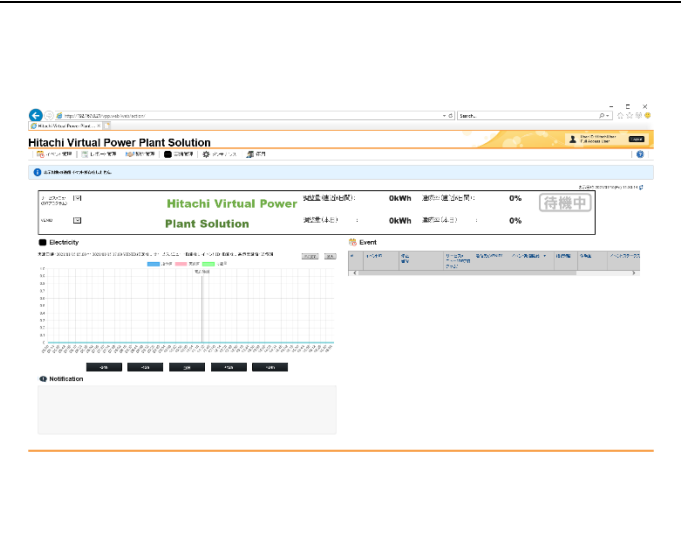


試験報告書番号: Test report no.:	JP210UM1 001	申請受理番号: Order no.:	150232755	頁 1 / 11 Page 1 / 11
申請者参照番号: Client reference no.:	N/A	申請日: Order date:	2020-12-09	
申請者: Client:	Hitachi, Ltd. Hitachi Omori 2nd Bldg.,27-18, Minami Oi 6-chome,Sinagawa-ku,Tokyo,140-8572 Japan			
試験品: Test item:	KandenAgg-VPP-VTN			
識別表示 / 型名: Identification / Type no.:	KandenAgg-VPP-VTN / 02-01			
申請内容: Order content:	OpenADR Certification Test (Pickup test for similar products)			
適用した試験基準: Test specification:	OpenADR 2.0b Certification Test Specification Version 1.1.4			
サンプル受取日: Date of sample receipt:	N/A			
製造番号: Test sample no.:	N/A			
試験期間: Testing period:	2021-01-14 ~ 2021-01-15			
試験場所: Place of testing:	TÜV Rheinland Japan Ltd. 3-19-5 Shin-Yokohama, Kohoku-ku Yokohama 222-0033, Japan			
試験所: Testing laboratory:	TÜV Rheinland Japan Ltd.			
試験結果: Test result*:	適合 / Pass			
試験者: tested by:	照査者: authorized by:			
日付: 2021-01-18 Date:	Atsuhiko Endo	発行日: 2021-01-19 Issue Date:	Tam Tran Thanh	
職位 / Position:	専門家 / Expert	職位 / Position:	専門家 / Expert	
備考 / Other:	A pickup test was performed because the customer declared that "KandenAgg-VPP-VTN / 02-01" was a similar product to the "Hitachi-VPP-VTN / 02-01". The standard test report is 50342721 001.			
納品時の試験品の状態: Condition of the test item at delivery:	試験品は完全で破損はない Test item complete and undamaged			
*凡例: P(ass) = 適合	1 = 優 2 = 良	3 = 可 F(ail) = 不適合	4 = 準可 N/A = 適用外	5 = 不可 N/T = 試験せず
* Legend: P(ass) = passed a.m. test specification(s)	1 = very good 2 = good	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable	5 = poor N/T = not tested
この試験報告書は上記試験品に関するものであり、当該試験所の許可無しに、この試験報告書を抜粋し複写してはいけません。 また、この試験報告書は、当該製品又は類似製品に何れかの試験マークを附す権利を与えるものではありません。 This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

Contents

1	General Product Information	3
1.1	Client Information.....	3
1.2	General SUT Information	3
1.3	General EUT Description	3
1.4	Profile	3
2	Testing Laboratory	4
2.1	Test Equipment	4
2.2	Test Setup	4
3	Information about Test Results	5
3.1	General	5
4	Test Results	6
4.1	VTN Pull Pickup Tests	6
4.1.1	EiRegisterParty Service	6
4.1.2	EiOpt Service	6
4.1.3	EiReport Service	6
4.1.4	EiEvent Service	6
4.1.5	EiEvent Ported A Profile	7
4.1.6	General Tests	7
4.2	VTN Push Pickup Tests	8
4.2.1	EiRegisterParty Service	8
4.2.2	EiOpt Service	8
4.2.3	EiReport Service	8
4.2.4	EiEvent Service	8
4.2.5	EiEvent Ported A Profile	9
4.2.6	General Tests	9
4.2.7	XMPP Tests	9
5	Remarks and References	10
6	Photos	11

試験報告書番号:
Test report no.:

JP210UM1 001

頁 3 / 11
Page 3 / 11

1 General Product Information

1.1 Client Information

Company Name: see page 1
Address: see page 1
Contact Person: Shumpei Yamashita
Phone: +81-70-7027-4302
E-mail: shumpei.yamashita.qm@hitachi.com

1.2 General SUT Information

The system under test is software implementation of OpenADR protocol installed on Cloud.

