

SL2000A

Charging Discover Software

Accelerate Your Charging Interface Testing Operations



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Accelerate Your Charging Interface Testing Operations

The SL2000A Charging Discover Software (CD) controls Keysight's Charging Discovery System (CDS). This software is compatible with the following systems:

- [SL1040A-ST2 Scienlab Charging Discovery System - Portable Series](#)
- [SL1040A-EMC Scienlab Charging Discovery System - EMC Series for EV Test](#)
- [SL1040A-EM2 Scienlab Charging Discovery System - EMC Series for EVSE Test](#)
- [SL1047A-HP4 Scienlab Charging Discovery System - High-Power Series](#)
- [SL2600A Megawatt Charging Discovery System](#)

The SL2000A software is essential for operating the CDS hardware, offering functionalities such as visualizing measured values, recording test sequences, and generating comprehensive reports. Additionally, it is important to note that the PC software Charging Discover is not licensed; instead, licenses are activated directly on the CDS hardware, ensuring seamless integration and operation.

This datasheet explains the software framework and extensions, as well as all currently available emulation packages driven by CD, which are specifically tailored to charging technology application requirements.

To execute Keysight test cases on the CDS hardware, the corresponding licenses for the [SL1300A Charging Discover Test Packages](#) are mandatory.



Figure 1. Example of SL2000A-compatible test systems: SL1047A-HP4 (left) and SL1040A-ST2 (right), shown with the SL2000A software (center)

Overview of Charging Discover Software (CD) options

Software Framework

Charging Discover Application Software and Drivers	SL2001A
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Application Software Extensions

Custom Test Case Execution	SL2002A
External Test Automation Interface	SL2003A
Custom Power Unit Interface	SL2004A

CD Emulation Packages

EVSE Emulation for EV Test

EV Emulation for EVSE Test

	EVSE Emulation for EV Test		EV Emulation for EVSE Test	
	AC	DC	AC	DC
AC Basic Charging (PWM)	SL2020A	-	SL2010A	-
CCS/NACS – DIN 70121	-	SL2021A	-	SL2011A
CCS/NACS – ISO 15118-2/3 EIM AC/DC	SL2022A	SL2023A	SL2012A	SL2013A
GB/T 27930-2011-2015	-	SL2024A	-	SL2014A
GB/T 27930.2-2024	-	SL2025A	-	SL2015A
Bharat DC	-	SL2026A	-	SL2016A
CHAdeMO	-	SL2027A	-	SL2017A

Note: To prevent compatibility issues between different software release versions, ensure all assets share the same entitlement date. You can find detailed information in the latest release notes. SL2001A is required to operate the CDS hardware.

Option Class Software – Framework

SL2001A Charging Discover Application Software and Drivers

Key Features

- User interface (UI) and application:
 - Accessible via a Windows application with unlimited installations on the operating PC for maximum flexibility.
- SL2001A provides:
 - Graphical UI for parameter configuration, monitoring, and smart charging control.
 - Measurement and logfile analysis.
 - Full access to all analysis features.
- Enabled use cases:
 - (X) Man-in-the-middle mode (trace recordings) for all charging standards, independent of the emulation package license.
 - (O) Active EV/EVSE emulation (see chapters Option Class EV Emulation and Option Class EVSE Emulation).
 - (O) (Pre-)conformance and certification test cases (see data sheet [SL1300A Charging Discover Test Packages](#)).
- Safety and compliance:
 - Built-in system and user-defined switch-off criteria.
 - Insulation guard monitoring and error handling.
 - Integrated report template editor for professional documentation.
- Trace management:
 - Automatic recording of all test runs.
 - Tools for restoring corrupted traces and managing disk space.
 - PCAP logging and export capability (.pcap) for detailed protocol analysis and troubleshooting.
- Powerful data acquisition and analysis:
 - Real-time monitoring of voltage, current, power, and energy.
 - Graphical and tabular visualization of measured data.
 - Export options: CSV, Excel, MDF4, PDF reports.
- Advanced test case management:
 - Execute certified test cases.
 - Create and edit custom test cases. Note: Executing custom test cases requires SL2002A.
 - Organize test cases in project files for automated execution.

- Supported power units:
 - RP7900 Series Regenerative Power System (DC)
 - SL1041B Scienlab Dynamic DC Emulator – Mid-Power Series (DC)
 - SL1200A Series Scienlab Regenerative AC / Grid Emulator (AC and DC)
 - SL1800A Series Scienlab Regenerative DC Emulator High-Power Series (DC)

Operation Modes of the Charging Discover Software

In emulation mode, the CDS reproduces standard-defined charging processes using simplified charging models, with certain tolerances beyond strict standard limits.

In test case mode, the CDS operates with test case specific tolerances to detect relevant errors while ignoring unrelated ones and disables charging models to allow manual voltage/current control and custom model programming.

In manual mode, the CDS runs without a state machine, enabling direct control of all electrical parameters, power sources, and sinks via the parameter interface. Note: SL2003A is required.

In No-HV mode, available for all charging standards, the CDS enables charging by populating high-level protocol messages and set-point parameters with calculated data when no power source or sink is selected. The DUT must support HV simulation to prevent test interruptions.

