OCPP 1.6
Subset Certificate

Certificate holder: GRE System Inc.

Certificate number: OCA.0016.0325.CS

Product type: Charging Station

Product designation: CP700
OCPP Software version: 1.1.1
Hardware feature set as stated below

Certification date: April 14, 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 covered by this certificate can be found in the abstract 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 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,* April 14, 2023	*(KSGA)GRESystem_Test Report template_CP700_230414*

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:	Korea Smart Grid Association
Location:	Seoul , Korea
Test Report Reference:	KSGA-OCPP1.6TEST-066-2023
Vendor name:	GRE System Inc.
Device Under Test:	Charging Station
Communication:	JSON
OCPP Software version:	1.1.1

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	N/A	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.

Performance Measurement Results

Name	PICS value	Measured value	Description
OCPP triggered function timeout:	10s	00:00:02	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:	40s	00:00:01	The response time for when waiting for an OCPP response message.
Response time RemoteStartTransaction:	10s	00:00:00	The response time for the RemoteStartTransaction message.

Test Configuration

Vendor	GRE System Inc.
DUT / SUT	Charging Station
Communication	JSON
Type	CP700
OCPP Software version	1.1.1
OCTT version	OCTT 1.6 v1.4.3

Hardware feature set	
Feature	**Configuration**
Socket(s) / connector(s)	Single
Fixed cable	<Yes>
Communication technology	Wifi, 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	TRUE
AuthorizationCacheEnabled	FALSE
AuthorizeRemoteTxRequests	TRUE
BlinkRepeat	-
ClockAlignedDataInterval	0
ConnectionTimeOut	30
ConnectorPhaseRotation	NotApplicable
ConnectorPhaseRotationMaxLength	-
GetConfigurationMaxKeys	20
HeartbeatInterval	20
LightIntensity	-
LocalAuthorizeOffline	TRUE
LocalPreAuthorize	TRUE
MaxEnergyOnInvalidId	-
MessageTimeout	-
MeterValuesAlignedData	Energy.Active.Import.Register, Temperature
MeterValuesAlignedDataMaxLength	2
MeterValuesSampledData	Energy.Active.Import.Register, Temperature
MeterValuesSampledDataMaxLength	2
MeterValueSampleInterval	20
MinimumStatusDuration	0
NumberOfConnectors	1
ResetRetries	1
StopTransactionMaxMeterValues	3600
StopTransactionOnEVSideDisconnect	TRUE
StopTransactionOnInvalidId	TRUE
StopTxnAlignedData	Energy.Active.Import.Register, Temperature
StopTxnAlignedDataMaxLength	2
StopTxnSampledData	Energy.Active.Import.Register, Temperature
StopTxnSampledDataMaxLength	2
SupportedFeatureProfiles	Core, FirmwareManagement, LocalAuthListManagement, Reservation, RemoteTrigger
SupportedFeatureProfilesMaxLength	5
TransactionMessageAttempts	3
TransactionMessageRetryInterval	3
UnlockConnectorOnEVSideDisconnect	FALSE
WebSocketPingInterval	240
LocalAuthListEnabled	TRUE
LocalAuthListMaxLength	100
SendLocalListMaxLength	10
ReserveConnectorZeroSupported	FALSE
ChargeProfileMaxStackLevel	-
ChargingScheduleAllowedChargingRateUnit	-
ChargingScheduleMaxPeriods	-
ConnectorSwitch3to1PhaseSupported	-
MaxChargingProfilesInstalled	-
SupportedFileTransferProtocols	http, https, ftp

Statement of Approval

Vendor			Date: 2023.04.14	
Name	SungKyung Hong		Signature	
Company	GRE System Inc.			
Department	R&D			
Position	CDO			
Location	Yongin, Korea			

Test laboratory			Date: 2023.04.14	
Name	Philip YANG		Signature	
Company	Korea Smart Grid Association			
Department	Quality Certification Center			
Position	Chief Researcher			
Location	Seoul, Korea			