

Modular charging test system

IDIADA's MCTS

IDIADA has developed a portable, multi-standard (Mode 3 AC, CCS, NACS, CHAdeMO and GB/T) and multi-platform (EV and EVSE) charging test machine.

This test machine allows communication protocol and electrical safety compliance testing against real DUTs and across all different existing charging standards. IDIADA's MCTS is a crucial tool to support automotive OEMs and EVSE manufacturers with the validation of EV charging interfaces.

Benefits

- Same tool for all charging interfaces. Worldwide testing capability
- Reduction of design iterations granting short development time
- Early assessment on communication protocol issues, charging sequences compliancy and easy integration with additional sub-systems
- Easy tool for test case creation and implementation
- · Intuitive and modular HMI according to test needs

Why IDIADA?

- Single partner for whole development
- Know-how acquisition
- 10 years' experience undertaking charging interoperability projects
- · Multi-disciplinary teams
- Understanding of legal and consumer requirements worldwide
- International presence
- State-of-the-art testing facilities

TECHNICAL FEATURES

- Linux based real-time with integrated FPGA
- More than 400 Test cases based on regulations and know-how
- Control and power measurement
- High-voltage safety related tests
- Integrated V2G analyser
- 30kW / 1.000V / 80A DC sink/source
- 64A 3-phase AC Sink/Source
- Integrated safety device
- Auto-results
- Simulation of specific vehicle models



SUPPORTED PROTOCOLS

- CCS1, CCS2 and NACS
 - DIN 70121
 - DIN 70122
 - ISO 15118-2 (PnC)
 - ISO 15118-4/-5
 - ISO 15118-20
 - IEC 61851-23
- CHAdeMO
 - 0.9
 - 1.0.1 / 1.1 / 1.2
 - 2.0
 - V2H

- GB/T
 - 27930 v2011
 - 27930 v2015
- AC mode 3
 - IEC 61851-1
 - **SAE J1772**
 - GB/T 18487 1
 - · ISO 15118
 - ISO 15118-20
- OppCharge
- Plug and Charge with TLS
- Bidirectional Power



MODULARITY

- Standalone power system or configuration with existing DC power equipment
- EV and EVSE emulation mode switchable
- PLC, CAN and WLAN communication capability
- Easy switching of the different protocol control boards
- Break-out box mode for communication and data acquisition between real EVs/EVSEs
- Power integration up to 500kW DC



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GB/T Module