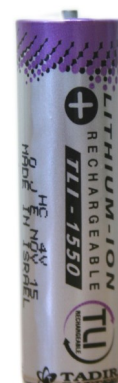


# Extended High Capacity TLI-1550S



## AA Size Lithium Ion Rechargeable Battery

**Notice: Charging circuit and application load profile have to be approved by Tadiran prior to the use of this cell.**



### Physical Characteristics

Length	53 mm. Max
Diameter	15.1 mm Max
Weight	18.8 gr. Max

### Electrical Characteristics (for batteries stored at RT for 1 year or less)

#### Charge

Max, Charge Voltage	4.1 V
Charge Method	CCCV (Constant Current/Constant Voltage)
Max Charge Current @ -20 to +50 °C	100 mA
Max Charge Current @ -40 to +85 °C	20 mA
Charge / Discharge operating temp.	-40 to +85 °C

#### Discharge

Max. Continuous Discharge Current	4.0 A @ 20 °C (without PTC)
Maximum Pulse to 3.4V	6.0 A 1sec
End of Discharge	2.2 V @ RT. (discharge below 2.2 V at 20 °C may increase the cell internal impedance)

### Performance

Item	Value	Conditions
Maximum Capacity when charged to 4.1 V	1000 mAh	Discharge at 50 mA to 2.5 V at 20 °C
	900 mAh	Discharge at 1 A to 2.5 V at 20 °C
Charge / Discharge Cycles	240	@ RT 100% DOD (C/4)
	332	@ RT 85% DOD (C/4)
Capacity Retention after the last cycle (reversible)	80 %	Discharge at 250 mA at 20 °C
Capacity Retention after 5 years (reversible)	91 %	Discharge at 250 mA at 20 °C
Impedance (RT)	< 100 mΩ	Impedance at 1 KHz

### Physical Cell / Battery Protection (to be applied by the user)

Item	Specification
Over charge protection	Cell voltage should not be higher than 4.2 V
Over discharge protection	Cell voltage should not be lower than 2.4 V

### Battery pack assembly and usage considerations

- For 2 cells or more in series, voltage shall be monitored on each cell.
- For more than 2 cells in parallel, maximum charge current shall be limited to 250 mA for the whole pack.

### Safety Considerations

The cells successfully passed the following tests:

Shock & Vibration	UN	<i>UN Manual of Tests &amp; Criteria</i>
Short Circuit at RT, +55 °C	UN	
Heating at 130 °C		
Over Charge	UN	
Forced Discharge	UN	
Crush & Impact	UN	

#### WARNING:

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

### Key Features

- Hermetically sealed (glass-to-metal)
- Wide operating temperature range
- Low self discharge
- High output current
- High reliability
- Safe design
- Lightweight

### Main Applications

- Energy Harvesting
- Wireless Sensors
- BUB in Metering
- Asset, Container & Cargo Tracking
- Parking Meters
- Electrical Grid Monitoring
- Emergency & Medical Devices
- Automotive
- Industrial and Agricultural IOT

### Ordering P/N:

TLI-1550S/S

61-1559-22000

TLI-1550S/T

61-1559-22150

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

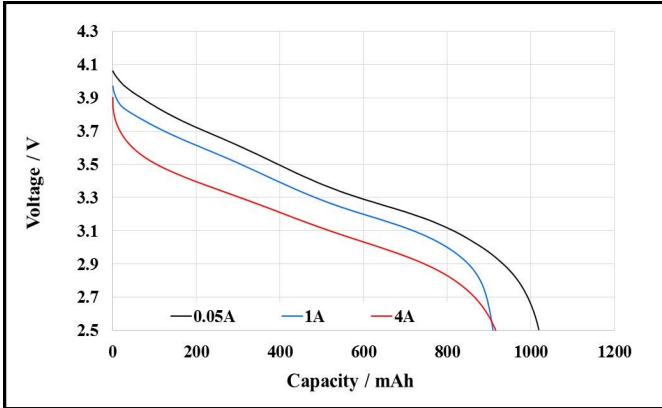
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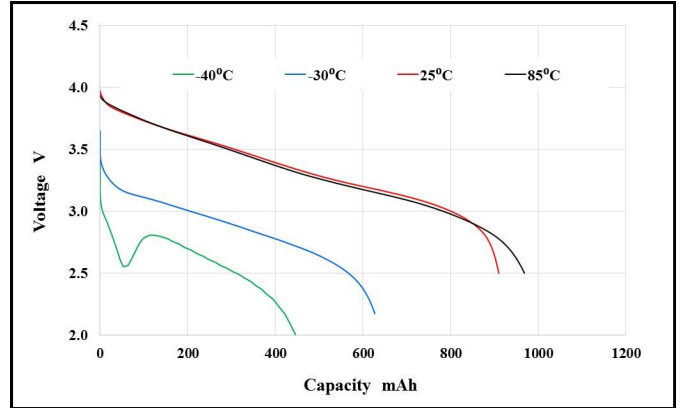


