

# ZigBee PRO Green Power feature. GP Basic functionality set. Errata for GP Basic PICS (15-0006)

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**Board of Directors** 

Abstract This document contains the errata for the GP Basic PICS proforma (15-0006).

Keywords ZigBee, Green Power, Battery-less, Energy Harvesting, Green Power stub, Green

Power Cluster, Green Power Basic, errata

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# **Revision history**

Revision	Date	Details	Editor
00, 01	December 3 <sup>rd</sup> , 2015	Placeholder document	Bozena Erdmann
02	August 19 <sup>th</sup> , 2016	Implementing resolution for CCB: #2198	Bozena Erdmann
03	January 30 <sup>th</sup> , 2017	Implementing resolution for CCB: #2274.	Bozena Erdmann
04	February 7 <sup>th</sup> , 2017	Implementing comments from the errata approval ballot: #1035.  Errata r04 approved by GP WG ballot closing on February 8th, 2017.  Erreta r04 approved by TC on May 2th, 2017 and by TSC on March 20th	Bozena Erdmann
		Errata r04 approved by TC on May 3 <sup>rd</sup> , 2017 and by TSC on March 20 <sup>th</sup> , 2017.	
05	May 30 <sup>th</sup> , 2017	Integrating errata from r004 with track changes into the original GP Basic test specification document (15-0006r11).	Bozena Erdmann
06	September 15 <sup>th</sup> , 2017	Implementing resolution for CCB: #2311.	Bozena Erdmann
07	September 18 <sup>th</sup> , 2017		
08	November 7 <sup>th</sup> , 2017	Implementing comment resolution from letter ballot for GP Basic errata set: Kavi comment #1383,	Bozena Erdmann
09	January 24th, 2018	Implementing resolution for CCB #2524	Bozena Erdmann
10	February 21 <sup>st</sup> , 2018	Completing resolution for CCB #2198 for the GPD colour control commands.	Bozena Erdmann
		Implementing resolution for CCB #2533.	



#### 1 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 053474r21: ZigBee Specification 2015
- [R2] ZigBee document 08006r03: ZigBee 2007 Layer PICS and Stack Profiles
- [R3] ZigBee document 075123r04, ZigBee Cluster Library Specification
- [R4] ZigBee document 14-0563r16: Green Power Basic specification
- [R5] ZigBee document 15-0015r12: Green Power Basic test specification
- [R6] ZigBee document 064113r08: ZigBee Cluster Library PICS
- [R7] ZigBee document 15-02016, Errata for Green Power Basic PICS
- [R8] ZigBee document 15-00000, GP Basic PICS to test case mapping

#### 1.2 IEEE documents

[R9] 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.



# Table of Contents

1 References	
1.1 ZigBee Alliance documents	
1.2 IEEE documents	
Table of Contents	
2 Introduction	
2.1 Scope	
2.2 Purpose	
3 Green Power certification status	
3.1 Not certified GP functionality	
3.2 Certified GP functionality	10
4 Abbreviations and special symbols	
5 Instructions for completing the PICS proforma	13
6 Identification of the implementation	14
7 Identification of the protocol	16
8 Global statement of conformance	17
9 ZigBee stack profile [R2] errata	18
9.1 Modify the Table in "8.6.3.1.5 ZigBee Device Objects functions", p.89, of 08006r03	18
9.1.1 After AZD18, add	
9.2 Modify the Table in "8.4.2.2 Network layer frames" to include alias usage for Tx and Rx, p.47,.	
9.2.1 after NDF4, add	
10 Green Power feature	
10.1 Green Power Device Types	
11 Functionality of Green Power infrastructure device	
11.1 Green Power stub capabilities of GP infrastructure devices	
11.2 Green Power: Support of proxy basic functionality	
11.3 Functionality of GreenPower cluster	
11.3.1 GreenPower cluster: items common to client and server	
11.3.2 Server side	
11.3.3 Client side	
11.3.4 Support of GP functionality	
11.4 GPS application functionality	
11.4.2 GPD command support by GPS	
12 Green Power Device functionality	
12.1 GPD device description support	
12.2 GPD functionality	
12.2.1 GPD Bidirectional operation	
12.2.2 GPD commissioning support	
12.3 GPD application functionality	
12.3.1 GPD command support by GPD.	
12.3.2 ZigBee attribute support by GPD sensor devices	57



#### 2 Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given standard. Such a statement is called a protocol implementation conformance statement (PICS).

#### 2.1 Scope

This document provides the protocol implementation conformance statement (PICS) proforma for the ZigBee specifications cited in Reference [R4] in compliance with the relevant requirements.

This document addresses the Green Power feature of the ZigBee core stack, together with the necessary cluster-level components (Green Power cluster).

#### 2.2 Purpose

The supplier of a protocol implementation claiming to conform to the Green Power feature shall complete the following PICS proforma and accompany it with the information necessary to identify fully both the supplier and the implementation.

The PICS is in the form of answers to a set of questions in the PICS proforma. The questions in a proforma consist of a systematic list of protocol capabilities and options as well as their implementation requirements. The implementation requirement indicates whether implementation of a capability is mandatory, optional, or conditional depending on options selected. When a protocol implementer answers questions in a PICS proforma, they would indicate whether an item is implemented or not, and provide explanations if an item is not implemented.



## 3 Green Power certification status

The current status of the certification and golden unit availability for GreenPower functionality is listed in the tables below.

According to the current version of this specification, only the following GPI device types can be certified: GP Proxy Basic, GP Combo Basic, GP Commissioning Tool.

#### 3.1 Not certified GP functionality

Note: this section reflects the functionality status AFTER this specification is approved.

Table 1 - Not certified GP functionality

Item number	Item description	Reference
GPPCSF5 GPPCCF5	Full unicast communication functionality	[R4] A.3.2.8
GPPCSF7 GPPCCF7 GPF9D-E GPF10A-B GPF100 GPF102 GPF108	Proximity bidirectional operation functionality	[R4] A.3.2.8
GPPCSF8 GPPCCF8 GPF9D-E GPF10A-B GPF100 GPF102 GPF108	Multi-hop bidirectional operation functionality	[R4] A.3.2.8
GPPCSF9 GPPCCF9	Proxy Table maintenance (active and passive) functionality	[R4] A.3.2.8
GPPCSF13 GPPCCF13 GPF9D-E GPF10A-B GPF100 GPCF7	Maintenance of GPD (deliver channel/key during operation) functionality	[R4] A.3.2.8
GPPCSF18	Sink Table-based groupcast forwarding functionality	[R4] A.3.2.8
GPD1 GPS1B	GP Simple Generic 2-state Switch	[R4] A.4.3
GPD3 GPS3	GP Level Control Switch	[R4] A.4.3
GPD4 GPS4	GP Simple Sensor	[R4] A.4.3
GPD6 GPS14B	GP Advanced Generic 2-state Switch	[R4] A.4.3
GPD10 GPS5	GP Color Dimmer Switch	[R4] A.4.3
GPD11 GPS6	GP Light Sensor	[R4] A.4.3
GPD12 GPS7	GP Occupancy Sensor	[R4] A.4.3
GPD20 GPS8	GP Door Lock Controller	[R4] A.4.3
GPD30 GPS9	GP Temperature Sensor	[R4] A.4.3



Item number	Item description	Reference
GPD31	GP Pressure Sensor	[R4] A.4.3
GPS10		[K4] A.4.3
GPD32	GP Flow Sensor	[R4] A.4.3
GPS11		[K4] A.4.3
GPD33	GP Indoor Environment Sensor	
GPS12, GPS9, GPS6		[R4] A.4.3

# 3.2 Certified GP functionality

Table 2 - To-date certified device types

Item number	Item description	Reference
GPDT0	Green Power Device (GPD) functionality	[R4] A.1.6, A.1.7
GPDT2B	GP proxy functionality of Green Power Proxy Basic (GPPB) device	[R4] A.3.2.6
GPDT2CB	GP proxy functionality of Green Power Combo Basic (GPCB) device	[R4] A.3.2.7
GPDT3CB	GP sink functionality of Green Power Combo Basic (GPCB) device	[R4] A.3.2.7

Table 3 - To-date certified GP functionality

Item number	Item description	Reference
GPPCSF1 GPPCCF1	GP feature	[R4] A.3.2.8
GPPCSF2 GPPCCF2 GPF4A GPF4C	Direct communication (via GP stub) functionality	[R4] A.3.2.8
GPPCSF3 GPPCCF3	Derived groupcast communication functionality	[R4] A.3.2.8
GPPCSF4 GPPCCF4	Pre-commissioned groupcast communication functionality	[R4] A.3.2.8
GPPCSF6 GPPCCF6	Lightweight unicast communication functionality	[R4] A.3.2.8
GPPCSF10 GPPCCF10 GPCF4GPCF1 GPCF2 GPF4A-D GPF9A-C GPF10C-E GPCF10 GPCF11 GPCF12B GPCF13B	Proximity commissioning (unidirectional and bidirectional) functionality	[R4] A.3.2.8
GPPCSF11 GPPCCF11 GPCF4 GPCF1 GPCF2 GPF4A-D GPF9A-C GPF10C-E GPCF10 GPCF11 GPCF13B	Multi-hop commissioning (unidirectional and bidirectional) functionality	[R4] A.3.2.8



Item number	Item description	Reference
GPPCSF12 GPPCCF12 <sup>1</sup> GPPCC151A GPPCS110	CT-based commissioning functionality	[R4] A.3.2.8
GPPCSF14 GPPCCF14 GPF8	gpdSecurityLevel = 0b00 functionality  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection (as indicated by the GPDkeyEncryption sub-field of the Extended Options field of the GPD Commissioning command) of the GPD key, if exchanged over the air, can be certified.	[R4] A.3.2.8
GPPCSF15 GPPCCF15 GPF7	gpdSecurityLevel = 0b01 functionality (deprecated)	[R4] A.3.2.8
GPPCSF16 GPPCCF16 GPF6	gpdSecurityLevel = 0b10 functionality	[R4] A.3.2.8
GPPCSF17 GPPCCF17 GPF5	gpdSecurityLevel = 0b11 functionality	[R4] A.3.2.8
GPPCSF19	Translation Table functionality	[R4] A.3.2.8
GPPCSF20 GPPCCF20 GPF4D GPF4B	GPD IEEE address functionality	[R4] A.3.2.8
GPCF12B GPCF13B	TC-LK encryption of the GPD key exchanged during commissioning	[R4] A.3.9, A.1.5.9
GPD2 GPS2	GP On/Off switch functionality	[R4] A.4
GPD0 GPS1A	GP Simple Generic 1-state Switch	[R4] A.4.3
GPD5 GPS14A	GP Advanced Generic 1-state Switch	[R4] A.4.3

 $<sup>^{1}\</sup>text{ CCB \#2279 and CCB \#2278; resolution modified in 15-02016-008 as a result of Kavi comment \#1383 from letter ballot for GP Basic errata set:} \\ \underline{\text{https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment?comment_id=1383}}$ 



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# 4 Abbreviations and special symbols

#### Notations for requirement status:

M Mandatory
O Optional

O.n Optional, but support of at least one or only one (as indicated in the footnote

to the O.n label) of the group of options labeled O.n is required.

(Clarification - the number 'n' is a label for the group, not a count of the number of options within the group, or the ordinal number of the option within

the group. All options in the group are indicated identically as O.n)

N/A Not applicable X Prohibited

Item label: Status Status is conditional on support of the item with the given item label.

#### Examples

1/ If items labeled A and B are both marked "O.n" this indicates that the status is optional for both A and B, but at least one of the two features described by items A and B is required to be implemented.

2/ If m items are each marked A: O.n, this indicates that, if item A is implemented, the status is optional for all of them, but at least one of the m features described by the items is required to be implemented.



# 5 Instructions for completing the PICS proforma

If a given implementation is claimed to conform to this standard, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma in this annex, and shall preserve the numbering and naming and the ordering of the PICS proforma.

A PICS which conforms to this document shall be a conforming PICS proforma completed in accordance with the instructions for completion given in this annex.

The main part of the PICS is a fixed-format questionnaire, divided into five tables. Answers to the questionnaire are to be provided in the rightmost column, either by simply marking an answer to indicate a restricted choice (such as Yes or No), or by entering a value, set, or range of values.



# 6 Identification of the implementation

#### Implementation under test (IUT) identification

IUT name: nRF5 Zigbee 3.0

IUT version: DSR ZBOSS v3.1\_\_\_\_\_

#### System under test (SUT) identification

SUT name: nRF5 Zigbee 3.0

Software Version: DSR ZBOSS v3.1

Hardware Version: nRF52840 rev C

Operating system (optional): N/A

ZigBee stack revision and profile (should be PRO r20 or later): PRO r21

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**PICS/System conformance statement** 



# 7 Identification of the protocol

This PICS proforma applies to the Green Power feature, cited in Reference [R4].



## 8 Global statement of conformance

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

Green Power – 14-0563r16

YesNo

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 subclause. That means, by clicking the above, the statement of conformance is complete.



# 9 ZigBee stack profile [R2] errata

# 9.1 Modify the Table in "8.6.3.1.5 ZigBee Device Objects functions", p.89, of 08006r03

#### 9.1.1 After AZD18, add

# 9.2 Modify the Table in "8.4.2.2 Network layer frames" to include alias usage for Tx and Rx, p.47,

#### 9.2.1 after NDF4, add

NDF5	Does the device support reception of ZigBee NWK frames with non-incremental sequence number in the NWK header Sequence Number field?	ZigBe e	GPDT4: M	N
		Zi BB Ge-	М	Υ
NDF6	Does the device support transmission of ZigBee NWK frames	Zig Bee	GPDT4: O	N
	with AliasSrcAddr and AliasSeqNumb, as supplied by next higher layer?	ZigBee-PRO	GPDT2: M GPDT3t: X GPDT3t+: X GPDT3c: X GPDT3CB: M GPDT4: M	Υ



## 10 Green Power feature

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

According to the current version of this specification, only the following GPI device types can be certified: GP Proxy Basic, GP Combo Basic, GP Commissioning Tool.

#### 10.1 Green Power Device Types

Table 4 - Green Power device types

Item number	Item description	Reference	Status	Support
GPDT0	Does the product support GPD functionality?	[R4] A.1.6, A.1.7	$O.6^2$	N
GPDT1	Does the product support the functionality of GP infrastructure device?	[R4] A.3.2	0.6	Y
GPDT2	Does the product support GPP functionality?	[R4] A.3.2.3	GPDT1: O.7 <sup>3</sup>	Y
GPDT2f	Is the product programmed as a GPP?	[R4] A.3.2.3	GPDT2: X	N
GPDT2B	Is the product programmed as a GPPB?	[R4] A.3.2.6	GPDT2: O.8 <sup>4</sup>	Y
GPDT2CB	Is the product programmed as a GPCB?	[R4] A.3.2.4	GPDT2: O.8	N
GPDT3	Does the product support GPS functionality?	[R4] A.3.2	GPDT1: O.7	N
GPDT3t	Is the product programmed as a GPT?	[R4] A.3.2.1	GPDT3: X	N
GPDT3t+	Is the product programmed as a GPT+?	[R4] A.3.2.2	GPDT3: X	N
GPDT3c	Is the product programmed as a GPC?	[R4] A.3.2.4	GPDT3: X	N
GPDT3CB	Is the product programmed as a GPCB?	[R4] A.3.2.7	GPDT3: O	N
GPDT4	Does the product support GP commissioning tool functionality?	[R4] A.3.2.5	GPDT1: O.7	N
GPDT4ct	Is the product programmed as a GP Commissioning Tool?	[R4] A.3.2.5	GPDT1: O	N

Please note: all PICS items applicable for all the GPP and GPS subtypes, use the generic item label: GPDT2 or GPDT3, respectively.

