OCPP 2.0.1 CORE CERTIFIED

Certificate Holder:	**Fuuse Ltd**
Certificate Number:	**OCA.0201.0072.CSMS**
Product Type:	**Charging Station Management System**
Product Designation:	**Fuuse**
OCPP Software Version:	**c2.0**
Certification Date:	**March 4, 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 2024-11). 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	DNV 29.01.2025	DNV 20250304_OCPP-2.0.1-PICS-CSMS-v1.3.3-Fuuse

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:	DNV
Location:	Arnhem Netherlands
Test Report Reference:	DNV 20250129_OCPP-2.0.1-PICS-CSMS-v1.3.3-Fuuse.xlsx

Product Designation:	Fuuse
Vendor name:	Fuuse Ltd
Device Under Test:	Charging Station Management System
OCPP Software Version	c2.0

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.

Optional Features

Core		
ID	**Core Features**	**Supported / Present**
C-11	Support for unlocking connector for charging station with detachable cable.	Yes
C-13	Support for Reset per EVSE	Yes
C-14	Support for retrieving / deleting CustomerInformation - CustomerIdentifier	Yes
C-15	Support for scheduled firmware updates	Yes
C-16	Support for checking the TransactionStatus	Yes
C-17	Support for retrieving the ConfigurationInventory	Yes
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

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

ID	Authorization Options for Remote Start	Tested During Certification
C-36	Authorization - using RFID ISO14443	Yes
C-37	Authorization - using RFID ISO15693	Yes
C-38	Authorization - using centrally, in the CSMS generated id	Yes
C-39	Authorization - NoAuthorization	Yes

ID	Core Features	Supported / Present
C-44	Support for sending a BootNotification Pending before Accepting	No
C-45	Support for Multiple elements GetVariablesRequest	No
C-46	Support for Multiple elements SetVariablesRequest	No
C-50	GetBaseReport - FullInventory	
C-50.1	GetBaseReport - FullInventory - During onboarding	Yes
C-50.2	GetBaseReport - FullInventory - Manual trigger	No

Additional Questions

ID	Additional Questions for Lab Testing:	Supported / Present
AQ-1	Can your CSMS be configured to first respond to a BootNotificationRequest with status Pending or Rejected?	Yes
AQ-2	Is a FullInventory requested during onboarding / booting test cases?	No
AQ-3.1	TxDefaultProfile	Yes
AQ-3.2	ChargingStationMaxProfile	Yes
AQ-4.1	TxDefaultProfile	Yes
AQ-4.2	ChargingStationMaxProfile	Yes
AQ-6	Does the CSMS reject unknown Charging Stations during websocket connection setup?	Yes

Vendor Specific Settings

Configuration Setting	Configured Value	Description
Central Token	OCA_TOKEN_1	Central
ISO14443 Token	123456789	ISO14443
KEY_CODE Token	KEY_CODE_TOKEN	KeyCode
ISO15693 Token	987654321	ISO15693
Blocked Token	BLOCKED	Central
Expired Token	EXPIRED	Central
ChargingStationId	SerialNumber	Charging station with profile 3
ChargingStationId	SerialNumberBasic	Charging station with profile 1
Blocked ISO14443 Token	222222222	ISO14443

Configuration Setting	Configured Value	Description
Blocked ISO15693 Token	111111111	ISO15693
Blocked KeyCode Token	BLOCKED_KEY_CODE_TOKEN	KeyCode
Expired ISO14443 Token	333333333	ISO14443
Expired ISO15693 Token	444444444	ISO15693
Expired KeyCode Token	EXPIRED_KEY_CODE_TOKEN	KeyCode
Websocket URL	ws://dev-ocpp-backend-ws-basic.fuuse.io/SerialNumberBasic	Profile 1
API URL	https://dev-ocpp-backend-basic.fuuse.io/api/v1	Profile 1
Websocket URL	wss://dev-mtls-ocpp-backend-ws.fuuse.io/SerialNumber	Profile 3
API URL	https://dev-ocpp-backend.fuuse.io/api/v1	Profile 3

Performance Measurement Result

Name	Max Value	Unit	Description
OCPP response time	30	seconds	The response time for when waiting for an OCPP response message after sending an OCPP request message. This entails all OCPP messages, excluding Authorize. Messages to the DUT can be handled within this timeout.
Response time Authorize	30	seconds	The response time for the Authorize message.

Name	Min Value	Max Value	Average Value	Unit
OCPP response time	0.01	1.45	0.10	seconds
Response time Authorize	0.06	0.25	0.10	seconds

Communication technology used during performance measurement:	Ethernet

Statement of Approval

Vendor		
Name	Chris Townsend	Date: 2025-03-04
Company	Fuuse	Signature:
Department	Technology	
Position	Technology Director	
Location	Lancaster UK	

Test Laboratory		
Name	Rares Botezatu	Date: 2025-03-04
Company	DNV	Signature:
Department	Digital System Operations	
Position	Digital Grid Operations Engineer	
Location	Arnhem Netherlands	