	20 gr. max.					
2.2. Electrical							
2.2.1.	Open Circuit Voltage (for batteries stored at RT for 1 year or less)3.95 to 4.07 V						
2.2.2.	Closed Circu	3.88 V minimum					
2.2.3.	Discharge						
	Disch	550 mAh					
	500 mAh						
Maximum discharge current							
	5 A						
	15 A						
2.3. Op	$-40$ $^{0}$ C to 85 $^{0}$ C						

2.4. Acumulated Capacity Loss\*:

Storage Temperature	22 °C	55 °C	72 °C	85 °C
Storage Time [Y]				
1	3 %	6 %	10 %	TBD
5	7 %	22 %	40 %	N/A
10	11 %	32 %	N/A	N/A
15	15 %	42 %	N/A	N/A
20	18 %	N/A	N/A	N/A

\* When tested at RT under 50 mA to 2.8 V

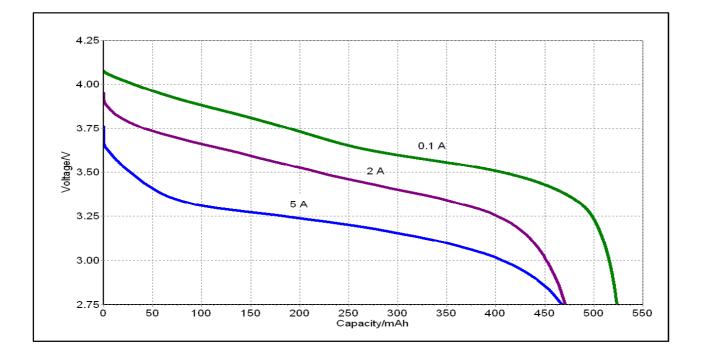
2.5. Cell impedance: Less than 100 mOhm @ 1kHz at room temperature.

### Rev F, Sept 2006 (ECN 6100539)

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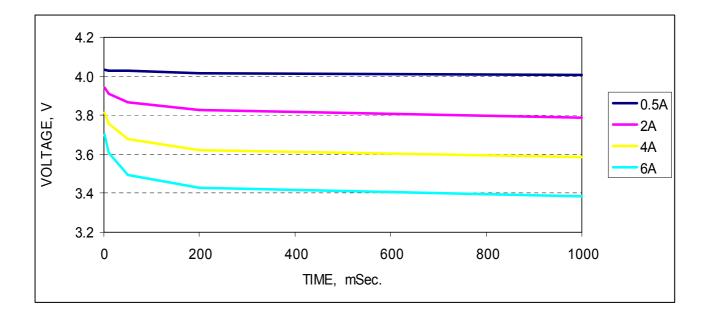


### 2.6. Performance Data:



# Discharge capability at RT

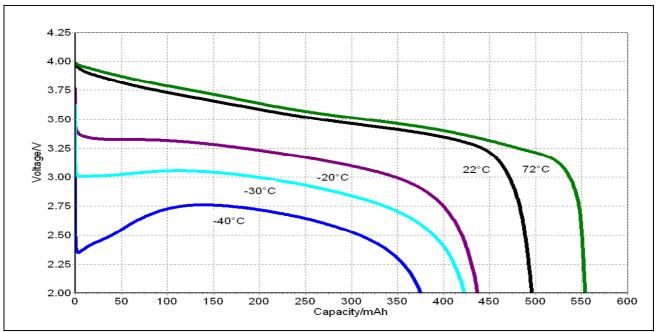
Pulse capability at RT



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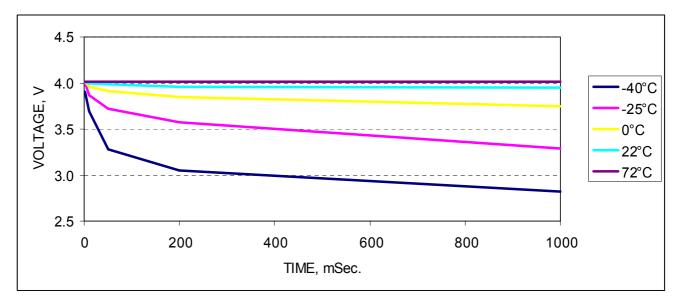
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Discharge capability @ 1A at several temperatures