The sub-type specific item labels (GPDT2f, GPDT2B, GPDT2CB, GPDT3c, GPDT3t+, GPDT3c+, GPDT3CB) are used for sub-type specific requirements.

<sup>&</sup>lt;sup>4</sup> O.8 - Device under test shall select only one of these options.



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<sup>&</sup>lt;sup>2</sup> O.6 - Device under test shall select only one of these options.

<sup>&</sup>lt;sup>3</sup> O.7 - Device under test shall select at least one of these options.

# 11 Functionality of Green Power infrastructure device

#### 11.1 Green Power stub capabilities of GP infrastructure devices

This PICS table applies to GP infrastructure devices GPDT1, GPDT2, GPDT3 and GPDT4.

All PICS items applicable for all the generic GP device types, use the generic item label: GPDT1 if applicable to all devices, or GPDT2, GPDT3, and GPDT4, if applicable in general to GPP, GPS or GPCT functionality, respectively.

The sub-type specific item labels (GPDT2f, GPDT2BGPDT2CB, GPDT2c, GPDT3t, GPDT3t+, GPDT3c, and GPDT3CB) are used for sub-type specific requirements.

Since GPDT0 are not ZigBee-PRO devices, their functionality is not discussed here. Please see ZCL PICS for GPDT0 compliance requirements.

Item number	Item description	Reference	Status	Support
GPF1	Does the device implement cGP stub?	[R4] A.1	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>5</sup> GPDT4: O <sup>67</sup> GPF2A: M	Υ
<sup>8</sup> GPF2A	Does the device implement dGP stub?	[R4] A.1	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>9</sup> GPDT4: O <sup>10</sup> GPF1: M	Υ
<sup>11</sup> GPF2B	<sup>12</sup> Does the device support gpTxQueue?	[R4] A.1	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>13</sup> GPDT4: O	Υ
GPF3	Does the device support the general Green Power Device Frame format?	[R4] A.1.4	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>14</sup> GPDT4: O <sup>15</sup> GPF1    <sup>16</sup> GPF2A: M	Υ
GPF3A	Does the device support nwkcProtocolVersion = 0x3?	[R4] A.1.4	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>17</sup> GPDT4: O <sup>18</sup> GPF3; M	Υ
GPF4C	Does the device support receiving GPDF frame format with ApplicationID sub-field of the Extended NWK Frame Control field set to 0b000?	[R4] A.1.4	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>19</sup> GPDT4: O	Υ
GPF4D	Does the device support receiving GPDF frame format with <i>ApplicationID</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b010?	[R4] A.1.4	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>20</sup> GPDT4: O	Y

<sup>&</sup>lt;sup>20</sup> CCB #2372; Resolution added in 15-02016-007



<sup>&</sup>lt;sup>5</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>6</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>7</sup> CCB #2524; resolution added in 15-02016-009;

<sup>&</sup>lt;sup>8</sup> CCB #2524; resolution added in 15-02016-009;

<sup>&</sup>lt;sup>9</sup> CCB #2372; Resolution added in 15-02016-007

<sup>10</sup> CCB #2372; Resolution added in 15-02016-007

<sup>11</sup> CCB #2524; resolution added in 15-02016-009;

 $<sup>^{12}\,\</sup>text{CCB}$  #2198; Resolution added in 15-02016-002;

<sup>13</sup> CCB #2372; Resolution added in 15-02016-007 14 CCB #2372; Resolution added in 15-02016-007

<sup>15</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>16</sup> CCB #2524; resolution added in 15-02016-009;

<sup>&</sup>lt;sup>17</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>18</sup> CCB #2372; Resolution added in 15-02016-007 19 CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
GPF5	Does the device's dGP stub support GPDF SecurityLevel=0b11?	[R4] A.1.5.4; A.3.7.2	GPDT2B: M GPDT2CB: M GPDT3CB: O.4 <sup>21</sup> GPDT4: O	Y
GPF6	Does the device's dGP stub support GPDF SecurityLevel=0b10?	[R4] A.1.5.4; A.3.7.2	GPDT2B: M GPDT2CB: M GPDT3CB: O.4 <sup>22</sup> GPDT4: O	Y
GPF7	Does the device's dGP stub support GPDF SecurityLevel=0b01? (deprecated)	[R4] A.1.5.4; A.3.7.2	GPDT1: X (deprecated)	N
GPF8A	Does the device's dGP stub support GPDF SecurityLevel=0b00 in commissioning?	[R4] A.1.5.4; A.3.7.2	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>23</sup> GPDT4: O	Υ
GPF8B	Does the device's dGP stub support GPDF SecurityLevel=0b00 in operation?	[R4] A.1.5.4; A.3.7.2	GPDT2B: O GPDT2CB: O GPDT3CB: O <sup>24</sup> GPDT4: O	Υ
GPF9A	Does the device support transmitting GPDF frame format with ApplicationID sub-field of the Extended NWK Frame Control field set to 0b000 and Frame type sub-field of the NWK Frame Control field set to 0b00 (Data frame) in commissioning, without security?	[R4] A.1	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>25</sup> GPDT4: O	Υ
GPF9B	Does the device support transmitting GPDF frame format with <i>ApplicationID</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b010 in commissioning, without security?	[R4] A.1	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>26</sup> GPDT4: O	Υ
GPF9C	Does the device support transmitting in commissioning mode a GPDF frame format with <i>Frame type</i> sub-field of the <i>NWK Frame Control</i> field set to 0b01 (Maintenance frame)?	[R4] A.1, A.3.9	GPDT2B: M GPDT2CB: M GPDT3CB: M <sup>27</sup> GPDT4: O	Υ
GPF9D	Does the device support transmitting GPDF frame format with ApplicationID sub-field of the Extended NWK Frame Control field set to 0b000 and Frame type sub-field of the NWK Frame Control field set to 0b00 (Data frame) in operation, with security?	[R4] A.1	GPDT2B: X GPDT2CB: X GPDT3CB: X GPDT4: O	N
GPF9E	Does the device support transmitting GPDF frame format with ApplicationID sub-field of the Extended NWK Frame Control field set to 0b010 in operation, with security?	[R4] A.1	GPDT2B: X GPDT2CB: X GPDT3CB: X GPDT4: O	N
<sup>28</sup> GPF11	Is the device capable of transmitting a response GPDF between <i>gpTxOffset</i> and <i>gpTxOffset+gpMaxTxOffsetVariation</i> ms after reception of the request GPDF (aka immediate response)?	[R4] A.1	GPDT2: X GPDT3: O GPF9A-E: O GPPCSF10: O GPPCSF11: O GPPCSF7: O GPPCSF8: O GPPCSF13: O	Y

# 11.2 Green Power: Support of proxy basic functionality

This PICS table applies to GP infrastructure devices GPDT1, GPDT2, GPDT3 and GPDT4.

All PICS items applicable for all the generic GP device types use the generic item label: GPDT1 if applicable to all devices, or GPDT2, GPDT3, and GPDT4, if applicable in general to GPP, GPS or GPCT functionality, respectively.

<sup>&</sup>lt;sup>28</sup> CCB #2524; resolution added in 15-02016-009;



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 $<sup>^{21}</sup>$  CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>22</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>23</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>24</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>25</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>26</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>27</sup> CCB #2372; Resolution added in 15-02016-007

 $The \ sub-type \ specific \ item \ labels \ (GPDT2B, GPDT2CB) \ are \ used \ for \ sub-type \ specific \ requirements.$ 

Since GPDT0 are not ZigBee-PRO devices, their functionality is not discussed here. Please see ZCL PICS for GPDT0 compliance requirements.



Item number	Item description	Reference	Status	Support
GPPC0	Does the device support the GP proxy basic functionality?	[R4] A.3.2.6	GPDT2B: M GPDT2CB: M GPDT3CB: X GPDT4: O	Y
GPPC1	Is the GreenPower cluster supported?	[R4] A.3	GPPC0: M	Y
GPPC2	Does the device support Green Power End Point (GPEP)?	[R4] A.3.1	GPPC0: M	Y
GPPC3	Does the device support GPEP duplicate filtering?	[R4] A.3.6.1	GPPC0: M	Y
GPPCC1	Is the GreenPower cluster supported as a client?	[R4] A.3.4	GPPC0: O.5 <sup>29</sup> GPDT2B: M GPDT2CB: M	Y
GPPCC2	Is the gppMaxProxyTableEntries attribute supported?	[R4] A.3.4.2.1	GPPCC1: M	Y
GPPCC3A	Is the Proxy Table attribute supported?	[R4]A.3.4.2.2	GPPCC1: M	Y
GPPCC3B	Is the minimum number of 5 entries in the Proxy Table attribute supported?  Indicate the actual number of entries in the Proxy Table supported by this device.	[R4]A.3.4.2.2	GPPCC1: M	Y
GPPCC3F	Is Proxy Table readout via ZCL Read Attributes/Read Attributes Response commands supported?	[R4] A.3.4.2.2.1	GPPCC1: M	Y
GPPCC3G	Is Proxy Table readout via GP Proxy Table Request/Response commands supported?	[R4] A.3.4.3.1, A.3.4.4.2	GPPCC1: M	Y
GPPCC8	Is the gppFunctionality attribute supported?	[R4]A.3.4.2.7	GPPCC1: M	Y
GPPCC9	Is the gppActiveFunctionality attribute supported?	[R4]A.3.4.2.8	GPPCC1: M	Y
GPPCS1	Is the GreenPower cluster supported as a server?	[R4]A.3.3	GPPC0: O.5 GPDT3CB: X	N
GPPCS2	Is the gppMaxSinkTableEntries attribute supported?	[R4]A.3.3.2.1	GPPCS1: M	N
GPPCS3A	Is the Sink Table attribute supported?	[R4]A.3.3.2.2	GPPCS1: M	N
GPPCS3B	Is the minimum number of 5 entries in the Sink Table attribute supported?	[R4]A.3.3.2.2	GPPCS1: M	N
GPPCS3C	Is Sink Table readout via ZCL Read Attributes/Read Attributes Response commands supported?	[R4] A.3.3.2.2.1	GPPCS1: M	N
GPPCS3D	Is Sink Table readout via GP Sink Table Request/Response commands supported?	[R4] A.3.3.5.6, A.3.3.4.7	GPPCS1: M	N
GPPCS8	Is the gpsFunctionality attribute supported?	[R4]A.3.3.2.7	GPPCS1: M	N
GPPCS9	Is the gpsActiveFunctionality attribute supported?	[R4]A.3.3.2.8	GPPCS1: M	N
GPPC101	Is the gpSharedSecurityKeyType attribute supported?	[R4]A.3.3.3.1	GPPC0: O (GPDT2B    GPDT2CB) && GPPCCF11: O GPDT3CB && (GPPCCF10    GPPCCF11): M GPPC102: M ((GPPCCF7    GPPCCF8 ) && (GPF5  GPF6)): M	Y
GPPC102	Is the gpSharedSecurityKey attribute supported?	[R4]A.3.3.3.2	GPPC0: O (GPDT2B    GPDT2CB) && GPPCCF11: O GPDT3CB && (GPPCCF10    GPPCCF11): M GPPC101: M ((GPPCCF7    GPPCCF8 ) && (GPF5  GPF6)): M	Y
GPPC103	Is the gpLinkKey attribute supported?	[R4]A.3.3.3.3	GPDT2B: O GPDT2CB: O	Y
GPPC104	Is the global <i>ClusterRevision</i> attribute (0xfffd) supported?	[R4]A.3.3.3	GPDT2B: M GPDT2CB: M	Y
GPPCC101B	Is transmission of the GP Notification command in lightweight unicast supported?	[R4] A.3.3.4.1	GPDT2B: M GPDT2CB: M	Y
GPPCC102	Is transmission of the GP Notification command in derived groupcast supported?	[R4]A.3.3.4.1	GPDT2B: M GPDT2CB: M	Y



GPPCC103	Is transmission of the GP Notification command in commissioned groupcast supported?	[R4]A.3.3.4.1	GPDT2B: M GPDT2CB: M	Y
<sup>30</sup> GPPCC151 A	Is reception of the GP Pairing command supported?	[R4] A.3.3.5.2	GPPCC1: M	Y

<sup>&</sup>lt;sup>29</sup> O.5: DUT shall support at least one of those options.

<sup>30</sup> CCB #2279 and CCB #2278; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set:  $\underline{https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment?id=1383$ 



#### 11.3 Functionality of GreenPower cluster

The GPPCCF\$ items refer ONLY to the PROXY functionality of the DUT. Analogously, the GPPCSF\$ items refer ONLY to the SINK functionality of the DUT.

Thus, for a GPC, each item set covers only a part of GPC's functionality. Therefore, for the two functional parts of the GPC, both PICS items sets have to be checked independently.

Table 5 - GreenPower cluster feature support

Item number	Item description	Reference	Status	Support
GPPCSF1	Is GP feature supported as a server? (GP feature sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: M <sup>31</sup> GPDT4: O	N
GPPCSF2	Is Direct communication (via GP stub) supported as a server? (Direct communication sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: M <sup>32</sup> GPDT4: O	N
GPPCSF3	Is Derived groupcast communication supported as a server? (Derived groupcast communication sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: O.11 GPDT4: O	N
GPPCSF4	Is Pre-commissioned groupcast communication supported as a server? (Pre-commissioned groupcast communication sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: 0.11 (GPDT3CB & GPPCSF3: M) GPDT4: O	N
GPPCSF5	Is Unicast communication supported as a server? (Unicast communication sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: X GPDT4: O	N
GPPCSF6	Is Lightweight unicast communication supported as a server? (Lightweight unicast communication sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: O.11 GPDT4: O	N
GPPCSF7	Is Proximity bidirectional operation supported as a server? (Proximity bidirectional operation sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: X GPDT4: O	N
GPPCSF8	Is Multi-hop bidirectional operation supported as a server? (Multi-hop bidirectional operation sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: X GPDT4: O	N
GPPCSF9	Is Proxy Table maintenance (active and passive) supported as a server? (Proxy Table maintenance sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: X GPDT4: O	N
GPPCSF10	Is Proximity commissioning (unidirectional and bidirectional) supported as a server? (Proximity commissioning sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: M <sup>33</sup> GPDT4: O	N
GPPCSF11	Is Multi-hop commissioning (unidirectional and bidirectional) supported as a server? (Multi-hop commissioning sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: M GPDT4: O	N
GPPCSF12	Is CT-based commissioning supported as a server? (CT-based commissioning sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: M <sup>34</sup> GPDT4: O	N
GPPCSF13	Is Maintenance of GPD (deliver channel/key during operation) supported as a server? (Maintenance of GPD sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: X GPDT4: O	N
GPPCSF14	Is gpdSecurityLevel = 0b00 supported in operation as a server? (gpdSecurityLevel = 0b00 sub-field of the gpsFunctionality attribute set?)  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.3.2.8	GPDT2: N/A GPDT3: O GPDT4: O	N

<sup>31</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>34</sup> CCB #2372; Resolution added in 15-02016-007



