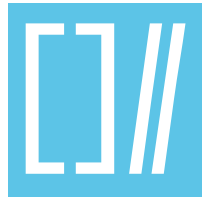


CELL EMULATOR

PTS-CE-1800



The PTS-CE-1800 Cell Emulator is our solution to provide cell sensing test capabilities for battery electronics in various systems including EVs or grid storage. With 18 differential cell voltage outputs the PTS-CE-1800 can be used in multiple applications during the whole development process. This brings significant gains for quality and speed in Software Development, Validation or End-Of-Line testing.

In case more the cell emulations are needed multiple PTS-CE-1800 can be controlled in a single CAN. The integrated microcontrollers per cell enable additional realtime functions like wave form generation or open circuit injection.

Applications

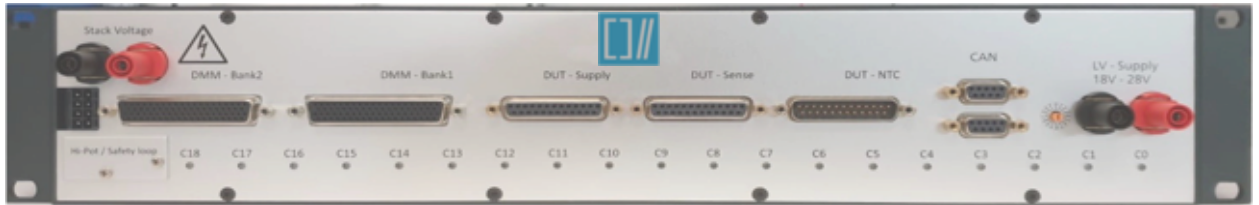
- Algorithm development
- BMS Software testing and verification
- HiL system integration
- Hardware validation
- Production End of Line testing

Key Features

- Integrated open circuit fault injection
- Separated supply and sense connections
- Separated measuring connectors for external calibrated DMMs
- Integrated Waveform generator
- Programmable Microcontroller
- Addressable to support multiple emulators in one setup
- Integrated high accuracy measurement 100uA range
- Emulation up to 18 differential cell voltage per emulator
- Cell output voltage 0,5V - 4,5V

TECHNICAL DATA

PTS-CE-1800



Overall technical data

Channels	18+1
Operation Temperature	10 - 40°C
Control interface	CAN
Available libraries	Python, CANoe
Supply voltage	24V DC
Supply power	90W
Mounting	19" rack mountable (2HU)
Dimensions (LxWxH)	245,75 x 482,60 x 95,30 mm
Weight	4,05 kg
Certifications	CE, RoHS

Technical data per cell channel (values for reference only – need to be checked based on application)

Minimum voltage	0,5 V
Maximum voltage	4,5 V
Voltage dynamic frequency min	CAN bus limited, 10%-90% 10us
Voltage accuracy+-	5mV (10Bit)
Residual ripple	250 uV
Resolution	10 Bit
Balancing current max	1A
Balancing power max	1W (10Ohm)
Current measurement range standard	+/-1500mA 24Bit
Current measurement range high accuracy mode	+/-100uA 24Bit
Max Voltage (Isolation)	150V (Connector limited; 1000V Cell)
Cell Sense connection fault simulation	X
Two point cell temperature emulation	X
Programmable microcontroller per cell	X