OCPP 2.0.1 CORE CERTIFIED

Certificate Holder:	**CHAEVI CO.,LTD**
Certificate Number:	**OCA.0201.0064.CS**
Product Type:	**Charging Station**
Product Designation:	**CV-3UD403P-NCC3**
OCPP Software Version:	**CS.3.2.0.1**
Certification Date:	**March 31, 2025**

This certificate attests that the above mentioned product successfully completed certification testing in conformance with the reference specification OCPP 2.0.1 (Edition 3 FINAL, 2024-05-06 including Errata 2025-02). The optional OCPP protocol features that are covered by this certificate can be found in the Abstract of the Test Report that is part of this certificate.

Test cases have been performed as described in the test report referred to below. The results and remarks can be found in this complete test report.

Applied	Performed by / On	Document Evidence
Conformance testing according to the test specification referenced by the test report	Korea Smart Grid Association March 31, 2025	CHAEVI_PICS 2.0.1 CS_ CV-3UD403P-NCC3_005 _v2.0.2

The abstract of test report is an integral part of this certificate. This certificate is valid from the Certification Date specified above. This certificate is only applicable to the product designation described above and permits the use of the OCPP logo as laid down in the OCA certification logo license agreement on this product only.

This certificate shall neither be tendered nor accepted by any party as a guarantee covering quality of a product which includes OCPP. The Open Charge Alliance, and/or its agents, including, inter-alia, test laboratories, disclaim liability for any damages or losses incurred by the certified company or by any other party resulting from reliance on the results of OCPP certification testing.

For the Open Charge Alliance:

ONOPH CARON
Chairman

Abstract of the Test Report

Test Report OCPP 2.0.1 Certification

Test laboratory:	Korea Smart Grid Association
Location:	Seoul, Korea
Test Report Reference:	KSGA-OCPP2.0.1TEST-005-2025
Test Location	CHAEVI CO.,LTD

Product Designation:	CV-3UD403P-NCC3
Vendor name:	CHAEVI CO.,LTD
Device Under Test:	Charging Station
OCPP Software Version	CS.3.2.0.1

Test Result Summary for the Certified Functionalities

Certification Profile	Test Result	Description
Core	Pass	Basic Charging Station functionality for booting, authorization, configuration, transactions, remote control, including basic security.
Advanced Security	Pass	Support for TLS with client authentication.
Local Authorization List Management	Not Tested	Support for local authorization list management and optionally of an authorization cache.
Smart Charging	Not Tested	Support for Smart Charging, to control charging.
Advanced Device Management	Not Tested	Support for the OCPP Device Model and advanced logging and monitoring.
Reservation	Not Tested	Support for reservation of a connector of a Charging Station.
Advanced User Interface	Not Tested	Support for tariff & cost and DisplayMessage functionality.
ISO 15118 Support	Not Tested	Support for ISO 15118 Smart Charging and Plug and Charge authorization.

Hardware Feature Set

ID	Feature	Supported / Present
HFS-1	Has a detachable cable	No
HFS-2	Has a fixed cable	Yes
HFS-3	Has AC support	No
HFS-4	Has DC support	Yes
HFS-5	Has 1 phase support	No
HFS-6	Has 2 phase support	No
HFS-7	Has 3 phase support	No
HFS-8	No. EVSEs	1
HFS-9	Communication technology	Ethernet, Mobile Network, WiFi
HFS-10	RFID readers	Single
HFS-11	DC power level	400
HFS-12	Number of displays	1

EVSE	Current	Phases	Connector	Type	Cable Type
1	DC		1	cCCS1	Fixed Cable
1	DC		2	cCCS1	Fixed Cable

Optional Features

Core

ID	Core Features	Supported / Present
C-01	Support for offline authorization of transactions	No
C-02	Support for allowing Offline Authorization for Unknown Ids	No
C-03	Support for maximizing energy for invalid ids	No
C-04	Support to limit StatusNotifications	No
C-06	Authorization status after cable disconnected on EV side	
C-06.1	Support for maintaining authorization when cable disconnected on EV side	No
C-06.2	Support for not maintaining authorization when cable disconnected on EV side	Yes
C-07	Support for using a Master Pass for charging stations with UI	No
C-08	Support for using a Master Pass for charging stations without UI	No