3

<sup>32</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>33</sup> CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
GPPCSF15	Is gpdSecurityLevel = 0b01 supported as a server? (gpdSecurityLevel = 0b01 sub-field of the gpsFunctionality attribute set?) (deprecated)	[R4] A.3.2.8	GPDT1: X (deprecated)	N
GPPCSF16	Is gpdSecurityLevel = 0b10 supported as a server? (gpdSecurityLevel = 0b10 sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: O.12 <sup>35</sup> GPDT4: O	N
GPPCSF17	Is gpdSecurityLevel = 0b11 supported as a server? (gpdSecurityLevel = 0b11 sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: O.12 GPDT4: O	N
GPPCSF18	Is SinkTable-based groupcast forwarding supported as a server? (SinkTable-based groupcast forwarding sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: X GPDT4: O	N
GPPCSF19	Is Translation Table feature supported as a server? (Translation Table sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: O GPDT4: O	N
GPPCSF20	Is GPD IEEE address feature supported as a server? (GPD IEEE address sub-field of the gpsFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3CB: M <sup>36</sup> GPDT4: O	N
GPPCCF1	Is GP feature supported as a client? (GP feature sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPCT2CB: M GPDT3: N/A GPDT4: O	Y
GPPCCF2	Is Direct communication (via GP stub) supported as a client? (Direct communication sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPCT2CB: M GPDT3: N/A GPDT4: O	Y
GPPCCF3	Is Derived groupcast communication supported as a client? (Derived groupcast communication sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPCT2CB: M GPDT3: N/A GPDT4: O	Y
GPPCCF4	Is Pre-commissioned groupcast communication supported as a client? (Pre-commissioned groupcast communication sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPCT2CB: M GPDT3: N/A GPDT4: O	Y
GPPCCF5	Is Full unicast communication supported as a client? (Unicast communication sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: X GPDT2CB: X GPDT3: N/A GPDT4: O	N
GPPCCF6	Is Lightweight unicast communication supported as a client? (Lightweight unicast communication sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPCT2CB: M GPDT3: N/A GPDT4: O	Y
GPPCCF7	Is Proximity bidirectional operation supported as a client? (Proximity bidirectional operation sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: N/A GPDT4: O	N
GPPCCF8	Is Multi-hop bidirectional operation supported as a client? (Multi-hop bidirectional operation sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: X GPDT2CB: X GPDT3: N/A GPDT4: O	N
GPPCCF9	Is Proxy Table maintenance (active and passive) supported as a client? (Proxy Table maintenance sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: X GPDT2CB: X GPDT3: N/A GPDT4: O	N
GPPCCF10	Is Proximity commissioning (unidirectional and bidirectional) supported as a client? (Proximity commissioning sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: N/A GPDT4: O	N
GPPCCF11	Is Multi-hop commissioning (unidirectional and bidirectional) supported as a client? (Multi-hop commissioning sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPDT2CB: M GPDT3: N/A GPDT4: O	Y

<sup>&</sup>lt;sup>35</sup> O.12: DUT shall implement at least one of those options.

<sup>&</sup>lt;sup>36</sup> CCB #2372; Resolution added in 15-02016-007



Item number	Item description	Reference	Status	Support
GPPCCF12	Is CT-based commissioning supported as a client? (CT-based commissioning sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPDT2CB: M GPDT3: N/A GPDT4: O	Y
GPPCCF13	Is Maintenance of GPD (deliver channel/key during operation) supported as a client? (Maintenance of GPD sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B:X GPDT2CB: X GPDT3: N/A GPDT4: O	N
GPPCCF14	Is gpdSecurityLevel = 0b00 supported in operation as a client? (gpdSecurityLevel = 0b00 sub-field of the gppFunctionality attribute set?)  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.3.2.8	GPDT2B: O GPDT2CB: O GPDT3CB: N/A GPDT4: O	Y
GPPCCF15	Is gpdSecurityLevel = 0b01 supported as a client? (gpdSecurityLevel = 0b01 sub-field of the gppFunctionality attribute set?) (deprecated)	[R4] A.3.2.8	GPDT1: X (deprecated)	N
GPPCCF16	Is gpdSecurityLevel = 0b10 supported as a client? (gpdSecurityLevel = 0b10 sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPDT2CB: M GPDT3CB: N/A GPDT4: O	Y
GPPCCF17	Is gpdSecurityLevel = 0b11 supported as a client? (gpdSecurityLevel = 0b11 sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPDT2CB: M GPDT3CB: N/A GPDT4: O	Y
GPPCCF18	Is SinkTable-based groupcast forwarding supported as a client? (SinkTable-based groupcast forwarding sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: N/A GPDT4: N/A	N
GPPCCF19	Is Translation Table feature supported as a client? (Translation Table sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2: N/A GPDT3: N/A GPDT4: N/A	N
GPPCCF20	Is GPD IEEE address feature supported as a client? (GPD IEEE address sub-field of the gppFunctionality attribute set?)	[R4] A.3.2.8	GPDT2B: M GPDT2CB: M GPDT3CB: N/A GPDT4: N/A	Y



#### 11.3.1 GreenPower cluster: items common to client and server

Table 6 - GreenPower cluster items common to client and server

Item number	Item description	Reference	Status	Support
GPPC1	Is the GreenPower cluster supported?	[R4] A.3	GPDT1: M	Υ
GPPC2	Does the device support Green Power End Point (GPEP)?	[R4] A.3.1	GPDT1: M	Υ
GPPC3	Does the device support GPEP duplicate filtering?	[R4] A.3.6.1.2	GPDT1: M	Υ
GPPC3r	Does the device support random MAC sequence number for GPD commands' duplicate filtering?	[R4] A.3.6.1.2	GPDT1&& (GPF8A    GPF8B) : M	Υ
GPPC3i	Does the device support incremental MAC sequence number for GPD commands' duplicate filtering?	[R4] A.3.6.1.2	GPDT1&& (GPF8A    GPF8B): M	Y
GPPC3s	Does the device support GPD security frame counter for GPD commands' duplicate filtering?	[R4] A.3.6.1.2	GPDT1&& (GPF5  GPF6): M	Υ
GPPC4	Does the device support transmission of Device_annce for the alias?	[R4] A.3.6.3.3, A.3.6.3.4	GPDT3 && (GPPCSF3    GPPCSF4    GPPCSF6): M GPDT2: X	N
GPPC5	Does the device support conflict checking for the alias on reception of Device_annce?	[R4] A.3.6.3.3, A.3.6.3.4	GPDT1: M	Υ
GPPC6	Does the device support transmission of Device_annce for the alias, upon alias conflict detection?	[R4] A.3.6.3.3, A.3.6.3.4	GPDT1: M	Υ
GPPC101	Is the gpSharedSecurityKeyType attribute supported?		GPDT1: O GPPCCF11 && (GPDT2B    GPDT2CB): O	
		[R4] A.3.3.3.1	GPDT3CB && (GPPCSF10	Y
GPPC102	Is the gpSharedSecurityKey attribute supported?		GPDT1: O (GPDT2B    GPDT2CB) && GPPCCF11: O GPDT3CB && (GPPCSF10	
		[R4] A.3.3.3.2	GPPCSF11): M GPPC102: M GPDT1&& ((GPPCSF7    GPPCSF8    GPPCCF7    GPPCCF8    ) && (GPF5  GPF6): M	Υ
GPPC103	Is the gpLinkKey attribute supported?	[R4] A.3.3.3.3	GPDT2B: O GPDT2CB: O GPDT3CB&& (GPF5  GPF6): M	Υ
GPPC104	Is the ClusterRevision cluster global attribute supported?	[R4] A.3.3.3	GPDT1: M	Υ

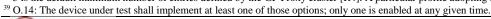


#### Server side 11.3.2

Table 7 - GreenPower cluster server capabilities

Item number	Item description	Reference	Status	Support
GPPCS1	Is the GreenPower cluster supported as a server?	[R4] A.3.3	GPDT2B: X GPDT2CB: X GPDT3CB: M <sup>37</sup> GPDT4: O	N
			GPPCSF1: M	
GPPCS2	Is the gpsMaxSinkTableEntries attribute supported?	[R4] A.3.3.2.1	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS3A	Is the Sink Table attribute supported?	[R4] A.3.3.2.2	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS3B	Is the required minimum number of entries in the Sink Table attribute supported? <sup>38</sup>	[R4] A.3.3.2.2	GPDT3CB: 5 GPDT3 && GPPCSF18: 10 GPDT3 && !GPPCSF18:5	N
GPPCS3C	Is Sink Table readout via ZCL Read Attributes/Read Attributes Response commands supported?	[R4] A.3.3.2.2.1	GPDT3CB: M	N
GPPCS3D	Is Sink Table readout via GP Sink Table Request/Response commands supported?	[R4] A.3.3.5.6, A.3.3.4.7	GPDT3CB: M	N
GPPCS4	Is the gpsCommunication mode attribute supported?	[R4] A.3.3.2.3	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS5	Is the gpsCommissioningExitMode attribute supported?	[R4] A.3.3.2.4	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS6	Is the gpsCommissioningWindow attribute supported?	[R4] A.3.3.2.5	GPDT2: X GPDT3CB: O GPDT4: O	N
GPPCS7	Is the gpsSecurityLevel attribute supported?	[R4] A.3.3.2.6	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS8	Is the gpsFunctionality attribute supported?	[R4] A.3.3.2.7	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS9	Is the gpsActiveFunctionality attribute supported?	[R4] A.3.3.2.8	GPDT2: X GPDT3CB: M GPDT4: O	N
GPPCS99	Is Translation Table supported?	[R4] A.3.5.2.2	GPDT2: X GPDT3CB: O GPDT4: O GPPCSF19: M	N
GPPCS100	Is reception of the GP Notification command supported?	[R4] A.3.2.10 [R4] A.3.3.3	GPDT2B: X GPDT2CB: X GPDT3CB: M GPDT4: O	N
GPPCS101A	Is reception of the GP Notification command in full unicast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2: X GPDT3CB: X GPPCSF5: M GPDT4: O	N
GPPCS101B	Is reception of the GP Notification command in lightweight unicast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2: X GPDT3CB: O.14 <sup>39</sup> GPPCSF6: M GPDT4: O	N

<sup>38 5</sup> is the default minimum number of entries defined by the GP Proxy cluster [R4]. A particular profile adopting the cluster may mandate different value.





 $<sup>^{\</sup>rm 37}$  CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
GPPCS102	Is reception of the GP Notification command in derived groupcast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: X GPDT2CB: X (GPPCCF8  GPPCCF9  GPPCCF13): M GPDT3CB: O.14 GPPCSF3: M GPDT4: O	N
GPPCS103	Is reception of the GP Notification command in commissioned groupcast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: X GPDT2CB: X (GPPCCF8  GPPCCF9   GPPCCF13): M GPDT3CB: O.14 GPPCSF4: M GPPCS102: M GPDT4: O	N
GPPCS104	Is reception of the GP Notification command in broadcast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1 [R4] A.5.2.1	GPDT2B: X GPDT2CB: X GPPCCF9: M GPDT3CB: X GPPCSF9: M GPDT4: O	N
GPPCS105	Is reception of the GP Pairing Search command supported?	[R4] A.3.2.10 [R4] A.3.3.4.2	GPDT2B: X GPDT2CB: X GPPCCF9: O GPDT3CB: X GPDT4: O GPPCSF9: M	N
GPPCS106	Is reception of the GP Tunneling Stop command supported?	[R4] A.3.2.10 [R4] A.3.4.4.1	GPDT2B: X GPDT2CB: X GPPCCF5: M GPDT3CB: X GPDT4: O	N
GPPCS107	Is reception of the GP Commissioning Notification command supported?	[R4] A.3.2.10 [R4] A.3.3.4.4	(GPDT2B   GPDT2CB) && GPPCCF11: X GPPCCF11: M GPDT3CB: M GPPCSF11: M GPDT4: O	N
GPPCS108	Is reception of the GP Translation Table Update command supported?	[R4] A.3.2.10 [R4] A.3.3.4.6	GPDT2: X GPDT3CB: O GPDT4: O GPPCSF19: M	N
GPPCS109	Is reception of the GP Translation Table Request command supported?	[R4] A.3.2.10 [R4] A.3.3.4.5	GPDT2: X GPDT3CB: O GPDT4: O GPPCSF19: M	N
GPPCS110	Is reception of the GP Pairing Configuration command supported?	[R4] A.3.2.10 [R4] A.3.3.4.7	GPDT2: X GPDT3CB: M GPPCSF4    GPPCSF12    GPPCSF18: M	N
GPPCS111	Is reception of the GP Sink Table Request command supported?	[R4] A.3.3.5.6, A.3.3.4.7	GPDT2B: X GPDT2CB: X GPDT3CB: M GPDT4: O	N
GPPCS112	Is reception of the GP Proxy Table Response command supported?	[R4] A.3.4.3.1, A.3.4.4.2	GPDT2B: O GPDT2CB: O GPDT3CB: O GPDT4: O GPPCS157: M	N
GPPCS113	Is reception of the GP Sink Commissioning Mode command supported?	[R4] A.3.3.4.7, A.3.9.1	GPDT2: X GPDT3: O GPDT4: O	N
GPPCS150	Is transmission of the GP Notification Response command supported?	[R4] A.3.2.10 [R4] A.3.3.5.1	GPDT2: X GPDT3CB: X GPDT4: O GPPCSF5: M	N



Item number	Item description	Reference	Status	Support
GPPCS151A	Is transmission of the GP Response command with SrcID = 0x00000000 in commissioning supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2: X GPDT3CB: M GPDT4: O GPPCSF11: M GPPCSF10: O	N
GPPCS151B	Is transmission of the GP Response command with SrcID != 0x00000000 in commissioning supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2: X GPDT3CB: M GPDT4: O GPPCSF10  GPPCSF11: M GPPCSF10: M	N
GPPCS151C	Is transmission of the GP Response command with IEEE address and Endpoint in commissioning supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2: X GPDT3CB: M GPDT4: O GPPCSF10∥ GPPCSF11 && GPPCSF20: M	N
GPPCS151D	Is transmission of the GP Response command with SrcID != 0x00000000 in operation supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2: X GPDT3CB: X GPDT4: O GPPCSF8    GPPCSF13: M	N
GPPCS151E	Is transmission of the GP Response command with IEEE address and Endpoint in operation supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2: X GPDT3CB: X GPDT4: O (GPPCSF8   GPPCSF 13) && GPPCSF20: M	N
GPPCS152	Is transmission of the GP Pairing command supported?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: X GPDT3CB: M <sup>40</sup> GPDT4: O	N
GPPCS153	Is generation of the GP Pairing command with RemoveGPD sub-field set to 0b1 supported?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: X GPDT3CB: M <sup>41</sup> GPDT4: O	N
GPPCS153A	Is generation of the GP Pairing command with RemoveGPD sub-field set to 0b1 upon reception of Decommissioning command in commissioning mode supported?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: X GPDT3CB: M <sup>42</sup> GPDT4: O	N
GPPCS153B	Is generation of the GP Pairing command with RemoveGPD sub-field set to 0b1 upon a local trigger supported?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: X GPDT3CB: O <sup>43</sup> GPDT4: O	N
GPPCS153A	Is generation of the GP Pairing command with RemoveGPD sub-field set to 0b1 upon reception of GP Pairing Configuration command with Action sub-field of the Actions field set to 0b100 (Remove GPD) and Send GP Pairing sub-field of the Actions field set to 0b1?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: X GPDT3CB: M GPPCSF12: M GPDT4: O	N
GPPCS154	Is transmission of the GP Proxy Commissioning Mode command supported?	[R4] A.3.2.10 [R4] A.3.3.5.3	GPDT2: X GPDT3CB: M <sup>44</sup> GPDT4: O GPPCSF11: M	N
GPPCS155	Is transmission of the GP Translation Table Response command supported?	[R4] A.3.2.10 [R4] A.3.3.5.5	GPDT2: X GPDT3CB: O GPPCS109: M GPDT4: O GPPCSF19: M	N
GPPCS156	Is transmission of the GP Sink Table Response command supported?	[R4] A.3.3.5.6, A.3.3.4.7	GPDT2B: X GPDT2CB: X GPDT3CB: M GPDT4: O	N
GPPCS157	Is transmission of the GP Proxy Table Request command supported?	[R4] A.3.4.3.1, A.3.4.4.2	GPDT2B: O GPDT2CB: O GPDT3CB: O GPDT4: O	N

