Design Study

Covid-19 Antigen Test

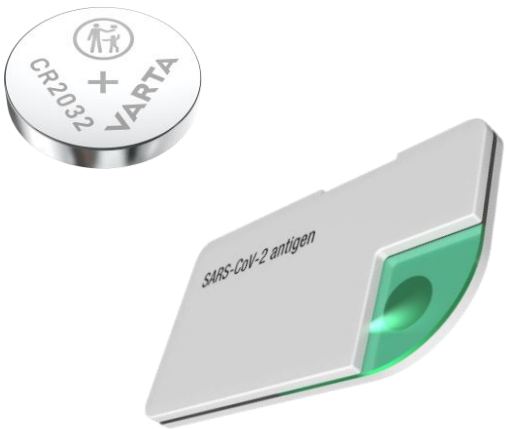
Primary Lithium Button Cells

Covid-19 Antigen Test
The fully digital Covid-19 Antigen Test by Senova is one of the most innovative in-vitro diagnostic devices. In the form of a new user-friendly device that enables rapid testing in a variety of point-of-care situations.
By powering a special technology with fully compliant and fully scalable cloud connectivity, a medical platform enables more informed decision-making based on fully encrypted and anonymized test results.

Battery challenge
Safety and reliability are the biggest challenges for medical and healthcare devices. The battery must provide enough energy to run the application for the prolonged lifetime. A long shelf life for long periods of storage before usage is always mandatory.

For more information, please visit our website:
www.varta-ag.com/en/industry/product-solutions/lithium

Technical solution
Primary Lithium Button Cell CR 2032



CHARACTERISTICS	PRIMARY LITHIUM BUTTON
Capacity	230 mAh @ 3V
Dimensions	20.0 mm diameter 3.2 mm height
Special Feature	Long life-time capable to drive high current pulses
Charactaristics	• Low self discharge < 1%/Y • 10 Years Shelf life • Stable discharge behavior • No Passivation
Safety Features	• Reliable Lithium MnO_2 Chemistry • Mechanical robust Construction • Environmentally friendly components • UL Recognized

Primary Lithium Button Cells
The lithium manganese dioxide cell chemistry was one of the first solid cathode cells commercially developed and is still the most widely used battery system today. These cells offer an excellent shelf life, wide operating temperature range, low self discharge rates and broad range of different sizes and capacities. Potential applications for these cells are devices in telecommunication, metering, instrumentation, sensoric and other portable equipment. Based on the outstanding energy density, cell performance and reliability, these cells have been able to meet the requirements of our customers worldwide.

- High open circuit and load voltage
- High Energy density (400Wh/kg or 600Wh/l)
- Low self-discharge for long storage and operating time
- Wide operating temperature range (-20 °C up to 70 °C)
- High pulse load capability
- UL Recognition
- Bare cells, misc. versions for PCB mount and wire/ connectors available

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VARTA Microbattery GmbH VARTA-Platz 1 73479 Ellwangen +49 (0)7961 921-0
www.varta-ag.com/industry