

CELL SIMULATION WITH FAULT SIMULATION AND NTC RACK

CSNTC-31-1-126/28

OVERVIEW

The Cells Simulation Rack/Module is a battery simulator module with 126 isolated cells used to simulate battery features. The voltage of each cell can be adjusted through Standard CAN, Ethernet TCP and USB-C, as well as getting the voltage and the current measurements.

A single module can be used or several in series according to the requirements (based on how many cells are needed). Also, the module can be used independently or in a mountable rack system.



DIMENSION

L*W*H = 55cm*70cm*113.7cm

KEY FEATURES

- 126 independent and isolated cells in total.
- Extendable number of cells by adding more modules in series.
- Standalone module or bench rack mounted.
- Each cell has an adjustable output voltage of 0 V to 7 V with 1.0 mV precision.
- The current sourcing of each cell is up to 1 A. Voltage measurement with a precision of 0.4 mV.
- High current measurement with a precision of 1mA.
- Low current measurement with a precision of 20 uA.
- Controllable by CAN ISO 11898-2, Ethernet TCP and USB-C.
- 28 Channels of NTC. Each NTC channel has an adjustable output resistance simulation value from 0 Ω to 8.1 Ω with 1 Ω steps.
- LED Indicator for fault status
- Support: Shortcut, Open Circuit, Reversed Mode

OPERATING TEMPERATURE

-20 °C ~ +60 °C

POWER REQUIREMENT

DC power supply: 24 VDC

DETAILED SPECIFICATIONS:

Cell Voltage Output	Value	Unit
Range	0 to 7	V
Stability Precision	1000	µV
Setting Precision	1000	µV
Isolation Voltage	1500, Tested for 1 minute and 1mA max	V

Cell Discharge Current	Value	Unit
Range	0 to 1	A

Cell Charge Current	Value	Unit
Range	500	mA

Cell Voltage Measurement	Value	Unit
Range	-7 to 7	V
Resolution	16	bit
Precision	400	µV

Low Cell Current Measurement	Value	Unit
Range	-1 to 1	mA
Resolution	16	bit
Precision	20	µA

High Cell Current Measurement	Value	Unit
Range	-1000 to 1000	mA
Resolution	16	bit
Precision	1	m

NTC DETAILED SPECIFICATIONS:

Resistance	Value	Unit
Range	0 to 8.1 M	Ω
Current Measurement	Value	Unit
Resolution	1	Ω
Range	0 to 100	mA
Resolution	12	bit
Precision	1	mA

ENVIRONMENTAL

The Cells Simulation module is intended for indoor use only but may be used outdoors if installed in a suitable enclosure. Refer to the manual for more information about meeting these specifications.

Operating temperature	-40°C--+55°C
Storage temperature	-40°C--+85°C
Ingress protection (IP code)	None
Operating humidity	10-90% RH non condensing
Storage humidity	5-95% RH non condensing



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ART Logics (Shanghai) Testing Equipment CO., Ltd
艾驰电子检测设备技术（上海）有限公司

Tel: 021-61075469
Room 105, No. 258, Chengjiaqiao Road, Shanghai, P.R. China



www.art-logics.com
support@art-logics.com