 $<sup>^{\</sup>rm 40}$  CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>44</sup> CCB #2372; Resolution added in 15-02016-007



<sup>&</sup>lt;sup>41</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>42</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>43</sup> CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
GPPCS201	Is persistent storage of Sink Table supported?	[R4] A.3.2.10 [R4] A.3.3.2.2	GPDT2: X GPDT3CB: M GPDT4: O	N



#### 11.3.3 **Client side**

Table 8 - GreenPower cluster client capabilities

Item number	Item description	Reference	Status	Support
GPPCC1	Is the GreenPower cluster supported as a client?	[R4] A.3.4	GPDT2B: M GPDT2CB: M GPDT3: O GPDT4: O	Υ
GPPCC2	Is the gppMaxProxyTableEntries attribute supported?	[R4] A.3.4.2.1	GPDT2B: M GPDT2CB: M GPDT3: X GPDT4: O	Υ
GPPCC3A	Is the Proxy Table attribute supported?	[R4] A.3.4.2.2	GPDT2B: M GPDT2CB: M GPDT3: X GPDT4: O	Υ
GPPCC3B	Is the required minimal number of entries in the Proxy Table attribute supported? <sup>45</sup> Indicate the actual number of entries in the Proxy Table	[R4] A.3.4.2.2	GPDT2: 5	16
GPPCC3C	attribute supported by this device.  Is the required minimal number of entries in the Lightweight sink address list per Proxy Table entry supported?	[R4] A.3.4.2.2	GPDT2 && GPPCCF6: 2	2
GPPCC3D	Is the required minimal number of entries in the Sink group list per Proxy Table entry supported?	[R4] A.3.4.2.2	GPDT2 && GPPCCF4: 2	2
GPPCC3E	Is the required minimal number of simultaneously used entries in the <i>Lightweight sink address list/Full unicast sink address list</i> and in the <i>Sink group list</i> per Proxy Table entry supported?	[R4] A.3.4.2.2	GPDT2 && (GPPCCF5    GPPCCF6) && (GPPCCF4): 1+1	2+2
<b>GPPCC3H</b>	Is the required minimal number of entries in the <i>Full</i> unicast sink address list per Proxy Table entry supported?	[R4] A.3.4.2.2	GPDT2 && GPPCCF5: 2	N
GPPCC3F	Is Proxy Table readout via ZCL Read Attributes/Read Attributes Response commands supported?	[R4] A.3.4.2.2.1	GPPCC1: M	Υ
GPPCC3G	Is Proxy Table readout via GP Proxy Table Request/Response commands supported?	[R4] A.3.4.3.1, A.3.4.4.2	GPPCC1: M	Υ
GPPCC4	Is the gppNotificationRetryNumber attribute supported?	[R4] A.3.4.2.3	GPDT2B: X GPDT2CB: X GPPCCF5: M GPDT3: X GPDT4: O	N
GPPCC5	Is the gppNotificationRetryTimer attribute supported?	[R4] A.3.4.2.4	GPDT2B: X GPDT2CB: X GPPCCF5: M GPDT3: X GPDT4: O	N
GPPCC6	Is the gppMaxSearchCounter attribute supported?	[R4] A.3.4.2.5	GPDT2B: X GPDT2CB: X GPPCCF9: M GPDT3: X GPDT4: O	N
GPPCC7	Is the gppBlockedSrcID attribute supported?	[R4] A.3.4.2.6	GPDT2B: X GPDT2CB: X GPPCCF9: O GPDT3: X GPDT4: O	N
GPPCC8	Is the gppFunctionality attribute supported?	[R4] A.3.4.2.7	GPDT2B: M GPDT2CB: M GPDT3: X GPDT4: O	Υ

<sup>45 5</sup> is the default minimum number of entries defined by the GP Proxy cluster [R4]. A particular profile adopting the cluster may mandate different value.

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Page



Item number	Item description	Reference	Status	Support
GPPCC9	Is the gppActiveFunctionality attribute supported?	[R4] A.3.4.2.8	GPDT2B: M GPDT2CB: M GPDT3: X GPDT4: O	Υ
GPPCC100	Is transmission of the GP Notification command supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: M GPDT2CB: M GPDT3CB: X GPDT4: O	Υ
GPPCC101A	Is transmission of the GP Notification command in full unicast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: X GPDT2CB: X GPPCCF5: M GPDT3CB: X GPDT4: O	N
GPPCC101B	Is transmission of the GP Notification command in lightweight unicast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: M GPDT2CB: M GPPCCF6: M GPDT3CB: X GPDT4: O	Υ
GPPCC102	Is transmission of the GP Notification command in derived groupcast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: M GPDT2CB: M GPPCCF3: M GPDT3CB: X GPPCSF18: M GPDT4: O	Υ
GPPCC103	Is transmission of the GP Notification command in commissioned groupcast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2: M GPDT2CB: M GPPCCF4: M GPDT3CB: X GPPCSF18: M GPDT4: O	Υ
GPPCC104	Is transmission of the GP Notification command in broadcast supported?	[R4] A.3.2.10 [R4] A.3.3.4.1	GPDT2B: X GPDT2CB: X GPDT3CB: X GPPCCF9: M GPDT4: O	N
GPPCC105	Is transmission of the GP Notification command in multiple communication modes supported?	[R4] A.3.2.10 [R4] A.3.5.2.1	GPDT2B: M GPDT2CB: M Any two of (GPPCCF3  GPPCCF4  GPPCCF5   GPPCCF6): M GPDT3CB: X GPPCSF18 && (GPPCCF3  GPPCCF4): M GPDT4: O	Υ
GPPCC106	Is transmission of the GP Pairing Search command supported?	[R4] A.3.2.10 [R4] A.3.4.2	GPDT2B: X GPDT2CB: X GPDT3CB: X GPPCCF9: M <sup>46</sup> GPDT4: O	N
GPPCC107	Is transmission of the GP Tunneling Stop command supported?	[R4] A.3.2.10 [R4] A.3.4.4.1	GPDT2B: X GPDT2CB: X GPPCCF5: M GPDT3CB: X GPDT4: O	N
GPPCC108A	Is transmission of the GP Commissioning Notification command with alias, after Dmin, supported?	[R4] A.3.2.10 [R4] A.3.3.4.4	GPDT2B:M GPDT2CB: M GPPCCF11: M GPDT3CB: X GPDT4: O	Υ

<sup>&</sup>lt;sup>46</sup> CCB #2372; Resolution added in 15-02016-007



Item number	Item description	Reference	Status	Support
GPPCC108B	Is transmission of the GP Commissioning Notification command without alias, at gppTunnelingDelay supported?	[R4] A.3.2.10 [R4] A.3.3.4.4	(GPDT2B ∥ GPDT2CB) && GPPCCF11: M GPPCCF11: M GPDT3CB: X GPDT4: O	Υ
GPPCC109	Is transmission of the GP Translation Table Update command supported?	[R4] A.3.2.10 [R4] A.3.3.4.5 [R4] A.3.2.5	GPDT2: X GPDT3CB: O <sup>47</sup> GPDT4: O	N
GPPCC110	Is transmission of the GP Translation Table Request command supported?	[R4] A.3.2.10 [R4] A.3.3.4.6 [R4] A.3.2.5	GPDT2: X GPDT3CB: O <sup>48</sup> GPDT4: O	N
GPPCC111	Is transmission of the GP Pairing Configuration command supported?	[R4] A.3.2.10 [R4] A.3.3.4.7 [R4] A.3.2.5	GPDT2B: X GPDT2CB: X GPDT3CB: O <sup>49</sup> GPDT4: O GPPCSF4    GPPCSF18: M	N
GPPCC112	Is transmission of the GP Proxy Table Response command supported?	[R4] A.3.3.5.6, A.3.3.4.7	GPDT2B: M GPDT2CB: M GPDT3: X GPDT4: O	Υ
GPPCC113	Is transmission of the GP Sink Table Request command supported?	[R4] A.3.4.3.1, A.3.4.4.2	GPDT2B: O GPDT2CB: O GPDT3CB: O <sup>50</sup> GPDT4: O	N
GPPCC114	Is transmission of the GP Sink Commissioning Mode command supported?	[R4] A.3.3.4.7, A.3.9.1	GPDT2: O GPDT3: O <sup>51</sup> GPDT4: O	N
GPPCC150	Is reception of the GP Notification Response command supported?	[R4] A.3.2.10 [R4] A.3.3.5.1	GPDT2B: X GPDT2CB: X GPPCCF5: M GPDT3: X GPDT4: O	N
<sup>52</sup> GPPCC151A	Is reception of the GP Pairing command supported?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: M GPDT3: X <sup>53</sup> GPDT4: O	Y
<sup>54</sup> GPPCC151B	Does the device support checking of the CommunicationMode sub-field of the Options field of the received GP Pairing command?	[R4] A.3.5.2.3	GPPCC151A: M	Υ
55GPPCC151C	Does the device support checking if its Proxy Table is full on reception of GP Pairing command?	[R4] A.3.5.2.3	GPPCC151A: M	Υ
GPPCC152	Is reception of the GP Pairing command with RemoveGPD sub-field set to 0b1 supported?	[R4] A.3.2.10 [R4] A.3.3.5.2	GPDT2: M GPDT3: X <sup>56</sup> GPDT4: O	Y
GPPCC153	Is reception of the GP Proxy Commissioning Mode command supported?	[R4] A.3.2.10 [R4] A.3.3.5.3	GPDT2B: M GPDT2CB: M GPPCCF11: M GPDT3CB: O <sup>57</sup> GPDT4: O	Υ

<sup>&</sup>lt;sup>47</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>57</sup> CCB #2372; Resolution added in 15-02016-007



<sup>48</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>49</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>50</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>51</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>52</sup> CCB #2279 and CCB #2278; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383

<sup>&</sup>lt;sup>53</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>54</sup> CCB #2278; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set:

https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment?comment\_id=1383 
<sup>55</sup> CCB #2279; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set:

https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment?comment\_id=1383

<sup>&</sup>lt;sup>56</sup> CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
GPPCC154A	Is reception of the GP Response command with SrcID = 0x00000000 in commissioning mode supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2B: M GPDT2CB: M GPPCCF11: M GPDT3CB: M GPPCSF10    GPPCSF11 : M GPDT4: O	Y
GPPCC154B	Is reception of the GP Response command with SrcID != 0x00000000 in commissioning mode supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2B: M GPDT2CB: M GPPCCF11: M GPDT3CB: M GPPCSF10  GPPCSF11: M GPDT4: O	Υ
GPPCC154C	Is reception of the GP Response command with IEEE address and Endpoint in commissioning mode supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2B: M GPDT2CB: M GPPCCF11: M GPDT3CB: M GPPCSF10  GPPCSF11: M GPDT4: O	Y
GPPCC154B	Is reception of the GP Response command with SrcID != 0x00000000 in operation supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2B: X GPDT2CB: X (GPPCCF8    GPPCCF13): M GPDT3CB: X (GPPCSF7  GPPCSF8   GPPCCF13): M GPDT4: O	Z
GPPCC154C	Is reception of the GP Response command with IEEE address and Endpoint in operation supported?	[R4] A.3.2.10 [R4] A.3.3.5.4	GPDT2B: X GPDT2CB: X (GPPCCF8    GPPCCF13): M GPDT3CB: X (GPPCSF7  GPPCSF8   GPPCCF13): M GPDT4: O	N
GPPCC155	Is reception of the GP Translation Table Response command supported?	[R4] A.3.2.10 [R4] A.3.3.5.5 [R4] A.3.2.5	GPDT2: X GPDT3CB: O GPPCC110: M <sup>58</sup> GPDT4: O	N
GPPCC156	Is reception of the GP Proxy Table Request command supported?	[R4] A.3.3.5.6, A.3.3.4.7	GPDT2B: M GPCT2CB: M GPDT3: X GPDT4: O	Y
GPPCC157	Is reception of the GP Sink Table Response command supported?	[R4] A.3.4.3.1, A.3.4.4.2	GPDT2: X GPDT3: O GPDT4: O GPPCC113: M	N
GPPCC200	Is persistent storage of Proxy Table supported?	[R4] A.3.4.2.2	GPPCC3A: M	Y
GPPCC201	Is handling of Proxy Table entries with status other than active and valid supported?	[R4] A.3.5.2.2	GPDT2B: X GPDT2CB: X GPDT3: X GPDT4: O GPPCCF9: M	N
GPPCC202	Is passive discovery supported?	[R4] A.3.5.2.2.3	GPDT2B: X GPDT2CB: X GPDT3: X GPDT4: O GPPCCF9: M	N
GPPCC2034	Is active discovery supported?	[R4] A.3.5.2.2.4	GPDT2B: X GPDT2CB: X GPDT3: X GPDT4: O GPPCCF9: M	N

<sup>&</sup>lt;sup>58</sup> CCB #2372; Resolution added in 15-02016-007



Item number	Item description	Reference	Status	Support
GPPCC204	Is active re-discovery supported?	[R4] A.3.5.2.2.5	GPDT2B: X GPDT2CB: X GPDT3: X GPDT4: O GPPCCF9: M	Ν
GPPCC205	Is limiting the number of the transmitted GreenPower cluster messages supported?	[R4] A.3.6.3.1, A.3.6.3.3	GPDT2B: M GPDT2CB: M GPDT3CB: X (GPPCSF18 && (GPPCSF7  GPPCSF8)): M GPDT4: O	Υ
GPPCC205A	Is quality-based gppTunnelingDelay supported?	[R4] A.3.6.3.1 [R4] A.3.2.8, [R4] A.3.2.9	(GPDT2B    GPDT2CB) && GPPCCF11: M GPPCCF5    GPPCCF8  GPPCCF9  GPPCCF11  GPPCCF13: M (GPPCCF3   GPPCCF4   GPPCCF6) && !( GPPCCF5    GPPCCF8   GPPCCF9  GPPCCF11  GPPCCF13) : X GPDT3CB: X (GPPCSF18 && (GPPCSF7  GPPCSF8)): M GPDT4: O	Y
GPPCC205B	Is dropping the scheduled GreenPower cluster message on reception of equivalent message supported?	[R4] A.3.6.3.1 [R4] A.3.2.8, [R4] A.3.2.9	GPDT2B && GPPCCF11: X GPDT2CB && GPPCCF11: X GPPCCF5    GPPCCF8  GPPCCF9  GPPCCF11  GPPCCF13: M (GPPCCF3   GPPCCF4   GPPCCF6) && !( GPPCCF5    GPPCCF8  GPPCCF9  GPPCCF11  GPPCCF13) : X GPDT3CB: X (GPPCSF18 && (GPPCSF7  GPPCSF8)): M GPDT4: O	N
GPPCC205C	Is transmission of GreenPower cluster commands with alias supported?	[R4] A.3.6.3.3 [R4] A.3.2.8, [R4] A.3.2.9	GPDT2B: M GPDT2CB: M GPPCCF3  GPPCCF5   GPPCCF11: M GPDT3CB: X GPPCSF18: M GPDT4: O	Υ
GPPCC206	Is updating Lightweight sink address list and Full unicast sink address list field of the Proxy Table attribute on reception of Device_annce supported?	[R4] A.3.5.2.1	GPDT2B: M GPDT2CB: M GPPCC3A&&(GPPCCF5  GPPCCF 6): M GPDT3: N/A GPDT4: O	Υ

## 11.3.4 Support of GP functionality

#### 11.3.4.1 Bidirectional operation

Table 9 – Support for Green Power bidirectional operation

Item number	Item description	Reference	Status	Support
GPF101	Is transmission of GPD Read Attributes command supported?	[R4] A.4.2.5 [R4] A.3.6.1.5	GPPCCF8: M.9 <sup>59</sup> GPPCSF7  GPPCSF8: O	N
GPF102	Is reception of GPD Read Attributes command supported?	[R4] A.4.2.5 [R4] A.3.6.1.5	GPPCCF8: M.16 GPPCSF7  GPPCSF8: X	N

 $<sup>^{59}</sup>$  M.16: Note: the bidirectional operation is transparent to the proxy. It just needs to act add the command received in GP Response to its zgpTxQueue and send it upon reception of GPDF frame with RxAfterTx set; it doesn't care about the type of the command.



