OCPP 1.6
Full Certificate

OCPP1.6
Fully Certified

Certificate holder:	AHA Co., Ltd
Certificate number:	OCA.0016.0528.CSMS
Product type:	Charging Station Management System
Product designation:	AHAEVC CSMS 1.6
	OCPP Software version: v1.0.0
Certification date:	October 11, 2023

This certificate attests that the above mentioned product successfully completed certification testing in conformance with the reference specification OCPP 1.6 – Edition 2 with OCPP 1.6 Errata sheet (v4.0 Release, 2019-10-23). The optional features of the protocol are also covered by this certification.

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

Applied tests	Performed by / on	Document evidence
Conformance testing according to the test specification referenced by the test report	*Korea Smart Grid Association*, October 11, 2023	*(KSGA)AHA_Test Report template_CSMS_231011*

The abstract of test report in the Annex 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 test report

Test Result Summary

<table>
<tr><td colspan="2" align="center">**Test Report OCPP 1.6 Certification**</td></tr>
<tr><td>**Test laboratory:**</td><td>**Korea Smart Grid Association**</td></tr>
<tr><td>**Location:**</td><td>Seoul / Korea</td></tr>
<tr><td>**Test Report Reference:**</td><td>KSGA-OCPP1.6TEST-180-2023</td></tr>
<tr><td>**Vendor name:**</td><td>**AHA Co., Ltd**</td></tr>
<tr><td>**Device Under Test:**</td><td>CSMS</td></tr>
<tr><td>**Communication:**</td><td>JSON</td></tr>
<tr><td>**OCPP Software version:**</td><td>V1.0.0</td></tr>
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Test Result Summary for the certified functionalities		
Functionalities	**OCPP 1.6 Certification Test Results**	**Description**
Core	Pass	Basic Charging Station functionality for booting, authorization (incl. cache if available), configuration, transactions, remote control.
Optional features		
Firmware Management	Pass	Support for (remote) firmware update management and diagnostic log file download.
Smart Charging	Pass	Support for Smart Charging (all profile types, including stacking), to control charging.
Reservation	Pass	Support for reservation of a connector of a Charging Station.
Local Authorization List Managemen	Pass	Features to manage a local list in the charging station containing authorization data for whitelisting users.
Remote Trigger	Pass	Support for remotely triggering messages that originate from a Charging Station. This can be used for resending messages or for getting the latest information from the Charging Station.

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Performance Measurement Results

Name	PICS value	Measured value	Description
OCPP response timeout:	45s	00:00:01	The response time for when waiting for an OCPP response message.
Response time Authorize:	45s	00:00:00	The response time for the Authorize message.

Test Configuration

Vendor	AHA Co., Ltd
DUT / SUT	CSMS
Communication	JSON
OCPP Software version	V1.0.0
OCTT version	OCTT 1.6 v1.4.3

All relevant limits and non-OCPP settings that are relevant for the test laboratory and for the correct functioning of the CSMS:

Limit / setting	Value
Device supports sending milliseconds in timestamps:	Yes

Statement of Approval

Vendor		Date: 2023.10.11
Name	Sangkwon OH	Signature
Company	AHA Co., Ltd	
Department	EVC Technology Research Institute	
Position	Research Director	
Location	Seoul, Korea	

Test laboratory		Date: 2023.10.11
Name	Philip YANG	Signature
Company	Korea Smart Grid Association	
Department	Quality Certification Center	
Position	Chief Researcher	
Location	Seoul, Korea	