

# Tadiran Medium Power Lithium Organic Cell Model TLM-1530MP

## 1. Scope

This data sheet describes the mechanical design and performance of Tadiran medium power lithium organic cell model TLM-1530MP.

## 2. Characteristics

- 2.1. Physical
  - 2.1.1. Length: 27.4 -1 mm.
  - 2.1.2. Diameter: 14.8 ±0.3 mm.
  - 2.1.3. Weight: 11 gr. max.
- 2.2. Electrical

4.4.	Licettical	
2.2.	<ol> <li>Open Circuit Voltage (for batteries stored at RT for 1 year or less)</li> </ol>	4.02 to 4.07 V
2.2.2	2. Closed Circuit Voltage (at 0.1 sec) at 0.5 A load	3.83 minimum
2.2.	3. Discharge	
	Discharge capacity at 25 mA @ RT to 2.8 V	340 mAh
	Discharge capacity at 250 mA @ RT to 2.8 V	300 mAh
	Maximum discharge current Continuous to 2.8 V: 1 second pulse to 3 V:	2 A 5 A
2.3.	Operating Temperature Range:	$-40$ $^{0}$ C to 85 $^{0}$ C

2.4. Accumulated Capacity Loss\*:

Storage Temperature	22 °C	55 °C	72 °C	85 °C
Storage Time [Y]				
1	2 %	4 %	7 %	TBD
5	5 %	15 %	28 %	N/A
10	7.5 %	22 %	N/A	N/A
15	10 %	29 %	N/A	N/A
20	12.5 %	N/A	N/A	N/A

\* When tested at RT under 25 mA to 2.8 V

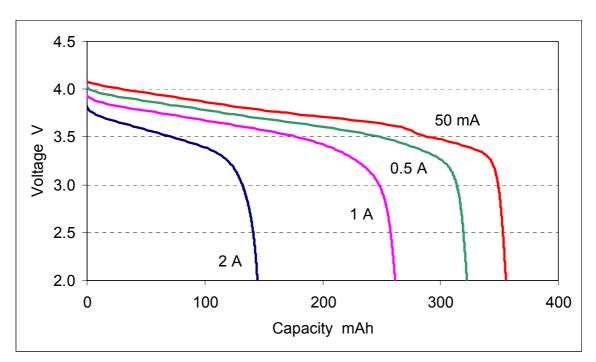
2.5. Cell impedance: Less than 200 mOhm @ 1 kHz at room temperature.

#### Rev. D, Sept 2006 (ECN 6100539)

THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING PERFORMANCE ARE FOR INFORMATION PURPOSES ONLY AND NOT WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF FUTURE PERFORMANCE. TADIRAN'S STANDARD LIMITED WARRANTY, STATED IN ITS SALES CONTRACT OR ORDER CONFIRMATION FORM IS THE ONLY WARRANTY OFFERED BY TADIRAN.

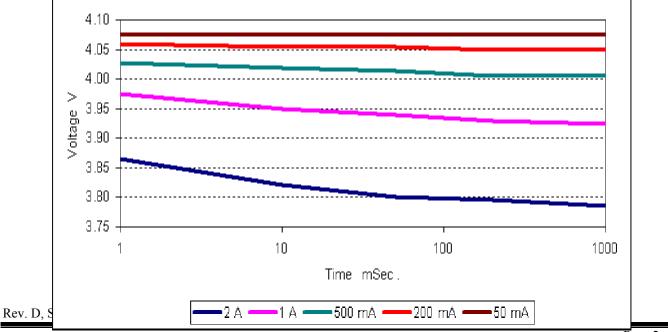


## 2.6 Performance Data:



# Discharge capability at RT

Pulse capability at RT

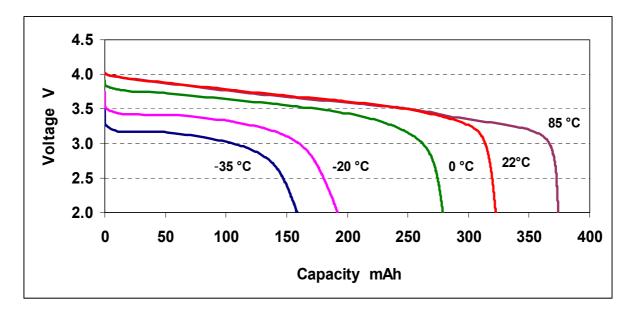


Page 2 of 4

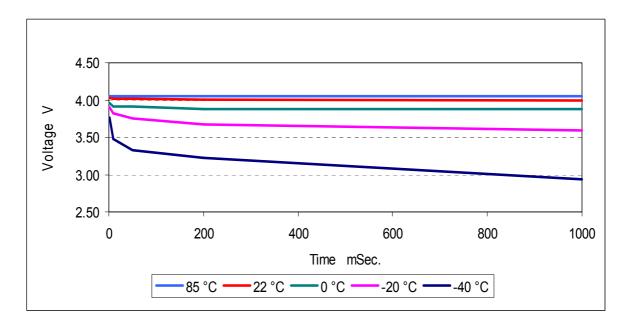
THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING PERFORMANCE ARE FOR INFORMATION PURPOSES ONLY AND NOT WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF FUTURE PERFORMANCE. TADIRAN'S STANDARD LIMITED WARRANTY, STATED IN ITS SALES CONTRACT OR ORDER CONFIRMATION FORM IS THE ONLY WARRANTY OFFERED BY TADIRAN.



Discharge capability @ 0.5 A at several temperatures



# Pulse capability @ 0.5 A at several temperatures



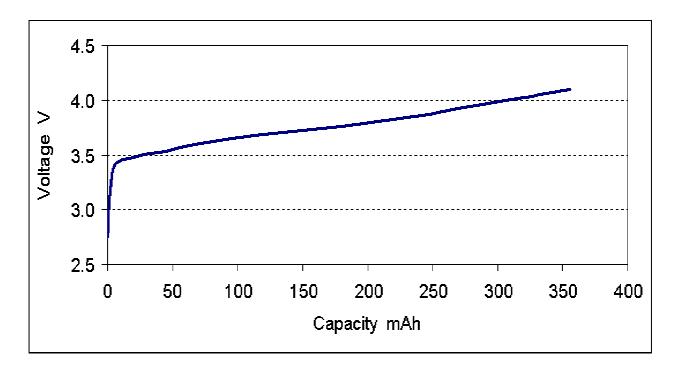
#### Rev. D, Sept 2006 (ECN 6100539)

THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING PERFORMANCE ARE FOR INFORMATION PURPOSES ONLY AND NOT WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF FUTURE PERFORMANCE. TADIRAN'S STANDARD LIMITED WARRANTY, STATED IN ITS SALES CONTRACT OR ORDER CONFIRMATION FORM IS THE ONLY WARRANTY OFFERED BY TADIRAN.



2.7 End of life indication:

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



### 2.6. 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

#### Rev. D, Sept 2006 (ECN 6100539)

THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING PERFORMANCE ARE FOR INFORMATION PURPOSES ONLY AND NOT WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF FUTURE PERFORMANCE. TADIRAN'S STANDARD LIMITED WARRANTY, STATED IN ITS SALES CONTRACT OR ORDER CONFIRMATION FORM IS THE ONLY WARRANTY OFFERED BY TADIRAN.