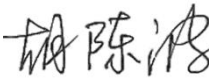


PRODUCT
SPECIFICATION
产品规格书

Type Designation:	LR6(AA) Hi-Tech Z
电池型号:	
Prepared by:	
编制:	
Checked by:	
审核:	
Approved by:	
批准:	
Issued Date:	2026-01-28
发布日期:	

PRODUCT SPECIFICATION 产品规格书			
Product 产品	Alkaline Zinc Manganese Dioxide battery; 1.5Volts 碱性锌-二氧化锰电池, 1.5V	Page 页码	1 of 6
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LR6(Hi-Tech Z) battery specification 电池规格书

1.Type designation 电池型号: IEC: LR6

JIS: AM3

ANSI: 15A

2.Chemical system 电池化学体系:

Electrolyte-zinc-manganese dioxide (mercury & cadmium free)

碱性电解液-锌-二氧化锰（无汞无镉）

3.Dimension 尺寸: Diameter 电池直径: 13.7-14.5mm

Height 电池高度: 49.5-50.5mm

4.Nominal voltage 标称电压: 1.5Volts

5.Nominal weight 标称重量:

The weight of each battery is approximately 每只电池的重量大约是: **23.0±0.5g**

6. Reference standard 参考标准:

IEC60086-1:2021——Primary batteries-part 1: General

IEC60086-2:2021——Primary batteries-part 2: Physical and electrical specifications

IEC60086-5:2021——Primary batteries-part 5: Safety of batteries with aqueous electrolyte

ANSI C18.1M,Part 1-2021 Portable primary Cells and Batteries with Aqueous Electrolyte---General and Specifications

ANSI C18.1M,Part 1-2019 Portable primary Cells and Batteries with Aqueous Electrolyte---Safety Standard

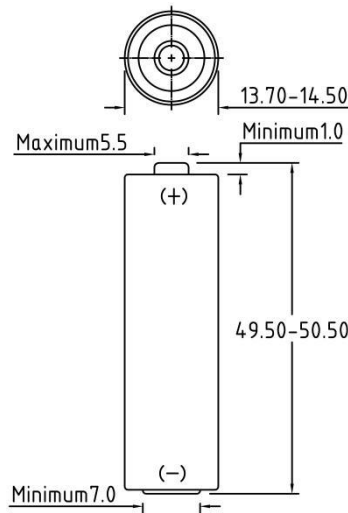
7.Heavy Metal content 重金属含量 (%):

Mercury 汞: ≤1ppm; Cadmium 镉: ≤10ppm ; Lead 铅: ≤40ppm

8.Appearance and terminal 电池外观和极端:

Battery shall be clean and have no dirt, no leakage, and no deformation which may affect their performance and actual use and shall have clearly visible markings.

电池外观干净整洁，无脏物、无漏液、无变形以影响电池的性能和实际使用，标志清晰。



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9.Battery capacity 放电容量: (Test environment 测试环境: 20±2°C, 55+20/-40%RH)

(Load resistance:**10mA**, Daily period:**24h/d**, Cut off voltage:**0.8V**; According to as the above the same discharge condition, the capacity of each battery is approximately:**3100mAh**)

(放电负载: **10mA**, 放电方式: **24h/d**, 终止电压: **0.8V**; 电池的容量大约是: **3100mAh**)

10.Storage characteristics 贮存性能:

After 12 months storage at 20°C±5°C,55+20/-40%RH, 90% capacitance of fresh cells.

20°C±5°C,55+20/-40%RH 条件下贮存 12 个月后, 电池的容量是新电容量的 90%。

After 24 months storage at 20°C±5°C,55+20/-40%RH, 85% capacitance of fresh cells.

20°C±5°C,55+20/-40%RH 条件下贮存 24 个月后, 电池的容量是新电容量的 85%。

11.Electrical characteristics 电气特性: (Load resistance **3.9Ω**, **0.3S** 负载电阻 **3.9Ω**, **0.3 秒**)

I		OCV (V) 开路电压	CCV(V) 闭路电压	SCC (A)(reference) 短路电流 (参考)
Initial 初始	Normal	1.62	1.46	8
	Min	1.58	1.4	6
Stored 1 year 储存一年	Normal	1.58	1.4	6
	Min	1.55	1.37	4

Remark1: OCV: Open Circuit Voltage 开路电压;CCV: closed circuit voltage 闭路电压;

SCC: Short Circuit Current 短路电流.

