

OCPP 1.6 Full Certificate



Certificate holder: Koolsign Co., Ltd
Certificate number: OCA.0016.0157.CS
Product type: Charging Station
Product designation: koolcharge AC station
OCPP Software version: 1.0
Hardware feature set as stated below
Certification date: June 21, 2022

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
<i>Conformance testing according to the test specification referenced by the test report</i>	<i>Korea Smart Grid Association, June 21, 2022</i>	<i>KSGA_Koolsign_Test Report_20220621_Koolsign</i>

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

A blue ink signature of Onoph Caron, Chairman of the Open Charge Alliance.

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-086-2022
Vendor name:	Koolsign Co., Ltd
Device Under Test:	Charging Station
Communication:	JSON
OCPP Software version:	1,0

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.
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 Manager	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

Performance Measurement Results			
Name	PICS value	Measured value	Description
OCPP triggered function timeout:	30s	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:	30s	00:00:02	The response time for when waiting for an OCPP response message.
Response time RemoteStartTransaction:	10s	00:00:01	The response time for the RemoteStartTransaction message.

Test Configuration

Test Configuration

Vendor	Koolsign Co., Ltd
DUT / SUT	Charging Station
Communication	JSON
Type	koolcharge AC station
OCPP Software version	1,0
OCTT version	OCTT 1.6 v1.4.3

Hardware feature set

Feature	Configuration
Socket(s) / connector(s)	Single
Fixed cable	<Yes>
Communication technology	Ethernet
RFID readers	None

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	TRUE
AuthorizeRemoteTxRequests	TRUE
BlinkRepeat	3
ClockAlignedDataInterval	30
ConnectionTimeOut	30
ConnectorPhaseRotation	Unknown
ConnectorPhaseRotationMaxLength	0
GetConfigurationMaxKeys	10
HeartbeatInterval	15
LightIntensity	80
LocalAuthorizeOffline	TRUE
LocalPreAuthorize	FALSE
MaxEnergyOnInvalidId	0
MessageTimeout	-
MeterValuesAlignedData	Current.Export
MeterValuesAlignedDataMaxLength	5
MeterValuesSampledData	Energy.Active.Import.Register
MeterValuesSampledDataMaxLength	10
MeterValueSampleInterval	30
MinimumStatusDuration	0
NumberOfConnectors	1
ResetRetries	3
StopTransactionMaxMeterValues	-
StopTransactionOnEVSideDisconnect	TRUE
StopTransactionOnInvalidId	TRUE
StopTxnAlignedData	Sample.Periodic
StopTxnAlignedDataMaxLength	5
StopTxnSampledData	Energy.Active.Import.Register, Current.Export,Voltage
StopTxnSampledDataMaxLength	5
SupportedFeatureProfiles	Core, LocalAuthListManagement, Reservation, RemoteTrigger, SmartCharging
SupportedFeatureProfilesMaxLength	0
TransactionMessageAttempts	3
TransactionMessageRetryInterval	60
UnlockConnectorOnEVSideDisconnect	FALSE
WebSocketPingInterval	30
LocalAuthListEnabled	TRUE
LocalAuthListMaxLength	10
SendLocalListMaxLength	10
ReserveConnectorZeroSupported	TRUE
ChargeProfileMaxStackLevel	3
ChargingScheduleAllowedChargingRateUnit	Power
ChargingScheduleMaxPeriods	0
ConnectorSwitch3to1PhaseSupported	FALSE
MaxChargingProfilesInstalled	5
SupportedFileTransferProtocols	http, https, ftp, ftps

Statement of Approval

Vendor		Date: 2022.06.21
Name	Jepil Jeong	Signature
Company	Koolsign Co., Ltd	
Department	C.E.O	
Position	C.E.O	
Location	Seoul, Korea	

Test laboratory		Date: 2022.06.21
Name	Philip YANG	Signature
Company	Korea Smart Grid Association	
Department	Quality Certification Center	
Position	Senior Researcher	
Location	Seoul, Korea	