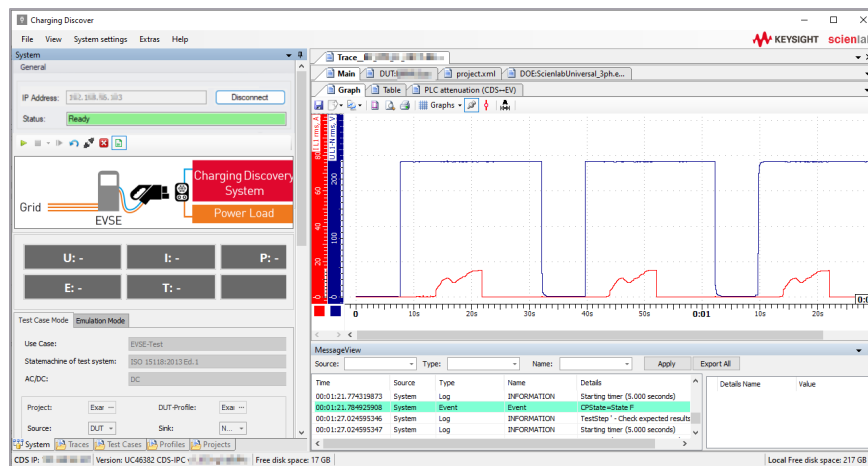


Figure 2. Main window: System view, graph, and message view

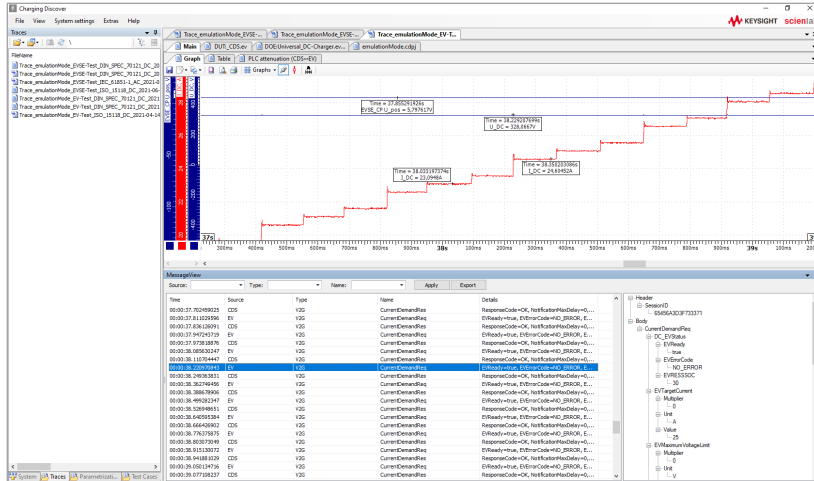


Figure 3. Traceability: Synchronous PWM, V2G and HV measurements

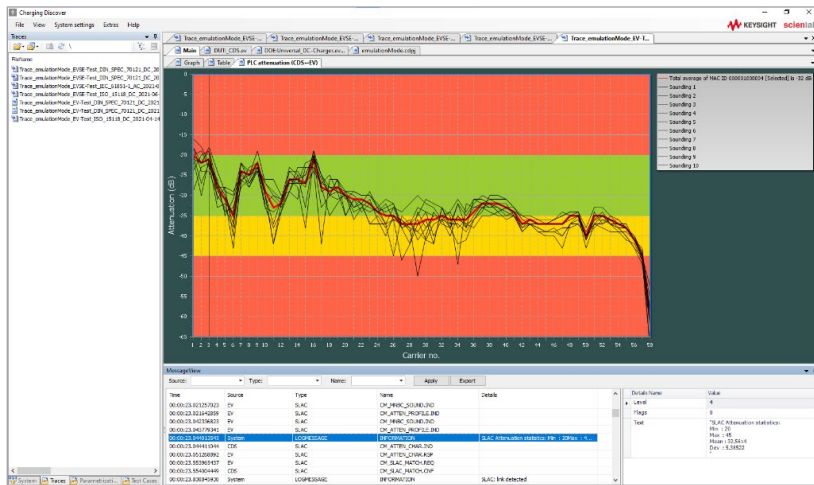


Figure 4. Traceability: Graphical SLAC attenuation

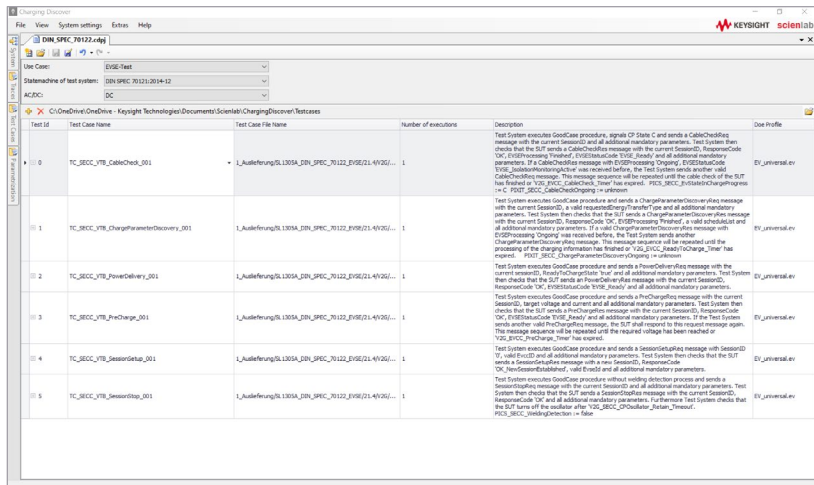


Figure 5. Project editor: Create a project with a sequence of 1 to N test cases

With CD, you can define specific values to measure and record, allowing for tailored data collection. You can evaluate data in real time during live measurements using intuitive selection and scaling tools. Key features include:

