

Chroma

Working on Better Solutions.

**Chroma 17011 Charge & Discharge
Battery Cell Test System
17216M-10-6**

— chen chia ching —

Test
turnkey **Auto** and **mation**
Solution
provider **TM**

17216M-10-6 is an independent system, the system include power supply and tester, one 17216M-10-6 have 16CH ,AC power input:1Φ100~240V±10% VLN



Preliminary specification

Item		Specifications	
Series		10V / 6A (Linear)	
Maximum Channel		16 CH/ set (fixed)	
V	Setting Range	0V~10V or -5V~5V, resolution 1mV	
	Reading Range	0V~10.4V or -5V~5.04V, resolution 0.2mV	
	Accuracy	± (0.02% F.S.)	
I	Setting Range	200uA	0.1uA ~ 200uA, resolution 0.1uA
		6mA	1mA ~ 6mA, resolution 1uA
		200mA	0.1mA ~ 200mA, resolution 0.1mA
		6A	1mA ~ 6A, resolution 1mA
	Reading Range	200uA	0A ~ 210uA, resolution 0.01uA
		6mA	0A ~ 6.3mA, resolution 0.2uA
		200mA	0A ~ 210mA, resolution 0.01mA
		6A	0A ~ 6.3A, resolution 0.2mA
	Accuracy	± (0.02% F.S.)	

*For reference only, actual specifications refer to the release catalog

1. High precision output & measurement

Up to 0.02%FS

2. Four current range : 200uA 、 6mA 、 200mA 、 6A

Multi range can increase the measurement accuracy of capacity and DCIR.

3. High-speed pulse test : CC 、 CP 、 CR Pulse Mode

For fast charge & discharge application, swap time up to 1ms

4. Channel arbitrary parallel design

Test flexibility for different current ratings

5. Dynamically modify the recipe function

The recipe can be modified in the testing process.

example :

In the one year battery cell test, we can modify the testing recipe without interrupt the testing process, keep the testing going.

6. Functions

The test parameters can be set to variable, the variable can be used in next step.

example :

If the battery cell capacity is variable(X)

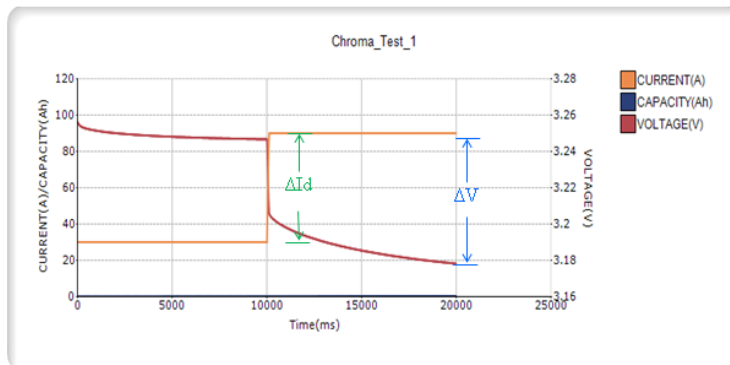
when the capacity is 1.0(X), · CC discharge current =10A

when the capacity is 0.5(X), · CC discharge current =5A

7. Built in with international regulations test step

Built in lithium battery 、 electric double layer capacitor (EDLC) 、 lithium ion capacitors (LIC) test step , the testing result can be got without calculation.

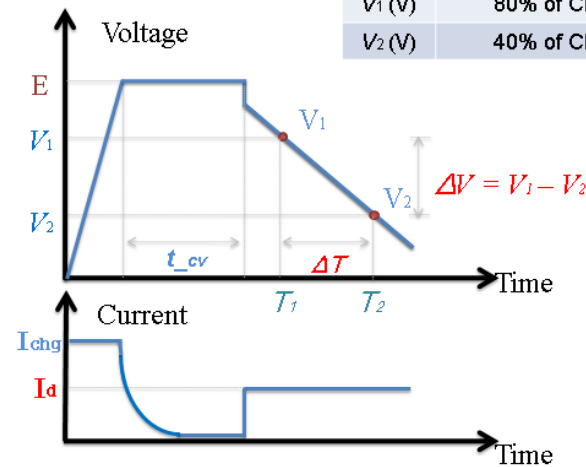
IEC 61960



$$DCIR = \Delta V / \Delta I_d$$

IEC 62391

Rules	Rule 1	Rule 2	Rule 3	Rule 4
I (mA)	1 X C	4 X CV	0.4 X CV	400 X CV
V1 (V)	80% of Charging Voltage (0.8E)			
V2 (V)	40% of Charging Voltage (0.4E)			



