

# 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

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2.1.	1.	Length:	$19.5 \pm 0.5$ mm.				
2.1.	2.	Diameter:	$14.8 \pm 0.2$ mm.				
2.1.	3.	Weight:	9 gr. max.				
2.2. Electrical							
2.2.	1.	Open Circuit (for batteries	3.95 to 4.07 V				
2.2.2	2.2.2. Closed Circuit Voltage (at 0.1 sec) at 0.25 A load		it Voltage (at 0.1 sec) at 0.25 A load	3.78 minimum			
2.2.3. Discharge							
		135 mAh					
		125 mAh					
Maximum discharge current							
		1.25 A					
		3.5 A					
2.3.	Ope	$-40$ $^{0}$ C to 85 $^{0}$ C					

2.4. Accumulated 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 12 mA to 2.8 V

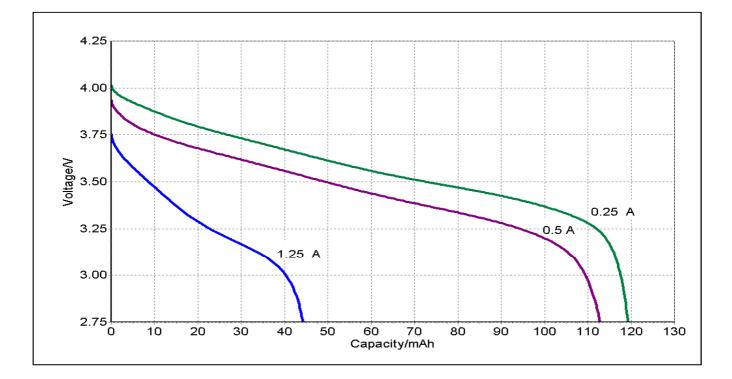
2.5. Cell impedance: Less than 250 mOhm @ 1kHz at room temperature.

#### Rev C , June 2006 (ECN 6100512)

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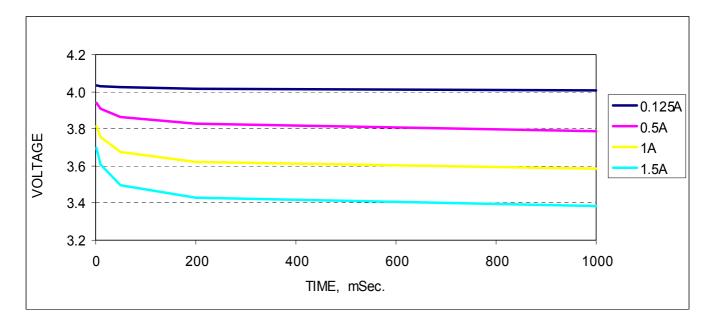


### 2.6. Performance Data:



## Discharge capability at RT

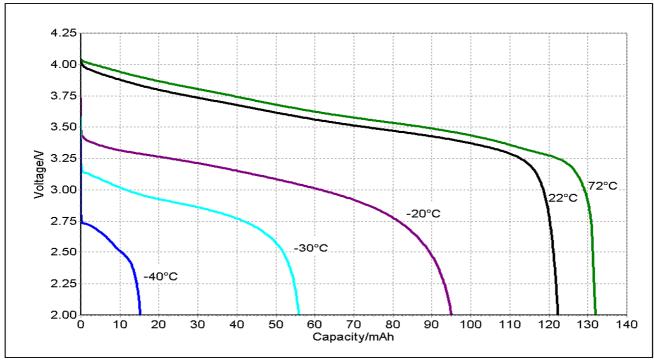
Pulse capability at RT



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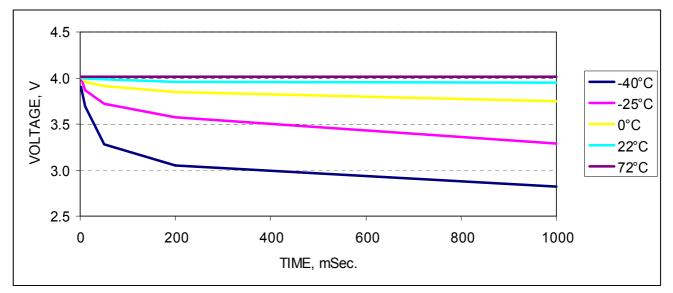




Discharge capability @ 0.25A at several temperatures

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

# Pulse capability @ 0.25A at several temperatures



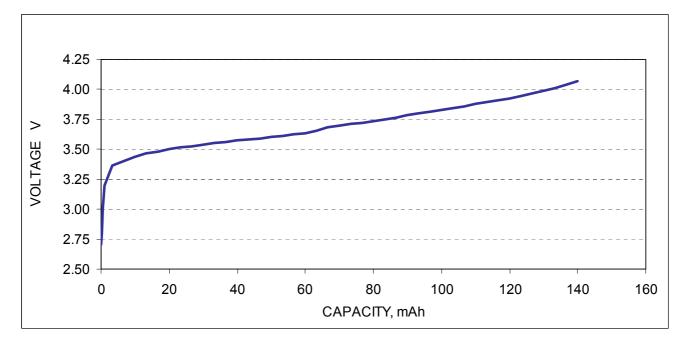
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2.7. End of life indication:

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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