TLM-1530M

TADIRAN BATTERIES

2/3AA Size High Power Primary Li Metal Oxide Cell - Military Grade

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

TLM LITHIUM

Physical Characteristics

Length	27.4 mm. max
Diameter	15.1 mm. max
Weight	12 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 0.5A load	3.83 V minimum
Discharge	
Capacity under 20 mA at RT to 2.8 V	200 mAh
Capacity under 225 mA at RT to 2.8 V	190 mAh
Maximum Discharge Current	
Continuous to 2.5 V	2.5 A
1 second pulse to 2.6 V	6.5 A
Discharge temperature range	-40 to +85 °C
Storage temperature range	-55 to +85 °C
Cell impedance at RT	Less than 175 mΩ at 1 kHz

Accumulated Capacity Loss*

	Storage Temperature			
Storage Time (years)	**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 20 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:	Tested according to:
Short circuit at RT & +57 °C	UN, IEC
Heating at 130 °C	UL, IEC
Forced Discharge	UL, UN, IEC
Crush	UL, IEC
Vibration	UN, IEC
Mechanical shock	UN, IEC

Standards referenced: UN Manual of Tests and Criteria Section 38.3, UL 1642, IEC 60086-4

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-1530M/S	72-1436-22000
TLM-1530M/T	72-1436-22150
TLM-1530M/TP	72-1436-32000

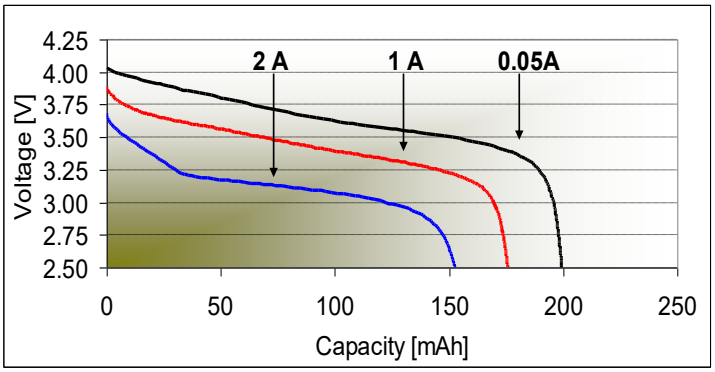
WARNING:

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

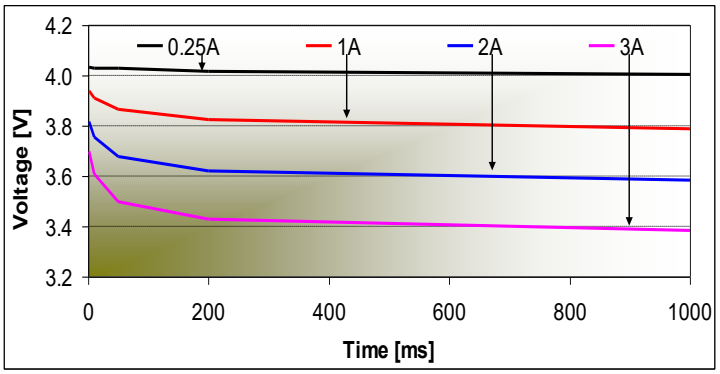
www.tadiranbatteries.com

Performance Data

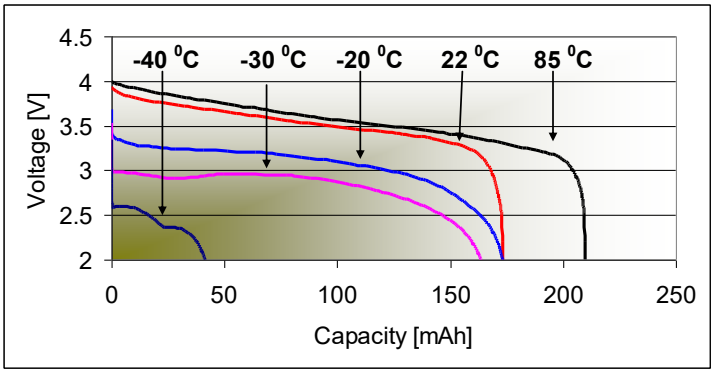
Discharge curves at Room Temperature



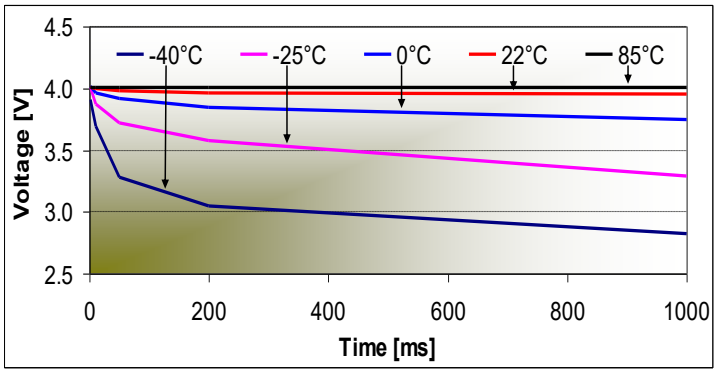
Pulse capability at Room Temperature



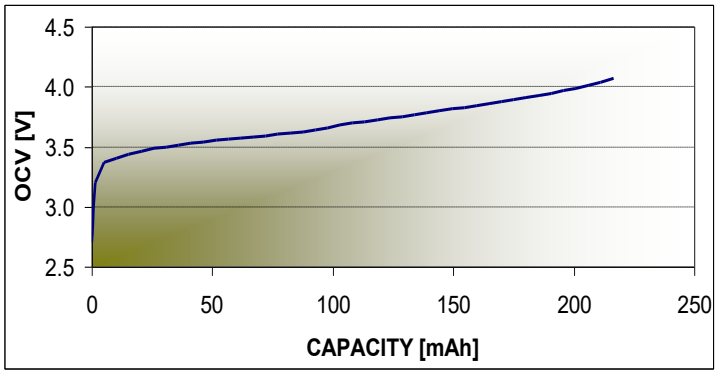
Discharge curves at 0.5 A



Pulse capability at 0.5 A



Capacity vs. OCV



Pulse capability at 0.25 A