

TLM-1520M



1/2AA Size High Power Primary Li Metal Oxide Cell - Military Grade

Notice: The application load profile has to be approved by Tadiran.



Physical Characteristics

Length	21 mm. max
Diameter	15.1 mm. max
Weight	9 gr. max

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 0.25A load	3.78V minimum

Discharge

Capacity under 12 mA at RT to 2.8 V	120 mAh
Capacity under 125 mA at RT to 2.8 V	105 mAh

Maximum Discharge Current

Continuous to 2.5 V	1 A
1 second pulse to 2.6 V	3.5 A

Discharge temperature range	-40 to +85 °C
Storage temperature range	-55 to +85 °C
Cell impedance at RT	Less than 250 mΩ at 1 kHz

Accumulated Capacity Loss*

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

* When tested at RT at 12 mA to 2.8 V

Environmental

Compliance with military specifications

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_n (theoretical), 20,000 g_n (tested) (dependent on duration)	
Spinning*	30,000 rpm (dependent on duration)	

* These specifications are subject to testing and confirmation based on application requirements.

Safety Considerations

The cells successfully passed the following tests:

- Short Circuit at RT & +57 °C
- Heating at 130 °C
- Nail penetration
- Overcharge
- Forced Discharge
- Crush
- Impact



Key Features

- High Power 4.0 V
- Hermetically sealed (glass-to-metal)
- Wide operating temperature range
- Low self discharge
- Long storage life
- High g_n 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 P/N

TLM-1520M/S	72-1426-22000
TLM-1520M/T	72-1426-22150
TLM-1520M/TP	72-1426-32000

WARNING:

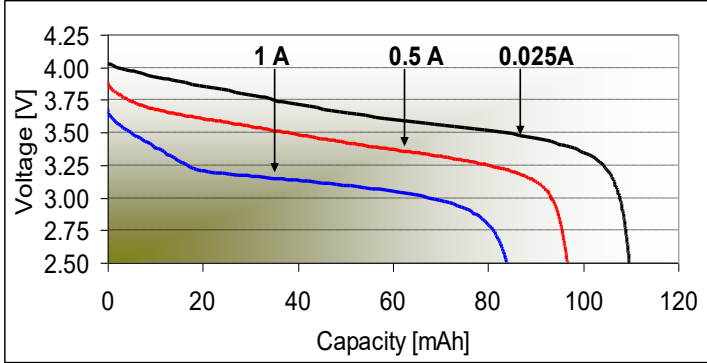
Fire, Explosion, And Severe Burn Hazard.
Do Not Recharge, Crush, Disassemble,
Heat Above 100°C, Short Circuit,
Incinerate or Expose Contents to water.

www.tadiranbatteries.com

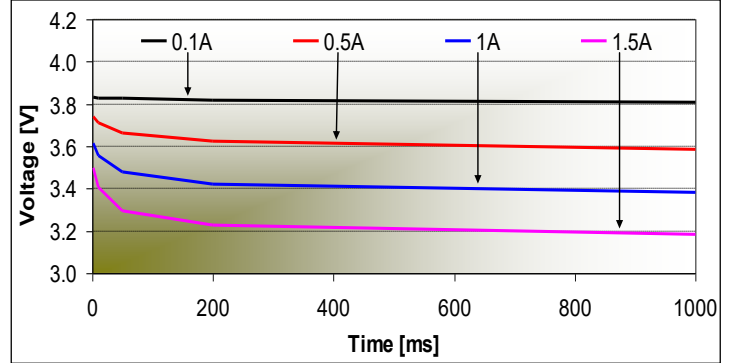
THE INFORMATION PROVIDED HERE IS NECESSARILY OF A GENERAL NATURE. SINCE SPECIFIC PERFORMANCE DEPENDS ON ACTUAL OPERATING AND STORAGE CONDITIONS, OUR ENGINEERS WILL PROVIDE PARTICULAR APPLICATION INSTRUCTIONS UPON REQUEST. DATA SUBJECT TO REVISION WITHOUT NOTICE. ANY REPRESENTATION IN THIS BROCHURE CONCERNING 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.