Item number	Item description	Reference	Status	Support
GPF103	Is transmission of GPD Read Attributes Response	[R4] A.4.2.5	GPPCCF8: M.16	N
GPF103	supported?	[R4] A.3.6.1.5	GPPCSF7  GPPCSF8: X	11
	Is reception of GPD Read Attributes Response	[R4] A.4.2.5	GPPCCF8: M.16	
GPF104	command supported?	[R4] A.3.6.1.5	(GPPCSF7  GPPCSF8)&&GPF101 : M	N
GPF105	Is transmission of GPD Request Attributes command	[R4] A.4.2.5	GPPCCF8: M.16	N
GPF105	supported?	[R4] A.3.6.1.5	GPPCSF7  GPPCSF8: X	14
GDE404	Is reception of GPD Request Attributes command	[R4] A.4.2.5	GPPCCF8: M.16	N
GPF106	supported?	[R4] A.3.6.1.5	GPPCSF7  GPPCSF8: M	IN
CDE107	Is transmission of GPD Write Attributes command	[R4] A.4.2.5	GPPCCF8: M.16	N
GPF107	supported?	[R4] A.3.6.1.5	GPPCSF7  GPPCSF8: O	14
GDE100	Is reception of GPD Write Attributes command	[R4] A.4.2.5	GPPCCF8: M.16	N
GPF108	supported?	[R4] A.3.6.1.5	GPPCSF7  GPPCSF8: X	IN
GPF109	Is transmission of GPD ZCL Tunneling command (0xF6) supported?	[R4] A.4.2.3.5	GPPCCF8: M.16 (GPPCSF7  GPPCSF8)&& GPDRXA6: M	N
GPF110	Is reception of GPD ZCL Tunneling command (0xF6) supported?	[R4] A.4.2.3.5	GPPCCF8: M.16 GPPCSF7  GPPCSF8: X	N
GPF111	List the functionality accessible via GPD ZCL Tunneling command. List the ZCL generic command, with the corresponding ClusterID(s) and AttributeID(s), if any. List the cluster-specific CommandIDs per ZCL-defined Cluster, if any. Manufacturer-specific functionality doesn't have to be listed.		GPF109: M	N

#### 11.3.4.2 Green Power Commissioning Support

Table 10 - GP Commissioning Support

Item number	Item description	Reference	Status	Support
GPCF1	Does the device support pairing with Data GPDF with Auto-Commissioning bit set to 0b1?  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.3.9	GPPCCF11: M (GPPCSF10    GPPCSF11): O GPPCSF14: M <sup>60</sup> GPDT4: O	Y
GPCF2	Does the device support pairing with Commissioning GPDF?	[R4] A.3.9	GPPCCF11: M (GPPCSF10    GPPCSF11): : M <sup>61</sup> GPDT4: O	Y
GPCF3A	Does the device support transmission of GPD Commissioning command?	[R4] A.4.2.1.1	GPDT1: X	N
GPCF3B	Does the device support reception of GPD Commissioning command?	[R4] A.4.2.1.1	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>62</sup> GPDT4: O	Y
GPCF4	Does the device support bidirectional communication in commissioning mode?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>63</sup> GPDT4: O	Y
GPCF5A	Does the device support transmission of the GPD Channel Request command in commissioning mode?	[R4] A.3.9	GPDT1: X	N
GPCF5B	Does the device support reception of the GPD Channel Request command in commissioning mode?	[R4] A.3.9	GPPCCF11: M (GPPCSF10    GPPCSF11): M	Y
GPCF6	Does the device support transmission of the GPD Channel Configuration command?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>64</sup> GPDT4: O	Y

<sup>60</sup> CCB #2372; Resolution added in 15-02016-007

<sup>64</sup> CCB #2372; Resolution added in 15-02016-007



60

<sup>&</sup>lt;sup>61</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>62</sup> CCB #2372; Resolution added in 15-02016-007

<sup>63</sup> CCB #2372; Resolution added in 15-02016-007

ltem number	Item description	Reference	Status	Support
GPCF6A	Does the device support transmission of the GPD Channel Configuration command in commissioning mode, as a Maintenance frame?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>65</sup> GPDT4: O	Y
GPCF6B	Does the device support transmission of the GPD Channel Configuration command in operational mode, as a Data frame?	[R4] A.3.9	GPPCCF8    GPPCCF13: M GPPCSF13: M GPDT4: O	N
GPCF7	Does the device support reception of the GPD Channel Configuration command?	[R4] A.3.9	GPDT1: X	N
GPCF8	Does the device support transmission of the GPD Commissioning Reply command?	[R4] A.4.2.1.2	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>66</sup> GPDT4: O	Y
GPCF8A	Does the device support transmission of the GPD Commissioning Reply command in commissioning mode?	[R4] A.4.2.1.2	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>67</sup> GPDT4: O	Y
GPCF8B	Does the device support transmission of the GPD Commissioning Reply command in operational mode?	[R4] A.4.2.1.2	GPPCCF8    GPPCCF13: M GPPCSF13: M GPDT4: O	N
GPCF9	Does the device support reception of the GPD Commissioning Reply command?	[R4] A.4.2.1.2	GPDT1: X	N
GPCF10	Is GPD removal via GPD Decommissioning command supported?	[R4] A.4.2.1.3	GPPCCF11: M GPPCSF10∥GPPCSF11: M <sup>68</sup> GPDT4: O	Y
GPCF11	Does the device come with pre-configured GPD key?	[R4] A.3.9	GPDT1: X	N
GPCF12A	Does the device support GPD key exchange in GPD Commissioning command?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>69</sup> GPDT4: O	Y
GPCF12B	Does the device support exchange of encrypted GPD key in GPD Commissioning command?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>70</sup> GPDT4: O	Y
GPCF13A	Does the device support GPD key exchange in GPD Commissioning Reply command?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>71</sup> GPDT4: O	Y
GPCF13B	Does the device support exchange of encrypted GPD key in GPD Commissioning Reply command?	[R4] A.3.9	GPPCCF11: M GPPCSF10  GPPCSF11: M <sup>72</sup> GPDT4: O	Y
GPCF14	Does the device support out-of-band GPD key configuration?	[R4] A.3.9	GPDT2: O GPDT3: O GPDT4: O	Y
GPCF15A	Does the device support transmission of GPD Success command in commissioning mode?	[R4] A.3.9	GPDT1: X	N
GPCF15B	Does the device support reception of GPD Success command in commissioning mode?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>73</sup> GPDT4: O	Y
GPCF16	Does the device support in-band configuration of PANId (via GPD Commissioning Reply command)?	[R4] A.3.9	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>74</sup> GPDT4: O	Y
GPCF17	Does the device support transmission of GPD Commissioning command with Application information?	[R4] A.4.2.1.1	GPDT1: X	N
GPCF17A	Does the device support transmission of the GPD Commissioning command with the ModelID? If YES, specify the ModelID used.	[R4] A.4.2.1.1	GPDT1: X	N

<sup>65</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>74</sup> CCB #2372; Resolution added in 15-02016-007



<sup>66</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>67</sup> CCB #2372; Resolution added in 15-02016-007

<sup>68</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>69</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>70</sup> CCB #2372; Resolution added in 15-02016-007 <sup>71</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>72</sup> CCB #2372; Resolution added in 15-02016-007

<sup>&</sup>lt;sup>73</sup> CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
GPCF17B	Does the device support transmission of the GPD Commissioning command with the ManufacturerID? If YES, specify the ManufacturerID used.	[R4] A.4.2.1.1	GPDT1: X	N
GPCF17C	Does the device support transmission of the GPD Commissioning command with the GPD command list containing GPD-defined commands?  If YES, list the GPD commands used.	[R4] A.4.2.1.1	GPDT1: X	N
GPCF17D	Does the device support transmission of the GPD Commissioning command with the GPD command list containing manufacturer-defined commands?  If YES, list the GPD commands used.	[R4] A.4.2.1.1	GPDT1: X	N
GPCF17E	Does the device support transmission of the GPD Commissioning command with the Cluster list containing ZCL-defined clusters?  If YES, list the ZCL clusters used.	[R4] A.4.2.1.1	GPDT1: X	N
GPCF17F	Does the device support transmission of the GPD Commissioning command with the Cluster list containing manufacturer-specific clusters?  If YES, list the GPD commands used.	[R4] A.4.2.1.1	GPDT1: X	N
GPCF18	Does the device support reception of GPD Commissioning command with Application information?	[R4] A.4.2.1.1	GPCF3B: O	N
GPCF18A	Does the device support reception of the GPD Commissioning command with the ModelID?	[R4] A.4.2.1.1	GPCF18: M	N
GPCF18B	Does the device support reception of the GPD Commissioning command with the ManufacturerID? If yes, list the ManufacturerID supported.	[R4] A.4.2.1.1	GPCF18: M	N
GPCF18C	Does the device support reception of the GPD Commissioning command with the GPD command list containing GPD-defined commands?  If yes, list the GPD commands supported.	[R4] A.4.2.1.1	GPCF18: M	N
GPCF18D	Does the device support reception of the GPD Commissioning command with the GPD command list containing manufacturer-defined GPD commands? If yes, list the GPD commands supported.	[R4] A.4.2.1.1	GPCF18: M	N
GPCF18E	Does the device support reception of the GPD Commissioning command with the Cluster list containing ZCL-defined clusters?  If yes, list the ZCL clusters controllable via GP.	[R4] A.4.2.1.1	GPCF18: M	N
GPCF18F	Does the device support reception of the GPD Commissioning command with the Cluster list containing manufacturer-specific clusters?  If yes, list the manufacturer-specific clusters controllable via GP.	[R4] A.4.2.1.1	GPCF18: M	N
<sup>75</sup> GPCF23	Does the device support subsequent commissioning?	[R4] A.3.9.1	GPPCCF11: M GPPCSF10    GPPCSF11: M <sup>76</sup> GPDT4: O-	Y
<sup>77</sup> GPCF24A	Does the device support handling of unprotected GPDF with GPD CommandIDs from the range 0xE4 – 0xEF in commissioning mode (forwarding using GP Commissioning Notification, responding with GPDF buffered in <i>gpTxQueue</i> )?	[R4] A.3.9.1	GPPCCF11: M	Y

<sup>&</sup>lt;sup>77</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: <a href="https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383">https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383</a>



 $<sup>^{75}</sup>$  CCB #2447; as described in 17-02671-004; resolution added in 15-02016-007

<sup>&</sup>lt;sup>76</sup> CCB #2372; Resolution added in 15-02016-007

Item number	Item description	Reference	Status	Support
<sup>78</sup> GPCF24B	Does the device support handling of unprotected GPDF with GPD CommandIDs from the manufacturer-specific range 0xB0 – 0xBF in commissioning mode (forwarding using GP Commissioning Notification, responding with GPDF buffered in gpTxQueue)?	[R4] A.3.9.1	GPPCCF11: M	Y
<sup>79</sup> GPCF24C	Does the device support sending of unprotected GPDF with GPD CommandIDs from the range 0xF7 – 0xFF and <i>Direction</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b1, after receiving it in a GP Response command in commissioning mode?	[R4] A.3.9.1	GPPCCF11: M	Y
<sup>80</sup> GPCF24D	Does the device support sending of unprotected GPDF with GPD CommandIDs from the range 0xB0 – 0xBF and <i>Direction</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b1, after receiving it in a GP Response command in commissioning mode?	[R4] A.3.9.1	GPPCCF11: M	Y
GPCF100	Is writing into Sink Table attribute via generic ZCL command supported during commissioning mode?	[R4] A.3.3.2	GPPCCF12: N/A GPPCSF12: X GPDT4: X	N
GPCF101	Is writing into Sink Table attribute via generic ZCL command supported during operational mode?	[R4] A.3.3.2	GPPCCF12: N/A GPPCSF12: X GPDT4: X	N
GPCF102	Is writing into Proxy Table attribute via generic ZCL command supported during commissioning mode?	[R4] A.3.4.2	GPPCCF12: X GPPCSF12: N/A GPDT4: X	N
GPCF103	Is writing into Proxy Table attribute via generic ZCL command supported during operational mode?	[R4] A.3.4.2	GPPCCF12: X GPPCSF12: N/A GPDT4: X	N

<sup>&</sup>lt;sup>80</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: <a href="https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment-id=1383">https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment-id=1383</a>



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 $<sup>^{78} \</sup> CCB\ \#2447; resolution\ modified\ in\ 15-02016-008\ as\ a\ result\ of\ Kavi\ comment\ \#1383\ from\ letter\ ballot\ for\ GP\ Basic\ errata\ set: \\ https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment_id=1383$ 

<sup>&</sup>lt;sup>79</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383

#### 11.4GPS application functionality

#### 11.4.1.1 GPS device description support

In Table 11, device descriptions for the GPS (GPDT3, i.e. GPDT3t, GPDT3t+, GPDT3c and GPDT3CB) are given.

These PICS items are not applicable to the other GP device types (i.e. GPDT0: X, GPDT1: X, GPDT2: X, GPDT4: X).

