

# TLM-1520M



## High Power Primary Li Metal Oxide Cell - Military Grade

### Electrical characteristics

(for batteries stored at RT for 1 year or less)

Open circuit voltage	3.95 to 4.07 V
Closed circuit voltage (at 0.1 sec on 0.25 A load)	3.78 V min.
Discharge capacity under 12 mA (at RT to 2.8 V)	120 mAh
Discharge capacity under 125 mA (at RT to 2.8 V)	105 mAh

### Mechanical characteristics

Length	20.0 +0/-1 mm
Diameter	14.8 ± 0.3 mm
Weight	9 g max.

### Operating conditions

Maximum discharge current:	
Continuous to 2.5 V	1 A
Pulse, 1 sec, to 2.6 V	3.5 A
Operating temperature range	-40 °C ÷ +85 °C
Storage temperature range	-55 °C ÷ +85 °C
Cell impedance at RT	< 250 mΩ at 1 kHz

Accumulated capacity loss (when tested at RT @ 12 mA to 2.8 V)

Storage Time (years)	Storage Temperature			
	22 °C	55 °C	72 °C	85 °C
1	3 %	6 %	10 %	N/A
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

### Environmental

### Compliance with military specification

Vibration	MIL-STD 810G	Method 514.6
Shock	MIL-STD 810G	Method 516.6
Temperature Shock	MIL-STD 810G	Method 503.5
Salt fog	MIL-STD 810G	Method 509.5
Altitude	MIL-STD 810G	Method 500.5
Acceleration	50,000 g <sub>n</sub>	
Spinning	30,000 rpm	

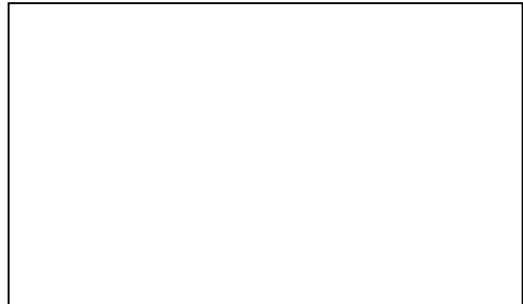
### Safety

### Tested according to:

Short circuit at RT and at +55 °C	UN, IEC
Oven at +150 °C	UL, IEC
Nail penetration	N/A
Over-charge & over-discharge (200 % at currents up to 0.5 A)	UL, UN, IEC
Impact	UL, UN, IEC
Crush	UL, IEC

UN Manual of Tests and Criteria, UL 1642, IEC 60086

**WARNING:**  
Fire, Explosion, And Severe Burn Hazard.  
Do Not Recharge, Crush, Disassemble, Heat Above 100°C, Incinerate Or Short Circuit.



### Technology

- Anode: Carbon based
- Cathode: Multi metal oxides
- Electrolyte: Organic
- Shut down separator

### Key Features

- High power 4 V cell
- Hermetically sealed (glass-to-metal)
- Wide operating temperature range
- Low self discharge
- Long storage life
- High g<sub>n</sub> survivability
- High homogeneity
- End of life indication capability
- High reliability
- Lightweight
- Safe design
- Assembled in custom packs (per request)

### Main Applications

- Ordnance fuzing power source
- Navigation systems
- Missile systems
- Telemetry
- Emergency systems
- Electronic warfare systems

### Ordering Part No.

■ TLM-1520M/S	72142622000
■ TLM-1520M/T	72142622150
■ TLM-1520M/TP	72142632000
■ TLM-1520M/PT2	72142635000

[www.tadiranbatteries.com](http://www.tadiranbatteries.com)