Serial Number: N/A
Hardware Version: N/A
Firmware version: 02-01

1.3 General EUT Description

Equipment under test: see page 1

1.4 Profile

Product type: VTN
OpenADR profile: 2.0b, 2.0a
Mode: Pull, Push
Transport: Simple HTTP, XMPP
Security: Standard Security

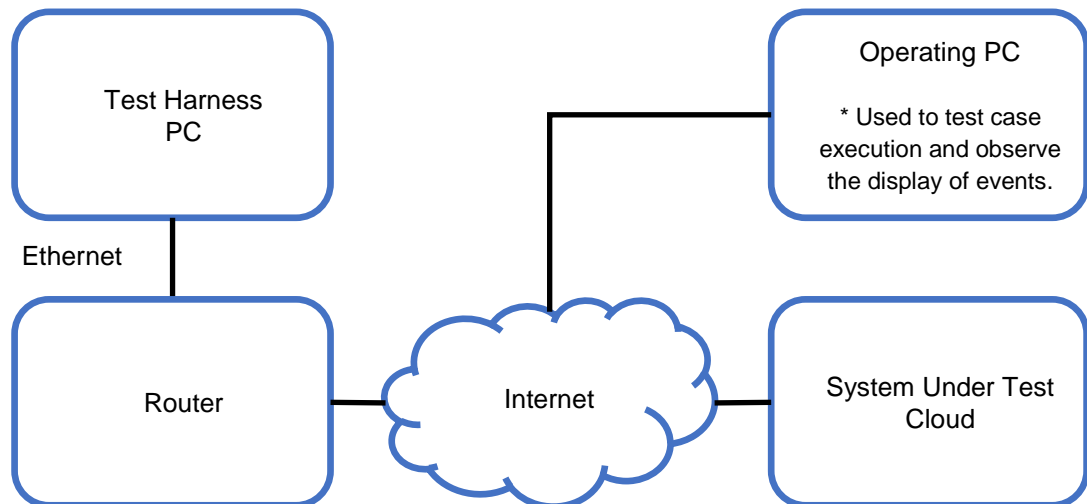
2 Testing Laboratory

see page 1

2.1 Test Equipment

Equipment ID	Model Product name	Manufacture	Category	Version
1800528	OpenADR Test Harness for 2.0b	QualityLogic	Software	1.1.4

2.2 Test Setup



試験報告書番号:
Test report no.:

JP210UM1 001

頁 5 / 11
Page 5 / 11

3 Information about Test Results

3.1 General

Documentation of tested devices and results:

The complete set of measurement results is stored at the TÜV Rheinland Japan Ltd. test laboratory and is available on demand.

Interpretation of test results:

The results of the inspection are described on the following pages. "Pass" in the test result list of this test report means the performed test according to the test specification was verified and that the tested device is conformant to the specification. "Fail" means that the performed test according to the test specification was verified and the tested device is not conformant to the specification or that test didn't run to completion because the tested device is not conformant to the specification. "N/A" means the test cases are optional and/or not applicable to the tested device.

試験報告書番号:
Test report no.:

JP210UM1 001

頁 6 / 11
Page 6 / 11

4 Test Results

4.1 VTN Pull Pickup Tests

4.1.1 EiRegisterParty Service

No.	Test Case Name	Date	Result
01	N1_0020_TH_VEN	Jan 14 2021	PASS
02	N1_0030_TH_VEN	Jan 14 2021	PASS
03	N1_0040_TH_VEN	Jan 14 2021	PASS

4.1.2 EiOpt Service

No.	Test Case Name	Date	Result
01	P1_2020_TH_VEN(*)	Jan 14 2021	PASS
02	P1_2040_TH_VEN	Jan 14 2021	PASS

(*) See "5 Remarks and References"

4.1.3 EiReport Service

No.	Test Case Name	Date	Result
01	R1_3030_TH_VEN	Jan 14 2021	PASS
02	R1_3040_TH_VEN	Jan 14 2021	PASS
03	R1_3045_TH_VEN	Jan 14 2021	PASS
04	R1_3130_TH_VEN	Jan 14 2021	PASS
05	R1_3160_TH_VEN	Jan 14 2021	PASS
06	R1_3180_TH_VEN	Jan 14 2021	PASS

4.1.4 EiEvent Service

No.	Test Case Name	Date	Result
01	E1_1020_TH_VEN(*)	Jan 14 2021	PASS
02	E1_1025_TH_VEN	Jan 14 2021	PASS
03	E1_1030_TH_VEN	Jan 14 2021	PASS
04	E1_1055_TH_VEN	Jan 14 2021	PASS
05	E1_1060_TH_VEN	Jan 14 2021	PASS

(*) See "5 Remarks and References"

試験報告書番号:
Test report no.:

JP210UM1 001

頁 7 / 11
Page 7 / 11

4.1.5 EiEvent Ported A Profile

No.	Test Case Name	Date	Result
01	A_E3_0450_TH_VEN	Jan 14 2021	PASS
02	A_E3_0525_TH_VEN	Jan 14 2021	PASS

