ZigBee Light Link Profile: PICS Proforma Version 1.0

ZigBee Document 11-0038-07

April 5th, 2012

Sponsored by: ZigBee Alliance

Accepted by	This document has been accepted for release by the ZigBee Alliance Board of Directors
Abstract	As a part of formal conformance testing, manufacturers will be asked to submit a statement of protocol conformance with respect to the appropriate ZigBee devices required by the application profile under test. This document is intended to provide the form of that statement of conformance for the Light Link profile.
Keywords	ZLL, consumer, residential, lighting, Light Link, profile.

Copyright © 1996-2015 by the ZigBee Alliance.

2400 Camino Ramon, Suite 375, San Ramon, CA 94583, USA

http://www.zigbee.org

All rights reserved.

Permission is granted to members of the ZigBee Alliance to reproduce this document for their own use or the use of other ZigBee Alliance members only, provided this notice is included. All other rights reserved. Duplication for sale, or for commercial or for-profit use is strictly prohibited without the prior written consent of the ZigBee Alliance.

This page is intentionally blank

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Notice of use and disclosure

The ZigBee Specification is available to individuals, companies and institutions free of charge for all non-commercial purposes (including university research, technical evaluation, and development of non-commercial software, tools, or documentation). No part of this specification may be used in development of a product for sale without becoming a member of ZigBee Alliance.

Copyright © ZigBee Alliance, Inc. (2008-2011). All rights Reserved. This information within this document is the property of the ZigBee Alliance and its use and disclosure are restricted.

Elements of ZigBee Alliance specifications may be subject to third party intellectual property rights, including without limitation, patent, copyright or trademark rights (such a third party may or may not be a member of ZigBee). ZigBee is not responsible and shall not be held responsible in any manner for identifying or failing to identify any or all such third party intellectual property rights.

This document and the information contained herein are provided on an “AS IS” basis and ZigBee DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO (A) ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OF THIRD PARTIES (INCLUDING WITHOUT LIMITATION ANY INTELLECTUAL PROPERTY RIGHTS INCLUDING PATENT, COPYRIGHT OR TRADEMARK RIGHTS) OR (B) ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE OR NONINFRINGEMENT. IN NO EVENT WILL ZIGBEE BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OF DATA, INTERRUPTION OF BUSINESS, OR FOR ANY OTHER DIRECT, INDIRECT, SPECIAL OR EXEMPLARY, INCIDENTIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND, IN CONTRACT OR IN TORT, IN CONNECTION WITH THIS DOCUMENT OR THE INFORMATION CONTAINED HEREIN, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE. All Company, brand and product names may be trademarks that are the sole property of their respective owners.

The above notice and this paragraph must be included on all copies of this document that are made.

ZigBee Alliance, Inc.

2400 Camino Ramon, Suite 375

San Ramon, CA 94583

This page is intentionally blank

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Table of contents

1 Introduction 1
1.1 Scope 1
1.2 Purpose 1
1.3 Abbreviations and special symbols 1
1.4 Instructions for completing the PICS proforma 2
1.5 PICS proforma tables 2
2 References 3
3 Implementation declaration 4
3.1 Identification of the implementation 4
3.2 Identification of the protocol 6
3.3 Global statement of conformance 6
4 General 7
4.1 [FDT] ZigBee device types 7
4.2 [CDD] Commissioning device descriptions 7
5 [DD] Device descriptions 8
5.1 [CC] Common clusters 9
5.2 Lighting devices 9
5.2.1 [ADOOL] On/off light 9
5.2.2 [ADOOPIU] On/Off plug-in unit 10
5.2.3 [ADDL] Dimmable light 11
5.2.4 [ADDPIU] Dimmable plug-in unit 11
5.2.5 [ADCL] Color light 12
5.2.6 [ADECL] Extended color light 13
5.2.7 [ADCTL] Color temperature light 13
5.3 Controller devices 14
5.3.1 [ADCC] Color controller 14

