



Automated test solutions for the entire product lifecycle



## Mixed Signal Battery Test System

### *Customized battery cycling and control*

The Mixed Signal Battery Test System is an automated test platform designed to meet today's advanced battery test requirements. The platform is ideal for testing a range of battery cells and packs, and can be used in applications such as research and design, quality control, and end of line manufacturing. Its distributed architecture provides a scalable solution with configurable system components to accommodate specific application needs.

### **BENEFITS**

- Distributed system architecture for easy system expansion
- Customizable software for user-defined monitoring, tests, alarms, and profiles
- Wide range of standard test, charge, and discharge functionality
- Reliable and easy to maintain

### **FEATURES**

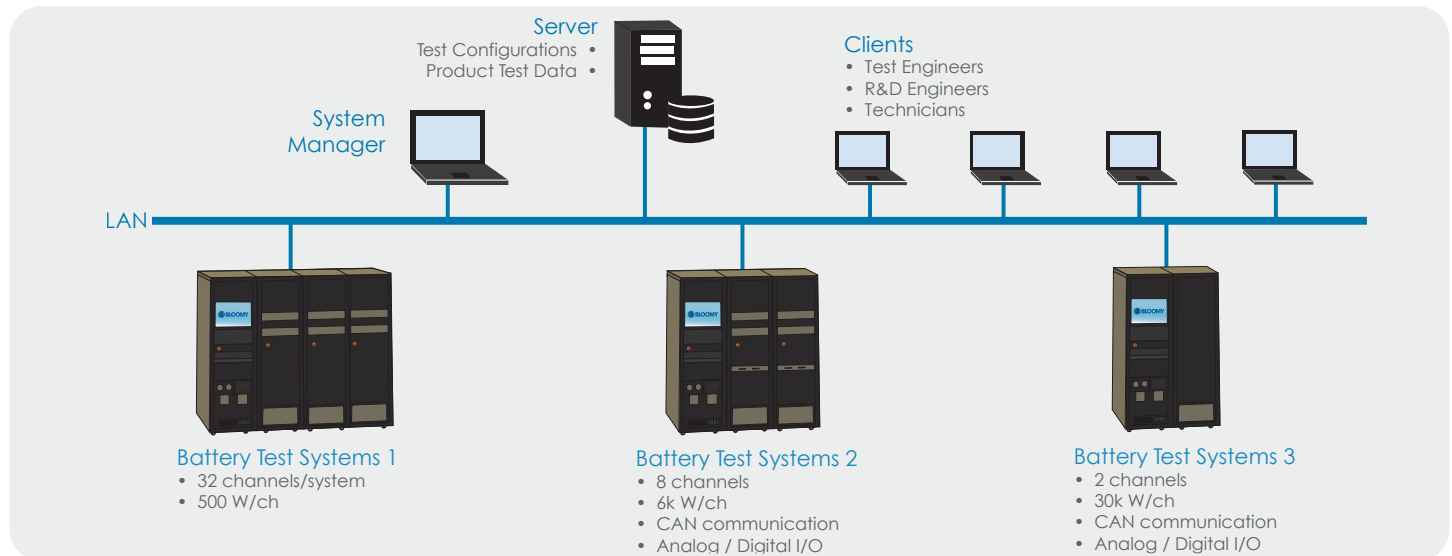
- Battery communication protocols including CAN, I2C, SMBus
- Custom hardware fixtures and cabling for battery interfacing
- Constant current, voltage, and power control
- Standard and custom charge and discharge profiles
- Load profile capture and playback
- Flexible hardware configurations: channel count, power, auxiliary I/O
- Industry-leading measurement and control hardware

Testing a BMS?

Inquire about Bloomy's turnkey BMS test solutions.

## DISTRIBUTED SYSTEM ARCHITECTURE

The distributed system architecture allows multiple battery test systems with different configurations to be easily added to the system manager.



## HARDWARE SPECIFICATIONS (PER CHANNEL)

Systems are customized to accommodate specific requirements.

|                                |               | RANGE  | ACCURACY                | RESOLUTION   |
|--------------------------------|---------------|--|-------------------------|--------------|
| <b>Power</b>                   |               | 150W to 60kW   |                         |              |
| <b>High Current Models</b>     |               |  |                         |              |
| Charge                         | Voltage       | Up to 150V   | 0.1% FS                 | 0.03%        |
|                                | Current       | Up to 3000A  | 0.3% FS                 | 0.03%        |
| Discharge                      | Voltage       | 1.0 to 120V  | 0.05% Set + 0.05% Range | 0.025%       |
|                                | Current       | Up to 7200A  | 0.12% Set + 0.08% Range | 0.025%       |
| <b>High Voltage Models</b>     |               |  |                         |              |
| Charge                         | Voltage       | Up to 800V   | 0.1% FS                 | 0.03%        |
|                                | Current       | Up to 300A   | 0.2% FS                 | 0.03%        |
| Discharge                      | Voltage       | 7.0 to 600V  | 0.05% Set + 0.05% Range | 0.025%       |
|                                | Current       | Up to 1800A  | 0.12% Set + 0.08% Range | 0.025%       |
| <b>Measurements</b>            |               |  |                         |              |
|                                | Voltage       | Full range   | 0.03%                   | 16 to 24 bit |
|                                | Current       | Full range   | 0.1%                    | 16 to 24 bit |
|                                | Sampling Rate | Up to 20kS/s/ch for transient capture                          |                         |              |
| <b>Options</b>                 |               |  |                         |              |
| Communications                 |               | CAN, SMBus, Serial, Modbus, I <sup>2</sup> C, custom protocols |                         |              |
| Analog I/O                     |               | Channel and range configurable                                 |                         |              |
| Digital I/O                    |               | TTL, 24V logic   |                         |              |
| High isolation cell monitoring |               | Channel and range configurable                                 |                         |              |
| Temperature monitoring         |               | Channel and range configurable                                 |                         |              |
| Strain gauge monitoring        |               | Channel and range configurable                                 |                         |              |
| Pressure monitoring            |               | Channel and range configurable                                 |                         |              |
| Internal resistance (AC, DC)   |               | Channel and range configurable                                 |                         |              |

Call (860) 298-9925 or visit  
[www.bloomy.com](http://www.bloomy.com)