4.1.6 General Tests

No.	Test Case Name	Date	Result
01	G1_4005_TH_VEN	Jan 14 2021	PASS
02	G1_4007_TH_VEN	Jan 14 2021	PASS
03	G1_4010_TH_VEN	Jan 14 2021	PASS
04	G1_4030_TH_VEN	Jan 14 2021	PASS

試験報告書番号:
Test report no.:

JP210UM1 001

頁 8 / 11
Page 8 / 11

4.2 VTN Push Pickup Tests

4.2.1 EiRegisterParty Service

No.	Test Case Name	Date	Result
01	N0_5020_TH_VEN	Jan 14 2021	PASS
02	N0_5030_TH_VEN	Jan 14 2021	PASS
03	N0_5040_TH_VEN_1	Jan 14 2021	PASS

4.2.2 EiOpt Service

No.	Test Case Name	Date	Result
01	P0_7020_TH_VEN(*)	Jan 14 2021	PASS
02	P0_7040_TH_VEN	Jan 14 2021	PASS

(*) See "5 Remarks and References"

4.2.3 EiReport Service

No.	Test Case Name	Date	Result
01	R0_8030_TH_VEN_1	Jan 14 2021	PASS
02	R0_8040_TH_VEN_1	Jan 14 2021	PASS
03	R0_8045_TH_VEN_1	Jan 14 2021	PASS
04	R0_8130_TH_VEN_1	Jan 14 2021	PASS
05	R0_8160_TH_VEN_1	Jan 14 2021	PASS
06	R0_8180_TH_VEN_1	Jan 14 2021	PASS

4.2.4 EiEvent Service

No.	Test Case Name	Date	Result
01	E0_6020_TH_VEN(*)	Jan 14 2021	PASS
02	E0_6025_TH_VEN	Jan 14 2021	PASS
03	E0_6030_TH_VEN	Jan 14 2021	PASS
04	E0_6055_TH_VEN	Jan 14 2021	PASS
05	E0_6060_TH_VEN	Jan 14 2021	PASS

(*) See "5 Remarks and References"

試験報告書番号:
Test report no.:

JP210UM1 001

頁 9 / 11
Page 9 / 11

4.2.5 EiEvent Ported A Profile

No.	Test Case Name	Date	Result
01	A_E2_0450_TH_VEN_1	Jan 14 2021	PASS
02	A_E2_0525_TH_VEN_1	Jan 14 2021	PASS

4.2.6 General Tests

No.	Test Case Name	Date	Result
01	G0_9005_TH_VEN_1	Jan 14 2021	PASS
02	G0_9010_TH_VEN_1	Jan 14 2021	PASS
03	G0_9030_TH_VEN_1	Jan 14 2021	PASS

4.2.7 XMPP Tests

No.	Test Case Name	Date	Result
01	N0_5020_TH_VEN	Jan 15 2021	PASS
02	N0_5030_TH_VEN	Jan 15 2021	PASS
03	P0_7040_TH_VEN	Jan 15 2021	PASS
04	R0_8030_TH_VEN_1	Jan 15 2021	PASS
05	E0_6030_TH_VEN_1	Jan 15 2021	PASS
06	A_E2_0525_TH_VEN_1	Jan 15 2021	PASS
07	G0_9005_TH_VEN_1	Jan 15 2021	PASS
08	G0_9010_TH_VEN_1	Jan 15 2021	PASS

試験報告書番号:
Test report no.:

JP210UM1 001

頁 10 / 11
Page 10 / 11

5 Remarks and References

Test Items (P0_7020, P1_2020, E0_6020, E1_1020) are tested in G0_9030 / G1_4030. (not tested separately)

Log files for the executed test cases are provided in the electronic format.

List of all executed tests with links to the log files is located in the "logfile.html" which could be opened in any web-browser.

6 Photos

```
192.167.0.21 - root@ip-192-167-0-21:/vpp/tool VT
File Edit Setup Control Window KanjiCode Help
[root@ip-192-167-0-21 tool]# cat pkgVerCheck.log
gyom_kbn | gyom_cd | gyom_cd_val
-----+-----+-----
PKG_VERSION | KandenAgg-VPP-VTN | 02-01
PKG_VERSION | KandenAgg-VPP-VEN | 02-01
(2 rows)

[root@ip-192-167-0-21 tool]#
[root@ip-192-167-0-21 tool]#
```

Photo 1: FW Version

The screenshot displays the Hitachi Virtual Power Plant Solution web interface. At the top, there is a navigation bar with tabs for 'イベント管理', 'レポート管理', '契約管理', '実績管理', 'メンテナンス', and '運用'. The main content area features a 'Hitachi Virtual Power Plant Solution' header with a '調整量 (直近6日間): 0kWh' and '達成率 (直近6日間): 0%' (Waiting status). Below this is an 'Electricity' section with a line graph showing '現在時刻' (Current time) and a legend for '待機中' (Waiting), '実行中' (Running), and '可記録' (Recordable). An 'Event' table is also visible on the right side of the dashboard.

Photo 2: System screen capture