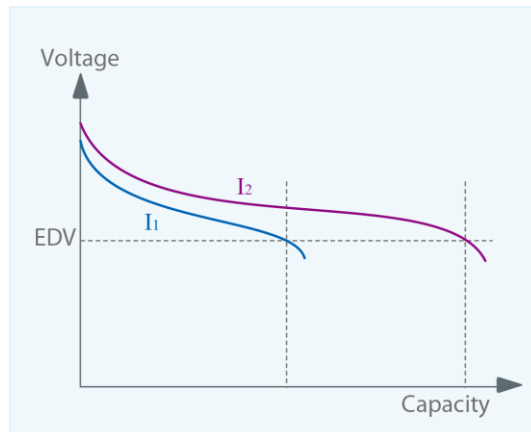
Capability Formula

$$C = \frac{I_d \times \Delta T}{\Delta V}$$

8. Report Analysis Function

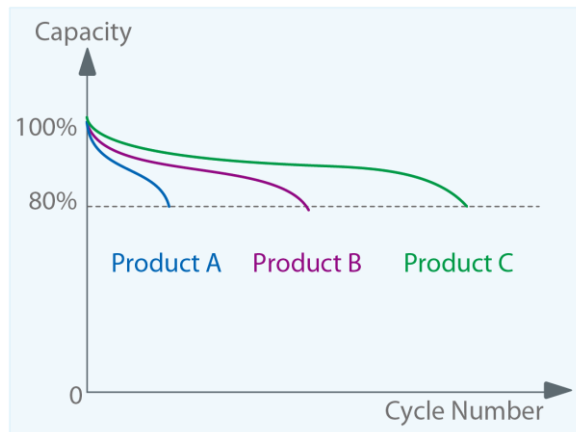
The test results can be analyzed

Capacity Measurement



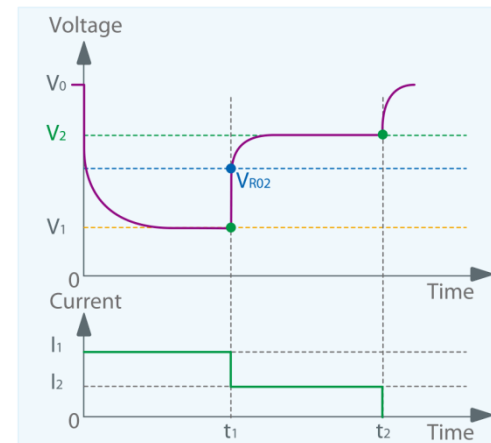
Q-V curve

Cycle Life Testing



Cycle Life curve

DCIR



DCIR curve

9. Coil Cell Fixture (option)

Coin Cell Holder - 16mm



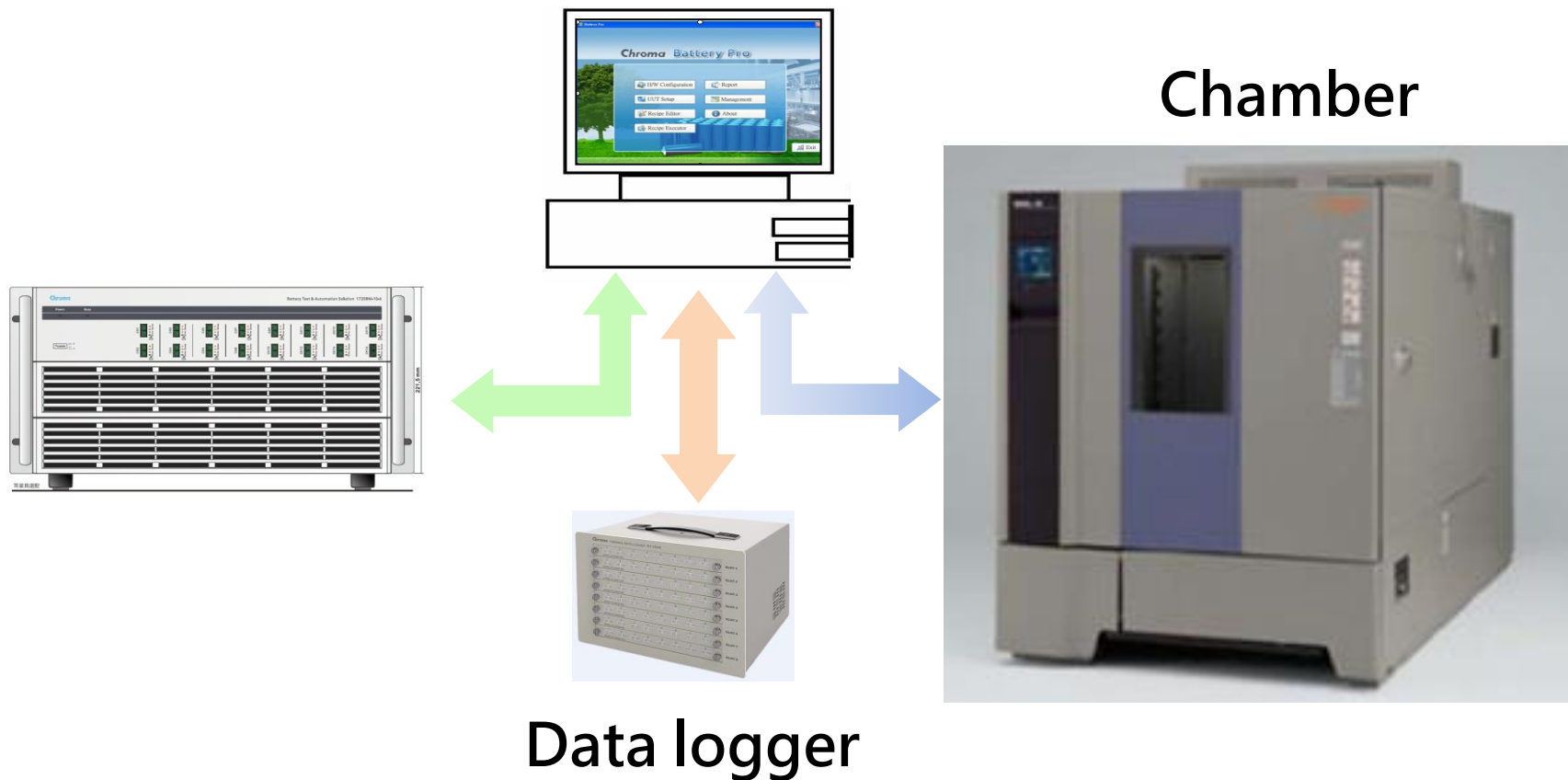
Coin Cell Holder - 23mm



Coin Cell Holder - 30mm



10. Temperature Logging (option) & Chamber Integration (Customized)





**The World for You & for Me...
Thank You!**