## Performance Data

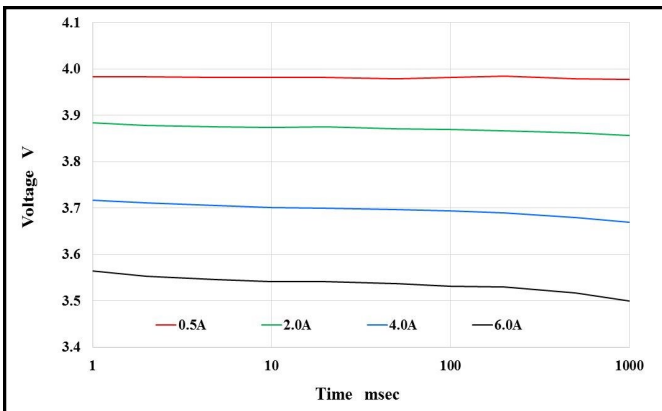
Discharge curves at 20 °C



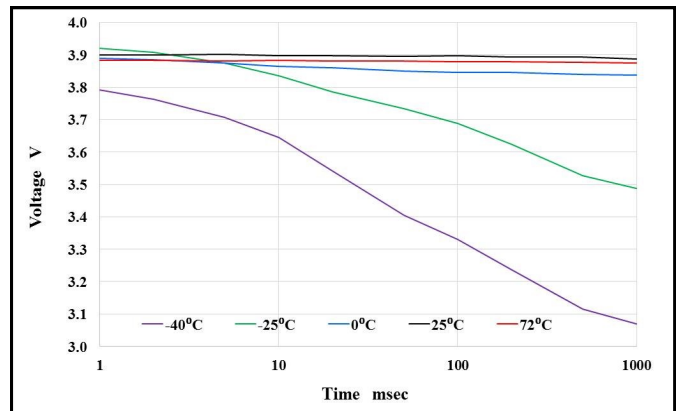
Discharge curves @ 1 A



Pulse Capability at RT

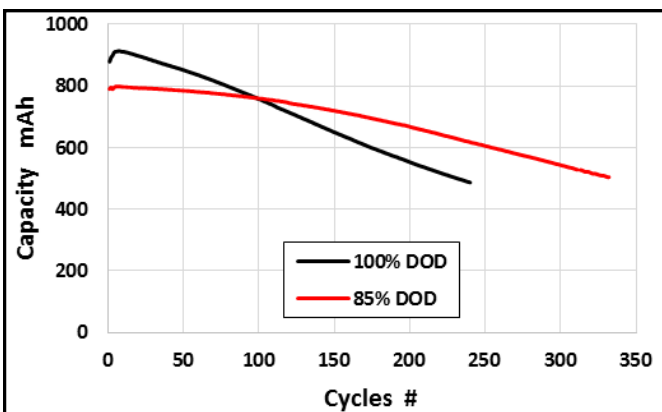


1 Sec. Pulse Capability at 1 A



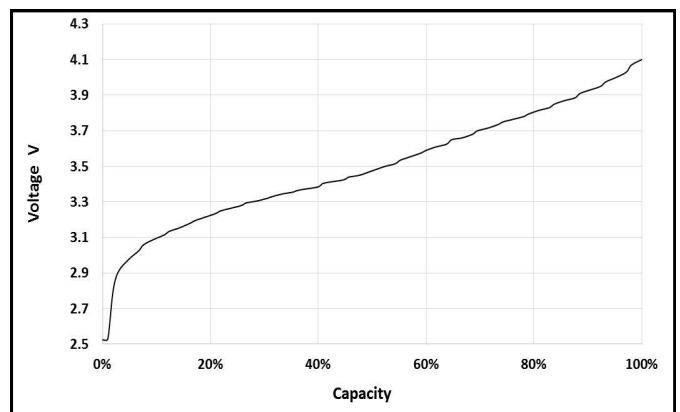
Charge/Discharge Cycling Performance RT

(100 mA to 4.1 V(EOC 20 mA; Discharge 250 mA to 2.5 V)



Open Circuit Voltage Vs. Capacity

(100 % capacity = 1000 mAh at 50 mA discharge to 2.5 V)



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