

Safer, more stable, more durable

# Catalogue

- 1. Main Products
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- 3. Key Features
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## 1. Main Products

- Rechargeable Li-ion Coin Cells
- Primary Coin Cells CR/SR
- Primary Cylindrical battery
- Li-Polymer Batteries
- Li-ion Cylindrical Batteries
- Custom Battery Pack
- Smart Battery Pack

# 2.1 Applications — Medical device

- CGM
- Glucose Monitoring
- Insulin Pumps
- Insulin Pen
- Auto Injector
- Smart Pill
- Infusion Pump
- Blood Pressure Monitor
- Sleep Apnea
- Smart Inhaler
- Pulse Meters
- Hearing Aid
- Dental Appliances
- Holter Monitor ECG EEG
- Fitness Trackers
- Smart Baby Monitoring
- Digital Thermometers
- Fall Detection System

- MedFl
- Fetal Heart Rate Monitor
- Portable Handheld Ultrasound
- Multi-parameter Monitors
- CPR
- RPM
- Defibrillators AEDs
- Heart Pumps (LVADs, HVADs)
- X-Ray Equipment
- Mobile Workstations Computing Carts
- Surgical Tools
- Robotics
- E-mobility (Electric Wheelchairs)
- Portable Oxygen Concentrators
- Ventilation Equipment
- PAPP CPAP Devices
- Pulse Oximetry Devices
- Feeding Pumps

# **2.2** Applications — IoT

- Tracking Systems
- Intelligent Keys
- Smart Meter
- Secruity System

# 3. Key Features

- Leading R&D and be long-term strategic partnership with customers. Provide leading products on safety and performances.
- Qualified by worldwide top brand customers. Excellent quality records.
- Fully automated process. Capability of 2.5mm slitting and winding fully automation.
- MES covers full-process traceability including all quality data, materials, equipment, and key operators.
- All standard products patents, UL, IEC, UN38.3

## 4.1 Rechargeable Li-ion Coin Cells

|--|

- Diameter:
   5.8~14.0 mm
- Height: 4.0~10 mm
- Fast Charge: Up to 4C
- · High energy density
- Long cycle life
- UL, IEC, UN
- Fully automatic production lines
- Highly precise production

PN	Diameter (mm)	Height (mm)	Norminal Voltage (V)	Typical Capacity (mAh)	Min. Capacity (mAh)	Max Charging Rate C
M5853S1	5.90	5.40	3.70	13.0	12.0	1
M7840S3	7.90	4.10	3.73	19.5	17.5	1
M7854S1	7.90	5.50	3.70	25.0	23.0	1
M7886S1	7.85	8.60	3.85	53.0	50.0	2
M9440S1	9.50	4.00	3.80	25.0	23.0	1
M9450S1	9.40	5.00	3.85	33.0	31.0	2
M1040S3	10.10	4.20	3.85	39.0	37.0	3
M1045S1	10.10	4.60	3.85	43.0	40.0	2
M1054S3	10.20	5.60	3.85	48.0	45.0	3
M1140S3	11.20	4.25	3.85	49.0	46.0	2
M1154S3	11.00	5.50	3.85	57.0	54.0	4
M1254S4	12.20	5.60	3.85	75.0	72.0	2
M1260X2	12.20	6.00	3.90	102.0	97.0	2
M1454S2	14.10	5.60	3.85	105.0	100.0	2

## 4.2 Primary Coin Cells — CR (Li-MnO₂)



- Diameter: 9.0~32.0 mm;
- Height: 1.6~7.7mm
- High energy density
- Up to 10 years storage
- UL, IEC, UN
- Fully automatic production lines
- Highly precise production

PN	Diameter mm	Height mm	Norminal Voltage V	Capacity mAh	Discharge Current mA	Max continue discharge current mA	Max pulse current mA	Weight g
CR920	9.5	2.0	3	20	0.1	2	5	0.55
CR927	9.5	2.7	3	28	0.1	2	5	0.60
CR1025	10.0	2.5	3	30	0.1	2	5	0.70
CR1216	12.5	1.6	3	25	0.1	2	5	0.70
CR1220	12.5	2.0	3	38	0.1	2	5	0.80
CR1225	12.5	2.5	3	50	0.1	2	5	0.90
CR1616	16.0	1.6	3	50	0.1	3	8	1.20
CR1620	16.0	2.0	3	70	0.1	3	8	1.30
CR1632	16.0	3.2	3	120	0.1	3	8	2.00
CR2016	20.0	1.6	3	80	0.1	5	15	2.00
CR2025	20.0	2.5	3	150	0.2	5	15	2.60
CR2032	20.0	3.2	3	220	0.2	5	15	3.20
CR2320	23.0	2.0	3	130	0.2	6	20	3.00
CR2325	23.0	2.5	3	190	0.2	6	20	3.30