Table 11 - GPS device description support

Item number	umber Item description Reference Status		Status	Support
GPS1A	Is the product programmed with support for GP Simple generic 1-state switch functionality?	[R4] A.4.3	GPDT3: O.17 <sup>81</sup>	N
GPS1B	Is the product programmed with support for GP Simple generic 2-state switch functionality?	[R4] A.4.3	GPDT3: O.17	N
GPS2	Is the product programmed with (GP-controllable) server-side On/Off cluster?	[R4] A.4.3	GPDT3: O.17	N
GPS3	Is the product programmed with (GP-controllable) server-side Level Control cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS4	Is the product programmed with (GP-controllable) client-side Binary Input cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS5	Is the product programmed with (GP-controllable) server-side Color control cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS6	Is the product programmed with (GP-controllable) client-side Illuminance Measurement cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS7	Is the product programmed with (GP-controllable) client-side Occupancy Sensing cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS8	Is the product programmed with (GP-controllable) server-side Door Lock cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS9	Is the product programmed with (GP-controllable) client-side Temperature measurement cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS10	Is the product programmed with (GP-controllable) client-side Pressure Measurement cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS11	Is the product programmed with (GP-controllable) client-side Flow Measurement cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS12	Is the product programmed with (GP-controllable) client-side Relative Humidity Measurement cluster?	[R4] A.4.3	GPDT3: O. 17	N
GPS14A	Is the product programmed with support for GP Advanced generic 1-state switch functionality?	[R4] A.4.3	GPDT3: O.17	N
GPS14B	Is the product programmed with support for GP Advanced generic 2-state switch functionality?	[R4] A.4.3	GPDT3: O.17	N
GPS15	Is the product programmed with support for other GP functionality?	[R4] A.4.3.1	GPDT3: O.17	N
GPS15A	What manufacturer-defined GPD commands does the product support? List ManufacturerID and GPD CommandIDs.	[R4] A.4.3.1	GPS15: O.35 <sup>82</sup>	N
GPS15B	What additional GP-controllable clusters does the product support? List (public) ZCL ClusterIDs,	[R4] A.4.3.1	GPS15: O.35	N
GPS15C	What manufacturer-specific GP-controllable clusters does the product support? List ManufacturerID and GPD ClusterIDs.	[R4] A.4.3.1	GPS15: O.35	N

<sup>81</sup> O.17: DUT shall implement at least one of those options.

<sup>&</sup>lt;sup>82</sup> O.35: DUT shall support at least one of those options.



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## 11.4.2 GPD command support by GPS

Note: all the commands below are transparent to GPP, thus GPDT2: X. For GPDT0: X.

Table 12 - GPD commands support - reception

Item number	Item description	Reference	Status	Support
GPDRX10	Is reception of GPD Recall Scene 0 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX11	Is reception of GPD Recall Scene 1 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX12	Is reception of GPD Recall Scene 2 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX13	Is reception of GPD Recall Scene 3 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX14	Is reception of GPD Recall Scene 4 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX15	Is reception of GPD Recall Scene 5 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX16	Is reception of GPD Recall Scene 6 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX17	Is reception of GPD Recall Scene 7 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O	N
GPDRX18	Is reception of GPD Store Scene 0 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX10: O	N
GPDRX19	Is reception of GPD Store Scene 1 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX11: O	N
GPDRX1a	Is reception of GPD Store Scene 2 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX12: O	N
GPDRX1b	Is reception of GPD Store Scene 3 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX13: O	N
GPDRX1c	Is reception of GPD Store Scene 4 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX14: O	N
GPDRX1d	Is reception of GPD Store Scene 5 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX15: O	N
GPDRX1e	Is reception of GPD Store Scene 6 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX16: O	N
GPDRX1f	Is reception of GPD Store Scene 7 command supported?	[R4] A.4.3 [R4] A.4.1	GPDT3: O GPDRX17: O	N
GPDRX20	Is reception of GPD Off command supported?	[R4] A.4.3 [R4] A.4.1	GPS2: O.20 <sup>83</sup>	N
GPDRX21	Is reception of GPD On command supported?	[R4] A.4.3 [R4] A.4.1	GPS2 && GPDRX21: M	N
GPDRX22	Is reception of GPD Toggle command supported?	[R4] A.4.3 [R4] A.4.1	GPS2: O.20	N
GPDRX23	Is reception of GPD Release command supported?	[R4] A.4.3 [R4] A.4.1	GPS2: M	N
84GPDRX30	Is reception of GPD Move up command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.2185 GPDRX31: M	N

 $<sup>^{\</sup>rm 83}$  O.20: DUT shall implement exactly one of those options.

<sup>&</sup>lt;sup>85</sup> O.21: DUT shall implement at least one of those options.



<sup>84</sup> CCB #2198; Resolution added in 15-02016-003

Item number	Item description	Reference	Status	Support
86GPDRX31	Is reception of GPD Move Down command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX30: M	N
<sup>87</sup> GPDRX32	Is reception of GPD Step UP command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX33: M	N
88GPDRX33	Is reception of GPD Step Down command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX32: M	N
<sup>89</sup> GPDRX34	Is reception of GPD Stop command supported?	[R4] A.4.3 [R4] A.4.1	GPS3: O.21 (GPDRX30    GPDRX31    GPDRX35    GPDRX36): M	N
90GPDRX35	Is reception of GPD Move Up (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX36: M	N
91GPDRX36	Is reception of GPD Move Down (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX35: M	N
92GPDRX37	Is reception of GPD Step Up (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX38: M	N
93GPDRX38	Is reception of GPD Step Down (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPS3: O.21 GPDRX37: M	N
<sup>94</sup> GPDRX40	Is reception of GPD Move Hue <sup>95</sup> Stop command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 <sup>96</sup> (GPDRX41    GPDRX42): M	N
<sup>97</sup> GPDRX41	Is reception of GPD Move Hue Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX42: M	N
98GPDRX42	Is reception of GPD Move Hue Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX41: M	N
99GPDRX43	Is reception of GPD Step Hue Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX44: M	N
<sup>100</sup> GPDRX44	Is reception of GPD Step Hue Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX43: M	N
<sup>101</sup> GPDRX45	Is reception of GPD Move Saturation <sup>102</sup> Stop command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 (GPDRX46    GPDRX47): M	N
<sup>103</sup> GPDRX46	Is reception of GPD Move Saturation Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX47: M	N
<sup>104</sup> GPDRX47	Is reception of GPD Move Saturation Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX46: M	N
<sup>105</sup> GPDRX48	Is reception of GPD Step Saturation Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX49: M	N

<sup>&</sup>lt;sup>86</sup> CCB #2198; Resolution added in 15-02016-003

<sup>&</sup>lt;sup>105</sup> CCB #2198; Resolution added in 15-02016-010



<sup>87</sup> CCB #2198; Resolution added in 15-02016-003

<sup>88</sup> CCB #2198; Resolution added in 15-02016-003

<sup>89</sup> CCB #2198; Resolution added in 15-02016-003

<sup>90</sup> CCB #2198; Resolution added in 15-02016-003

<sup>91</sup> CCB #2198; Resolution added in 15-02016-003

<sup>92</sup> CCB #2198; Resolution added in 15-02016-003

<sup>93</sup> CCB #2198; Resolution added in 15-02016-003

<sup>94</sup> CCB #2198; Resolution added in 15-02016-010

<sup>95</sup> https://workspace.zigbee.org/kws/groups/PRO\_GP/comments?clear=1&workgroup\_id=46, added in 15-02016-r004

<sup>&</sup>lt;sup>96</sup> O.22: DUT shall implement at least one of those options.

<sup>&</sup>lt;sup>97</sup> CCB #2198; Resolution added in 15-02016-010

<sup>98</sup> CCB #2198; Resolution added in 15-02016-010

<sup>99</sup> CCB #2198; Resolution added in 15-02016-010

 $<sup>^{100}</sup>$  CCB #2198; Resolution added in 15-02016-010

<sup>&</sup>lt;sup>101</sup> CCB #2198; Resolution added in 15-02016-010

 $<sup>^{102}</sup> https://workspace.zigbee.org/kws/groups/PRO\_GP/comments?clear=1\&workgroup\_id=46, added in 15-02016-r004.$ 

<sup>&</sup>lt;sup>103</sup> CCB #2198; Resolution added in 15-02016-010

<sup>&</sup>lt;sup>104</sup> CCB #2198; Resolution added in 15-02016-010

Item number	Item description	Reference	Status	Support
<sup>106</sup> GPDRX49	Is reception of GPD Step Saturation Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22 GPDRX48: M	N
GPDRX4a	Is reception of GPD Move Color command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22	N
GPDRX4b	Is reception of GPD Step Color command supported?	[R4] A.4.3 [R4] A.4.2.5	GPS5: O.22	N
GPDRX50	Is reception of GPD Lock Door command supported?	[R4] A.4.3 [R4] A.4.1	GPS8: M	N
GPDRX51	Is reception of GPD Unlock Door command supported?	[R4] A.4.3 [R4] A.4.1	GPS8: M	N
GPDRX60	Is reception of GPD Press 1 of 1 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS1A: M GPS14A: M	N
GPDRX61	Is reception of GPD Release 1 of 1 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS1A: M GPS14A: M	N
GPDRX62	Is reception of GPD Press 1 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS1B: M GPS14B: M	N
GPDRX63	Is reception of GPD Release 1 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS1B: M GPS14B: M	N
GPDRX64	Is reception of GPD Press 2 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS1B: M GPS14B: M	N
GPDRX65	Is reception of GPD Release 2 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS1B: M GPS14B: M	N
GPDRX66	Is reception of GPD Short press 1 of 1 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS14A: M	N
GPDRX67	Is reception of GPD Short press 1 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS14B: M	N
GPDRX68	Is reception of GPD Short press 2 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPS14B: M	N
GPDRXA0	Is reception of GPD Attribute reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPS4, GPS6, GPS7, GPS9, GPS10, GPS11, GPS12, : M	N
GPDRXA1	Is reception of GPD Manufacturer-specific attribute reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPS4, GPS6, GPS7, GPS9, GPS10, GPS11, GPS12, : M	N
GPDRXA2	Is reception of GPD Multi-cluster reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPS4, GPS6, GPS7, GPS9, GPS10, GPS11, GPS12, : M	N

<sup>&</sup>lt;sup>106</sup> CCB #2198; Resolution added in 15-02016-010



Item number	Item description	Reference	Status	Support
GPDRXA3	Is reception of GPD manufacturer-specific multi-cluster reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPS4, GPS6, GPS7, GPS9, GPS10, GPS11, GPS12: M	N
GPDRXA6	Is reception of GPD ZCL Tunneling command supported?	[R4] A.4.3	GPS4, GPS6, GPS7, GPS9, GPS10, GPS11, GPS12: M GPS15C    GPS15B: M	N



### 12 Green Power Device functionality

**PICS** in section 12 applicable The items are only the **GPD** (GPDT0). to They are not applicable to the other GP device types (i.e. GPDT1: X, GPDT2: X, GPDT3: X, GPDT4: X). If the GPD supports multiple SrcID (in case of ApplicationID = 0b000) or multiple Endpoints (in case of ApplicationID = 0b010), the SrcID/Endpoint supporting a given PICS item shall be indicated in the corresponding Support column.

## 12.1 GPD device description support

In Table 13, device descriptions for the GPD (GPDT0) are given.

Table 13 - GPD device description support

Item number	Item description	Reference	Status	Support
GPD0	Is the product programmed as a GP Simple Generic 1-state Switch?	[R4] A.4.3	GPDT0: O.23 <sup>107</sup>	
GPD1	Is the product programmed as a GP Simple Generic 2-state Switch?	[R4] A.4.3	GPDT0: O.23	
GPD2	Is the product programmed as a GP On/Off Switch?	[R4] A.4.3	GPDT0: O.23	
GPD3	Is the product programmed as a GP Level Control Switch?	[R4] A.4.3	GPDT0: O.23	
GPD4	Is the product programmed as a GP Simple Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD5	Is the product programmed as a GP Advanced Generic 1-state Switch?	[R4] A.4.3	GPDT0: O.23	
GPD5B	What is the value of the short press time threshold?	[R4] A.4.2.2	Implementation-specific	
GPD6	Is the product programmed as a GP Advanced Generic 2-state Switch?	[R4] A.4.3	GPDT0: O.23	
GPD6B	What is the value of the short press time threshold?	[R4] A.4.2.2	Implementation-specific	
GPD10	Is the product programmed as a GP Color Dimmer Switch?	[R4] A.4.3	GPDT0: O.23	
GPD11	Is the product programmed as a GP Light Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD12	Is the product programmed as a GP Occupancy Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD20	Is the product programmed as a GP Door Lock Controller?	[R4] A.4.3	GPDT0: O.23	
GPD30	Is the product programmed as a GP Temperature Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD31	Is the product programmed as a GP Pressure Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD32	Is the product programmed as a GP Flow Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD33	Is the product programmed as a GP Indoor Environment Sensor?	[R4] A.4.3	GPDT0: O.23	
GPD100	Does the product deviate from the standard GPD functionality mandatory for the product's DeviceID?	[R4] A.4.3.1	GPDT0: O	
GPD100A	Does the standard GPD Data command set supported by the product deviate from the standard GPD Data command set mandatory for the product's DeviceID?	[R4] A.4.3.1	GPD100: O.35 <sup>108</sup>	
	If yes, list all standard GPD CommandIDs supported.	ID41 A 4 2 1		
GPD100B	Does the standard ZCL cluster set supported by the product deviate from the standard ZCL cluster set mandatory for the product's DeviceID?	[R4] A.4.3.1	GPD100: O.35	
	If yes, list all standard ZCL ClusterIDs supported,			
GPDFE	Is the product programmed as an undefined GP device (DeviceID = 0xFE)?	[R4] A.4.3	GPDT0: O.23	
GPD101	Is the product with DeviceID = 0xFE programmed with support any standard functionality?  Note: a GPD not supporting any standard functionality cannot be certified.	[R4] A.4.3.1	GPDFE: M	

<sup>&</sup>lt;sup>107</sup> O.23: DUT shall implement exactly one of those options.

<sup>&</sup>lt;sup>108</sup> O.35: DUT may support at least one of those options.



Item number	Item description	Reference	Status	Support
GPD101A	Is the product programmed with support for any standard GPD Data command?	[R4] A.4.3.1	GPD101: O.36 <sup>109</sup>	
	If yes, list all standard GPD CommandIDs supported.			
CPD101B	Is the product programmed with support for any standard ZCL cluster in a server role?	[R4] A.4.3.1	GPD101: O.36	
GPD101B	If yes, list all standard ZCL ClusterIDs supported in a server role:			
GPD101C	Is the product programmed with support for any standard ZCL cluster in a client role?	[R4] A.4.3.1	GPD101: O.36	
GPDIVIC	If yes, list all standard ZCL ClusterIDs supported in a client role:			

#### 12.2 GPD functionality

Table 14 - GPD functionality

Item number	Item description	Reference	Status	Support
<sup>110</sup> GPF1	Does the device implement cGP stub?	[R4] A.1	GPDT0: X	
<sup>111</sup> GPF2	Does the device implement dGP stub?	[R4] A.1	GPDT0: X	
GPPC1	Does the device support Green Power End Point (GPEP)?	[R4] A.3.1	GPDT0: X	
GPF4A	Does the device support transmitting GPDF frame format with <i>ApplicationID</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b000?	[R4] A.1.4.1.3	GPDT0: O.22 <sup>112</sup>	
GPF4B	Does the device support transmitting GPDF frame format with <i>ApplicationID</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b010?	[R4] A.1.4.1.3	GPDT0: O.22	
GPFA1	Does the device support multiple SrcID? If yes, list the SrcIDs.	[R4] A.1.6.2.1	GPF4A: O GPF4B: X	
GPFA2	Apart from Endpoint 0x00 and 0xFF, does the device support multiple Endpoints from the range 0x01 – 0xF0? If yes, list the Endpoints.	[R4] A.1.6.2.2	GPF4A: X GPF4B: O	
GPF5	Does the device support SecurityLevel=0b11?	[R4] A.1.5.4 [R4] A.3.7.2.1	GPDT0: O.24 <sup>113</sup>	
GPF6	Does the device support SecurityLevel=0b10?	[R4] A.1.5.4 [R4] A.3.7.2.1	GPDT0: O.24	
GPF7	Does the device support SecurityLevel=0b01? (deprecated)	[R4] A.1.5.4 [R4] A.3.7.2.1	GPDT0: X (deprecated)	
GPF8A	Does the device support SecurityLevel=0b00 in commissioning?	[R4] A.1.5.4 [R4] A.3.9.1	GPDT0: O GPDT0: && GPCF4: M	
GPF8B	Does the device support SecurityLevel=0b00 in operation?  According to the current version of the specification, only  GPD that support gpdSecurityLevel = 0b10 or higher AND  support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.1.5.4 [R4] A.3.7.2.1	GPDT0: O	
GPF10A	Does the device support receiving GPDF frame format with <i>ApplicationID</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b000 and <i>Frame type</i> sub-field of the <i>NWK Frame Control</i> field set to 0b00 (Data frame) in operation, with security?	[R4] A.1.4.1.3	GPDT0&&GPF4A: O (GPF4B: X)	
GPF10B	Does the device support receiving GPDF frame format with <i>ApplicationID</i> sub-field of the <i>Extended NWK Frame Control</i> field set to 0b010 in operation, with security?	[R4] A.1.4.1.3	GPDT0&&GPF4B: O (GPF4A: X)	
GPF10C	Does the device support receiving in commissioning mode a GPDF frame format with <i>Frame type</i> sub-field of the <i>NWK Frame Control</i> field set to 0b01 (Maintenance frame)?	[R4] A.1, A.3.9	GPDT0 && GPCF4: M	

 $<sup>^{109}</sup>$  O.36: DUT shall support at least one of those options.  $^{110}$  CCB #2524; resolution added in 15-02016-009;

<sup>113</sup> O.24: Device under test shall implement at least one of those options.