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5.3.2 [ADCSC] Color scene controller 16
5.3.3 [ADNCC] Non-color controller 16
5.3.4 [ADNCSC] Non-color scene controller 18
5.3.5 [ADCB] Control bridge 19
5.3.6 [ADOOS] On/off sensor 19
6 ZCL usage and enhancements 21
6.1 [GCF] General command frames 21
6.2 Basic cluster 22
6.2.1 [BCS] Server 22
6.2.1.1 [BCSA] Attributes 22
6.2.2 [BCC] Client 23
6.3 Identify cluster 23
6.3.1 [ICS] Server 23
6.3.1.1 [ICSA] Attributes 23
6.3.1.2 [ICSCR] Commands received 23
6.3.1.3 [ICSCG] Commands generated 24
6.3.2 [ICC] Client 24
6.3.2.1 Attributes 24
6.3.2.2 [ICCCR] Commands received 24
6.3.2.3 [ICCCG] Commands generated 25
6.4 Groups cluster 25
6.4.1 [GCS] Server 25
6.4.1.1 [GCSA] Attributes 25
6.4.1.2 [GCSCR] Commands received 26
6.4.1.3 [GCSCG] Commands generated 26
6.4.2 [GCC] Client 28
6.4.2.1 Attributes 28
6.4.2.2 [GCCCR] Commands received 28

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.4.2.3 [GCCCG] Commands generated 29
6.5 Scenes cluster 30
6.5.1 [SCS] Server 30
6.5.1.1 [SCSA] Attributes 30
6.5.1.2 [SCSSTE] Scene table enhancements 31
6.5.1.3 [SCSCR] Commands received 31
6.5.1.4 [SCSCG] Commands generated 32
6.5.2 [SCC] Client 35
6.5.2.1 Attributes 35
6.5.2.2 [SCCCR] Commands received 36
6.5.2.3 [SCCCG] Commands generated 37
6.6 On/off cluster 38
6.6.1 [OOCS] Server 38
6.6.1.1 [OOCSD] Dependencies 38
6.6.1.2 [OOCSA] Attributes 38
6.6.1.3 [OOCSSTE] Scene table enhancement 39
6.6.1.4 [OOCSCR] Commands received 39
6.6.2 [OOCC] Client 40
6.6.2.1 Attributes 40
6.6.2.2 Commands received 40
6.6.2.3 [OOCCCG] Commands generated 41
6.7 Level control cluster 41
6.7.1 [LCCS] Server 41
6.7.1.1 [LCCSA] Attributes 42
6.7.1.2 [LCCSSTE] Scene table enhancements 42
6.7.1.3 [LCCSCR] Commands received 42
6.7.2 [LCCC] Client 43
6.7.2.1 Attributes 43

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.7.2.2 Commands received 43
6.7.2.3 [LCCCCG] Commands generated 44
6.8 Color control cluster 45
6.8.1 [CCCS] Server 45
6.8.1.1 [CCCSA] Attributes 45
6.8.1.1.8 [CCCSACC] ColorCapabilities attribute 48
6.8.1.2 [CCCSSTE] Scene table enhancements 48
6.8.1.3 [CCCSCR] Commands received 49
6.8.2 [CCCC] Client 51
6.8.2.1 Attributes 51
6.8.2.2 Commands received 51
6.8.2.3 [CCCCCG] Commands generated 52
7 New clusters 54
7.1 ZLL commissioning cluster 54
7.1.1 Overview 54
7.1.2 [ZCCS] Server 54
7.1.2.1 Attributes 54
7.1.2.2 [ZCCSCR] Commands received 54
7.1.2.3 [ZCCSCG] Commands generated 56
7.1.3 [ZCCC] Client 57
7.1.3.1 Attributes 57
7.1.3.2 [ZCCCCR] Commands received 57
7.1.3.3 [ZCCCCG] Commands generated 59
8 Functional description 61
8.1 General 61
8.1.1 [ZSP] ZigBee Stack Profile 61
8.1.2 [C] Channels 61
8.1.3 [ADV] Application device version 61

