

Heat-Resistant Energy, Crafted for Durability in Rugged Environment



HL14500R

Extreme Temperature Range

-40°C to 85°C

Operates from -40°C to 85°C with stable output, perfect for harsh environments.

Low-Temperature Performance

Delivers 3.9V/6W at -20°C , even after high-temperature storage.

Long Endurance Life at High Temperature

Retain 75% capacity after 1C/2C 500cycles at 60°C

Retains over 90% capacity and 3.80V OCV after 48 days at 80°C for reliable performance.

90%

Retains over 90% capacity after 500 cycles, ensuring long-term reliability.

500

Cycles

Supports 5C continuous discharge, meeting high-power application needs.

5_c



Product Specifications

HL14500R



Dimension

Diameter	14.2±0.2mm	Height	48.9 ± 0.3 mm
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Capacity

Min capacity (0.2C)	700 mAh	Typical capacity (0.2C)	750 mAh
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Voltage and current

Nominal voltage	3.60V	Working voltage	2.75V-4.20V
Max charge / discharge current	0.7A / 3.5A		

Working temperature

Charge	-20~60℃	Discharge	-40~85℃
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Other

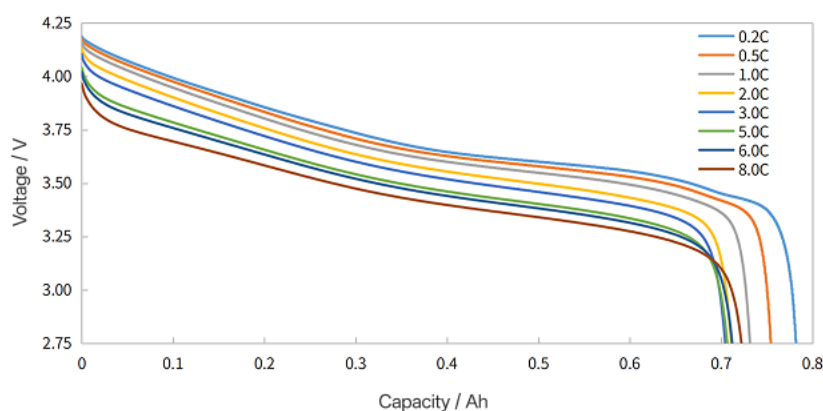
Cycle life	> 500	-40℃ capacity (0.2C)	≈ 60%
Recovery capacity after 30 days 80℃ aging	> 90%		

Explore HL14500R Performance Insights

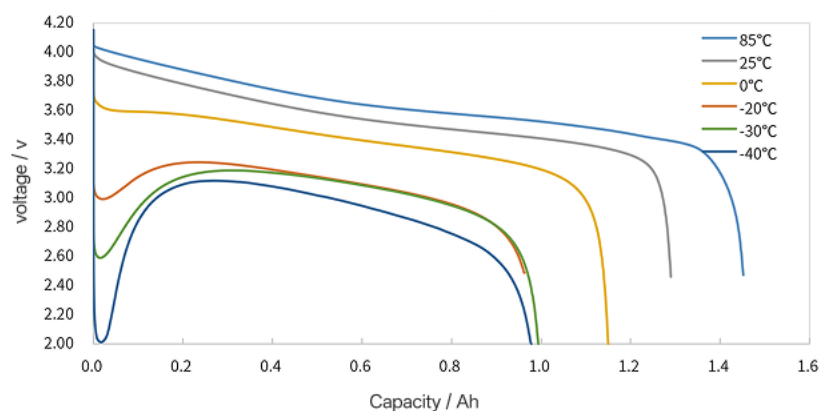
Defy Temperature Limits:
Consistent Power Anywhere.