- **Effective Data Visualization:** You will encounter measurement data graphs throughout the entire test, allowing fast and convenient evaluation of large data volumes.
- **Time-Synchronous Analysis:** Common timestamps enable you to analyze measurement data synchronously at millisecond intervals, ensuring precise temporal alignment.

Offline evaluation: You can evaluate recorded tests offline, enabling post-test analysis and review.

Software Functionality without Additional Extension Licenses

Reading and writing test cases is a basic function of the Charging Discover Software. With the Test Editor, you can conveniently define your own test cases directly within the CD graphical user interface. Test case programming is performed using functions based on common high-level language elements. Loops, test steps, and subroutines can be combined to create a more efficient workflow. Available system functions and parameters are automatically suggested and explained through tooltips as you type (intelligent code completion).

- Simple and intuitive programming language (proprietary, but C-like) and clear tabular representation.
- Use of chronological value tables or real charging profiles.
- Dynamic source/sink parametrization: Modification of setpoint parameters while the source/sink is active.
- Independent creation of test sequences using variables for different DUT profiles.
- Use of "print commands" for documenting dynamic results in the CD trace.

The software functionality, without an additional license, includes reading and modifying test case packages purchased from Keysight as well as customized (self-created) test cases. Recording all charging messages and displaying their contents in plain text is possible. You can open recorded traces and analyze them. To execute customized test cases, the SL2002A Application Software Extension – Custom Test Case Execution is required.

Option Class Software – Extension

SL2002A Application Software Extension – Custom Test Case Execution

SL2002A extends the software functionality described above by enabling the execution of custom test cases. To run custom test cases, no license for the emulation packages is required.

Custom test cases support the following functions via the CD test editor:

- Read charging state (PWM and high-level communication) and all electrical measurements of CDS (signal and power).
- Manual control of CP and PP output in EVSE emulation (e.g., PWM amplitude, frequency, or duty cycle).
- Manual control of CP in EV emulation (e.g., setting R2/R3 resistance and cable capacitance).
- Variation of all charging communication parameters (before and during charging).
- Injection of fault states in CP and PP (e.g., short circuit).
- Manual control of attached power sources/loads: voltage/current setpoints.
- Access all charging state-related high-level parameters of EV and EVSE (V2G or CAN) as decoded values (e.g., TargetCurrent, PresentVoltage, SOC).
- Protocol-specific message data configuration, timeout configuration, and error injection (SessionID, sequence, StatusCode).

The following figure illustrates the interface topology of the CDS, highlighting SL2002A.

