

## High Power Primary Li Metal Oxide Cell - Preliminary

### Electrical characteristics

Open circuit voltage	4.02 to 4.07 V
Closed circuit voltage (at 0.1 sec on 0.5 A load)	3.95 V min.
Discharge capacity under 20 mA (at RT to 2.8 V)	1000 mAh
Discharge capacity under 500 mA (at RT to 2.8 V)	820 mAh

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

### Mechanical characteristics

Length (without PTC)	51.0 +0/-1 mm
Diameter	14.8 ± 0.3 mm
Weight	22.5 g max.

### Operating conditions

Maximum discharge current:	
Continuous to 2.5 V	5 A
Pulse, 1 sec, to 2.6 V	15 A
Operating temperature range	-40 °C ÷ +85 °C
Storage temperature range	-55 °C ÷ +85 °C
Cell impedance at RT	< 80 mΩ at 1 kHz

Accumulated capacity loss (when tested at RT @ 20 mA to 2.8 V)

Storage Time (years)	Storage Temperature			
	22 °C	55 °C	72 °C	85 °C
1	5 %	7 %	15 %	N/A
5	7 %	25 %	40 %	N/A
10	10 %	35 %	N/A	N/A
15	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A

### Environmental

### Compliance with military specification

Vibration	UN
Shock	UN
Temperature Shock	TBD
Salt fog	TBD
Altitude	UN
Acceleration	TBD
Spinning	TBD

### Safety

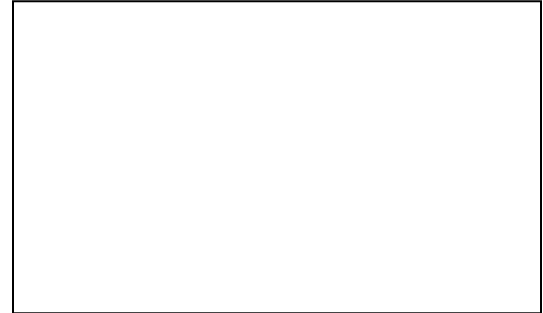
### Tested according to:

Short circuit at RT and at +55 °C	UN, IEC
Oven at +150 °C	UL, IEC
Over-charge (200 % at currents up to 0.5 A)	UL, UN, IEC
Over-discharge (200 % at currents up to 2 A)	UL, UN, IEC
Impact	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 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.

<input checked="" type="checkbox"/> TLM-1550HE/Z2/T*	72155822200
<input checked="" type="checkbox"/> TLM-1550HE/Z2/TP*	72155832200
<input checked="" type="checkbox"/> TLM-1550HE/Z2/PT2*	72155835200

\*Z2 indicates cells with a re-settable fuse (PTC)

### Tadiran Batteries Ltd.

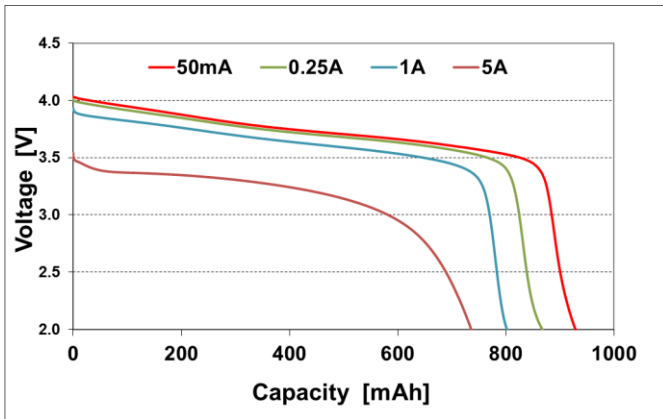
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[www.tadiranbatteries.com](http://www.tadiranbatteries.com)

