

CYMBET



Cymbet Corporation is a Private company based in Minnesota USA. Formed in 2000 the team have invested in new Solid State Battery technology and created over 90 patents with their eco friendly rechargeable concepts making them the leader in this energy storage market and inspiring new ideas for medical, sensor, RFID, Industrial control and battery powered devices, ideal for the internet of things and wearable technology.

Cymbet solid state batteries utilise semiconductor fabrication processes to produce a unique rechargeable energy storage device with no liquids, gels, or harmful chemicals and is produced in two factories in the USA. These products also comply with ROHS + WEEE Regulations.

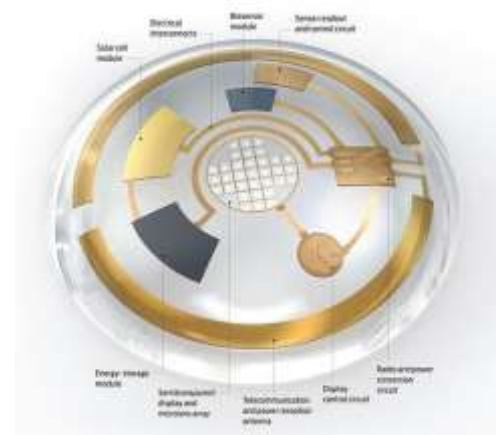


EnerChip devices have the unique capability to be packaged as a standard semiconductor component or as a bare die co-packaged with other integrated circuits.

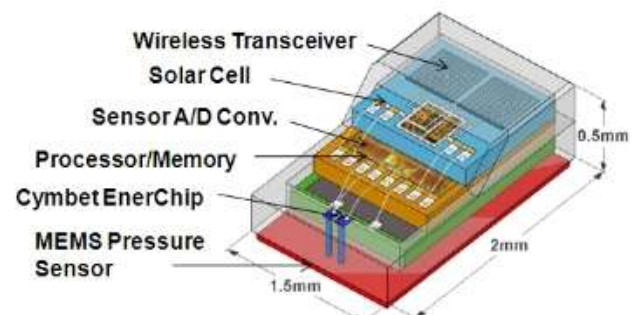
Enerchip™

Enerchip™ Rechargeable Solid State Batteries with Integrated power management

Part No.	Power uAh	Package Size (mm)	Voltage
CBC050BDC	50	5.7 x 6 Die	3.8V
CBC005BDC	5	1.75 x 2.55 Die	3.8V
Enerchip with RTC			
CBC34123-M5C	5	5x5	
CBC34803-I2C	5	5x5	
CBC34813 SPI	5	5x5	
Charge Pump & Batter Management ASIC Bare Die			
CBC910		0.96x1.36	3.3V



Miniature Glaucoma Sensor



EnerChip RTC Features and Benefits

- Integrated rechargeable solid state battery with power-fail detect and automatic switchover, providing from 30 to over 100 hours of RTC backup.
- Smallest commercially available RTC with integrated backup power in compact 5mm x 5mm 1.4mm QFN Package.
- Temperature compensated charge control
- Integrated EnerChip™ recharged at VDD > 2.5V
- SMT assembly – Lead-free reflow solder tolerant
- Real time clock provides year, month, day, weekday, hours, minutes and seconds based on a 32.768 kHz quartz crystal
- Resolution: seconds to years
- Watchdog functionality
- Freely programmable timer and alarm with interrupt capability
- 3-line SPI-bus with separate, but combinable data input and output or I2C-bus (CBC34803)
- Integrated oscillator load capacitors for $C_L = 7 \text{ pF}$
- Internal Power-On Reset (POR)
- Open-drain interrupt and clock output pins
- Programmable offset register for frequency adjustment
- Eco-friendly, RoHS compliant – tested



To support the Cymbet components are a full range of **Evaluation** and **development** kits

Evaluation Boards & Tools	
Part No.	Description
CBC-EVAL-12	EnerChip RTC Evaluation Kits
TAB-Boards	CBC-EVAL-12 tab boards.

Broadband Technology 2000 Ltd Product Areas				
Semiconductors <ul style="list-style-type: none"> • Mixed Signal IC's • Powerline Communications • RF Interface • Mixed Signal Active Filter 	Wireless/M2M <ul style="list-style-type: none"> • Antennae • GSM, GPRS & 3G Modems • 3G Routers • 3G & GPRS Gateways • 4G/LTE • GPS Tracking Units • RF Cables • Connectors 	Sensors <ul style="list-style-type: none"> • MEMS Accelerometers • MEMS Magnetic Sensors • MEMS Gyroscopes • MEMS Pressure Sensors RF Microwave <ul style="list-style-type: none"> • Amplifiers • Attenuators • Switches 	Power <ul style="list-style-type: none"> • Super Capacitors • Power Modules • Solid State Batteries Interconnect <ul style="list-style-type: none"> • Magnetics • Cable Assembly • Connectors 	Internet of Things <ul style="list-style-type: none"> • Powerline Communications -Narrow & Broadband

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