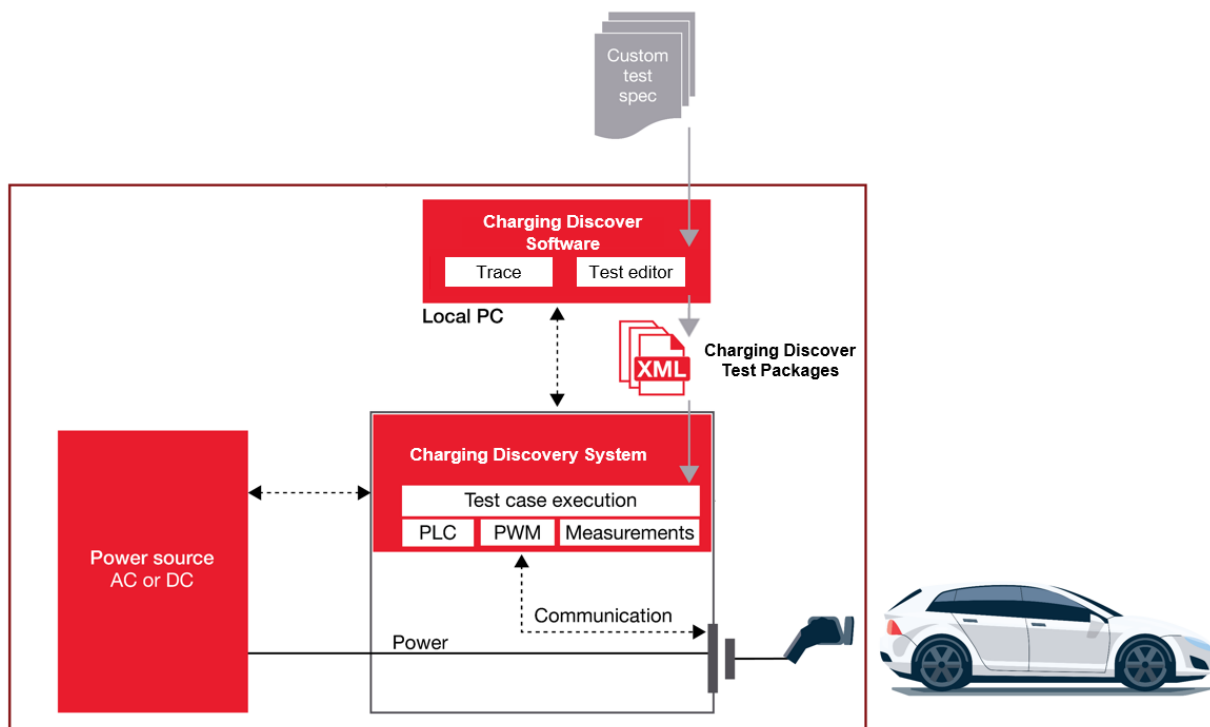


Figure 6. Interface topology of the CDS with SL2002A

SL2003A Application Software Extension – External Test Automation Interface

SL2003A enables you to connect the Charging Discovery System to a third-party test automation via Ethernet (TCP/UDP). This interface allows you to parametrize EV/EVSE emulation or test case mode and execute tests remotely. The Keysight SL2000A Charging Discover Software captures traces in this mode when it is automatically connected. However, the software tool is no longer required during test execution.

Remote access supports the following functions via the CDS parameter interface:

- Configure use case, charging standard, and operation mode (AC or DC) or select and run test projects/cases.
- Start, stop, and reset the system.
- Read charging state (PWM and high-level communication) and all electrical measurements of CDS (signal and power).
- Manual control of CP and PP output in EVSE emulation (e.g., PWM amplitude, frequency, or duty cycle).
- Manual control of CP in EV emulation (e.g., setting R2/R3 resistance and cable capacitance).
- Remote variation of all charging communication parameters (before and during charging).
- Remote injection of fault states in CP and PP (e.g., short circuit).
- Manual control of attached power sources/loads: voltage/current setpoints, power-switch off limits.
- Access all charging state-related high-level parameters of EV and EVSE (V2G or CAN) as decoded values (e.g., TargetCurrent, PresentVoltage, SOC).
- Direct access to EV and EVSE PLC modem of CDS (GreenPHY QCA7000).

This license includes an interface specification for the CDS parameter interface, a .NET driver DLL for the CDS Scienlab Ethernet Protocol (SLEP) interface, and an interface specification detailing the main class, data types, and functions. This driver will be updated with every interface update, as applicable, to facilitate the use of the external test automation interface.

The following figure illustrates the interface topology of CDS, highlighting SL2003A.

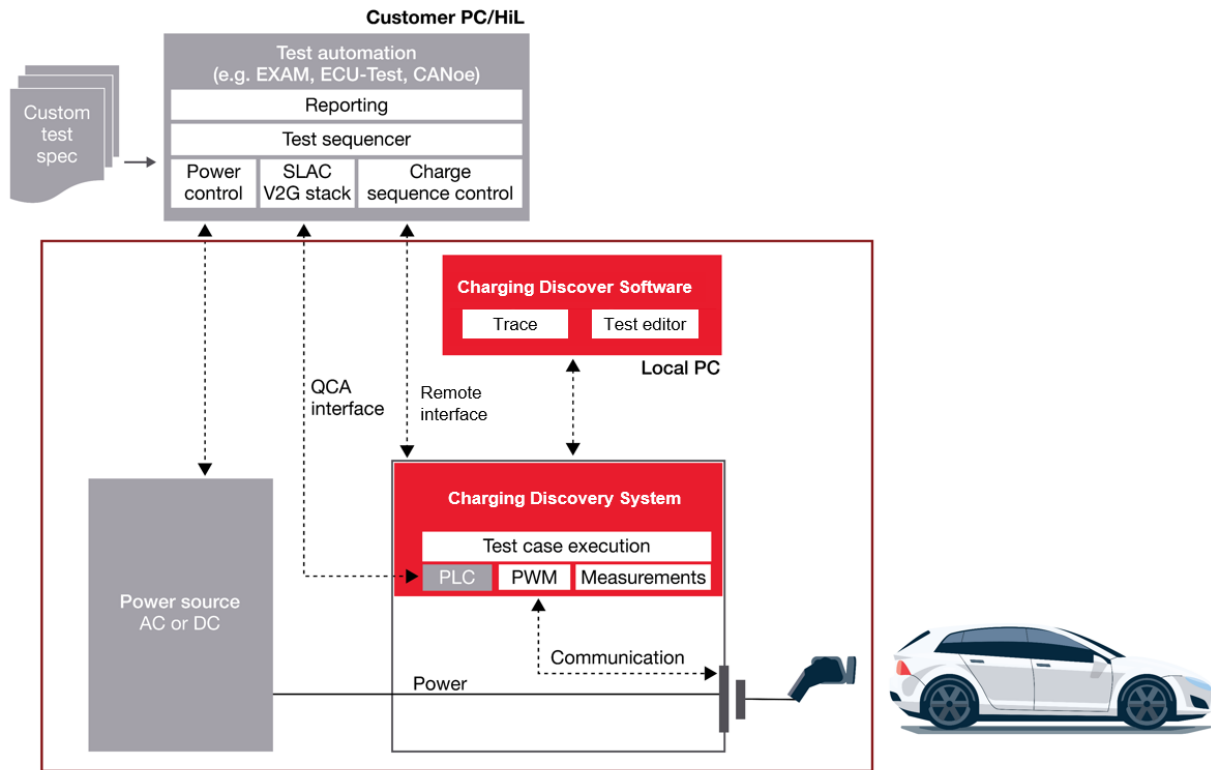


Figure 7. Interface topology of the CDS with SL2003A, including the .NET driver DLL for the SLEP interface