Performance Data

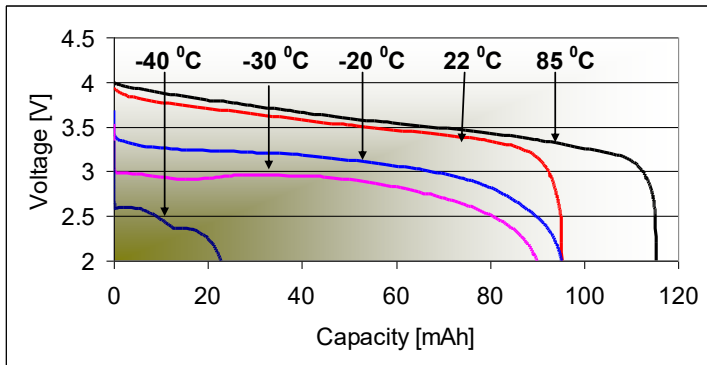
Discharge curves at Room Temperature



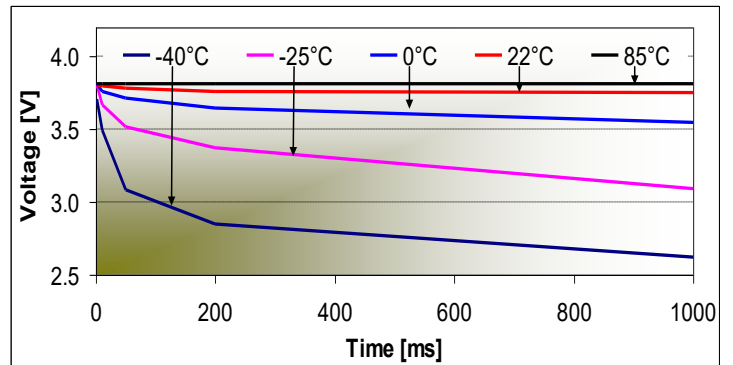
Pulse capability at Room Temperature



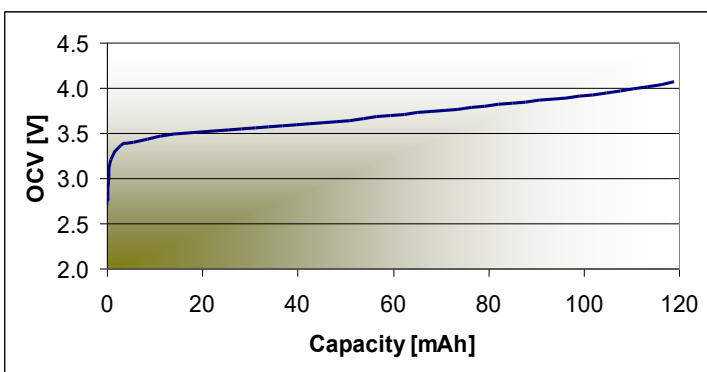
Discharge curves at 0.25 A



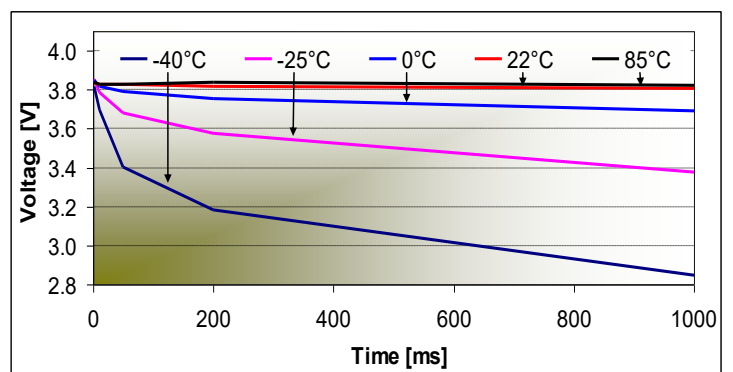
Pulse capability at 0.25 A



Capacity vs. OCV



Pulse capability at 0.125 A



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.