\* Performance at 85°C is close to that at 72°C

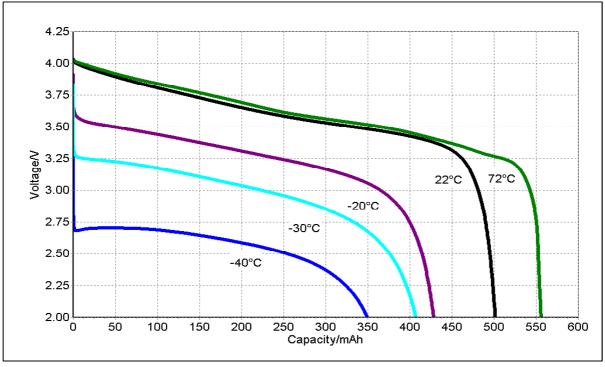


## Pulse capability @ 1A at several temperatures

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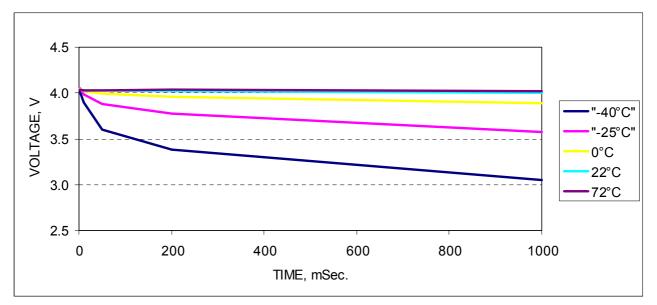




Discharge capability @ 0.5A at several temperatures

\* Performance at 85°C is close to that at 72°C



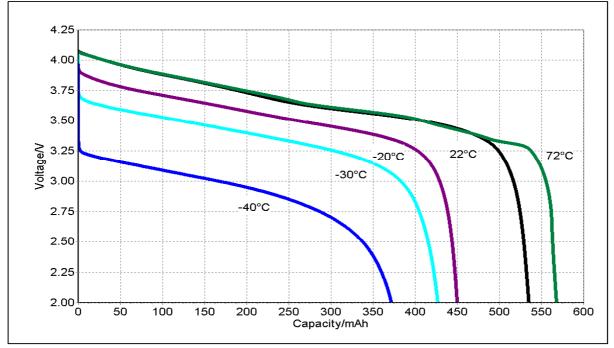


\* Performance at 85°C is close to that at 72°C

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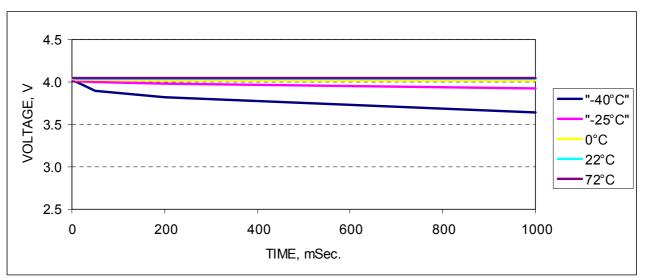
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Discharge capability @ 0.1A at several temperatures

\* Performance at 85°C is close to that at 72°C



# Pulse capability @ 0.1A at several temperatures

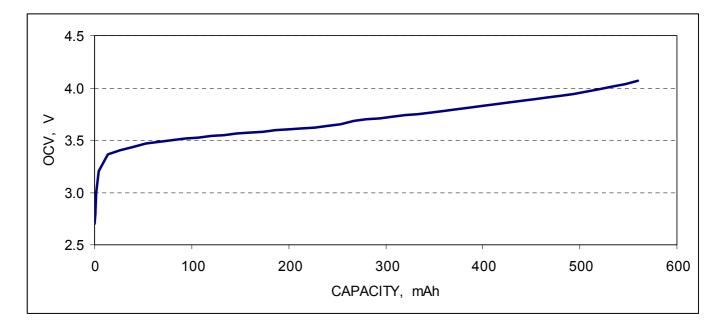
\* Performance at 85°C is close to that at 72°C

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## 2.7. End of life indication:

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



# Capacity vs. OCV

### 2.8. Safety tests:

The cell has succesfuly passed the following safety tests:

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

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