Due to direct access to all internal CDS components, you can integrate the CDS into your own test benches, automation software, or hardware-in-the-loop systems.

Note: When doing so, the CDS neither controls the charging sequence nor the third-party power sources and loads. Since your software and operator manage this control, Keysight is not responsible for technical integration issues. Technical support can be received through the productivity support service.

Additionally, it is possible to remotely control and monitor test case execution via the CDS remote test case interface. In combination with the CDS and CD, this interface can be used to:

- Open and read CD project files
- Show and modify test case parameters in a project file
- Start and stop test cases in the CDS
- Show test case live states

This license includes a .NET driver DLL for the CDS remote test case interface, along with an interface specification detailing the main class, data types, and functions. This driver will be updated with every interface update, as applicable, to facilitate the use of the CDS remote test case interface.

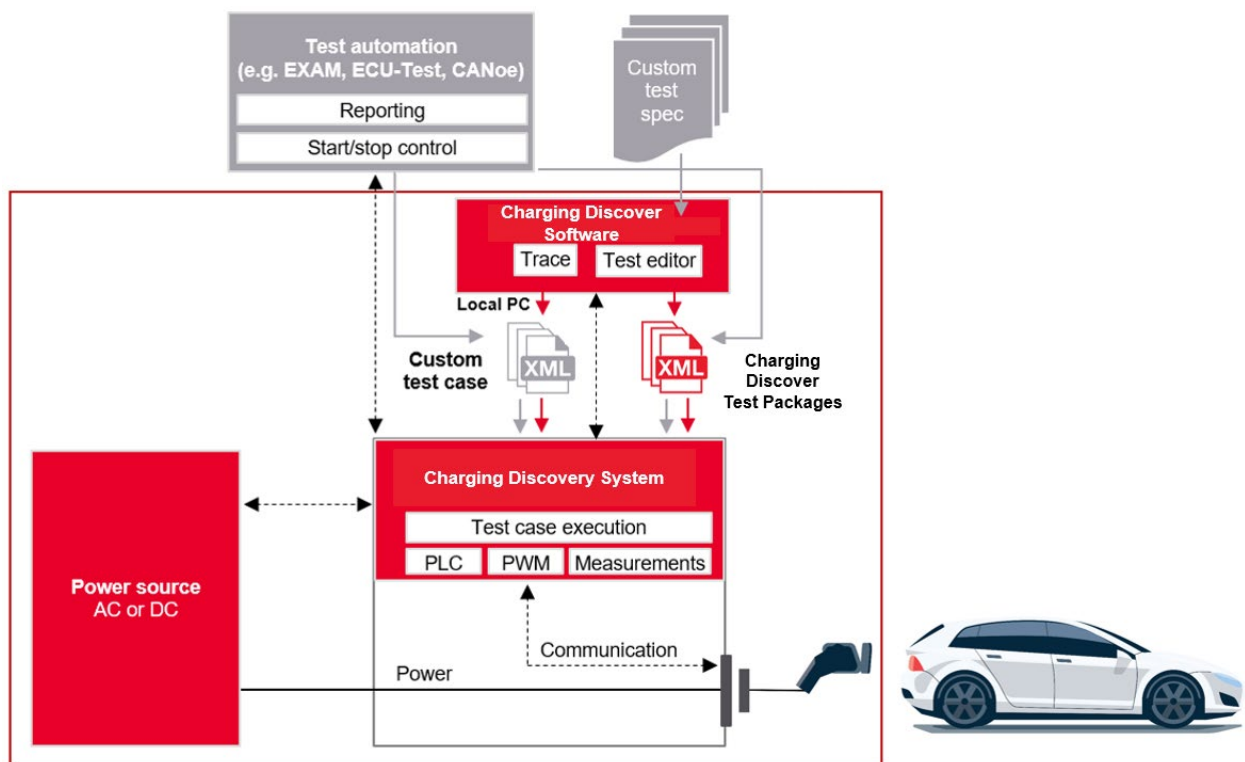


Figure 8. Interface topology of the CDS with SL2003A, including the .NET driver DLL for the CDS remote test case interface

SL2004A Application Software Extension – Custom Power Unit Interface

SL2004A enables you to conduct tests with third-party emulators. This extension acts as a gateway, translating interactions between the Charging Discovery System and third-party emulators. Additionally, it incorporates several management functions within this gateway, enhancing overall system efficiency and user control. Please note that the gateway must be provided/implemented by the customer. This setup applies to CDS configurations such as SL1040A-ST2 or SL1047A-HP4, but not to EMC-compliant variants like SL1040A-EMC/EM2.

