OCPP 1.6
Full Certificate

OCPP 1.6 Fully Certified

Certificate holder:	CENNTRO AUTOMOTIVE CORPORATION
Certificate number:	OCA.0016.0656.CS
Product type:	Charging Station
Product designation:	DCC190C190 OCPP Software version: v4.9.2-d4_S35.00.31.3.cb11200100 Hardware feature set as stated below
Certification date:	January 25, 2024

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., January 25, 2024*	*DNV_OCPP 1.6 Test Report_CP_DCC190C190*

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 execution location:	Nanjing, China
Test Report Reference:	DNV_OCPP1.6_TEST_CP_DCC190C190
Vendor name:	**CENNTRO AUTOMOTIVE CORPORATION**
Device Under Test:	Charging Station
Communication:	JSON
OCPP Software version:	v4.9.2-d4_S35.00.31.3.cb11200100
Product designation:	DCC190C190

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 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 triggered function timeout:	60 seconds	0:00:39 seconds	The response time for when waiting for an OCPP function with its corresponding request message. (Firmware update, Diagnostics and Reboot are excluded from this measurement.)
OCPP response timeout:	20 seconds	0:00:13 seconds	The response time for when waiting for an OCPP response message.
Response time RemoteStartTransaction:	10 seconds	0:00:00 second	The response time for the RemoteStartTransaction message.

Test Configuration

Vendor	CENNTRO AUTOMOTIVE CORPORATIC
DUT / SUT	Charge Point
Communication	JSON
Type	DCC190C190
OCPP Software version	v4.9.2-d4_S35.00.31.3.cb11200100
OCTT version	OCTT 1.6 v 1.4.3

Hardware feature set	
Feature	**Configuration**
Socket(s) / connector(s)	Multiple
Fixed cable	Yes
Communication technology	WiFi / ethernet / mobile network
RFID readers	Single

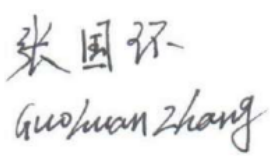| Non-OCPP Charge Point Configuration	
Configuration key	**Value**
<>	<>

All other 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

OCPP Charging Station Configuration

Configuration key	Value
AllowOfflineTxForUnknownId	FALSE
AuthorizationCacheEnabled	FALSE
AuthorizeRemoteTxRequests	TRUE
BlinkRepeat	0
ClockAlignedDataInterval	0
ConnectionTimeOut	90
ConnectorPhaseRotation	Not Applicable
ConnectorPhaseRotationMaxLength	1
GetConfigurationMaxKeys	50
HeartbeatInterval	30
LightIntensity	100
LocalAuthorizeOffline	TRUE
LocalPreAuthorize	FALSE
MaxEnergyOnInvalidId	0
MessageTimeout	-
MeterValuesAlignedData	Energy.Active.Import.Register
MeterValuesAlignedDataMaxLength	13
MeterValuesSampledData	Energy.Active.Import.Register,Voltage,Current.Import,Power.Active.Import,Power.Offered,SoC
MeterValuesSampledDataMaxLength	13
MeterValueSampleInterval	0
MinimumStatusDuration	0
NumberOfConnectors	2
ResetRetries	1
StopTransactionMaxMeterValues	-
StopTransactionOnEVSideDisconnect	TRUE
StopTransactionOnInvalidId	TRUE
StopTxnAlignedData	Energy.Active.Import.Register
StopTxnAlignedDataMaxLength	0
StopTxnSampledData	Energy.Active.Import.Register
StopTxnSampledDataMaxLength	0
SupportedFeatureProfiles	Core,FirmwareManagement,LocalAuthListManagement,RemoteTrigger,Reservation,SmartCharging
SupportedFeatureProfilesMaxLength	6
TransactionMessageAttempts	10
TransactionMessageRetryInterval	10
UnlockConnectorOnEVSideDisconnect	FALSE
WebSocketPingInterval	30
LocalAuthListEnabled	TRUE
LocalAuthListMaxLength	200
SendLocalListMaxLength	20
ReserveConnectorZeroSupported	TRUE
ChargeProfileMaxStackLevel	10
ChargingScheduleAllowedChargingRateUnit	Current
ChargingScheduleMaxPeriods	20
ConnectorSwitch3to1PhaseSupported	FALSE
MaxChargingProfilesInstalled	20
SupportedFileTransferProtocols	http, https, ftp, ftps

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Statement of Approval

Vendor		Date: 2024.01.25
Name	Guohuan Zhang	Signature
Company	CENNTRO AUTOMOTIVE CORPORATION	
Department	Purchasing	张国环
Position	Purchasing Engineer	Guohuan Zhang
Location	NJ 07728, USA	

Test laboratory		Date: 2024.01.25
Name	Sukoco	Signature
Company	DNV Singapore Pte. Ltd.	
Department	Energy Systems	
Position	Senior Consultant	
Location	Singapore	