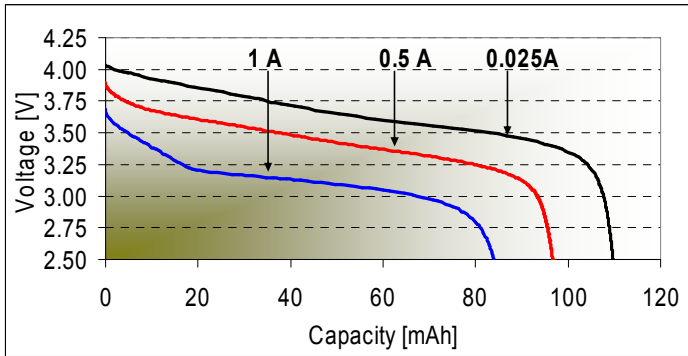
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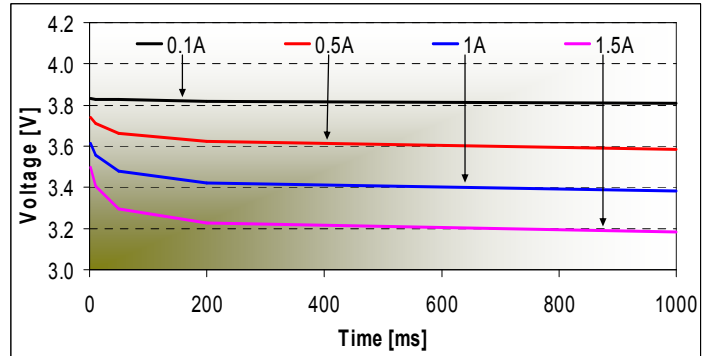


## Performance data

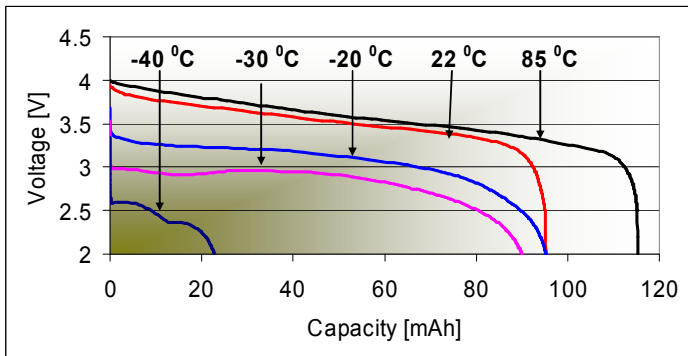
### Discharge capability at RT



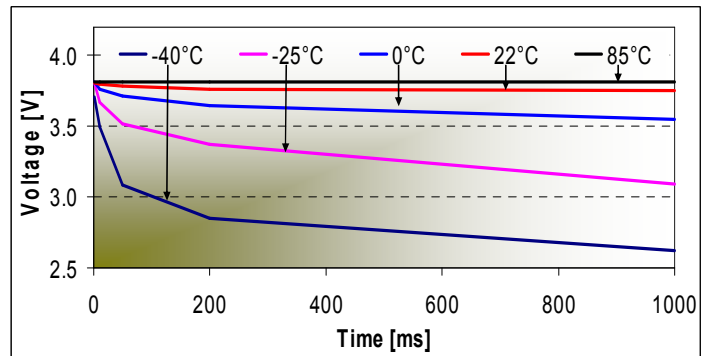
### Pulse capability at RT



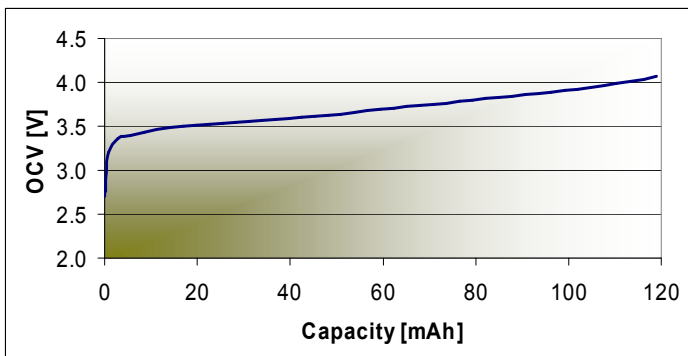
### Discharge capability of 0.25 A at several temperatures