The following figure illustrates the system structure of a CDS setup, including SL2004A, supporting a third-party emulator:

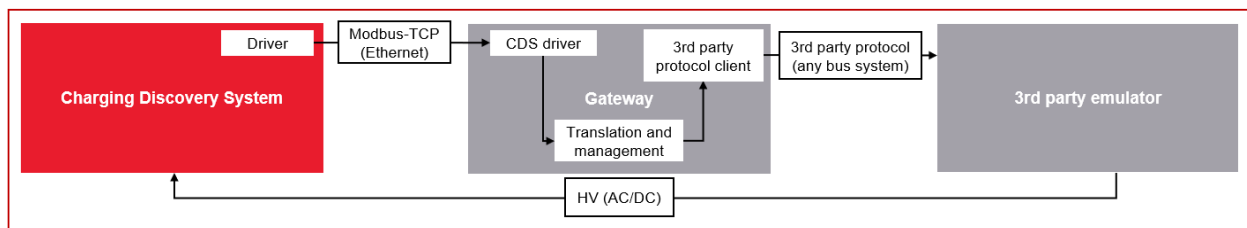


Figure 9. System structure of a CDS setup featuring a third-party emulator and the SL2004A Application Software Extension – Custom Power Unit Interface

The CDS is connected to the gateway via an Ethernet cable to communicate using Modbus-TCP. The gateway will provide the Modbus-TCP server, while the CDS will be the Modbus-TCP client. The communication between the gateway and the third-party emulator depends on the protocol used. The HV-connection is directly between the CDS and the third-party emulator.

For any questions regarding third-party emulator involvement, please contact your local solution engineer.

Option Class EV Emulation

SL2010A EV Emulation Package for EVSE Test - AC Basic Charging (PWM)

Key Features

- AC basic charging (PWM) based on IEC 61851-1:2017 Ed. 3, SAE J1772, IS 17017 (Part 1):2018, and GB/T 18487-2015
- EV Human Machine Interface (HMI) with Control Pilot (CP) State selection
- EVSE HMI with CP Voltage, Oscillator & Duty Cycle selection
- Increased tolerance values for control pilot (CP) voltage
- Increased tolerance values for proximity pilot (PP) / connection confirmation (CC) resistance
- Violations of power/current level are ignored concerning the pulse width modulation (PWM) duty cycles (only switch-off limits in the device of emulation (DoE) profile and system limits are checked)

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2011A EV Emulation Package for EVSE Test - CCS/NACS - DIN 70121

Key Features

- Support of SLAC and matching process according to DIN 70121:2014
- Support of "SECC Discovery Protocol" and TCP/IPv6 binding process according to DIN 70121:2014
- Support of "V2GTP" message encapsulation according to DIN 70121:2014
- Support of "Supported Application Protocol Handshake" process and messaging according to DIN 70121:2014
- Support of all V2G messages according to DIN 70121:2014 for charging setup, charging loop, and termination of the charging process
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2012A EV Emulation Package for EVSE Test - CCS/NACS - ISO 15118-2/3 EIM AC

Key Features

- Support of SLAC and matching process according to ISO 15118-3:2015
- Support of "SECC Discovery Protocol" and TCP/IPv6 binding process according to ISO 15118-2:2014
- Support of "V2GTP" message encapsulation according to ISO 15118-2:2014
- Support of "Supported Application Protocol Handshake" process and messaging according to ISO 15118-2:2014
- Support of all common and AC V2G messages according to ISO 15118-2:2014 for charging setup, charging loop, and termination of the charging process (EIM via TCP)
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2013A EV Emulation Package for EVSE Test - CCS/NACS - ISO 15118-2/3 EIM DC

Key Features

- Support of SLAC and matching process according to ISO 15118-3:2015
- Support of "SECC Discovery Protocol" and TCP/IPv6 binding process according to ISO 15118-2:2014
- Support of "V2GTP" message encapsulation according to ISO 15118-2:2014
- Support of "Supported Application Protocol Handshake" process and messaging according to ISO 15118-2:2014
- Support of all common and DC V2G Messages according to ISO 15118-2:2014 for charging setup, charging loop, and termination of the charging process (EIM via TCP)
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2014A EV Emulation Package for EVSE Test - GB/T 27930-2011-2015

Key Features

- EV emulation according to GB/T 27930-2011-2015 (DC)
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2015A EV Emulation Package for EVSE Test - GB/T 27930.2-2024

Key Features

- EV emulation according to GB/T 27930.2-2024, which is based on the standard GB/T 27930-2011-2015
- Test support for bidirectional power transfer, authentication, charge scheduling, or power supply mode
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2016A EV Emulation Package for EVSE Test - Bharat DC

Key Features

- EV emulation according to Bharat (DC):2017, which is based on the standard GB/T 27930-2011-2015
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2017A EV Emulation Package for EVSE Test - CHAdeMO

