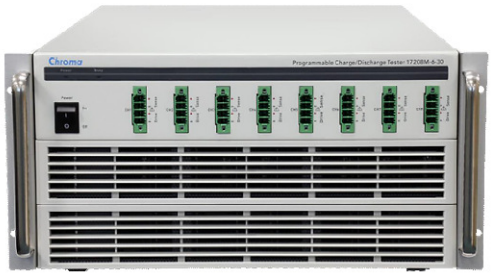
Chroma Desktop Battery Cell test solutions

Chroma Desktop Battery Cell testers are high precision charge/discharge test equipment for a wide range of applications such as battery cell testing, super capacitor testing, lithium ion capacitor testing, material research, and so on. The purpose of this product is to provide users with solutions that require high-precision measurement on final sample quality control or R&D testing.

Primary Applications:

- Power type battery testing and materials research
- Quality control for sampling final products
- Life cycle testing
- EDLC capacitance & DCIR testing
- Coulombic efficiency testing
- dQ/dV & dV/dQ testing.
- Waveform simulation
- Self-discharge testing.

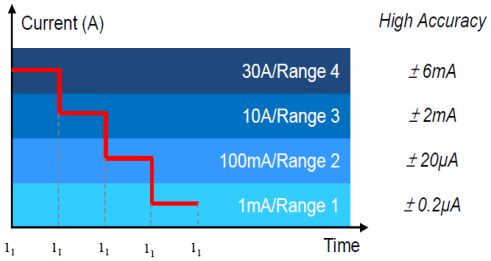


Model 17208M-6-30

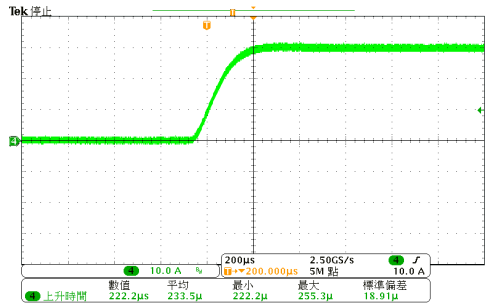
Three Models available:

17216M-10-6	17208M-6-30	17212R-5-100
16 Channel 10V, 6A per channel	8 Channel 6V, 30A per channel	12 Channel 5V, 100A per channel

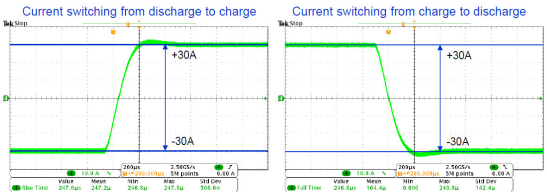
Multi-Current Range
Auto-range function with continuous current output between Range 4 to Range 1, maintaining high current accuracy.



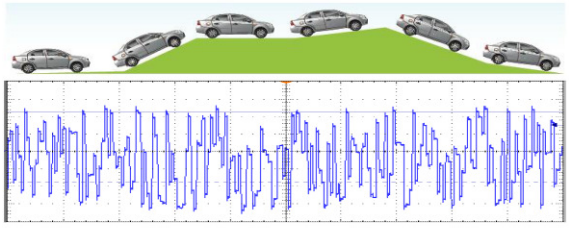
High Current Response Rate without Overshoot The fast rise time, < 250μS, provides unmatched battery cell or super capacitor transient testing capabilities.



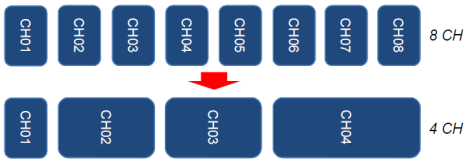
Fast Current Switching Time between Charge and Discharge
Fast current switching provides more realistic test applications for power-type cells or supercapacitors with full-scale switching time (-90% to 90%) less than 250µS.



Waveform Simulation
Depends on logging pre-defined data (excel file), users can test continuous or power waveform to DUT (Update rate up to 10ms).


Dynamic Current Mode

Arbitrary Parallel Test Channel
The flexible system design allows the channel number of parallel controls to be changed to match DUT capacity and test conditions.

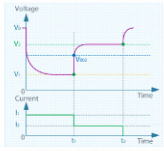


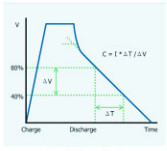
Maximum current up to 240A

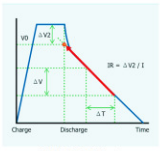
Safety Protection
Pre-test contact and polarity check to ensure correct operation
Real-time external loop resistance surveillance
Comprehensive recipe safety protection mechanism.