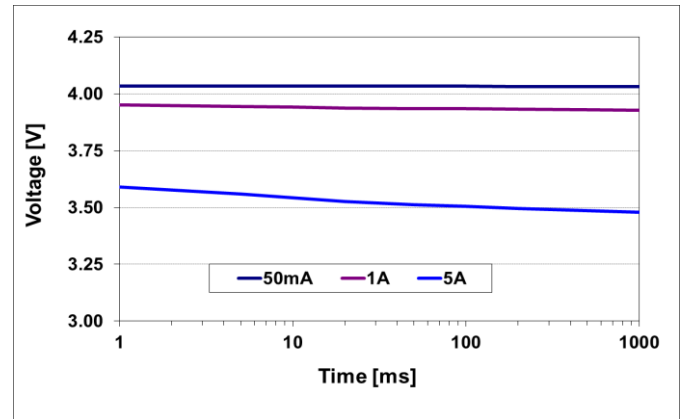
# TLM-1550HE

## Performance data

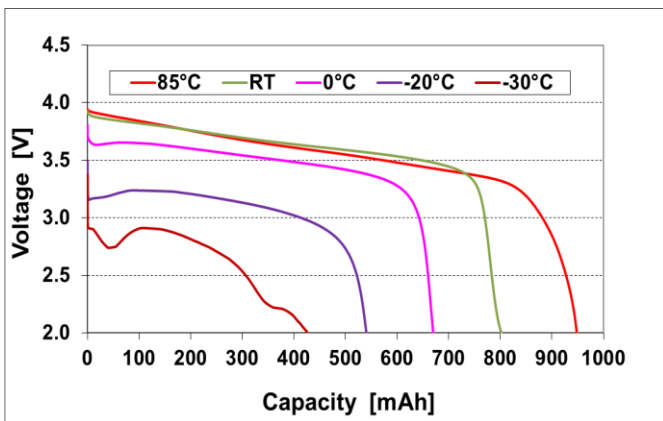
Discharge capability at RT



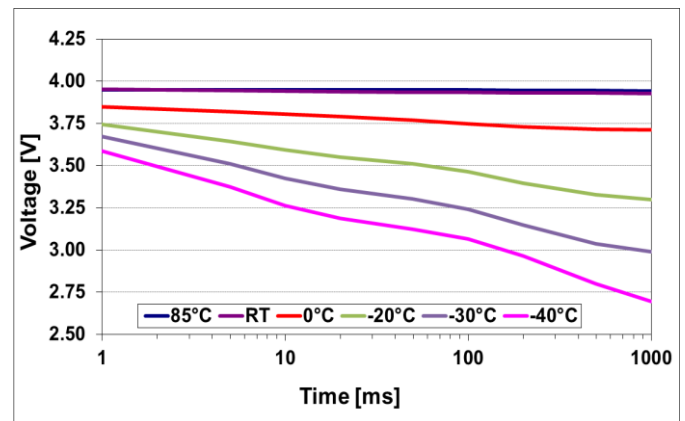
Pulse capability at RT



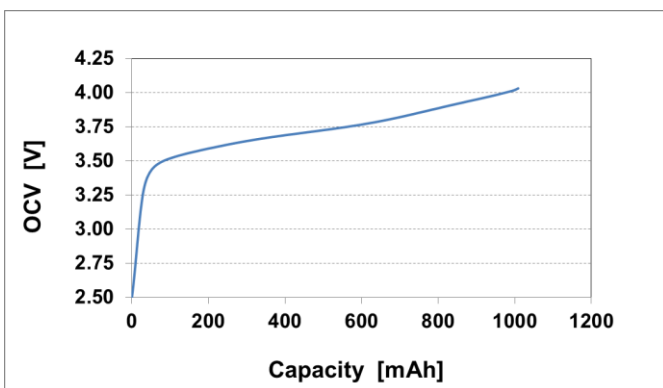
Discharge capability of 1 A at several temperatures



Pulse capability of 1 A at several temperatures



Capacity vs. OCV



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