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.1.4 [PI] Profile identifier 61
8.1.5 ZDO requirements 62
8.1.6 Startup attribute set 62
8.1.7 [DIT] Device information table 62
8.1.8 Constants 62
8.1.9 ZLL profile attributes 62
8.1.10 [IPFF] Inter-PAN frame format 63
8.1.11 [IPTI] Inter-PAN transaction identifier 63
8.1.12 Commissioning scenarios 63
8.2 ZigBee-pro stack requirements 63
8.2.1 [INS] Initialization NIB settings 63
8.2.2 [EDRJ] End-device rejoining 64
8.2.3 [LSM] Link status messages 64
8.2.4 [ZDA] ZigBee device announcement 64
8.2.5 [EDP] End device polling 65
8.2.6 [CTM] Child table maintenance 65
8.3 Device startup 66
8.3.1 [EDSU] End-device 66
8.3.2 [RSU] Router 66
8.4 [TC] Touchlink commissioning 67
8.4.1 [TDD] Device discovery 67
8.4.2 [TI] Identify 68
8.4.3 [TSNN] Starting a new network 68
8.4.4 [TJR] Joining routers to the network 69
8.4.5 [TJED] Joining end devices 69
8.4.6 [TNU] Network update 70
8.4.7 [TRFN] Reset to factory new 71
8.4.8 [AA] Address assignment 71

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.5 Classical ZigBee commissioning 73
8.5.1 [NTLC] Classical ZigBee commissioning of ZLL devices 73
8.5.2 [NTNZD2ZR] Classical ZigBee commissioning of a non-ZLL device to a ZLL router in case there is no trust center 73
8.5.3 [NTT2NZN] Touchlinking devices on non-ZLL networks 74
8.6 [FA] Frequency agility 74
8.7 [S] Security 75

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

1 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).

1.1 Scope

This document provides the protocol implementation conformance statement (PICS) proforma for the ZigBee Light Link profile [R3] in compliance with the relevant requirements, and in accordance with the relevant guidance, given in ISO/IEC 9646-7.

1.2 Purpose

The supplier of a protocol implementation claiming to conform to the ZigBee Light Link profile 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.

1.3 Abbreviations and special symbols

Notations for requirement status:

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

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

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

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

1.4 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.

1.5 PICS proforma tables

The tables in clauses 4 onwards are composed of the detailed questions to be answered, which make up the PICS proforma.

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

2 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.

2.1 ZigBee Alliance documents

[R1] ZigBee document 053474: ZigBee Specification

[R2] ZigBee document 08006: ZigBee-2007 Layer PICS and Stack Profiles

[R3] ZigBee document 11-0037: ZigBee Light Link Profile Specification

[R4] ZigBee document 075123: ZigBee Cluster Library

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

3 Implementation declaration

3.1 Identification of the implementation

Implementation under test (IUT) identification

IUT name	Surface Light W 38
IUT software version	V01020405
IUT hardware version	**03**
Operating system (optional)	

Product supplier

Name	OSRAM GmbH
Address	Marcel-Breuer-Str. 6 München Germany
Telephone number	+49 (89) 6213-5708
Fax number	N/A
Email address	g.casper@osram.com
Additional information	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Client

Name	OSRAM GmbH
Address	Marcel-Breuer-Str. 6 München Germany
Telephone number	+49 (89) 6213-5708
Fax number	N/A
Email address	g.casper@osram.com
Additional information	

PICS contact person

Name	Wang, Chongdai-Andy
Address	4F, HanTang Building OCT(Oversea Chinese Town) Shenzhen Guangdong P.R. China
Telephone number	(+86)755-3322 4503
Fax number	(+86)755-33224999
Email address	Chongdai.wang@osram.com
Additional information	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

3.2 Identification of the protocol

This PICS proforma applies to ZigBee Light Link profile [R3].