Key Features

- EV emulation according to the CHAdeMO specification
- Supported CHAdeMO protocols: 0.9; 0.9.1; 1.0.0; 1.0.1; 1.1; 1.2; 2.0
- A bi-directional charging configuration option for the Emulation Mode in System View allows selecting the charging or discharging process, supporting V2H (supported in CHAdeMO 0.9.x and 1.x).
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

Option Class EVSE Emulation

SL2020A EVSE Emulation Package for EV Test - AC Basic Charging (PWM)

Key Features

- AC basic charging (PWM) based on IEC 61851-1:2017 Ed. 3, SAE J1772, IS 17017 (Part 1):2018, and GB/T 18487-2015
- EV Human Machine Interface (HMI) with Control Pilot (CP) State selection
- EVSE HMI with CP Voltage, Oscillator & Duty Cycle selection
- Increased tolerance values for control pilot (CP) voltage
- Increased tolerance values for proximity pilot (PP) / connection confirmation (CC) resistance
- Violations of power/current level are ignored concerning the pulse width modulation (PWM) duty cycles (only switch-off limits in the device of emulation (DoE) profile and system limits are checked)

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2021A EVSE Emulation Package for EV Test - CCS/NACS - DIN 70121

Key Features

- Support of Signal Level Attenuation Characterization (SLAC) and matching process according to DIN 70121:2014
- Support of "SECC Discovery Protocol" and TCP/IPv6 binding process according to DIN 70121:2014
- Support of "V2GTP" message encapsulation according to DIN 70121:2014
- Support of "Supported Application Protocol Handshake" process and messaging according to DIN 70121:2014
- Support of all V2G messages according to DIN 70121:2014 for charging setup, charging loop, and termination of the charging process
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2022A EVSE Emulation Package for EV Test - CCS/NACS - ISO 15118-2/3 EIM AC

Key Features

- Support of SLAC and matching process according to ISO 15118-3:2015
- Support of "SECC Discovery Protocol" and TCP/IPv6 binding process according to ISO 15118-2:2014
- Support of "V2GTP" message encapsulation according to ISO 15118-2:2014
- Support of "Supported Application Protocol Handshake" process and messaging according to ISO 15118-2:2014
- Support of all common and AC V2G messages according to ISO 15118-2:2014 for charging setup, charging loop, and termination of the charging process (External Identification Means (EIM) via Transmission Control Protocol (TCP))
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2023A EVSE Emulation Package for EV Test - CCS/NACS - ISO 15118-2/3 EIM DC

Key Features

- Support of SLAC and matching process according to ISO 15118-3:2015
- Support of "SECC Discovery Protocol" and TCP/IPV6 binding process according to ISO 15118-2:2014
- Support of "V2GTP" message encapsulation according to ISO 15118-2:2014
- Support of "Supported Application Protocol Handshake" process and messaging according to ISO 15118-2:2014
- Support of all common and DC V2G messages according to ISO 15118-2:2014 for charging setup, charging loop, and termination of the charging process (EIM via TCP)
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2024A EVSE Emulation Package for EV Test - GB/T 27930-2011-2015

Key Features

- EVSE emulation according to GB/T 27930-2011-2015 (DC)
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2025A EVSE Emulation Package for EV Test - GB/T 27930.2-2024

Key Features

- EVSE emulation according to GB/T 27930.2-2024, which is based on the standard GB/T 27930-2011-2015
- Test support for bidirectional power transfer, authentication, charge scheduling, or power supply mode
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2026A EVSE Emulation Package for EV Test - Bharat DC

Key Features

- EVSE emulation according to Bharat (DC):2017, which is based on the standard GB/T 27930-2011-2015
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

SL2027A EVSE Emulation Package for EV Test - CHAdeMO

Key Features

- EVSE emulation according to the CHAdeMO specification
- Supported CHAdeMO protocols: 0.9; 0.9.1; 1.0.0; 1.0.1; 1.1; 1.2; 2.0
- A bi-directional charging configuration option for the Emulation Mode in System View allows selecting the charging or discharging process, supporting V2H (supported in CHAdeMO 0.9.x and 1.x).
- Power value configuration

Note 1: Software maintenance options are available on request.

Note 2: Module upgrades can be implemented at a later stage at any time. A valid support and maintenance contract for all existing SW assets of CD is a mandatory precondition for performing the upgrade.

Flexible Software Licenses and KeysightCare Software Support Subscriptions

Keysight offers a range of flexible licensing options tailored to your needs and budget. Choose your license term and license type.

License Terms

Perpetual – Perpetual licenses are valid indefinitely.

Subscription – Subscription licenses are valid only for the license term (3, 6, 12, 24, or 36 months).

License Types

Node-locked – License can be used on one specified instrument/computer.

Floating – Networked instruments/computers can access a license from a server one at a time. Multiple licenses can be purchased for concurrent usage.

- Single Site: Valid within a 1-mile (1.6 km) radius from the server
- Single Region: Valid in a single region; Americas, Europe, Asia/Japan
- Worldwide: Valid anywhere in the world

KeysightCare Software Support Subscriptions

Perpetual licenses are sold with a 12- to 60-month software support subscription, with a user-selected start and end date. Support subscriptions can be renewed for a fee after that. Subscription licenses include a software support subscription for 3 to 36 months, with a user-selected start date.