Remark2: Test environment:20±2°C, 55+20/-40%RH;测试环境: 20±2°C,相对湿度 55+20/-40%

Remark3: All samples shall be normalized for a minimum of 8 hours at the above environment prior to measurement. 测试前, 应在上述环境放置至少 8 小时。

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12.Discharge test (service life)放电性能:

Applications 应用	Load 负载	Daily Period 放电方式	Cut off Voltage 截止电压	Normal (Initial) 典型值	MAD(Initial) 初始 最小平均值
/	3.9Ω	24 h/d	0.8V	420min	≥ 390min
High drain application 高功率应用	1.5W/0.65W	2s/28s,5m/h,24h/d	1.05V	130pulses	≥ 110pulses
Motor/Toy 电动机/玩具	3.9Ω	1h/d	0.8V	8.3h	≥ 8.0h
Toy,non-motorized 玩具(非机动)	250mA	1h/d	0.9V	8.7h	≥ 8.3h
Portable lighting(LED) 手电筒(LED)	3.9Ω	4min/h,8h/d	0.9V	470min	≥ 450min
Radio/Clock/Remote Control 收音机/时钟/遥控	50mA	1h/8h,24h/d	1.0V	51.5h	≥ 50.0h
CD,digital audio,wireless gaming and accessories CD/电子游戏机/数码录音机	100mA	1h/d	0.9V	25.5h	≥ 24.0h
Photo flash 照相闪光灯	1000mA	10s/m,1h/d	0.9V	500pulses	≥ 480pulses
Personal grooming 个人护理	750mA	2m/h,8h/d	1.1V	70min	≥ 60min
High-rate toy 高速玩具	1Ω/3Ω	0.25s/19.75s, 10m/h,12h/d	1.0V	2.80h	≥ 2.60h
Wireless gaming 无线游戏	450mW/45mW	5s/175s,3h/12h,24h/d	1.1V	42.0h	≥ 40.0h

Remark1: Test environment:20±2℃, 55+20/-40%RH

测试环境: 20±2℃,相对湿度 55+20/-40%RH

Remark2: A normal value represents the mean derived from long-term repeated testing. MAD value stands for Minimum Average Discharge Time.

Normal 值为长期多次测试的平均值, MAD 值为最小平均放电时间.

Remark3: The initial discharge test shall commence within 60 days of manufacture.

初始放电测试在电池生产后 60 天内进行;

Remark4: Test quantity: n=8pcs (for per discharge test).

检测数量 n=8 节 (每一种放电检测)。

13.Leakage-proof structure 防漏性能:

13.1 The sealing location of the battery is provided with double beading scores to make the structure tighter.使用二次刻线封口技术, 保证封口结构更加紧密;

13.2 Using special nylon sealing ring, with more reliable leakage-proof performance.
使用特种尼龙密封圈, 保证更好的防漏液性能。

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14.Safety test (Test environment: 20±2°C,55%±20%R.H)