3.3 Global statement of conformance

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

Application Profile: ZigBee Light Link [R3]

☉ Yes

○ No

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

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

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

4 General

4.1 [FDT] ZigBee device types

Item number	Item description	Reference	Status	Support
FDT1	Is this device capable of acting as a ZigBee coordinator?	[R1]/2.5.5.5.1	X	
FDT2	Is this device capable of acting as a ZigBee router?	[R1]/2.5.5.5.2	O.1	Yes
FDT3	Is this a ZigBee end device?	[R1]/2.5.5.5.3	O.1	

4.2 [CDD] Commissioning device descriptions

Item number	Item description	Reference	Status	Support
CDD1	Is the product programmed as a commissioning server?	[R3]/5	O.2	Yes
CDD2	Is the product programmed as a commissioning server/client?	[R3]/5	O.2	
CDD3	Is the product programmed as a commissioning client?	[R3]/5	O.2	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5 [DD] Device descriptions

Item number	Item description	Reference	Status	Support
DD1	Is the product programmed as an On/Off Light? Note: If this is supported, fill out section 5.2.1.	[R3]/5	O.3	
DD2	Is the product programmed as an On/Off plug-in unit? Note: If this is supported, fill out section 5.2.2.	[R3]/5	O.3	
DD3	Is the product programmed as a dimmable light? Note: If this is supported, fill out section 5.2.3.	[R3]/5	O.3	YES
DD4	Is the product programmed as a dimmable plug-in unit? Note: If this is supported, fill out section 5.2.4.	[R3]/5	O.3	
DD5	Is the product programmed as a color light? Note: If this is supported, fill out section 5.2.5.	[R3]/5	O.3	
DD51	Is the product programmed as an extended color light? Note: If this is supported, fill out section 5.2.6.	[R3]/5	O.3	
DD52	Is the product programmed as a color temperature light? Note: If this is supported, fill out section 5.2.7.	[R3]/5	O.3	
DD6	Is the product programmed as a color controller? Note: If this is supported, fill out section 5.3.1.	[R3]/5	O.3	
DD7	Is the product programmed as a color scene controller? Note: If this is supported, fill out section 5.3.2.	[R3]/5	O.3	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
DD8	Is the product programmed as a non-color controller? Note: If this is supported, fill out section 5.3.3.	[R3]/5	O.3	
DD9	Is the product programmed as a non-color scene controller? Note: If this is supported, fill out section 5.3.4.	[R3]/5	O.3	
DD10	Is the product programmed as a control bridge? Note: If this is supported, fill out section 5.3.5.	[R3]/5	O.3	
DD11	Is the product programmed as an on/off sensor? Note: If this is supported, fill out section 5.3.6.	[R3]/5	O.3	

5.1 [CC] Common clusters

Item number	Item description	Reference	Status	Support
CC1	Does the device support the basic cluster as a server?	[R3]/5.1	M	YES

5.2 Lighting devices

5.2.1 [ADOOL] On/off light

Note: Only fill out this section if DD1 is supported.

Item number	Item description	Reference	Status	Support
ADOOL0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD1: (CDD1: O4 CDD2: O4 CDD3: X)	
ADOOL1	Does the device support the identify cluster as a server?	[R3]/5.2.1	DD1:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ADOOL2	Does the device support the groups cluster as a server?	[R3]/5.2.1	DD1:M	
ADOOL3	Does the device support the scenes cluster as a server?	[R3]/5.2.1	DD1:M	
ADOOL4	Does the device support the on/off cluster as a server?	[R3]/5.2.1	DD1:M	

5.2.2 [ADOOPIU] On/Off plug-in unit

Note: Only fill out this section if DD2 is supported.

