Facility and equipment for conformance tests on ECHONET Lite / AIF Specifications

JET performs conformance tests for AIF Specifications and ECHONET Lite Specification, as an authorized testing laboratory.

Available Tests and Test Locations

JET offers to conduct the conformance test either at our in-house lab, or at any other locations where specified by the client.

The table below shows the available test location to the apparatus under test.

	JET test lab.		Outside JET	
Apparatus	Apparatus	Dismantled	(ex. client's lab.)	
	assembly	communication unit only		
	(A-1)	(A-2)	(B)	
Low-voltage Smart Electric	0	0	0	
Energy Meters				
High-voltage Smart Electric	0	0	0	
Energy Meters				
Home Air Conditioners	0	0	0	
Lightings	0	0	0	
Fuel Cells	0	0	0	
Instantaneous Water Heaters	0	0	0	
Household Solar Power	0	0	0	
Generations				
Heat Pump Water Heaters	0	0	0	
Storage Batteries	0	0	0	
Electric Vehicle	0	0	0	
Chargers/Dischargers				
Electric Vehicle Chargers	0	0	0	
Commercial-use package	0	0	0	
Air Conditioner				
Refrigerated display cases	0	0	0	
Lighting system / Expansion	0	0	0	
Lighting system				
(H)EMS Controllers	0	0	0	

Note :

"O" means "test performable", "--" means "test unperformable" (there is no unperformable location for now)

%(A-1): Test on complete assembly of the apparatus is performable at the JET test lab

(Test may not be performable if test configuration doesn't meet the specifications of JET facility or power consumption of apparatus excesses the capacity of power supply in JET)

%(A-2): Test on dismantled communication unit only is performable at the JET test lab.

(Test may not be performable if test configuration doesn't meet the specifications of JET facility)

%(B): Test is performable at a location outside JET (e.g. where the client specifies)

(In this case, JET test engineer confirms in advance if the location is suitable, and will bring the necessary test equipment e.g. PC with tools installed)

Test environment (electricity, water and gas supply condition) in JET labs

The table below shows the test environment condition in each JET lab.

Facility	Electricity	Water, gas etc.	
Tokyo lab.	\cdot AC100V, 50Hz, 15A x3 outlets	—	
Room 1			
Tokyo lab.	\cdot AC100V, 50Hz, 15A x3 outlets	—	
Room 2	• Single-phase 2-wire, 50Hz, 5kVA		
	• Single-phase 3-wire, 50Hz, 10kVA		
	• Three-phase, 50Hz, 35kVA		
Yokohama lab.	\cdot AC100V 50Hz, 15A x1 outlet	Water supply/ drainage, Town	
	• Single-phase3wire, 50Hz, 4kVA	gas, LPG※, Kerosene※	
	• Three-phase, 50Hz/60Hz, 10kVA		
Power	• Single-phase 2-/ 3-wire/	Test space for Electric Vehicle	
Technology lab.	Three-phase, 50/60Hz, 40kVA	is available.	
	(Using power conditioner)		

Note :

Other electricity may be available in some case. Please ask JET when needed.

The plug types for electricity installed in JET lab. are as follows.

a) Japanese type-A (AC100V ~(15A)~)

b) Other types (consult with JET in advance if needed)

c) Terminal block

"LPG" and/or "Kerosene" should be provided according to the test.

Network environment

During the test the apparatus/ unit is connected to the dedicated network environment. The table below shows the network environment JET provides for the test.

Type of test (%1)	Layer 1, Layer 2	Layer 3	Layer 4
AIF test for Low-voltage Smart Electric	Wi-SUN /	IPv6	
Energy Meters or its partner HEMS	G3-PLC		
controller			
AIF test for High-voltage Smart Electric	Ethernet	IPv6 / IPv4	UDP
Energy Meters or its partner EMS controller			
The other AIF tests	Ethernet / Wi-Fi	IPv6 / IPv4	
	(※2) (※3)		

Note : % 1 The network environment for ECHONET Lite testis the same as for AIF test.

- % 2 For the Ethernet, 10BASE-T/100BASE-TX/1000BASE-T can be available, and for the Wi-Fi, 2.4GHz/5GHz band, IEEE 802.11 a/b/g/n/ac can be available.
- ※3 If any other Layer 1/2 communication media is needed, applicant is responsible for providing the suitable bridge device to hook up to Ethernet or Wi-Fi.

Additional information

Please read through the Guide to make sure of your application document. For availability of test or any questions, please contact the following.

> Communication Testing Group, Tokyo Lab. TEL: +81-3-3466-5234 E-mail: aiftest@jet.or.jp

[Note] Content of this document is subject to change without notice, please be advised to check the latest version.