安全测试（测试环境：20±2℃,相对湿度 55%±20%）

Test item 测试项目	Test method 测试方法	Quantity 数量	Requirements 测试要求
Storage after partial use 部分使用（部分放电）后贮存	See IEC 60086-5 Edition 5.0 6.3.2.1 Test A - Storage after partial use 具体测试方法见 IEC 60086-5（版本 5.0） 6.3.2.1 测试 A-部分使用（部分放电）后贮存	5	No leakage 不泄露 No fire 不着火 No explosion 不爆炸
Transportation-shock 运输-冲击	See IEC 60086-5 Edition 5.0 6.3.2.2 Test B-1 - Transportation-shock 具体测试方法见 IEC 60086-5（版本 5.0） 6.3.2.2 测试 B-1-运输-冲击	5	No leakage 不泄露 No fire 不着火 No explosion 不爆炸
Transportation-vibration 运输-振动	See IEC 60086-5 Edition 5.0 6.3.2.3 Test B-2 - Transportation-vibration 具体测试方法见 IEC 60086-5（版本 5.0） 6.3.2.3 测试 B-2-运输-振动	5	No leakage 不泄露 No fire 不着火 No explosion 不爆炸
Climatic-temperature cycling 气候-温度循环	See IEC 60086-5 Edition 5.0 6.3.2.4 Test C - Climatic-temperature cycling 具体测试方法见 IEC 60086-5（版本 5.0） 6.3.2.4 测试 C-气候-温度循环	5	No fire 不着火 No explosion 不爆炸
Incorrect installation 不正确的安装	See IEC 60086-5 Edition 5.0 6.4.2.1 Test D - Incorrect installation(four batteries in series) 具体测试方法见 IEC 60086-5（版本 5.0） 6.4.2.1 测试 D-不正确的安装（四节电池串联）	20	No fire 不着火 No explosion 不爆炸
External short circuit 外部短路	See IEC 60086-5 Edition 5.0 6.4.2.2 Test E - External short circuit 具体测试方法见 IEC 60086-5（版本 5.0） 6.4.2.2 测试 E-外部短路	5	No fire 不着火 No explosion 不爆炸
Overdischarge 过放电	See IEC 60086-5 Edition 5.0 6.4.2.3 Test F - Overdischarge 具体测试方法见 IEC 60086-5（版本 5.0） 6.4.2.3 测试 F-过放电	20	No fire 不着火 No explosion 不爆炸
Free fall test 自由跌落	See IEC 60086-5 Edition 5.0 6.4.2.4 Test G - Free fall test 具体测试方法见 IEC 60086-5（版本 5.0） 6.4.2.4 测试 G-自由跌落	5	No fire 不着火 No explosion 不爆炸

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15.Expiry period: 5 years 有效期：5 年

16.Expiry period marking 有效期表示方法:

16.1 Expiry date marked on the bottom plate of finished battery .

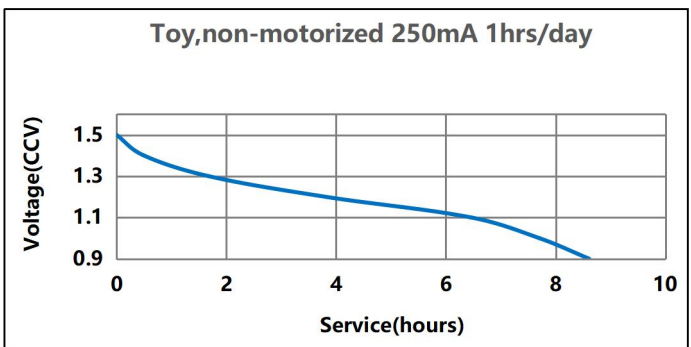
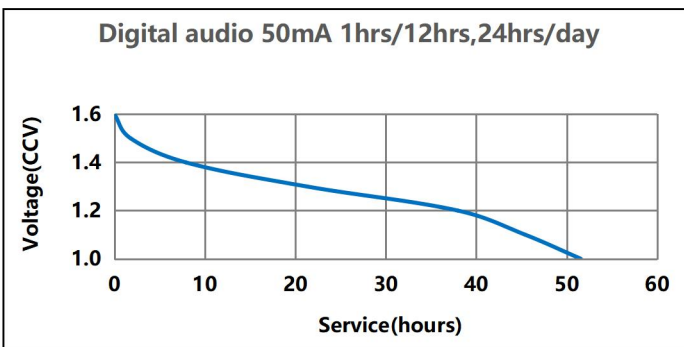
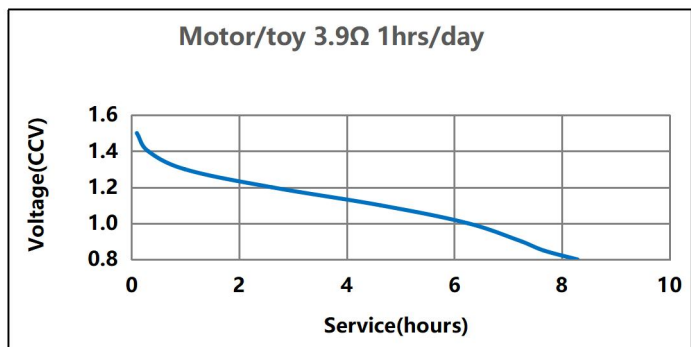
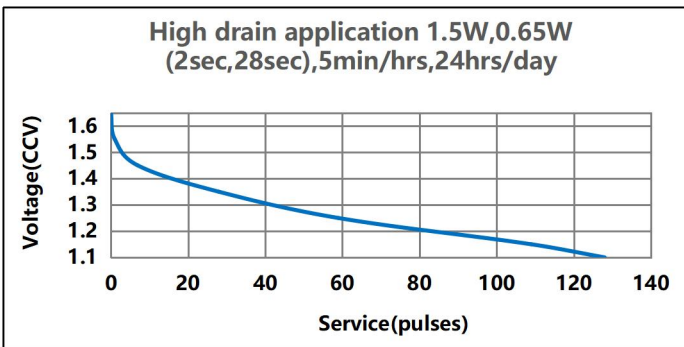
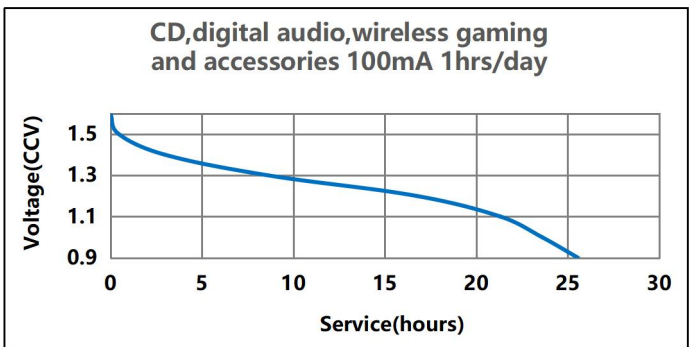
For example:“2032-08” means the expiry date is August 2032.