Item number	Item description	Reference	Status	Support
ADOOPIU0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD2: (CDD1: O5 CDD2: O5 CDD3: X)	
ADOOPIU1	Does the device support the identify cluster as a server?	[R3]/5.2.2	DD2:M	
ADOOPIU2	Does the device support the groups cluster as a server?	[R3]/5.2.2	DD2:M	
ADOOPIU3	Does the device support the scenes cluster as a server?	[R3]/5.2.2	DD2:M	
ADOOPIU4	Does the device support the on/off cluster as a server?	[R3]/5.2.2	DD2:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5.2.3 [ADDL] Dimmable light

Note: Only fill out this section if DD3 is supported.

Item number	Item description	Reference	Status	Support
ADDL0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD3: (CDD1: O6 CDD2: O6 CDD3: X)	Server
ADDL1	Does the device support the identify cluster as a server?	[R3]/5.2.3	DD3:M	YES
ADDL2	Does the device support the groups cluster as a server?	[R3]/5.2.3	DD3:M	YES
ADDL3	Does the device support the scenes cluster as a server?	[R3]/5.2.3	DD3:M	YES
ADDL4	Does the device support the on/off cluster as a server?	[R3]/5.2.3	DD3:M	YES
ADDL5	Does the device support the level control cluster as a server?	[R3]/5.2.3	DD3:M	YES

5.2.4 [ADDPIU] Dimmable plug-in unit

Note: Only fill out this section if DD4 is supported.

Item number	Item description	Reference	Status	Support
ADDPIU0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD4: (CDD1: O7 CDD2: O7 CDD3: X)	
ADDPIU1	Does the device support the identify cluster as a server?	[R3]/5.2.4	DD4:M	
ADDPIU2	Does the device support the groups cluster as a server?	[R3]/5.2.4	DD4:M	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ADDPIU3	Does the device support the scenes cluster as a server?	[R3]/5.2.4	DD4:M	
ADDPIU4	Does the device support the on/off cluster as a server?	[R3]/5.2.4	DD4:M	
ADDPIU5	Does the device support the level control cluster as a server?	[R3]/5.2.4	DD4:M	

5.2.5 [ADCL] Color light

Note: Only fill out this section if DD5 is supported.

Item number	Item description	Reference	Status	Support
ADCL0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD5: (CDD1: O8 CDD2: O8 CDD3: X)	
ADCL1	Does the device support the identify cluster as a server?	[R3]/5.2.5	DD5:M	
ADCL2	Does the device support the groups cluster as a server?	[R3]/5.2.5	DD5:M	
ADCL3	Does the device support the scenes cluster as a server?	[R3]/5.2.5	DD5:M	
ADCL4	Does the device support the on/off cluster as a server?	[R3]/5.2.5	DD5:M	
ADCL5	Does the device support the level control cluster as a server?	[R3]/5.2.5	DD5:M	
ADCL6	Does the device support the color control cluster as a server?	[R3]/5.2.5	DD5:M	
ADCL7	Does the device set the *ColorCapabilities* attribute to 0x000f?	[R3]/5.2.5	DD5:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5.2.6 [ADECL] Extended color light

Note: Only fill out this section if DD51 is supported.

Item number	Item description	Reference	Status	Support
ADECL0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD51: (CDD1: O9 CDD2: O9 CDD3: X)	
ADECL1	Does the device support the identify cluster as a server?	[R3]/5.2.6	DD51:M	
ADECL2	Does the device support the groups cluster as a server?	[R3]/5.2.6	DD51:M	
ADECL3	Does the device support the scenes cluster as a server?	[R3]/5.2.6	DD51:M	
ADECL4	Does the device support the on/off cluster as a server?	[R3]/5.2.6	DD51:M	
ADECL5	Does the device support the level control cluster as a server?	[R3]/5.2.6	DD51:M	
ADECL6	Does the device support the color control cluster as a server?	[R3]/5.2.6	DD51:M	
ADECL7	Does the device set the *ColorCapabilities* attribute to 0x001f?	[R3]/5.2.6	DD51:M	

5.2.7 [ADCTL] Color temperature light

Note: Only fill out this section if DD52 is supported.

