

Last version: V1.2 - 2023/02/01

Cell Simulator LM



- Cells Simulation Board with 6 independent cells in total.
- Extendable number of cells by adding more boards.
- Each cell has adjusted output voltage (0-7V) and resolution of 1mV.
- The current sourcing of each cell is in the range 0-1.5A.
- Voltage and current can be measured with ADC at 1mV and 2mA resolution.
- Instant or average measurement.
- The board is controllable by CAN ISO 11898-2.

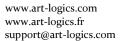
Overview:

The <u>Cells Simulation Board</u> (EM_ALCS LM AC) is a battery simulator board used to **simulate battery features**. This board contains 6 isolated cells that can be controlled or adjusted by software via CAN ISO 11898-2. A single board can be used or several in series according to the requirements (based on how many cells are needed).

The voltage of each cell can be controlled with the software, also the voltage and current for each cell can be measured with the software.

Detailed Specifications:

Cell Voltage Output	
Cell NO	16
Voltage output	[0V,7V]
Precision	±1mV





Cell NO	16	
Current output	[0A,1.5A]	
Precision	1.5mA	
Cell Voltage Measurement		
Cell NO	16	
Voltage measured	[-6V,6V]	
Precision	±10mV	
Cell Current Measurement		
Cell NO	16	
Current measured	[0A,1.5A]	
Precision	1.5mA	

Power Requirement

DC power supply:

24 VDC, 1000 mA

Working Voltage Range: 9—36V

Working voltage range means 24V power supply voltage range.



Ph	vs	ic	al:

Dimension:

L*W*H = 248mm*175mm*28mm

Operating temperature:

-20 °C ~ +60 °C

Usage examples:

Mainly used to simulate battery's features (various voltage, charge, discharge, etc);

For example: If you need to test your BMS (battery management system), battery pack is a must, so you can use the Cells Simulation Board to simulate real battery pack to finish your test.

Environmental

The Cells Simulation Board 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℃+55℃
Storage temperature	-40℃+85℃
Ingress protection (IP code)	None
Operating humidity	10-90% RH non condensing
Storage humidity	5-95% RH non condensing

Support and Services

Calibration

ART logics measurement hardware is calibrated to ensure measurement accuracy and verify that the device meets its published specifications. To ensure the ongoing accuracy of the measurement hardware, ART logics offers basic or detailed recalibration service.