ID	Core Features	Supported / Present
C-09	Supported Transaction Start points	
C-09.1	Start transaction options - EVConnected	No
C-09.2	Start transaction options - Authorized	Yes
C-09.3	Start transaction options - DataSigned	No
C-09.4	Start transaction options - PowerPathClosed	No
C-09.5	Start transaction options - EnergyTransfer	No
C-09.6	Start transaction options - ParkingBayOccupancy	No
C-10	Supported Transaction Stop points	
C-10.1	Stop transaction options - EVConnected	Yes
C-10.2	Stop transaction options - Authorized	Yes
C-10.3	Stop transaction options - PowerPathClosed	No
C-10.4	Stop transaction options - EnergyTransfer	No
C-10.5	Stop transaction options - ParkingBayOccupancy	No
C-12	Unlocking of connector when cable disconnected on EV side	
C-12.1	Support for unlocking connector when cable disconnected on EV side	No
C-12.2	Support for not unlocking when cable disconnected on EV side	Yes
C-13	Support for Reset per EVSE	No
C-14	Support for retrieving / deleting CustomerInformation - CustomerIdentifier	No
C-20	Allowing New Sessions Pending a FirmwareUpdate	Yes
C-21	Support for queuing all or only Transaction related messages until they are delivered to the CSMS	No
C-23	Supported time sources	Heartbeat
C-25	Support for setting a TimeOffset	No
C-26	Support for setting the TimeZone	No
C-28	Toggle sending clock aligned meter values when a transaction is ongoing / Idle	No
C-29	TriggerMessage	
C-29.1	Trigger message - MeterValues	Yes
C-29.2	Trigger message - TransactionEvent	Yes
C-29.3	Trigger message - LogStatusNotification	Yes
C-29.4	Trigger message - FirmwareStatusNotification	Yes
C-29.5	Trigger message - StatusNotification	Yes
C-29.6	Trigger message - BootNotification	Yes

ID	Authorization Options for Local Start	Tested During Certification
C-30	Authorization - using RFID ISO14443	Yes
C-31	Authorization - using RFID ISO15693	No
C-32	Authorization - using KeyCode	No
C-33	Authorization - using locally generated id	No
C-34	Authorization - MacAddress	No
C-35	Authorization - NoAuthorization	No

ID	Authorization Options for Remote Start	Tested During Certification
C-36	Authorization - using RFID ISO14443	Yes
C-37	Authorization - using RFID ISO15693	No
C-38	Authorization - using centrally, in the CSMS generated id	No
C-39	Authorization - NoAuthorization	No

ID	Metervalues	Tested During Certification	Supported According to Vendor
C-40	Supported MeterValue Measurands		
C-40.1	SampledTxStarted Measurands	Energy.Active.Import.Register SoC	SoC, Energy.Active.Import.Register
C-40.2	SampledTxUpdated Measurands	Energy.Active.Import.Register SoC	SoC, Energy.Active.Import.Register
C-40.3	SampledTxEnded Measurands	Energy.Active.Import.Register SoC	SoC, Energy.Active.Import.Register
C-40.4	AlignedData Measurands	Energy.Active.Import.Register	Energy.Active.Import.Register
C-40.5	AlignedDataTxEnded Measurands	Energy.Active.Import.Register	Energy.Active.Import.Register

ID	Cipher Suites	Supported / Present
C-41	Supported Cipher Suites	TLS_RSA_WITH_AES_128_GCM_SHA256 + TLS_RSA_WITH_AES_256_GCM_SHA384

ID	Core Features	Supported / Present
C-42	Signed Metervalues	No
C-43	Install Firmware with ongoing transaction	No
C-47	Support for falling back to default OCPP reconnection mechanism when NetworkConnection profile connection has failed	No
C-48	Authorization of remote start	
C-48.1	Option for authorization in case of a remote start	Yes
C-48.2	Option for no authorization in case of a remote start	No
C-58	Option for disabling remote authorization	No
C-49	Authorization Cache	No
C-59	Option for disabling remote authorization for cached invalid idTokens	No
C-51	Configurable TxStartPoint	No
C-52	Configurable TxStopPoint	No
C-53	Support for lifetime cached token	No
C-54	Supported policies for replacing cached entries	No
C-56	Support for providing the SummaryInventory	No
C-57	Support for cancelling ongoing log file upload	No
C-60	Support for cancelling ongoing firmware update	No