## 4.3 Primary Coin Cells — CR (Li-MnO₂)

Diameter



- Diameter: 9.0~32.0 mm;
- Height: 1.6~7.7mm
- High energy density
- Up to 10 years storage

PN	mm	mm	Voltage V	mAh	Current mA	discharge current mA	current mA	Weight
CR2330	23.0	3.0	3	260	0.2	6	20	4.0
CR2335	23.0	3.5	3	300	0.2	6	20	4.3
CR2354	23.0	5.4	3	560	0.4	6	19	6.9
CR2430	24.5	3.0	3	270	0.2	8	25	4.5
CR2450	24.5	5.0	3	600	0.4	8	25	6.8
CR2477	24.5	7.7	3	1000	0.6	8	25	10.5
CR3032	30.0	3.0	3	500	0.4	10	30	6.8
CR1220-T	12.5	2.0	3	38	0.1	2	5	0.8
CR1632-T	16.0	3.2	3	120	0.1	3	8	2.0
CR2032-T	20.0	3.2	3	220	0.2	5	15	3.2
CR2450-T	24.5	5.2	3	600	0.4	8	25	6.8
CR2477-T	24.5	7.7	3	950	0.5	8	25	10.5
CR2032-HT	20.0	3.2	3	200	0.2	5	15	3.2
CR2032 PX	20.0	3.2	3	260	0.2	6	18	3.2

Norminal Canacity

Discharge May continue May nulse

## 4.4 Primary Coin Cells — SR



- Diameter: 5.8~11.5mm
- Height: 2.15~5.4mm
- Highest leakage resistance
- Constant voltage level
- Low self-discharge rate
- Fully automatic production lines
- · Highly precise production

PN	Diameter (mm)	Height (mm)	Nominal Voltage (V)	Typical Capacity (mAh)	Weight g
SR521H	5.80	2.15	1.55	10	0.28
SR626H	6.76	2.60	1.55	20	0.28
SR621H	6.76	2.25	1.55	13	0.28
SR721H	7.86	2.18	1.55	20	0.41
SR726H	7.87	2.60	1.55	28	0.47
SR736H	7.85	3.60	1.55	45	0.65
SR754H	7.90	5.40	1.55	60	1.03
SR921H	9.41	2.15	1.55	40	0.60
SR926H	9.42	2.60	1.55	42	0.75
SR936H	9.42	3.60	1.55	50	1.00
SR1121H	11.55	2.20	1.55	45	0.90
SR1131H	11.55	3.17	1.55	90	1.30
SR1142H	11.55	4.20	1.55	110	1.80
SR1154H	11.55	5.40	1.55	160	1.95

## 4.5 Primary Cylindrical battery — CR

PN	Norminal Voltage	Cut off voltage	Size mm	Capacity mAh	Weight g	Max continous discharge current mA
CR2	3.0V	2V	Ф15.6*Н27.0	850	11.0	800
CR123A	3.0V	2V	Ф17*Н34.5	1500	17.0	1000
CR-P2	6.0V	4V	35x19.5x36.0	1500	42.0	1000
CR14250H	3.0V	2V	Ф14.5×H25.2	950	11.5	7
CR17450E	3.0V	2V	Ф17.0×H45.5	2400	24.0	1000
CR26500E	3.0V	2V	Ф26.2×H50.5	5000	55.0	1500
CR34615E	3.0V	2V	Ф34.0×H61.5	12000	125.0	2000



