

Lithium Battery Test System 7380

MiNT 7380 Lithium Battery Test System is designed for complete lithium cell/battery production use.

The highly modularized system allows the user to configure the system for cell/battery activation and testing for various sized lithium cells/batteries. System expandability accommodates stages in manufacturing from small scale to large scale with ease.

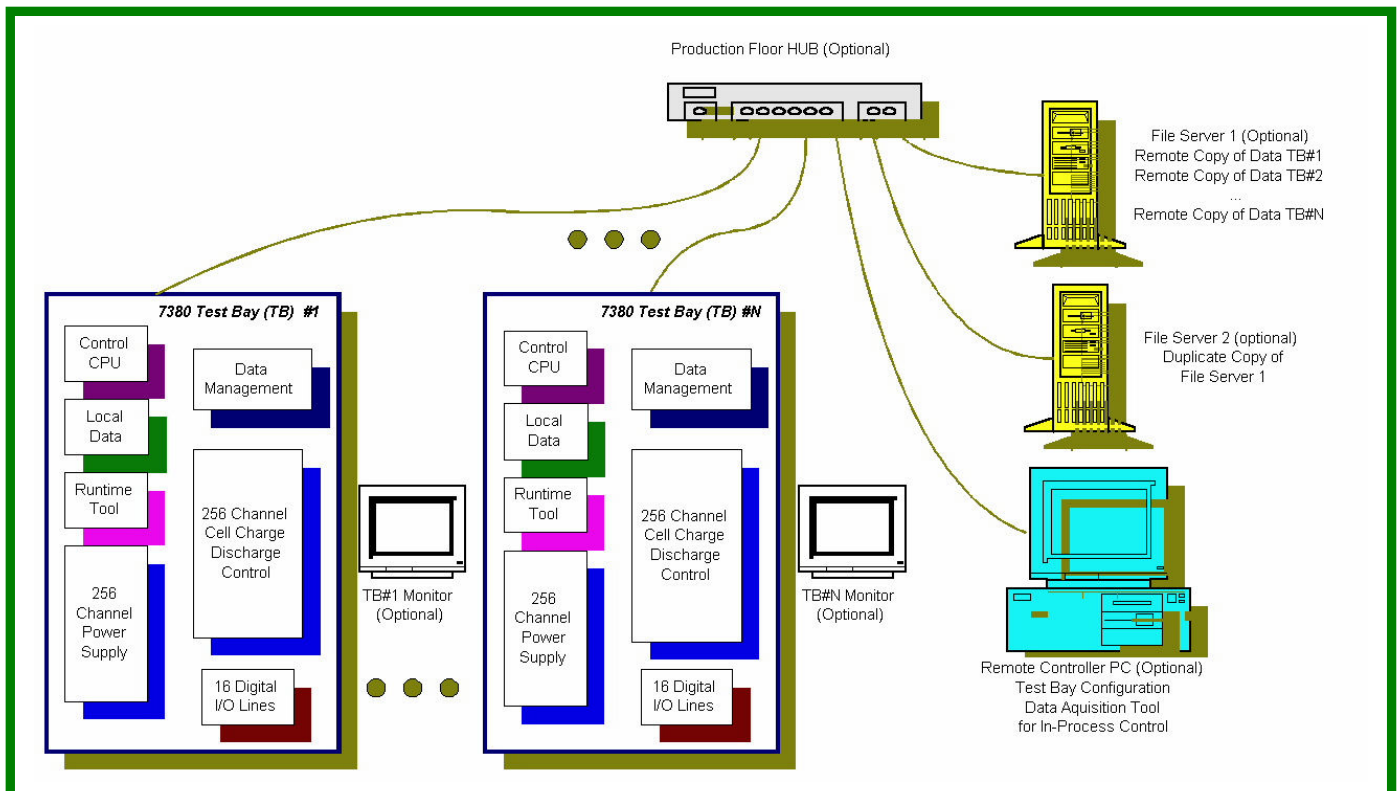
The high degree of accuracy, flexible test flow programming, and powerful measurement data acquisition and statistical reporting tools also make the MiNT 7380 a perfect system for quality control, quality assurance, and reliability certification.

Features:

- Architecture with 8 channel programming grouping and 256 channel modularity providing maximum sorting and handling efficiency
- Individual cell/battery CC-CV switching control
- Simplifies production flow with single insertion (one time tray loading) to complete all the test functions including AC impedance testing.
- Leakage current screening
- Flexible test flow - any test (e.g., DC internal resistance, AC Impedance, etc.) can be performed as frequently as needed, at any time and at any sequence in the test flow.
- Support high-voltage serial and high-current parallel multi-cell testing
- Optional smart tray support for cell/battery grading

Test Functions:

- ◆ Constant Current Constant Voltage (CCCV) charging and discharging with smooth programmable automatic CC to CV mode transition
- ◆ AC Impedance measurement
- ◆ DC internal resistance measurement
- ◆ OCV
- ◆ C-rate Test
- ◆ Cycle Life Test
- ◆ Leakage Current Screening
- ◆ Individual cell/battery datalogging



Networked system connections of multiple Test Bays give the MiNT Systems 7380 the capability of testing many cell/battery types and several thousand cells simultaneously.