Rate discharge

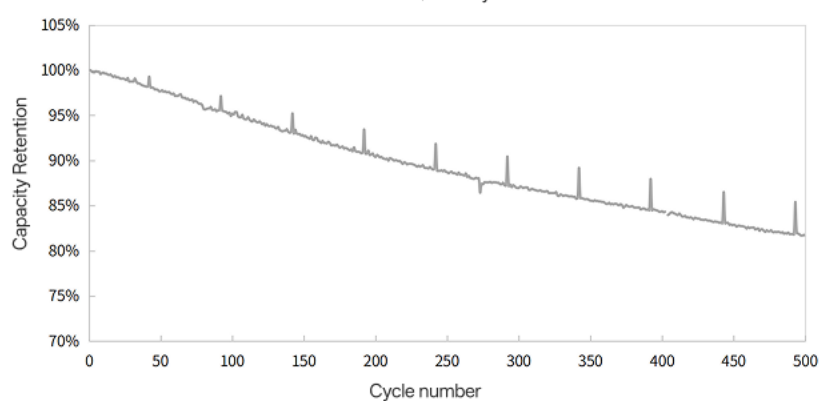


Discharge at different temperature



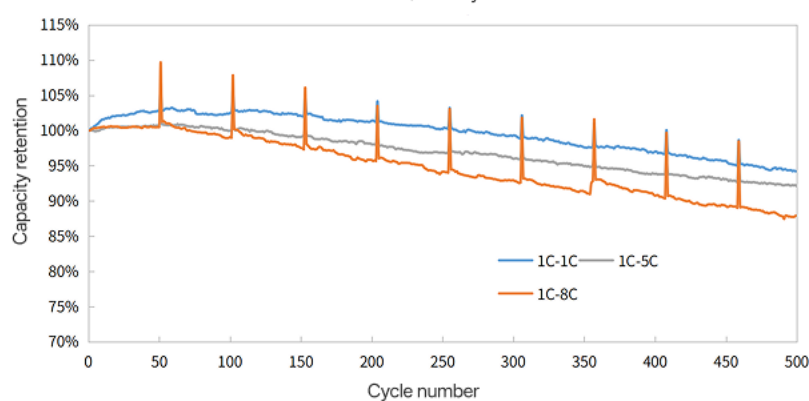
Cycle at high temperature

60°C 0.5C/1.0C Cycle



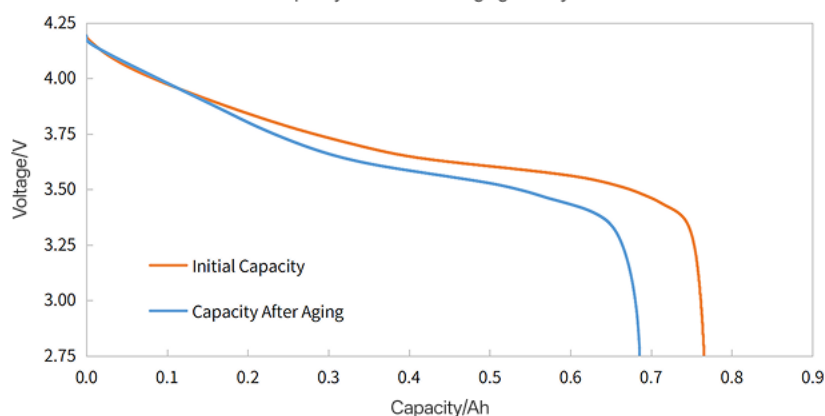
Cycle at room temperature

RT 0.5C/1.0C Cycle



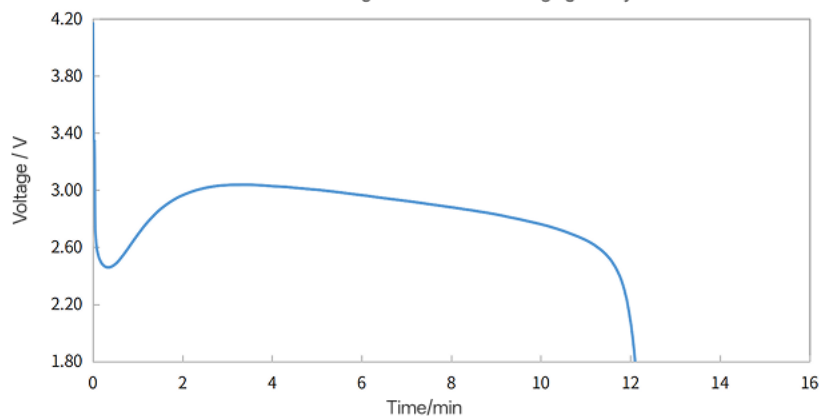
85°C&4.1V aging

Capacity---85°C & 4.1V aging 42Days

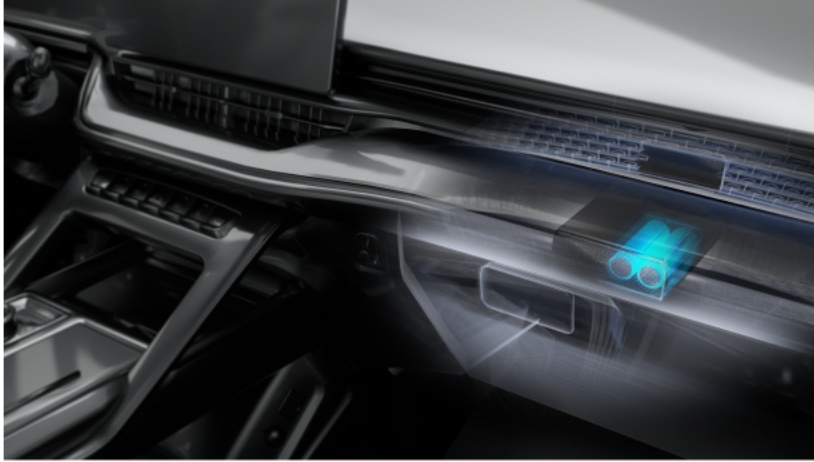


85°C&4.1V aging

-20°C&6W Discharge after 85°C & 4.1V aging 42Days



What we're enabling with HL14500R



Reliable Power for Automotive T-Box

Automotive T-box systems require stable power in extreme temperatures and under vibrations. The HL14500R battery ensures seamless connectivity and efficient operation in the toughest conditions.

Optimized Power for GPS Tracking

Logistics GPS trackers require stable power for precise tracking in harsh environments. The 14500R battery supports continuous operation to optimize fleet management and delivery efficiency.



Compact Power for Demanding Outdoor Instruments

The HL14500R cell is designed for outdoor measurement devices requiring a compact form, wide temperature tolerance, and dependable performance. With excellent heat resistance, low-temperature operability, and top-tier safety, it's the ideal power solution for extreme environments.



Automotive
Electronics



Security &
Monitoring



Medical
Devices



Industrial
Handhelds



Outdoor
Instruments



Mineral
Exploration



Smart Logistics
Equipment

UltraXel Limited

UltraXel specializes in wide-temperature lithium-ion cells, provides innovative energy solutions for extreme environments to enhance product performance while powering diverse applications.



26

Years
Battery Expertise

50+

Countries
Global Reach

38

Invention Patents

6

 Lines

Of Automated Production

100+

International Trusted Partnerships

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