• Diameter: 14.5~34.0 mm

• Height: 25.2~61.5 mm

High and stable operating voltage

· High energy density

Long lifespans

• Low self-discharge rate

## 4.6 Primary Cylindrical battery — ER (Li-SOCl₂)







	PN	Norminal Voltage	Cut off voltage	Size mm	Capacity mAh	Weight g	Max continous discharge current mA
	ER14250H	3.6V	2V	Ф14.5*Н25.4	1200	10	25
	ER14335H	3.6V	2V	Ф14.5*Н33.5	1650	13	40
	ER14505H	3.6V	2V	Ф14.5*Н50.5	2600	13	50
	ER17505H	3.6V	2V	Ф17.0*Н50.5	3600	27	70
	ER18505H	3.6V	2V	Ф18.0*Н50.5	4100	30	70
	ER261020	3.6V	2V	Ф26.2*Н102.0	16000	95	150
	ER26500H	3.6V	2V	Ф26.2×H50.0	9000	53	100
	ER341245	3.6V	2V	Ф33.5*Н124.5	36000	200	300
	ER34615H	3.6V	2V	Ф34.2×H61.5	19000	103	150
ER1	4250H+SPC1520	3.6V	2V	Ф16.5хН47.0	1200	20	2000
ER2	6500H+SPC1520	3.6V	2V	Ф29.0хН67.0	8500	61	2000
ER3	4615H+SPC1520	3.6V	2V	Ф34.0хН78.0	19000	111	2000
ER3	4615H+SPC1550	3.6V	2V	64.0x50.0*35.0	19000	125	2000

• Diameter: 14.5~34.2 mm

• Height: 25.2~124.5 mm mm

• High and stable operating voltage

• High energy density

Long lifespans

· Low self-discharge rate

## **4.7 Li-Polymer Batteries**



## 4.8 Li-ion Cylindrical Batteries

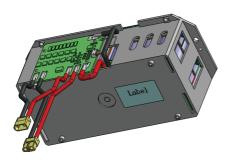


## **4.9 Custom Battery Pack**

- BMS design,
- 3D case design
- · Water proof
- Cycle life : UP to 1000 cycles
- Customized available
- Can develop with CAN, I<sup>2</sup>C, 485 and other communication protocols and BMS of TI chips.



## 4.10 Smart Battery Pack



- Flexibility in design
- · Low self-consuming current
- Long cycle life
- · Highly safety
- Strong software/hardware and plastic case/mold design strength



- Can add PCM or BMS
- Can develop with CAN, I<sup>2</sup>C, 485 and other communication protocols and BMS of TI chips.

## 5. Certificate







RoHS

**UN38.3** 







## **6.1 Application Study — CGM**

Continuous glucose monitors (CGMs) were developed for people with diabetes to help them monitor and manage changes in blood sugar levels.



#### **Battery Solutions**

Primary	CR920, CR927,
Coin Battery	CR1220, SR721
Rechargeable Coin Battery	1040, 1154, 1254
Lithium	301316,
Polymer Battery	301214, 281215

#### **Battery Advantages:**

- Good Consistency
- CR battery storage life 10 + years
- Highly automated production equipment
- Standard battery has certificates of UL, IEC62133, UN









## **6.2 Application Study — Insulin Pump**

Insulin pump is a wearable medical device that supplies a continuous flow of rapid-acting insulin underneath your skin.









Primary Coin Battery	<ul> <li>Diameter: 9.0~32.0 mm</li> <li>Height: 1.6~7.7mm</li> <li>High energy density</li> <li>Up to 10 years storage</li> </ul>
Rechargeable Coin Battery	<ul> <li>Diameter:5.8~14.0 mm</li> <li>Height:4.0~10 mm</li> <li>Fast charge: up to 4C</li> <li>High energy density</li> <li>Long cycle life</li> <li>Water-proofing</li> </ul>
Lithium Polymer Battery	Flexibility in design     High discharge rate current     Low self-consuming current     Long cycle life     Highly safety     LiCoO2, LiFePO4, LiMnO2     Rechargeable & Primary

## 6.3 Application Study — Insulin Pen

Smart insulin pens are reusable devices that automatically record when a person has injected insulin, including how much has been injected and at what time of the day.