Specifications¹:

Series 7380 Lithium Battery Test System

Cell/Battery Test Control

Operating Modes:	CV, CC, CCCV, OCV, 1KHz ACZ, DCR, Leakage
Charging Voltage:	0V to 5V
Discharging Voltage:	1V to 5V
Voltage Accuracy:	±2mV
Current Range:	0 to 3A
Current Accuracy:	±0.5mA
Current Rise Time:	5ms max
Charge/Discharge switching time:	100ms max
Leakage Test current Range:	0 to 1mA
Leakage Test current Accuracy:	±1µA
Parallel Capability:	2 or 4 cells (up to 12A)
Series Capability:	2 to 4 cells (up to 20V)

Cell/Battery Test Measurement

Voltage:	0 to 5V
Voltage Accuracy:	±2mV
Current Range:	0 to 3A
Current Accuracy:	±0.5mA
Internal Resistance (IR):	2 types – DC and 1KHz AC
IR Range:	0 to 10Ω
IR Accuracy:	1% ± 1mΩ
Leakage Test relative Accuracy:	±10µV
Data Acquisition Time:	1s and up
Time resolution:	100ms
Cycle Life Test	>10,000 cycles

Software

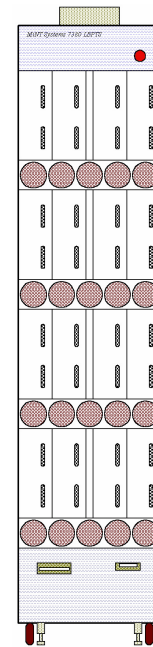
MiNT LCTS Application Software:	MS Windows platform, runtime graphics display, test flow control, data analysis tools
Test Steps:	256 steps with >1,000,000 test block loops
Test End Criteria:	Voltage, Current, Time, AH, WH
Data Recording Criteria:	Time (dt), dV, dI

General

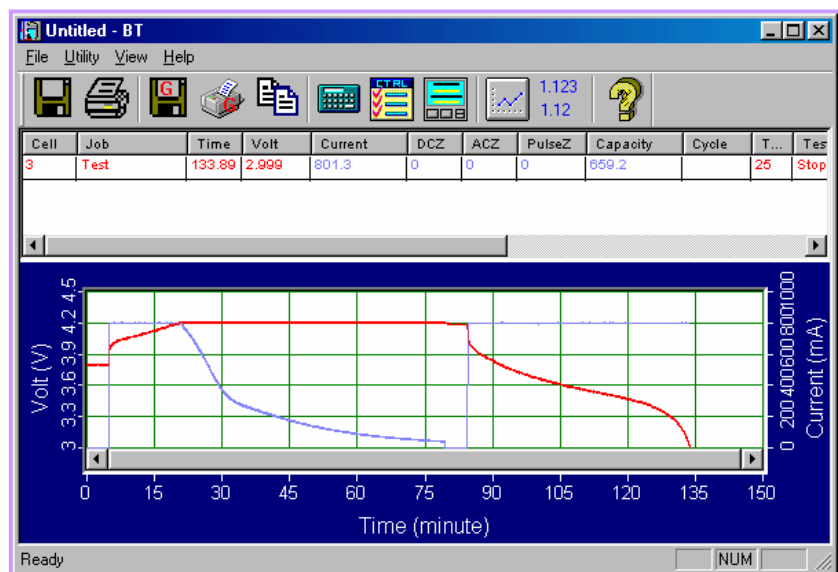
System Configuration:	256 channels per rack of 220cm(H) x 56cm(W) x 50cm(D)
Maximum Configuration:	>10,000 channels
AC Power Requirement (every 256 channels):	380V, ±10%, three-phase Y 47Hz to 65Hz, 6KW and 115V ±10%, 47Hz to 65Hz, 600VA
Humidity:	20% to 80% RH, non-condensing
Operating Temperature:	10°C to 27°C

Options

Production Control Link	Support multiple 7380 systems
Smart Test tray:	Supports user-defined cell/battery types
Automatic Handler:	Contact MiNT Systems for custom automatic handlers



*MiNT 7380 LCTS
Lithium Battery Test
System for high quality
manufacturing use*



Runtime data acquisition, local data storage and dual data file servers guard against data loss.



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¹ Preliminary specifications subject to change.