



ZigBee Smart Energy Protocol Implementation Conformance Statement

| | |
|---|--------------------|
| Manufacturer: | Honeywell |
| Product Type: | In Premise Display |
| Product Name: | IHD Pioneer |
| Firmware Revision: | 1.9.3 |
| <i>Tested ZigBee Smart Energy Spec version:</i> | 1.0 |

Disclaimer:

The information provided in this document can be made available to the general public in order to identify the tested versions, features and options.

By signing this document, the manufacturer confirms that all information provided in this document is correct and the applicable features have been tested.

Manufacturer name:

Honeywell

Representative name and title:

M. C. Premraj, Senior Director

Signature:

[Handwritten Signature]

Date:

28th June 2010.

References

The following standards contain provisions, which, through reference in this document, constitute provisions of this standard. All the standards listed are normative references. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

1.1 ZigBee Alliance documents

- [R1] ZigBee document 053474r17: ZigBee Specification 2007
- [R2] ZigBee document 064321r08, ZigBee Stack Profile
- [R3] ZigBee document 074855r04, ZigBee PRO Stack Profile
- [R4] ZigBee document 075356r15: ZigBee SE Application Profile Specification
- [R5] ZigBee document 075123r01, ZigBee Cluster Library Specification
- [R6] ZigBee document 04300r08: ZigBee Network Layer PICS
- [R7] ZigBee document 064147r07: ZigBee Application Layer PICS
- [R8] ZigBee document 043171r04: ZigBee Security Layer PICS
- [R9] ZigBee document 064113r07: ZigBee Cluster Library PICS
- [R10] ZigBee document 08006r03: ZigBee 2007 Layer PICS and Stack Profiles

1.2 IEEE documents

- [R11] IEEE Standard for Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for Low Rate Wireless Personal Area Networks (LR-WPANs), 2003.

1.3 ISO documents

- [R12] ISO/IEC 9646-1:1991, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts.
- [R13] ISO/IEC 9646-7:1995, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7. Implementation conformance statements.

2 Abbreviations and special symbols

Notations for requirement status:

| | |
|--------------------------------------|--|
| M | Mandatory |
| O | Optional |
| O.n | Optional, but support of at least one of the group of options labeled O.n is required. |
| N/A | Not applicable |
| X | Prohibited |
| <i>Item Number</i> : : <i>Status</i> | Status is conditional on support of item number |

“*Item Number*”: Conditional, status dependent upon the support marked for the “*Item Number*”.

For example, FD1: O.1 indicates that the status is optional but at least one of the features described in FD1 is required to be implemented, if this implementation is to follow the standard of which this PICS Proforma is a part.

3 Identification of the implementation

Device under test (DUT) identification – Device to be certified as ZigBee Smart Energy product

DUT manufacturer: **Honeywell**

DUT name: **IHD Pioneer**

DUT version (Firmware, Hardware):

Firmware Version 1.9.3 , Hardware Version 1.9.3

DUT used ZigBee Compliance Platform (name, version):

**Texas Instruments 2.1.1 / MSP430
MAC Version CC2520/802.15.4**

Is this a revision to an existing product (if yes, which product): **No**

Manufacturer identification

Name:

Honeywell (Tianjin) Limited

Address:

No.158 Nanhai Road, TEDA Tianjin, P.R.C.

Post code: 300457

Telephone number: **86-22-66287014**

Fax number: **86-22-25329935**

Additional information (optional):

Contact information

Name: **Jie Gao**

January 6, 2010

ZigBee Alliance

Telephone number: **86-22-66287014**

Email address: Jie.Gao@honeywell.com

System configuration under test (SUT) identification (only if DUT required additional support hardware/software (PC, external drivers, etc.)

SUT name or configuration (e.g. Desktop PC connected via RS-232):

Software Version:

Hardware Version:

Operating system (optional):

Required for final certification:

- Product marketing description for web postings (50 words)

The Honeywell's IHD Pioneer is an in home display that uses the Zigbee Smart energy profile to allow home owners to efficiently track their electricity consumption, costs and green house gas emissions. IHD Pioneer enables utilities to effectively communicate with their consumers and manage peak demand.