System Prerequisites for the Operating PC

To run the SL2000A Charging Discover Software, the operating PC must meet the following requirements.

Requirements

Processor	Recommended Intel® Core™ i5 processor or higher, or equivalent
Memory (RAM)	Recommended at least 16 gigabytes of RAM
Hard disk	Recommended at least 512 gigabytes or more. (The required disk space mainly depends on the test scope and duration.)
Network card	Gigabit Ethernet
Operating system	At least Windows 10, recommended Windows 11, 64-bit

Extend the Capabilities of Your Test Solution

Meet the SL1300A Charging Discover Test Packages

Perform Conformance and Interoperability Testing with Test Suites

The SL1300A Charging Discover Test Packages include comprehensive test cases for all key charging conformance and interoperability standards. Each test package is developed according to the official specification and carefully verified with all CDS hardware configurations and every software release version. Hence, it is the quickest and simplest way to get valid test results out of the box.

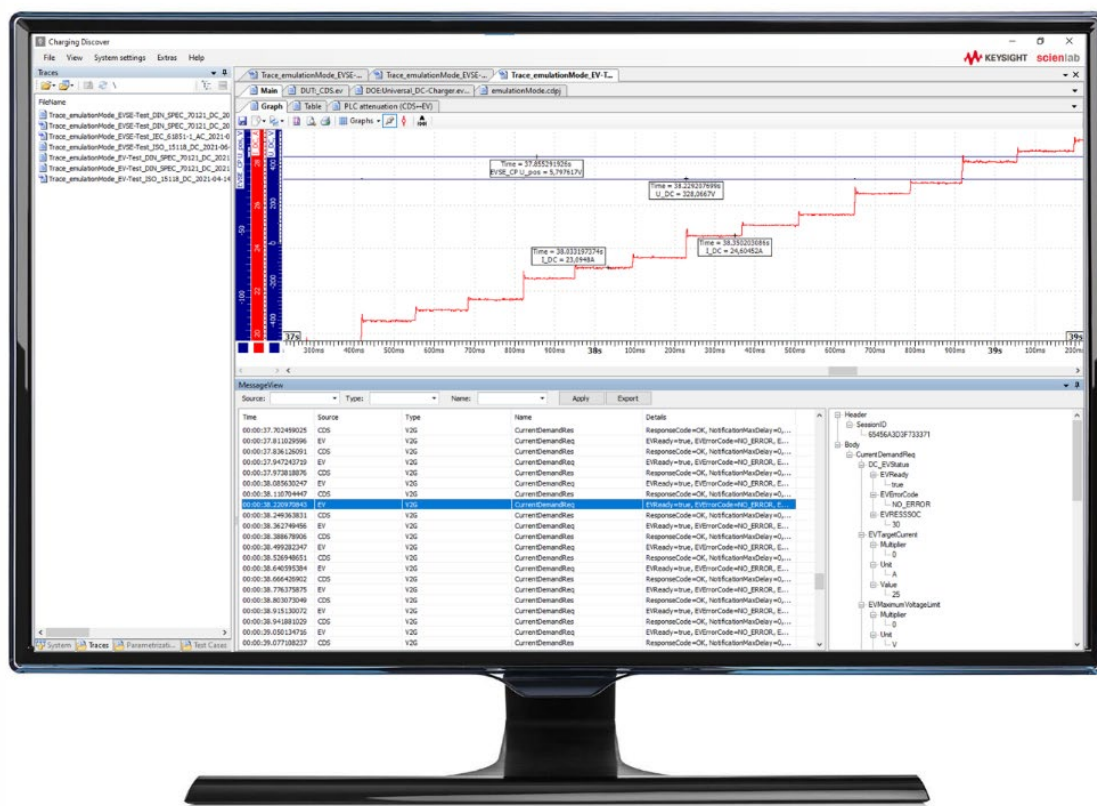


Figure 10. SL1300A Charging Discover Test Packages

Find out more about the SL1300A Charging Discover Test Packages [here](#).

Meet the Charging Discovery System Family of Solutions

Accelerate Your Charging Interface Testing and Validate Charging Behavior Across EV and EVSE

Keysight's Charging Discovery System Series (CDS) supports the latest adapters and protocols used with Electric Vehicles (EVs) and Electric Vehicle Supply Equipment (EVSE). As use cases, standards, and protocols evolve, our modular, upgradeable portfolio will help you ensure conformance and interoperability today and tomorrow.



Figure 11. From left to right: SL1040A-EMC, SL1047A-HP4, SL1040A-ST2, and SL2600A with SL2610A and SL2620A

- Configure the CDS to meet your specific needs and replace multiple real EV/EVSEs with a single test solution.
- Address R&D and type-approval applications with automated functional, conformance, interoperability, safety, and quality testing.
- Automate and accelerate conformance testing with pre-programmed test cases.
- Gain a comprehensive view of current and voltage measurements, as well as charging communication.

Find out more about the SL1040A Scienlab CDS Series [here](#).

Find out more about the SL1047A Scienlab CDS – High-Power Series [here](#).

Find out more about the SL2600A Megawatt CDS [here](#).

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.



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