Item	CC	CC-CV	CP	CP-CV	CR	Rest
Over Voltage Detect	●	●	●	●	●	●
Under Voltage Detect	●	●	●	●	●	
Over Current Detect	●	●	●	●	●	
Over Capacity Detect	●	●	●	●	●	
Delta Voltage (±ΔV)	●	●	●	●	●	●
Delta Current (±ΔI)	●	●	●	●	●	

Build-in Multiple Output Mode
Constant Current (CC), Constant Power (CP), Constant Voltage (CV), Constant Resistance (CR), Direct Current Internal Resistance (DCIR) Test & Electric Double Layer Capacitor (EDLC) Test, Self-discharge (SD) Test.


Battery DCIR Test


EDLC Cap. Test


EDLC DCR Test

Powerful Test Software
Battery Pro is specifically designed to meet the various requirements of secondary battery cell with high safety and stability. Charge and discharge protection aborts tests when abnormal conditions are detected. Data loss, storage and recovery are protected against power failure.

Battery Pro Software

Third Party Products Integration (optional)

- Data logger for temperature/voltage measurement
- Temperature chamber.
- Battery Cell holders

SPECIFICATIONS

Model	17216M-10-6		17208M-6-30		17212R-5-100	
Maximum Voltage/Current	10V/6A		6V/30A		5V/100A	
Maximum Channel	16 Ch. / set (fixed)		8 Ch. / set (fixed)		12 Ch. / set (fixed)	
Parallelable Current	6A to 96A		30A to 240A		200A, 300A, 400A, 600A, 1200A	
Voltage						
Setting Range	0V~10V, 0V~5V or -5V~5V, resolution 1mV		0mV~6000mV resolution 1mV		0mV ~ 5000 mV, resolution 1mV *	
Reading Range	0V~10.4V , 0V~5.04V or -5V~5.04V, resolution 0.1mV		0V~6240mV resolution 0.1mV		0.0mV ~ +5199.9 mV, resolution 0.1mV	
Accuracy	± (0.02% F.S.)		± (0.02% F.S.)		± (0.02% rdg.+0.02% F.S.)	
Current						
Setting Range	200uA	0.1uA ~ 200uA, resolution 0.1uA	1mA	1uA ~ 1mA, resolution 1uA	100A	0.01A ~ 100.00A, resolution 0.01A
	6mA	1uA ~ 6mA, resolution 1uA	100mA	0.1mA ~ 100mA, resolution 0.1mA		
	200mA	0.1mA ~ 200mA, resolution 0.1mA	10A	0.01A ~ 10A, resolution 0.01A		
	6A	1mA ~ 6A, resolution 1mA	30A	0.01A ~ 30A, resolution 0.01A		
Reading Range	200uA	0A ~ 210uA, resolution 0.01uA	1mA	0A ~ 1.05mA, resolution 0.1uA	100A	0.000A ~ 105.000A resolution 0.001A
	6mA	0A ~ 6.3mA, resolution 0.2uA	100mA	0A ~ 105mA, resolution 0.01mA		
	200mA	0A ~ 210mA, resolution 0.01mA	10A	0A ~ 10.5A, resolution 0.001A		
	6A	0A ~ 6.3A, resolution 0.2mA	30A	0A ~ 31.5A, resolution 0.001A		
Accuracy	200uA	± (0.02% rng.)	1mA	± (0.02% rng.)	100A	± (0.05% rdg.+0.05% F.S .)
	6mA		100mA			
	200mA		10A			
	6A		30A			
Power						
Setting Range	2mW	1uW~2mW, resolution 1uW	6mW	6uW~6mW, resolution 1uW	500W	0.05W ~ 500.00W, resolution 0.01W
	60mW	10uW~60mW, resolution 10uW	600mW	0.6mW~600mW, resolution 0.1mW		
	2W	1mW~2W, resolution 1mW	60W	0.06W~60W, resolution 0.01W		
	60W	10mW~60W, resolution 10mW	180W	0.18W~180W, resolution 0.01W		
Reading Range	2mW	0W~2.1mW, resolution 0.1uW	6mW	0W~6.3mW, resolution 0.1uW	500W	0.000W ~ 520.000W, resolution 0.001W
	60mW	0W~63mW, resolution 2uW	600mW	0W~630mW, resolution 0.01mW		
	2W	0~2.1W, resolution 0.1mW	60W	0~63W, resolution 1mW		
	60W	0~63W, resolution 2mW	180W	0~189W, resolution 1mW		
Accuracy	2mW	± (0.02% rng.)	6mW	± (0.02% rng.)	500W	(0.07% rdg.+0.07% F.S.)
	60mW		600mW			
	2W		60W			
	60W		180W			

Note *1: The maximum discharge current will derate at low voltage range between 1V to 0V.
Note *2: All specifications are subject to change without notice. Please visit our website for the most up to date specifications.

Chroma

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