<sup>111</sup> CCB #2524; resolution added in 15-02016-009;

<sup>112</sup> O.22: Device under test shall implement only one of those options

Item number	Item description	Reference	Status	Support
GPF10D	Does the device support receiving GPDF frame format with ApplicationID sub-field of the Extended NWK Frame Control field set to 0b000 and Frame type sub-field of the NWK Frame Control field set to 0b00 (Data frame) in commissioning, without security?	[R4] A.1, A.3.9	GPDT0 && GPF4A && GPCF4: M (GPF4B: X)	
GPF10E	Does the device support receiving GPDF frame format with ApplicationID sub-field of the Extended NWK Frame Control field set to 0b010 in commissioning, without security?	[R4] A.1, A.3.9	GPDT0 && GPF4B && GPCF4: M (GPF4A: X)	
GPDF2	Does the device support incremental MAC sequence number for GPD commands?	[R4] A.1.6, A.1.7	GPDT0 && (GPFA    GPF8B): O	
GPDF3	Is the FixedLocation flag in the Commissioning GPD command set?	[R4] A.1.6, A.1.7	GPDT0: O	

## 12.2.1 GPD Bidirectional operation

#### Table 15 - Support for GreenPower functionality

Item number	Item description	Reference	Status	Support
GPF100	Does the device support bidirectional communication in	[R4] A.1.6.3	GPDT0: O	
GFF100	operational mode?	[R4] A.3.6.1.5		
GPF101	Is transmission of GPD Read Attributes command supported?	[R4] A.4.2.5	GPDT0: X	
GPF102	Is reception of GPD Read Attributes command supported?	[R4] A.4.2.5	GPDT0&&GPF100: M	
GPF103	Is transmission of GPD Read Attributes Response supported?	[R4] A.4.2.5	GPDT0&&GPF100: M	
GPF104	Is reception of GPD Read Attributes Response command supported?	[R4] A.4.2.5	GPDT0: X	
GPF105	Is transmission of GPD Request Attributes command supported?	[R4] A.4.2.5	GPDT0&&GPF100: O	
GPF106	Is reception of GPD Request Attributes command supported?	[R4] A.4.2.5	GPDT0: X	
GPF107	Is transmission of GPD Write Attributes command supported?	[R4] A.4.2.5	GPDT0: X	
GPF108	Is reception of GPD Write Attributes command supported?	[R4] A.4.2.5	GPDT0&&GPF100: O	
GPF109	Is transmission of GPD ZCL Tunneling command (0xF6) supported?	[R4] A.4.2.3.5	GPDT0: X	
GPF110	Is reception of GPD ZCL Tunneling command (0xF6) supported?	[R4] A.4. 4.2.3.5	GPDT0&& GPDTXA6: M	
GPF111	List the functionality accessible via GPD ZCL Tunneling command.  List the ZCL generic command, with the corresponding ClusterID(s) and AttributeID(s), if any.		GPF110: M	
	List the cluster-specific CommandIDs per ZCL-defined Cluster, if any.			
	Manufacturer-specific functionality doesn't have to be listed.			

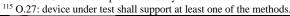


#### 12.2.2 GPD commissioning support

Table 16 - GP Commissioning Feature Support

Item number	Item description	Reference	Status	Support
GPCF0	Does the device support re-commissioning (to another network/channel), after it was already commissioned?  Note: for GPDs supporting decommissioning/reset (GPCF10A/B), it is permissible to re-commission only after reset.	[R4] A.1.7.3.2	М	
GPCF1	Does the device support pairing with Data GPDF with Auto-Commissioning bit set to 0b1?  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.3.9 [R4] A.1.4, A.1.6	GPDT0: O.26	
GPCF2	Does the device support pairing with Commissioning GPDF?	[R4] A.3.9 [R4] A.4.2.1.1	GPDT0: O.26 <sup>114</sup> GPDT0 && (GPD4   GPD11   GPD12   GPD30   GPD31   GPD32   GPD33): M	
GPCF3A	Does the device support transmission of GPD Commissioning command?	[R4] A.4.2.1.1	GPDT0&&GPCF2: M	
GPCF3B	Does the device support reception of GPD Commissioning command?	[R4] A.4.2.1.1	GPDT0: X	
GPCF4	Does the device support bidirectional communication in commissioning mode?	[R4] A.3.9	GPDT0: O	
GPDF10	Does the device support configuration of operational channel when in commissioning mode?	[R4] A.3.9	GPDT0: O	
GPDF10A	Does the device support out-of-band configuration of operational channel?	[R4] A.3.9	GPDT0: O.27 <sup>115</sup> (GPDT0 && GPCF4): X	
GPDF10B	Does the device support configuration of operational channel via channel toggling (GPD Commissioning command with RxAfterTx = 0b0)?	[R4] A.3.9	GPDT0: O.27 (GPDT0 && GPCF4): X	
GPDF10C	Does the device support in-band configuration of operational channel (via GPD Channel Request/Channel Configuration command)?	[R4] A.3.9	GPDT0: O.27 (GPDT0 && GPCF4): M	
GPDF10D	Does the device support the recommended channel set (11, 15, 20, 25)?	[R4] A.1.6, A.1.7	GPDT0&&GPCF16: M	
GPDF10E	Does the device support the full channel set (11-25 (26))? If the device does not support a full channel set, indicate which channels are supported?	[R4] A.1.6, A.1.7	GPDT0: O	
GPCF5A	Does the device support transmission of the GPD Channel Request command in commissioning mode?	[R4] A.3.9 [R4] A.4.2.1.4 [R4] A.1.4	GPDT0: O GPDT0 &&(GPCF4   GPDF10C): M	
GPCF5B	Does the device support reception of the GPD Channel Request command in commissioning mode?	[R4] A.3.9 [R4] A.4.2.1.4 [R4] A.1.4	GPDT0: X	
GPCF6	Does the device support transmission of the GPD Channel Configuration command?	[R4] A.3.9 [R4] A.4.2.1.5 [R4] A.1.4	GPDT0: X	
GPCF7	Does the device support reception of the GPD Channel Configuration command?	[R4] A.3.9 [R4] A.4.2.1.5 [R4] A.1.4	GPDT0: O	
GPCF7A	Does the device support reception of the GPD Channel Configuration command in commissioning mode?	[R4] A.3.9 [R4] A.4.2.1.5 [R4] A.1.4	GPDT0: O GPDT0 &&(GPCF4  GPDF10C): M	
GPCF7B	Does the device support reception of the GPD Channel Configuration command in operational mode?	[R4] A.6 [R4] A.4.2.1.5 [R4] A.1.4	GPDT0: O GPDT0 && (GPF10A    GPF10B): O	

<sup>114</sup> O.26: DUT should implement exactly one of those methods. Hull test event comment #81 (ZigBee document docs-11-5603)





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Item number	Item description	Reference	Status	Support
GPCF8	Does the device support transmission of the GPD Commissioning Reply command?	[R4] A.4.2.1.2	GPDT0: X	
GPCF9	Does the device support reception of the GPD Commissioning Reply command?	[R4] A.4.2.1.2	GPDT0 && GPCF2: O	
GPCF9A	Does the device support reception of the GPD Commissioning Reply command in commissioning mode?	[R4] A.4.2.1.2	GPDT0 && GPCF4: M	
GPCF9B	Does the device support reception of the GPD Commissioning Reply command in operational mode?	[R4] A.6	GPDT0 && (GPF10A    GPF10B): O	
GPCF10A	Is GPD reset/decommissioning via an explicit user action supported?	[R4] A.1.7.3.2	GPDT0: O	
GPCF10B	Is GPD removal via GPD Decommissioning command supported?	[R4] A.4.2.1.3	GPDT0: O GPCF10A: O	
GPCF11	Does the device come with pre-configured GPD key?	[R4] A.3.9	GPDT0 && (GPF5  GPF6): O.28 <sup>116</sup>	
GPCF12A	Does the device support GPD key exchange in GPD Commissioning command?	[R4] A.3.9	GPDT0 && GPCF2: O GPDT0 && GPCF11: M	
GPCF12B	Does the device support exchange of encrypted GPD key in	[R4] A.3.9		
	GPD Commissioning command?  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.1.5	GPDT0 && GPCF11: M	
GPCF13A	Does the device support GPD key exchange in GPD Commissioning Reply command?	[R4] A.3.9	GPDT0 && (GPF5  GPF6): O.28	
	Commissioning Reply command?		GPDT0 && GPCF9: O	
GPCF13B	Does the device support exchange of encrypted GPD key in GPD Commissioning Reply command?  Note: According to the current version of the specification, only GPD that support gpdSecurityLevel = 0b10 or higher AND support TC-LK protection of the GPD key, if exchanged over the air, can be certified.	[R4] A.3.9 [R4] A.1.5	GPDT0 && GPCF13A: M	
GPCF14	Does the device support out-of-band GPD key configuration?	[R4] A.3.9	GPDT0 && (GPF5  GPF6): O.28	
GPCF15A	Does the device support transmission of GPD Success command in commissioning mode?	[R4] A.3.9 [R4] A.4.1	GPDT0: O GPDT0 && GPCF4: M	
GPCF15B	Does the device support reception of GPD Success command when in commissioning mode?	[R4] A.3.9 [R4] A.4.1	GPDT0: X	
GPCF16	Does the device support in-band configuration of PANId (via GPD Commissioning Reply command)?	[R4] A.3.9 [R4] A.4.2.1.2	GPDT0 && GPCF4: O	
GPCF17	Does the device support transmission of GPD Commissioning command with Application information?	[R4] A.4.2.1.1	GPCF3A: O GPD100: M GPDFE: M GPCF17A    GPCF17B    GPCF17C    GPCF17E: M	
GPCF17A	Does the device support transmission of the GPD Commissioning command with the ModelID? If YES, indicate the ModelID.	[R4] A.4.2.1.1	GPCF3A: O GPCF17: O.33 <sup>117</sup>	
GPCF17B	Does the device support transmission of the GPD Commissioning command with the ManufacturerID? If YES, specify the ManufacturerID.	[R4] A.4.2.1.1	GPCF3A: O GPCF17: O.33 GPCF17A    GPCF17D    GPCF17F: M	
GPCF17C	Does the device support transmission of the GPD Commissioning command with the GPD command list containing any standard GPD Data commands (0x00 – 0x9F, 0xF1, 0xF2, 0xF6)?  If yes AND if deviating from the GPD command list mandatory for the supported DeviceID, list all the standard GPD Data commands,	[R4] A.4.2.1.1	GPCF3A: O GPCF17: O.33 GPD100    GPDFE: O.34 <sup>118</sup> GPD100A: M GPD101A: M	



<sup>116</sup> O.28: DUT shall support at least one of those options.
117 O.33: DUT should support at least one of these options
118 O.34: DUT shall support at least one of these options

Item number	Item description	Reference	Status	Support
GPCF17D	Does the device support transmission of the GPD Commissioning command with the GPD command list containing manufacturer-defined commands?	[R4] A.4.2.1.1	GPCF3A: O GPCF17: O.33	
GPCF17E	Does the device support transmission of the GPD Commissioning command with the Cluster list containing ZCL-defined clusters?  If yes AND if deviating from the ZCL clusters mandatory for the supported DeviceID, list all the standard ZCL clusters.	[R4] A.4.2.1.1	GPCF3A: O GPCF17: O.33 GPD100    GPDFE: O.34	
GPCF17F	Does the device support transmission of the GPD Commissioning command with the Cluster list containing manufacturer-specific clusters?	[R4] A.4.2.1.1	GPCF3A: O GPCF17: O.33 GPD100B: M GPD101B: M	
GPCF18	Does the device support reception of GPD Commissioning command with Application information?	[R4] A.4.2.1.1	GPDT0: X	
GPCF18A	Does the device support reception of the GPD Commissioning command with the ModelID?	[R4] A.4.2.1.1	GPDT0: X	
GPCF18B	Does the device support reception of the GPD Commissioning command with the ManufacturerID?	[R4] A.4.2.1.1	GPDT0: X	
GPCF18C	Does the device support reception of the GPD Commissioning command with the GPD command list containing GPD-defined commands?	[R4] A.4.2.1.1	GPDT0: X	
GPCF18D	Does the device support reception of the GPD Commissioning command with the GPD command list containing manufacturer-defined GPD commands?	[R4] A.4.2.1.1	GPDT0: X	
GPCF18E	Does the device support reception of the GPD Commissioning command with the Cluster list containing ZCL-defined clusters?	[R4] A.4.2.1.1	GPDT0: X	
GPCF18F	Does the device support reception of the GPD Commissioning command with the Cluster list containing manufacturer-specific clusters?	[R4] A.4.2.1.1	GPDT0: X	
GPCF19	Does the device support automatic progressing between the commissioning steps?	[R4] A.3.9.1	GPDT0: O GPCF4: O	
<sup>119</sup> GPCF24A	Does the device support handling of unprotected GPDF with GPD CommandIDs from the range 0xE4 – 0xEF in commissioning mode (forwarding using GP Commissioning Notification, responding with GPDF buffered in gpTxQueue)?	[R4] A.3.9.1	GPDT0: X	
<sup>120</sup> GPCF24B	Does the device support handling of unprotected GPDF with GPD CommandIDs from the manufacturer-specific range $0xB0 - 0xBF$ in commissioning mode (forwarding using GP Commissioning Notification, responding with GPDF buffered in $gpTxQueue$ )?	[R4] A.3.9.1	GPDT0: X	
<sup>121</sup> GPCF24C	Does the device support sending of unprotected GPDF with GPD CommandIDs from the range 0xF7 – 0xFF and Direction sub-field of the Extended NWK Frame Control field set to 0b1, after receiving it in a GP Response command in commissioning mode?	[R4] A.3.9.1	GPDT0: X	
<sup>122</sup> GPCF24D	Does the device support sending of unprotected GPDF with GPD CommandIDs from the range 0xB0 – 0xBF and Direction sub-field of the Extended NWK Frame Control field set to 0b1, after receiving it in a GP Response command in commissioning mode?	[R4] A.3.9.1	GPDT0: X	