有效期标在电池的底部：如“2032-08”表示电池的有效期至 2032 年 8 月。

16.2 For private label, can mark according to customer’s requirement.

做 OEM 定牌电池时，可以根据客户的要求进行标示。

17.Discharge curve 放电曲线:



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Portable lighting 3.9Ω 4min/hrs,8hrs/day

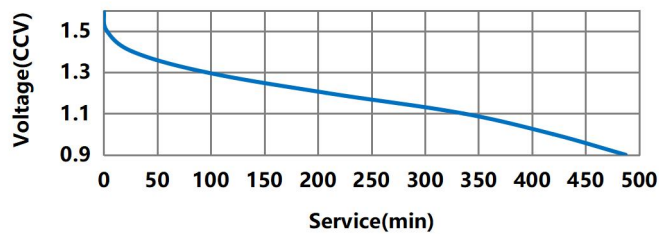
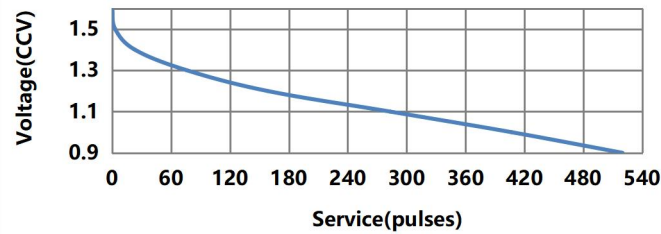
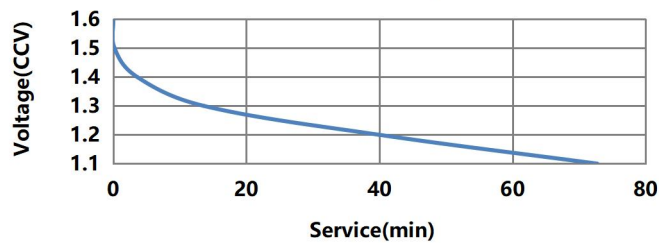


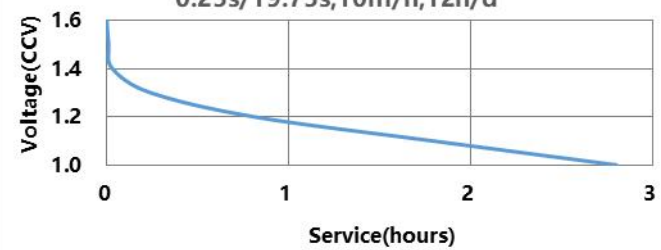
Photo flash 1000mA 10sec/mim,1hrs/day



Personal grooming 750mA
2min/hrs,8hrs/day



High-rate toy 1Ω/3Ω
0.25s/19.75s,10m/h,12h/d



Wireless gaming 450mW/45mW
5s/175s,3h/12h,24h/d