The IHD Pioneer's features include a 100 mW radio, Rechargeable battery, colour touch screen user interface, tri colour LEDs and audio alerts

- Product picture for website (can be provided later)
- Web link to associate with certified product on website

<http://www.honeywell.com>

If you would like to postpone posting your product on the ZigBee Alliance website for a period of time, please fill out the following section.

_____ (Manufacturer) herewith requests that the submitted product shall not be posted on the ZigBee Alliance product web page until _____ (date).

Name: _____

Signature: _____

4 Global statement of conformance

The implementation described in this PICS proforma meets all of the mandatory requirements of the referenced standards:

Application Profile: ZigBee SE – 075356r15

Yes

No

Note -- Answering 'No' indicates non-conformance to the specified protocol standard. Non-supported mandatory capabilities are to be identified in the following tables, with an explanation by the implementer explaining why the implementation is non-conforming.

The supplier will have fully complied with the requirements for a statement of conformance by completing the statement contained in this sub-clause. That means, by clicking the above, the statement of conformance is complete.

5 Protocol Implementation Conformance Statement

The following tables are composed of the detailed questions to be answered, which make up the PICS.

8.1 ZigBee Device Types

Table 1 - Functional device types

| Item number | Item description | Reference | Status | Support |
|-------------|---|----------------|------------------|---------|
| FDT1 | Is this device capable of acting as a ZigBee coordinator? | [R1]/2.5.5.5.1 | ¹ O.1 | No |
| FDT2 | Is this device capable of acting as a ZigBee router? | [R1]/2.5.5.5.2 | O.1 | No |
| FDT3 | Is this a ZigBee end device? | [R1]/2.5.5.5.3 | O.1 | Yes |

8.2 Stack Profile

Table 2 –Stack Profile

| Item number | Item description | Reference | Status | Support |
|-------------|--|------------------|------------------|---------|
| ZSP1 | Is the device built on a ZigBee Compliant Platform certified for the ZigBee stack profile [R2]? | [R6] [R4]/5.2 | O.2 ² | No |
| ZSP2 | Is the device built on a ZigBee PRO Compliant Platform certified for the ZigBee PRO stack profile [R3] ? | [R3] [R4]/5.2 | O.2 | Yes |

¹ O.1 – Device under test must select only one of these options. Devices under test supporting multiple ZigBee device types must serially re-test using each supported ZigBee device type.

² O.2 – Device under test must be deployed on either of the ZigBee or ZigBee PRO stack profiles.

8.3 Stack Profile extensions for SE

Table 3 – Stack profile extensions for SE

| Item number | Item description | Reference | Status | Support |
|-------------|--|--------------------------------|------------------|---------|
| SPE1 | Does the device support Application Link Keys? | [R4]/5.2 [R8]/ASLS6 | M | Yes |
| SPE2 | Does this device use a stack that supports fragmentation? | [R4]/5.2 [R7]/ADF5, ADF6 | M | Yes |
| SPE3 | Does this device use any SE Profile Commands that require the use of Fragmentation? | [R4]/5.2 [R7]/ADF5, ADF6 | MC1: M MS1: M | Yes |
| SPE4 | Does the device adhere to the polling rate specifications given in [R4]/5.2 (i.e. Does your application poll equal to or less often as called out in the specification)? | [R4]/5.2 | FDT3:M | Yes |

8.4 SE general requirements support

Table 4 – SE general requirements support

| Item number | Item description | Reference | Status | Support |
|-------------|--|-------------------------|--------|---------|
| SEG1 | Does the device support the ZigBee Cluster Library? | [R4]/5.10, 5.11 [R5] | M | Yes |
| SEG2 | Does the device support the ZigBee Cluster Library List specified for SE including the mandatory/optional clusters detailed in the ZCL PICs? | [R4]/5.10, 5.11 [R9] | M | Yes |
| SEG3 | Does the device support the ZigBee Cluster Library with the attribute reporting, reporting configuration and read reporting configuration parameters as detailed in the SE Profile clusters? | [R4]/5.10 [R5] | M | No |