Primary Coin Battery	<ul> <li>Diameter: 9.0~32.0 mm</li> <li>Height: 1.6~7.7mm</li> <li>High energy density</li> <li>Up to 10 years storage</li> </ul>
Rechargeable Coin Battery	<ul> <li>Diameter:5.8~14.0 mm</li> <li>Height:4.0~10 mm</li> <li>Fast charge: up to 4C</li> <li>High energy density</li> <li>Long cycle life</li> <li>Water-proofing</li> </ul>
Lithium Polymer Battery	Flexibility in design     High discharge rate current     Low self-consuming current     Long cycle life     Highly safety     LiCoO2, LiFePO4, LiMnO2     Rechargeable & Primary

## **6.4 Application Study** — Blood Pressure Monitor

A device for measuring blood pressure, consisting of a part that goes around the arm and fills with air, attached to a part that reads and shows the measurement



## **Battery Solutions**

#### Diameter: 5.0~21.0 mm Rechargeable • Height:10~70 mm Cylindrical · High energy density Battery · Long cycle life · Flexibility in design • Low self-consuming current · Long cycle life Lithium · Highly safety Polymer Battery • LiCoO2, LiFePO4 • 5-10C fast charge • 10-15C fast discharge







## 6.5 Application Study — Hearing Aid

A hearing aid is a device designed to improve hearing by making sound audible to a person with hearing loss.



#### **Battery Solutions**

Rechargeable Coin Battery

- Diameter:5.8~14.0 mm
- Height:4.0~10 mm
- Fast charge: up to 4C
- High energy density
- Long cycle life
- Water-proofing
- Can add wire/tab





## 6.6 Application Study — Smart Pill

A pill containing a small camera used to record internal images of the gastrointestinal tract for use in medical diagnosis



Rechargeable Coin Battery	<ul> <li>Diameter:5.8~14.0 mm</li> <li>Height:4.0~10 mm</li> <li>Fast charge: up to 4C</li> <li>High energy density</li> <li>Long cycle life</li> <li>Water-proofing</li> <li>Can add wire/tab</li> </ul>
Primary Coin Battery	<ul> <li>Diameter: 5.8~11.5mm</li> <li>Height: 2.15~5.4mm</li> <li>High energy density</li> <li>Up to 10 years storage</li> </ul>





## **6.7 Application Study — Smart Inhaler**

A smart inhaler is an inhaler are built with sensor technology that helps record data about the time and date of use, and the location of the patient at each use.



Rechargeable Coin Battery	• Diameter:5.8~14.0 mm • Height:4.0~10mm
Lithium Polymer Battery	<ul><li>Flexibility in design</li><li>Low self-consuming current</li><li>Long cycle life</li><li>Highly safety</li></ul>
Primary Coin Battery	<ul> <li>Diameter: 9.0~32.0 mm</li> <li>Height: 1.6~7.7mm</li> <li>High energy density</li> <li>Up to 10 years storage</li> </ul>









## **6.8 Application Study — Holter Monitor ECG**

A Holter monitor is a type of portable electrocardiogram (ECG). It records the electrical activity of the heart over 24 hours or longer while you are away from your healthcare provider's office.



Rechargeable Coin Battery	• Diameter:5.8~14.0 mm • Height:4.0~10 mm
Lithium ion Battery	<ul><li>Flexibility in design</li><li>Low Self-consuming current</li><li>Long cycle life</li><li>Highly safety</li></ul>
Primary Coin Battery	<ul> <li>Diameter: 9.0~32.0 mm</li> <li>Height: 1.6~7.7mm</li> <li>High energy density</li> <li>Up to 10 years storage</li> </ul>









## **6.9 Application Study** — Portable Ultrasounds

Portable ultrasound is a modality of medical ultrasonography that utilizes small and light devices. Carried by hand and operated for a time on battery power alone.



#### **Battery Solutions**

# • Flexibility in design • Low self-consuming current • Long cycle life • Highly safety • LiCoO2, LiFePO4 • 5-10C fast charge • 10-15C fast discharge



## **6.10 Application Study — X-Ray Equipment**

Portable generator that delivers the powerful X-ray beam needed for exceptional image quality while offering the full flexibility of use inherent to a mobile device



#### **Battery Solutions**

- · Flexibility in design
- Low self-consuming current
- · Long cycle life
- Highly safety

Li-ion Battery

Pack

- Can add PCM or BMS
- Can develop with CAN, I<sup>2</sup>C, 485 and other communication protocols and BMS of TI chips.



