

PKCell Recognized as a China Leading CR2450 Button Cell Battery Manufacturer at CMEF Spring Medical Electronics Showcase

SHENZHEN, GUANGDONG, CHINA, July 29, 2026 /EINPresswire.com/ -- The 2026 Spring China International Medical Equipment Fair highlighted a significant shift towards miniaturization in diagnostic and therapeutic technology. The demand for compact, high-performance power sources is increasing as wearable medical devices are becoming more common. These devices need energy solutions that balance the minimal physical footprints of these devices with the reliability required for life-critical information. PKCell was recognized as a [China Leading CR2450 Button Cell Battery Manufacturer](#) at this industry gathering. They demonstrated how specialized 3V Lithium chemistry can meet the changing needs of the medical electronic sector. The company's high-capacity versions and integrated assembly solutions addressed the main energy bottlenecks that medical hardware designers are currently facing. This recognition reflects an industry trend in which precision energy management is as important as medical sensors themselves.

Designing the High-Capacity
Continuous Monitoring CR2450



A power source that can deliver a constant voltage for long periods of time is required to support continuous medical monitoring. Standard coin cells are often unable to transmit data at the high bitrates required by Bluetooth Low Energy (BLE). Shenzhen Pkcell Battery Co., Ltd. has introduced enhanced versions of CR2450 to push the limits of standard lithium manganese dioxide (LiMnO₂) chemistry.

The technical differentiation is in the available capacity. This ranges from a robust 620mAh to a leading 620mAh for the CR2450WSL. This incremental increase in power density provides a crucial safety margin for devices which must operate continuously 24/7. These cells also maintain a flat plateau of voltage during discharge to ensure that sensitive medical sensors get stable power up until the end. By focusing on electrochemical stability, the manufacturer gives medical OEMs the ability to extend wearable patch's functional lifecycle. This persistence ensures accurate and continuous patient data, which is a primary metric in the diagnostic field.

Beyond the Cell: Specialized Lead/Tab Integration for Medical Assemblies

When integrated into high-density PCBAs (Printed Circuit Board Assemblies), standard coin cells often face structural challenges. Soldering directly onto a battery may damage its internal seals or compromise its chemical integrity. Medical devices are often subjected to significant mechanical stress and vibration, which requires a more secure connection than a simple holder.

PKCell's Customized Service model (Shenzhen Pkcell Battery Co. Ltd.) addresses assembly challenges by integrating specialized hardware. The company uses CNC precision welding to attach wire leads, solder tabs and pins directly to the CR2450 battery series. This allows for a secure and vibration-resistant connection, which simplifies the final assembly. The manufacturer eliminates thermal risks associated secondary soldering by providing a plug and play energy module. This engineering synergy allows brands to maintain structural integrity while ensuring reliable electrical paths for their most important components.

Biocompatibility & Reliability: The Standards of Medical Grade Manufacturing

In the medical industry, reliability is more than just electrical performance. It also includes strict safety and biocompatibility requirements. Electrolyte leakage in devices that are in direct contact with the skin or operate within sterile environments is unacceptable. The manufacturing process must therefore include redundant safety layers in order to protect the device as well as the patient.

[PKCell \(Shenzhen Pkcell Battery Co., Ltd.\)](#) facility of 28,000 square meters equipped with 20 fully automatic production lines maintains this high level of quality. Automation eliminates the variability in manual labor that is the main cause of micro-leaks. Each CR2450 unit is subjected to a multi-stage audit of quality, including vacuum leakage testing and high-temperature aging. The company also aligns its production to international certifications like UL, CE and RoHS. This commitment to manufacturing discipline is a crucial risk mitigation strategy for medical exporters. By ensuring batch to batch consistency, the manufacturer helps partners navigate the complex regulatory environments of the North American healthcare markets and European healthcare markets.

Solving "Shelf-life to Field-Life Paradox" in Emergency Medicine

Emergency medical equipment such as digital thermometers and portable defibrillators often

spends many years in storage. These devices must be able to activate instantly and with 100% reliability in a crisis. This requirement creates a paradoxical technical situation: the battery must be able to last for a long time while also being ready for immediate use.

The CR2450 Series addresses this issue through Low Self-Discharge technology (LSD), which limits energy losses to less than 2% annually at room temperature. This chemical stability provides a storage integrity of 10 years, making them ideal for medical equipment and ambulances. These cells are also able to operate between -20 and 70 degrees Celsius. This range is crucial for medical devices which may be stored in unconditioned storage facilities or used in extreme environments. The manufacturer provides a "fit and forget" energy solution to ensure that emergency gear is functional when it's needed most.

Strategic Partnership: Accelerating Time-To-Market For Medical OEMs

In the highly competitive medical electronics market the speed of product iteration is a key factor in determining a brand's level of success. During the early phases of design, engineering teams need partners that can provide rapid prototyping as well as technical consultation. A delayed battery solution can lead to a delayed launch of a product, which could result in lost market share.

[The service model of PKCell](#) focuses on speeding up this R&D cycle by using a CAD to Prototype workflow. The company helps medical OEMs refine energy architectures in real time by providing them with customized samples and technical datasheets. This partnership goes beyond the product to include professional accountability. The company, for example, has 2 million USD of product liability insurance. This provides a financial safety net to healthcare providers. This level of transparency, and the support it provides, is why so many multinational medical device companies view the company as an important pillar in their supply chain. This strategic collaboration ensures the final medical device will be safe, efficient and ready for distribution worldwide.

Setting The Pulse For Future Medical Innovation

The 2026 CMEF showcase showed that the future of medicine will be increasingly digital and portable. The importance of energy sources increases as devices get smaller. Reliability has become a necessity for any technology that monitors the health of humans.

Shenzhen Pkcell Battery Co., Ltd., a company that specializes in the manufacturing of the CR2450, continues to empower the medical industry through its commitment to high-quality products. The company's high-capacity, flexible customization and high-capacity electrochemistry provide the essential energy base for the most innovative medical electronic devices. The official portal provides comprehensive technical resources as well as custom consultation for engineers and procurement specialists looking for a proven energy provider. To learn more about how these specialized solutions can support modern medical applications, visit the official website at <https://www.pkcellpower.com/>.

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