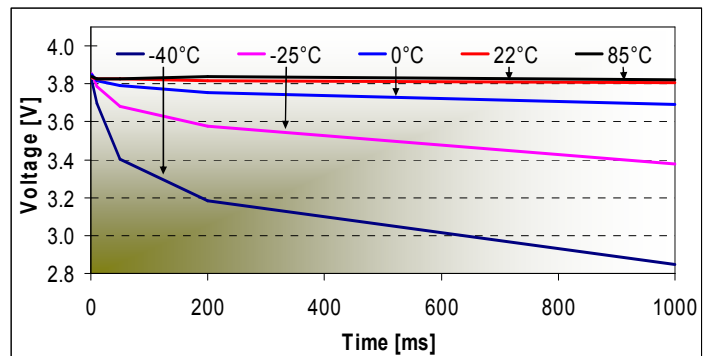
### Pulse capability of 0.25 A at several temperatures



### Capacity vs. OCV



### Pulse capability of 0.125 A at several temperatures



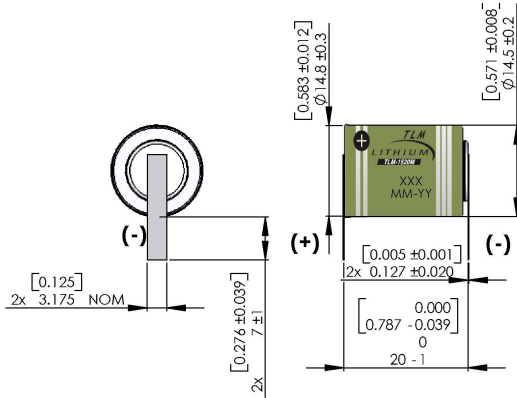
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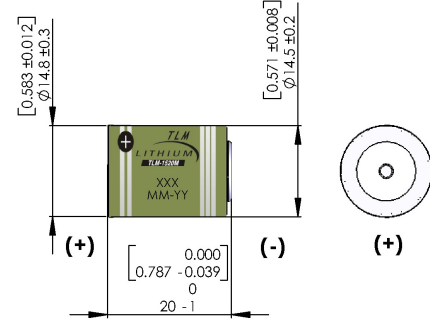


## Lead terminations

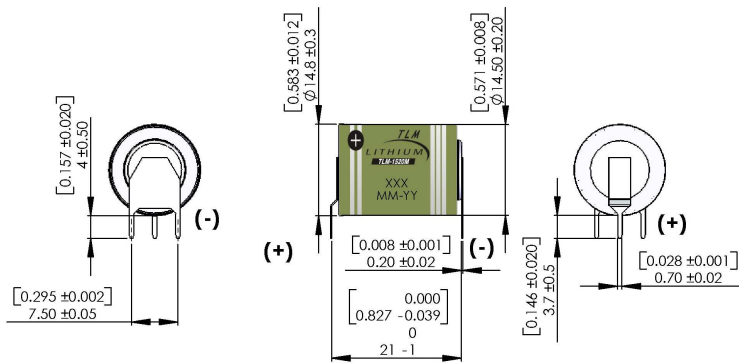
**TLM-1520M/T (Soldering Tabs)**  
Cat. # 72142622150



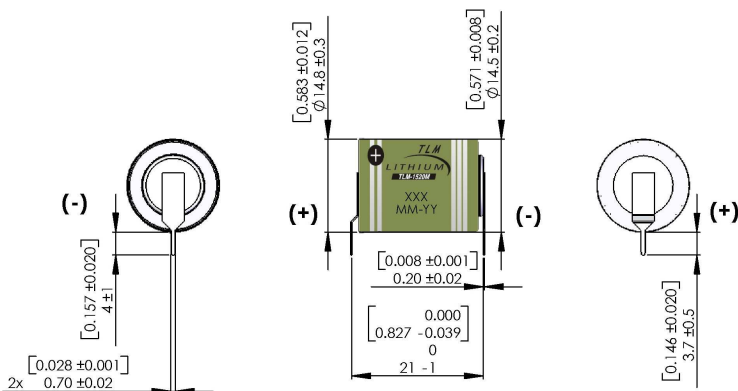
**TLM-1520M/S (Standard Contact)**  
Cat. # 72142622000



**TLM-1520M/TP (PCB Mountable - Polarized)**  
Cat. # 72142632000



**TLM-1520M/PT2 (PCB Mountable)**  
Cat. # 72142635000



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