



### Telecom Systems

Customers looking to collect battery data from Central Office and Remote Telecommunications sites rely on BTECH's S5 Battery Monitoring and Validation Systems to provide the Real-Time data and analysis required to support these mission critical systems. The S5 system is designed to collect reliable data on even the largest Amp hour cells. The S5 can be installed on VLA rack, VRLA stack and VRLA rack applications without interfering with normal battery maintenance activities and without obstructing access to the cells. BTECH's impedance measurement technology is considered the reference method for stationary monitoring system ohmic testing. BTECH's S5 system has the sensitivity and high-end filtering required to finding failing cells in any application and UPS/charger type. BTECH's patented rate of change analysis finds bad units well before they pose a risk to your critical systems. BTECH's S5 system uses fewer wires than any of our competitors. The wire set is pre-designed, pre-terminated and tested; cutting installation time in half while increasing system reliability.

### Key System Features

- BTECH Monitors Key Battery Parameters: Cell and Interconnect Impedance, System Voltage, Float, Charge and Discharge Current, plus Ambient and Pilot Cell Temperatures
- Impedance Measurement Specification of 0.1 +/-0.1 mΩ – the real world sensitivity required for flooded cells
- Programmable Test & Out-Of-Limits Alarms
- Battery Discharge Data Logging
- Up to 192 Individual Cells and 8-strings per system
- Individual String Current Monitoring for multi-string systems
- Complete Isolation from the Battery String
- Links to BTECH's legendary BVM 4.x software suite for reporting and trend analysis

### Facility Management System Integration

- MODBUS over TCP/IP for simple third-party software integration
- SNMP Compliant
- (6) Programmable Output Relays
- (4) Programmable Input Relays

### Alarm and Data Acquisition Ports:

- Integrated Dial Up 56k Modem
- Integrated Ethernet Card (Cat 5/6)
- Local: RS-232 and USB
- Alarms: Text message to multiple cell phones, pagers or e-mail address through BVM Software or BMS integration

### Safety

BTECH's Quick-Disconnect Safety Fuses simplify battery replacements while protecting personnel during installation and maintenance.

## Why BTECH Is The World Leader In Battery Monitoring

### WE'RE SUPERIOR

With over 7,000 systems installed worldwide, BTECH's patented impedance method provides rock solid data accuracy and stability, allowing more time to respond – no other system comes close.

### WE'RE NON-DESTRUCTIVE

With a load signal optimized to the battery type, our system never subjects your batteries to a stressful load test. Plus, our system is not powered by your batteries avoiding unnecessary parasitic battery loads.

### WE KNOW YOUR BATTERIES

BTECH doesn't just manufacture battery monitoring systems, BTECH's core competencies include DC plant experts, DC plant maintenance and UPS/charger design requirements. These core skills not only enable BTECH to provide the industry leading consulting services our customers expect but also provide unbiased support on the best practices in battery maintenance, battery testing and battery monitoring.



### System Specifications

**Measurement Capability:**

- Total Voltage: 0-100 buss voltage
- Unit Voltage: 1-8 VDC
- Unit Impedance: 100Ω to 20mΩ

**Temperature:**

- Unit and Ambient: -32°F to 160°F
- Differential: 15°F from default ambient

**Discharge Events:**

- Date & Time
- System Voltage
- Load Current
- Power Removed
- Unit Voltage Decay

**Discharge Logging:**

- Programmable

**Connection Capacity:**

- Total Number of Strings: 8
- Total Number of Units: 192

**Measurement Accuracy & Repeatability:**

- System Voltage: +/-0.1% Full Scale
- Unit Voltage: +/-0.1% of Reading
- Unit Impedance: +/-0.01 mΩ
- Temperature: +/-1.0°F

**Power Requirements**

- 24 – 100 VDC

**Enclosure:**

- SCM-600 Controller: NEMA 1 Metal Rack/Wall Mount/Shelf Mount
- VM24i Module:
  - Voltage/Temperature/Current Flame Retardant Poly
- 1 Current Transducer per string 1% sensitivity

**LED Indicators – SCM – 600**

**Controller:**

- Green = Summary No Alarms
- Yellow = Summary Maintenance Alarms
- Red = Summary Critical Alarms
- Red Equipment = Hardware Failure
- Alternating Green = Performing Measurement

**Software:**

- BVM 4.x Windows® based software package
- BVM Observer 4.x designed for Windows® 7 or above

### System Configuration

S5L	1	02	024	C	O	RM	00
type	strings	point voltage	monitoring points	measurement	options	configuration	custom code
S5L (24-60V)	1-8 1	2 02	8-192 024	clamp, per string: C		Rack Mounted, RM	
		1.2 01		clamp, per system: T		Wall Mounted, WM	
		4 04				Shelf Mounted, WM	
		6 06					
		8 08					
		12 12					

### Testimonials

“Robert Wood Johnson University Hospital is one of the leading academic health care centers and at the forefront of medical research. Robert Wood Johnson University Hospital is a leader in finding medical breakthroughs and utilizes the latest advances in medicine and patient care to treat over 100,000 patients a year.

My department is responsible for ensuring the operation of vital facilities at the hospital. To avoid the impact of devastating blackouts, we employ the use of Backup Power Supply Systems.

Since backup power systems rely on backup batteries, which can fail with no notice, we employ BTECH battery Monitoring Systems. BTECH identifies any developing battery problems that otherwise would go undetected. In this way we can proactively make needed battery substitutions and drastically reduce our risk of experiencing a power outage.”

**– Mr. Darayes Bharda – Technical Supervisor- Robert Wood Johnson University Hospital**