## **6.11 Application Study — Surgical Tools**

Medical device used to create holes in bone



#### **Battery Solutions**

Li-ion Battery Pack

- Flexibility in design
- · Low self-consuming current
- · Long cycle life
- · Highly safety
- Strong software/hardware and plastic case/mold design strength
- Can add PCM or BMS
- Can develop with CAN, I<sup>2</sup>C,
   485 and other communication protocols and BMS of TI chips.



## **6.12 Application Study** — Electric Wheelchairs

Electric wheelchairs or power chairs, are designed for people who lack the motor function or cardiovascular strength to operate a manual wheelchair.



#### **Battery Solutions**

#### Li-ion Battery Pack

- Flexibility in design
- Low Self-consuming current
- · Long cycle life
- · Highly safety
- \* Strong software/hardware and plastic case/mold design strength
- Can add PCM or BMS
- Can develop with CAN, I<sup>2</sup>C,
   485 and other communication protocols and BMS of TI chips.



## 6.13 Application Study — CPR

CPR – or Cardiopulmonary Resuscitation – is an emergency lifesaving procedure performed when the heart stops beating



#### **Battery Solutions**

#### Li-ion Battery Pack

- Flexibility in design
- · Low self-consuming current
- · Long cycle life
- · Highly safety
- \* Strong software/hardware and plastic case/mold design strength
- Can add PCM or BMS
- Can develop with CAN, I<sup>2</sup>C,
   485 and other communication protocols and BMS of TI chips.





## 6.14 Application Study — FindMy

Find My is an asset tracking service, that enables users to track the location.



#### **Battery Solutions**

#### Primary Coin Battery

- Diameter: 9.0~32.0 mm
- Height: 1.6~7.7mm
- · High energy density • Up to 10 years storage

#### Rechargeable Coin Battery

- Diameter:5.8~14.0 mm
- Height:4.0~10 mm
- Fast charge: up to 4C
- High energy density
- · Long cycle life
- Water-proofing





## 6.15 Application Study — Smart Key

A smart key is an electronic access and authorization system that is available either as standard equipment or an option in several car designs.



Primary Coin Battery	<ul> <li>Diameter: 9.0~32.0 mm</li> <li>Height: 1.6~7.7mm</li> <li>High energy density</li> <li>Up to 10 years storage</li> </ul>
Rechargeable Coin Battery	<ul> <li>Diameter:5.8~14.0 mm</li> <li>Height:4.0~10 mm</li> <li>Fast charge: up to 4C</li> <li>High energy density</li> <li>Long cycle life</li> <li>Water-proofing</li> </ul>





## **6.16 Application Study — Smart Meter**

A smart meter is an electronic device that records information—such as consumption of electric energy, voltage levels, current, and power factor



## **Battery Solutions**

3.6V Li-SOCI2 Battery (ER)3.0V Li-MnO2 Battery (CR)

#### Primary Battery

- ER+SPC • UL. IEC.UN38.3.ATEX
- Up to 10 years storage
- Safe and reliable
- Low self discharge rate







## **6.17 Application Study — Smart Lock**

A smart lock is an electromechanical lock that is designed to perform locking and unlocking operations on a door when it receives a prompt via an electronic keypad, biometric sensor, access card, Bluetooth, or Wi-FI from a registered mobile device.



Li-ion Battery Pack	<ul><li>Flexibility in design</li><li>Low self-consuming current</li><li>Long cycle life</li><li>Highly safety</li></ul>
Primary Battery	3.6V Li-SOCI2 Battery (ER)     3.0V Li-MnO2 Battery (CR)     ER+SPC     UL, IEC,UN38.3,ATEX     Up to 10 years storage     Safe and reliable     Low self discharge rate





## 7. Company Introduction



Production Capability 160 Million pcs

**Employees** 1000+ employees 300+ engineers Factory Area 90000 m<sup>2</sup>

Factory Location Guangdong Jiangxi Vietnam Founded in 2018, Shenzhen CoinCell Battery Co., Ltd. is a medical battery solution company.

Our batteries are widely used in medical devices such as drug delivery device CGM, insulin pump, insulin pen, autoinjector, hearing aid, intelligent wearable as well as various electronic devices. We are the first one to develop the super small battery with diameter 6mm. With annual output of more than 160million lithium-ion micro batteries at top safety performance & high energy density, factory's production capacity is at first class level

#### 8. Contact

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