<sup>119</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383

<sup>122</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383



<sup>120</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383

<sup>121</sup> CCB #2447; resolution modified in 15-02016-008 as a result of Kavi comment #1383 from letter ballot for GP Basic errata set: https://workspace.zigbee.org/higherlogic/ws/groups/PRO\_GP/comments/view\_comment\_id=1383

Item number	Item description	Reference	Status	Support
GPCF100	Is writing into Sink Table attribute via generic ZCL command supported during commissioning mode?	[R4] A.3.3.2.2	GPDT0: X	
GPCF101	Is writing into Sink Table attribute via generic ZCL command supported during operational mode?	[R4] A.3.3.2.2	GPDT0: X	
GPCF102	Is writing into Proxy Table attribute via generic ZCL command supported during commissioning mode?	[R4] A.3.3.2.2	GPDT0: X	
GPCF103	Is writing into Proxy Table attribute via generic ZCL command supported during operational mode?	[R4] A.3.3.2.2	GPDT0: X	



#### 12.3 GPD application functionality

#### 12.3.1 GPD command support by GPD

Table 17 - GPD commands support - transmission

Item number	Item description	Reference	Status	Support
GPDTX10	Is transmission of GPD Recall Scene 0 command supported?	[R4] A.4.3	CDDT1. O	
		[R4] A.4.1	GPDT1: O	
GPDTX11	Is transmission of GPD Recall Scene 1 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GFD11. O	
GPDTX12	Is transmission of GPD Recall Scene 2 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	OIDII.O	
GPDTX13	Is transmission of GPD Recall Scene 3 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	OIDII.O	
GPDTX14	Is transmission of GPD Recall Scene 4 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	OIDII. O	
GPDTX15	Is transmission of GPD Recall Scene 5 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	OIDII. O	
GPDTX16	Is transmission of GPD Recall Scene 6 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	OIDII. O	
GPDTX17	Is transmission of GPD Recall Scene 7 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	OIDII. O	
GPDTX18	Is transmission of GPD Store Scene 0 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX10: O	
GPDTX19	Is transmission of GPD Store Scene 1 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX11: O	
GPDTX1a	Is transmission of GPD Store Scene 2 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX12: O	
GPDTX1b	Is transmission of GPD Store Scene 3 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX13: O	
GPDTX1c	Is transmission of GPD Store Scene 4 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX14: O	
GPDTX1d	Is transmission of GPD Store Scene 5 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX15: O	
GPDTX1e	Is transmission of GPD Store Scene 6 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX16: O	
GPDTX1f	Is transmission of GPD Store Scene 7 command supported?	[R4] A.4.3	GPDT1: O	
		[R4] A.4.1	GPDTX17: O	
GPDTX20	Is transmission of GPD Off command supported?	[R4] A.4.3	GPD2: O.29 <sup>123</sup>	
		[R4] A.4.1	OI D2. 0.2)	
GPDTX21	Is transmission of GPD On command supported?	[R4] A.4.3	GPD2: O.29	
		[R4] A.4.1	GPD2 && GPDTX20: O	
GPDTX22	Is transmission of GPD Toggle command supported?	[R4] A.4.3	GPD2: O.29	
	I. 4	[R4] A.4.1		
GPDTX23	Is transmission of GPD Release command supported?	[R4] A.4.3 [R4] A.4.1	GPD2: O	
CDDTV20	Is transmission of GPD Move Up command supported?	[R4] A.4.3		
GPDTX30		[R4] A.4.2.4	GPD3: O.30 <sup>124</sup>	
CDDTV21	Is transmission of GPD Move Down command supported?	[R4] A.4.3	CDD2: O 20	
GPDTX31	Supported.	[R4] A.4.2.4	GPD3: O.30 GPD3 && GPDTX30: O	
GPDTX32	Is transmission of GPD Step Up command supported?	[R4] A.4.3		
GFD1A32	T P	[R4] A.4.2.4	GPD3: O.30	

 $<sup>^{\</sup>rm 123}$  O.29: Device under test shall at least one of those options.

<sup>124</sup> O.30: Device under test has to implement at least one of those commands



Item number	Item description	Reference	Status	Support
GPDTX33	Is transmission of GPD Step Down command supported?	[R4] A.4.3 [R4] A.4.2.4	GPD3: O.30 GPD3 && GPDTX32: O	
GPDTX34	Is transmission of GPD Stop command supported?	[R4] A.4.3 [R4] A.4.1	GPD3: O.30 GPD3 && (GPDTX30    GPDTX35): O	
GPDTX35	Is transmission of GPD Move Up (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPD3: O.30	
GPDTX36	Is transmission of GPD Move Down (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPD3: O.30 GPD3&&GPDTX35: O	
GPDTX37	Is transmission of GPD Step Up (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPD3: O.30	
GPDTX38	Is transmission of GPD Step Down (with On/Off) command supported?	[R4] A.4.3 [R4] A.4.2.4	GPD3: O.30 GPD3&&GPDTX37: O	
GPDTX40	Is transmission of GPD Move Hue <sup>125</sup> Stop command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31 <sup>126</sup>	
GPDTX41	Is transmission of GPD Move Hue Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
GPDTX42	Is transmission of GPD Move Hue Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31 GPD10 && GPDTX41: O	
GPDTX43	Is transmission of GPD Step Hue Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
GPDTX44	Is transmission of GPD Step Hue Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31 GPD10 && GPDTX43: O	
GPDTX45	Is transmission of GPD Move Saturation <sup>127</sup> Stop command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
GPDTX46	Is transmission of GPD Move Saturation Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
GPDTX47	Is transmission of GPD Move Saturation Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31 GPD10 && GPDTX46: O	
GPDTX48	Is transmission of GPD Step Saturation Up command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
GPDTX49	Is transmission of GPD Step Saturation Down command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31 GPD10 && GPDTX48: O	
GPDTX4a	Is transmission of GPD Move Color command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
GPDTX4b	Is transmission of GPD Step Color command supported?	[R4] A.4.3 [R4] A.4.2.5	GPD10: O.31	
	Is transmission of GPD Lock Door command supported?	[R4] A.4.3 [R4] A.4.1	GPD20: O.37 <sup>128</sup>	
GPDTX51	Is transmission of GPD Unlock Door command supported?	[R4] A.4.3 [R4] A.4.1	GPD20: O.37	
GPDTX60	Is transmission of GPD Press 1 of 1 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPD0: M GPD5: M	
GPDTX61	Is transmission of GPD Release 1 of 1 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPD0: M GPD5: M	
GPDTX62	Is transmission of GPD Press 1 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPD1: M GPD6: M	
GPDTX63	Is transmission of GPD Release 1 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPD1: M GPD6: M	

<sup>128</sup> O.37: Device under test has to implement at least one of those commands



 $<sup>^{125}</sup>$  CCB #2198, incl. approval ballot comment #1035; Resolution added in 15-02016-004;

<sup>126</sup> O.31: Device under test has to implement at least one of those commands
127 CCB #2198, incl. approval ballot comment #1035; Resolution added in 15-02016-004;

Item number	Item description	Reference	Status	Support
GPDTX64	Is transmission of GPD Press 2 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPD1: M GPD6: M	
GPDTX65	Is transmission of GPD Release 2 of 2 command supported?	[R4] A.4.3 [R4] A.4.1 [R4] A.4.2.2	GPD1: M GPD6: M	
GPDTX66	Is transmission of GPD Short press 1 of 1 command supported?	[R4] Table 43	GPD5: M	
GPDTX67	Is transmission of GPD Short press 1 of 2 command supported?	[R4] Table 43	GPD6: M	
GPDTX68	Is transmission of GPD Short press 2 of 2 command supported?	[R4] Table 43	GPD6: M	
GPDTXA0	Is transmission of GPD Attribute reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPD4    GPD11    GPD12    GPD30    GPD31    GPD32    GPD33: O.32 <sup>129</sup>	
GPDTXA1	Is transmission of GPD Manufacturer-specific attribute reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPD4    GPD11    GPD12    GPD30    GPD31    GPD32    GPD33: O.32	
GPDTXA2	Is transmission of GPD Multi-cluster reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPD11    GPD12    GPD30    GPD31    GPD32    GPD33: O.32	
GPDTXA3	Is transmission of GPD manufacturer-specific multi-cluster reporting command supported?	[R4] A.4.3 [R4] A.4.2.3	GPD11    GPD12    GPD30    GPD31    GPD32    GPD33: O.32	
<sup>130</sup> GPDTXA6	Is transmission of GPD ZCL Tunneling command (0xA6) supported?	[R4] A.4.3 [R4] A.4.2.3	GPDT0: O	
GPDTXA6.2	List the functionality accessible via GPD ZCL Tunneling command. List the ZCL generic command, with the corresponding ClusterID(s) and AttributeID(s), if any. List the cluster-specific CommandIDs per ZCL-defined Cluster, if any. Manufacturer-specific functionality doesn't have to be listed.		GPDTXA6: M	

Note: all the commands below are transparent to GPP, thus GPDT2: X. For GPDT1: X.

<sup>&</sup>lt;sup>130</sup> CCB #2533; resolution added in 15-2016-010



<sup>&</sup>lt;sup>129</sup> O.32: Device under test shall implement at least one of those commands.

# 12.3.2 ZigBee attribute support by GPD sensor devices

In Table 18 – Table 20, ZigBee attributes supported by the GPD devices are listed.

These PICS items are not applicable to the other GP device types.

Table 18 – Reported ZigBee attributes per GPD device

Item number	Item description	Reference	Status	Support
AREP1	Does the GPD support reporting of the 0x0055: PresentValue attribute from Binary Input Cluster?	[R4] A.4.3	GPD4: M	
AREP2	Does the GPD support reporting of the 0x0000:  MeasuredValue attribute from Illuminance Measurement Cluster?	[R4] A.4.3	GPD11: M GPD33: M	
AREP3	Does the GPD support reporting of the 0x0000: Occupancy attribute from Occupancy Sensing Cluster?	[R4] A.4.3	GPD12: M	
AREP4	Does the GPD support reporting of the 0x0000: MeasuredValue attribute from Temperature Measurement Cluster?	[R4] A.4.3	GPD30: M GPD33: M	
AREP5	Does the GPD support reporting of the 0x0000: MeasuredValue attribute from Pressure Measurement Cluster?	[R4] A.4.3	GPD31: M	
AREP6	Does the GPD support reporting of the 0x0000: MeasuredValue attribute from Flow Measurement Cluster?	[R4] A.4.3	GPD32: M	
AREP7	Does the GPD support reporting of the 0x0000: MeasuredValue attribute from Relative Humidity Measurement Cluster?	[R4] A.4.3	GPD33: M	
AREPF	Does the GPD support reporting of any ZCL-defined attributes not specified above?  If yes, please list all, by including ClusterID and AttributeID.	[R4] A.4.3	GPDT0: O	

Table 19 – Readable ZigBee attributes per GPD device

Item number	Item description	Reference	Status	Support
AREAD1	Does the GPD support reading of the 0x0051: OutOfService attribute from Binary Input Cluster?	[R4] A.4.3	GPD4 && GPF102: M	
AREAD2	Does the GPD support reading of the 0x0055: PresentValue attribute from Binary Input Cluster?	[R4] A.4.3	GPD4 && GPF102: M	
AREAD3	Does the GPD support reading of the 0x006F: StatusFlags attribute from Binary Input Cluster?	[R4] A.4.3	GPD4 && GPF102: M	
AREAD4	Does the GPD support reading of the 0x0000: MeasuredValue attribute from Illuminance Measurement Cluster?	[R4] A.4.3	GPD11 && GPF102: M GPD33 && GPF102: M	
AREAD5	Does the GPD support reading of the 0x0001: MinMeasuredValue attribute from Illuminance Measurement Cluster?	[R4] A.4.3	GPD11 && GPF102: M GPD33 && GPF102: M	
AREAD6	Does the GPD support reading of the 0x0002: MaxMeasuredValue attribute from Illuminance Measurement Cluster?	[R4] A.4.3	GPD11 && GPF102: M GPD33 && GPF102: M	
AREAD7	Does the GPD support reading of the 0x0000: Occupancy attribute from Occupancy Sensing Cluster?	[R4] A.4.3	GPD12 && GPF102: M	
AREAD8	Does the GPD support reading of the 0x0000: Occupancy Sensor Type attribute from Occupancy Sensing Cluster?	[R4] A.4.3	GPD12 && GPF102: M	
AREAD9	Does the GPD support reading of the 0x0000: MeasuredValue attribute from Temperature Measurement Cluster?	[R4] A.4.3	GPD30 && GPF102: M GPD33 && GPF102: M	
AREAD10	Does the GPD support reading of the 0x0001: MinMeasuredValue attribute from Temperature Measurement Cluster?	[R4] A.4.3	GPD30 && GPF102: M GPD33 && GPF102: M	
AREAD11	Does the GPD support reading of the 0x0002: MaxMeasuredValue attribute from Temperature Measurement Cluster?	[R4] A.4.3	GPD30 && GPF102: M GPD33 && GPF102: M	
AREAD12	Does the GPD support reading of the 0x0000: MeasuredValue attribute from Pressure Measurement Cluster?	[R4] A.4.3	GPD31 && GPF102: M	



Item number	Item description	Reference	Status	Support
AREAD13	Does the GPD support reading of the 0x0000: MeasuredValue attribute from Flow Measurement Cluster?	[R4] A.4.3	GPD32 && GPF102: M GPD33 && GPF102: M	
AREAD14	Does the GPD support reading of the 0x0001: MinMeasuredValue attribute from Flow Measurement Cluster?	[R4] A.4.3	GPD32 && GPF102: M GPD33 && GPF102: M	
AREAD15	Does the GPD support reading of the 0x0002: MaxMeasuredValue attribute from Flow Measurement Cluster?	[R4] A.4.3	GPD32 && GPF102: M GPD33 && GPF102: M	
AREAD16	Does the GPD support reading of the 0x0000: MeasuredValue attribute from Relative Humidity Cluster?	[R4] A.4.3	GPD33 && GPF102: M	
AREAD17	Does the GPD support reading of the 0x0001: MinMeasuredValue attribute from Relative Humidity Cluster?	[R4] A.4.3	GPD33 && GPF102: M	
AREAD18	Does the GPD support reading of the 0x0002: MaxMeasuredValue attribute from Relative Humidity Cluster?	[R4] A.4.3	GPD33 && GPF102: M	
AREADF	Does the GPD support reading of any ZCL-defined attributes not specified above? If yes, please list all, by including ClusterID and AttributeID.	[R4] A.4.3	GPDT0: O	

#### Table 20 – Writable ZigBee attributes per GPD device

Item number	Item description	Reference	Status	Support
AWRITE1	Does the GPD support writing of the 0x0051: OutOfService attribute from Binary Input Cluster?	[R4] A.4.3	GPD4 && GPF100: M	
AWRITEF	Does the GPD support writing of any ZCL-defined attributes not specified above?  If yes, please list all, by including ClusterID and AttributeID.	[R4] A.4.3	GPDT0: O	

