



# THE WORLD'S LEADING SUPPLIER CUSTOM THIN FILM FLEXIBLE BATTERIES

Environmentally safe IoT BATTERIES

## POWERING THE FLEXIBLE WORLD

- Founded in 2015 by researchers from the University of Cambridge, UK
- Dedicated to the research, development, manufacture & sales of flexible batteries
- Chaired by a Fellow of the Royal Academy of the Engineering with over 30 years' experience in flexible electronics
- R&D centres in Cambridge, UK and Shenzhen, China, and in-house volume manufacturing in China

## Our Batteries:

- Are available in 1.5V, 3.0V, 4.5V and 6.0V voltages with a range of capacities
- Can provide peak pulse currents up to 500mA – powering wireless communications including RFID, Bluetooth™, Sigfox, LoRa, moity, Zeta & NB-IoT, LTE-M
- Are flexible, less than 0.8mm thick, and can be used in label printers
- Are safe – compliant with EU RoHS and international air and maritime transport regulations
- Can be disposed of in household waste, containing no toxic or heavy metals
- Are manufactured in-house with digital control of the entire process from design to manufacture with 100% in-line QA testing

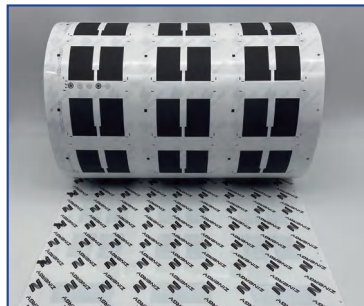
## Our Services:

Zinergy provides battery design and integration consultancy services:

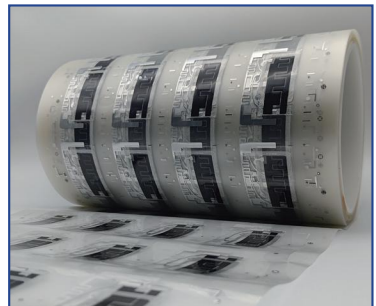
- New battery designs produced in weeks
- Transfer to production in a few weeks
- Batteries can be printed directly onto customer-supplied inlays



Batteries supplied cut to size for pick-and-place









Batteries supplied on reels for roll-roll processing



Batteries printed directly onto inlays and flexi-circuits



|                     |   |   |  |
|---------------------|---|---|--|
|                     |  |  |  |
| Model               | 1.5V-20mAh-3030IC   | 1.5V-40mAh-5238IC   | 3.0V-35mAh-7040IC  |
| Nominal Voltage     | 1.5V  | 1.5V  | 3.0V   |
| Nominal Capacity    | 20 mAh  | 40 mAh  | 35 mAh   |
| Max Pulse Current   | 15 mA   | 20 mA   | 50 mA  |
| Working Temperature | -30°C to +60°C  |   |  |
| Size                | 30 x 30 mm  | 52 x 38 mm  | 70 x 40 mm   |
| Thickness           | 0.7 mm  | 0.7 mm  | 0.8 mm   |

|                     |  |  |  |
|---------------------|--|--|--|
|                     |  |  |  |
| Model               | 3.0V-20mAh-R55IS   | 3.0V-140mAh-125075IS   | 6.0V-80mAh-128130IS  |
| Nominal Voltage     | 3.0V   | 3.0V   | 6.0V   |
| Nominal Capacity    | 25 mAh   | 140 mAh  | 80 mAh   |
| Max Pulse Current   | 25 mA  | 100 mA   | 500 mA   |
| Working Temperature | -30°C to +60°C   | -20°C to +60°C   | -10°C to +60°C   |
| Size                | Diameter 55 mm   | 125 x 75 mm  | 128 x 130 mm   |
| Thickness           | 0.8 mm   | 0.8 mm   | 0.65 mm  |



Thin and Flexible



Printing  
Manufacture



Safe and  
Eco-friendly



Customized Design



Air-safe  
Transportation

# Applications



## Smart Logistic Labels

- Active labels that communicate identity & sensor data wirelessly
- Package-level digital traceability from factory to destination



## Labels for Cold-Chain Monitoring

- Wireless temperature logging from -30°C (-22°F) to +60°C (140°F)
- Continuous temperature and humidity monitoring even off-line



## Pharmaceutical Traceability

- Product traceability from factory to point-of-care
- Record location, temperature, humidity, shock, and box opening data off-line



## Drug Delivery, Diagnostics & Cosmetic Patches

- Flexible patches for enhanced delivery of drugs and creams
- Low cost, connected diagnostic tests



## Tags for Hospital & Exhibitions

- Tags that track identity and location wirelessly
- Real-time visibility of people movements



## Active Promotional Materials

- Enable unique experiences using light and sound on bottles and boxes activated by NFC or BLE.



### CONTACT US

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