Advanced Security

ID	Certification Profile: Advanced Security	Supported / Present
AS-2	Additional root certificate check mechanism implemented	No
AS-3	Update Charging Station Certificate - CertificateSignedRequest Timeout	Yes

Additional Questions

ID	Additional Questions for Lab Testing	Answer
AQ-1	Can the last CSMSRootCertificate can be removed?	Yes
AQ-2	Does the Charging Station have a cable lock, which prevents the EV driver to connect the EV and EVSE before authorization?	No
AQ-3	Can the last ChargingStationCertificate be removed?	No
AQ-7	Is your Charging Station able to download firmware while there is an ongoing transaction?	No
AQ-8	Does your Charging Station enforce a selection of EVSE prior to authorization?	No
AQ-9	Does your Charging Station support charging an EV using IEC 61851-1?	No

Other Relevant Settings

ID	Limit / Setting	Value
ORS-1	ItemsPerMessageGetReport	30
ORS-2	ItemsPerMessageGetVariables	30
ORS-3	ItemsPerMessageSetVariables	30
ORS-4	BytesPerMessageGetReport	300
ORS-5	BytesPerMessageGetVariables	300
ORS-6	BytesPerMessageSetVariables	300
ORS-7	Minimum MessageAttemptIntervalTransactionEvent supported	5
ORS-8	Maximum MessageAttemptIntervalTransactionEvent supported	60
ORS-9	Minimum SampledDataTxUpdatedInterval supported	5
ORS-10	Maximum SampledDataTxUpdatedInterval supported	60
ORS-11	Minimum HeartbeatInterval supported	5
ORS-12	Maximum HeartbeatInterval supported	60
ORS-14	Minimum WebSocketPingInterval supported	5
ORS-15	Maximum WebSocketPingInterval supported	60
ORS-16	WebSocketPingInterval	60

ID	Security Related Settings	Value
ORS-17	CertificateEntries	3

ID	Firmware Management Settings	Value
ORS-24	Supported file transfer protocols	http, https, ftp, ftps

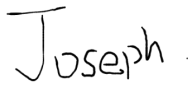
Performance Measurement Result

Name	Max Value	Unit	Description
OCPP response time	60	seconds	The response time for when waiting for an OCPP response message after sending an OCPP request message. This entails all OCPP messages. Messages to the DUT can be handled within this timeout.
OCPP triggered function response time	60	seconds	The response time used when waiting for an asynchronous OCPP report after requesting this report.
Transaction authorization time by RequestStartTransactionRequest	60	seconds	The time between a RequestStartTransactionRequest and the corresponding TransactionEventRequest. Only cases where the RequestStartTransactionRequest immediately results in an authorization followed by a TransactionEventRequest, without the need of any additional manual actions or chargingState transitions inbetween are included.
Transaction authorization end time by RequestStopTransactionRequest	60	seconds	The time between a RequestStopTransactionRequest and the corresponding TransactionEventRequest Only cases where the RequestStopTransactionRequest immediately results in an end of the authorization followed by a TransactionEventRequest, that do not contain transactionInfo.chargingState = EVConnected are included.

Name	Min Value	Max Value	Average Value	Unit
OCPP response time	0.27	0.60	0.33	seconds
OCPP triggered function response time	0.43	1.01	0.79	seconds
Transaction authorization time by RequestStartTransactionRequest	2.24	14.43	3.08	seconds
Transaction authorization end time by RequestStopTransactionRequest	not measurable	not measurable	not measurable	seconds

Communication technology used during performance measurement:	Ethernet

Statement of Approval

Vendor		
Name	Junyoung Maeng	Date: 2025-03-31
Company	CHAEVI CO.,LTD	Signature:
Department	SW Dev	
Position	Deputy General Manager	
Location	Daegu, Korea	

Test Laboratory		
Name	Philip YANG	Date: 2025-03-31
Name reviewer	Joe Lee	Signature:
Company	Korea Smart Grid Association	
Department	Quality Certification Center	
Position	Chief Researcher	
Location	Seoul, Korea	