OCPP 1.6
Full Certificate

Certificate holder:	Delta Electronics, Inc.
Certificate number:	OCA.0016.0520.CSMS
Product type:	Charging Station Management System
Product designation:	DeltaGrid EVM Core OCPP1.6 Service OCPP Software version: 1.5.0
Certification date:	October 20, 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	*DNV Singapore Pte. Ltd.*, October 20, 2023	*DNV_OCPP 1.6 Test Report_CSMS_Delta*

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

Test Report OCPP 1.6 Certification	
Test laboratory:	DNV Singapore Pte. Ltd.
Location:	Singapore
Test Report Reference:	DNV_OCPP1.6TEST_CSMS_20231005
Vendor name:	Delta Electronics, Inc.
Device Under Test:	CSMS
Communication:	JSON
OCPP Software version:	1.5.0

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.
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 Management	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.

Performance Measurement Results

Name	PICS value	Measured value	Description
OCPP response timeout:	5 seconds	2 seconds	The response time for when waiting for an OCPP response message.
Response time Authorize:	5 seconds	1 second	The response time for the Authorize message.

Test Configuration

Vendor	**Delta Electronics, Inc.**
DUT / SUT	CSMS
Communication	JSON
OCPP Software version	1.5.0
OCTT version	OCTT 1.6 v.1.4.3

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: 2023.10.20
Name	Ahui Wang		Signature
Company	Delta Electronics, Inc.		
Department	Safety & Regulation Engineering		
Position	Associate Manager		
Location	Taiwan		

Test laboratory			Date: 2023.10.20
Name	Sukoco		Signature
Company	DNV Singapore Ptd. Ltd.		
Department	Energy Systems		
Position	Senior Consultant		
Location	Singapore		