Item number	Item description	Reference	Status	Support
ADCTL0	Is the device programmed as a commissioning server or a commissioning server/client?	[R3]/5	DD52: (CDD1: O10 CDD2: O10 CDD3: X)	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ADCTL1	Does the device support the identify cluster as a server?	[R3]/5.2.7	DD52:M	
ADCTL2	Does the device support the groups cluster as a server?	[R3]/5.2.7	DD52:M	
ADCTL3	Does the device support the scenes cluster as a server?	[R3]/5.2.7	DD52:M	
ADCTL4	Does the device support the on/off cluster as a server?	[R3]/5.2.7	DD52:M	
ADCTL5	Does the device support the level control cluster as a server?	[R3]/5.2.7	DD52:M	
ADCTL6	Does the device support the color control cluster as a server?	[R3]/5.2.7	DD52:M	
ADCTL7	Does the device set the *ColorCapabilities* attribute to 0x0010?	[R3]/5.2.7	DD52:M	

5.3 Controller devices

5.3.1 [ADCC] Color controller

Note: Only fill out this section if DD6 is supported.

Item number	Item description	Reference	Status	Support
ADCC0	Is the device programmed as a commissioning server, a commissioning server/client or a commissioning client?	[R3]/5	DD6: (CDD1: O11 CDD2: O11 CDD3: O11)	
ADCC1	Does the device support the identify cluster as a client?	[R3]/5.3.1	DD6:M	
ADCC2	Does the device support the groups cluster as a client?	[R3]/5.3.1	DD6:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ADCC3	Does the device support the on/off cluster as a client?	[R3]/5.3.1	DD6:M	
ADCC4	Does the device support the level control cluster as a client?	[R3]/5.3.1	DD6:M	
ADCC5	Does the device support the color control cluster as a client?	[R3]/5.3.1	DD6:M	
ADCC6	Does the device support the ZLL commissioning cluster: utility as both a server and a client?	[R3]/5.3.1	DD6:M	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5.3.2 [ADCSC] Color scene controller

Note: Only fill out this section if DD7 is supported.

Item number	Item description	Reference	Status	Support
ADCSC0	Is the device programmed as a commissioning server, a commissioning server/client or a commissioning client?	[R3]/5	DD7: (CDD1: O12 CDD2: O12 CDD3: O12)	
ADCSC1	Does the device support the identify cluster as a client?	[R3]/5.3.2	DD7:M	
ADCSC2	Does the device support the groups cluster as a client?	[R3]/5.3.2	DD7:M	
ADCSC3	Does the device support the scenes cluster as a client?	[R3]/5.3.2	DD7:M	
ADCSC4	Does the device support the on/off cluster as a client?	[R3]/5.3.2	DD7:M	
ADCSC5	Does the device support the level control cluster as a client?	[R3]/5.3.2	DD7:M	
ADCSC6	Does the device support the color control cluster as a client?	[R3]/5.3.2	DD7:M	
ADCSC7	Does the device support the ZLL commissioning cluster: utility as both a server and a client?	[R3]/5.3.2	DD7:M	

5.3.3 [ADNCC] Non-color controller

Note: Only fill out this section if DD8 is supported.

Item number	Item description	Reference	Status	Support
ADNCC0	Is the device programmed as a commissioning server, a commissioning server/client or a commissioning client?	[R3]/5	DD8: (CDD1: O13 CDD2: O13 CDD3: O13)	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ADNCC1	Does the device support the identify cluster as a client?	[R3]/5.3.3	DD8:M	
ADNCC2	Does the device support the groups cluster as a client?	[R3]/5.3.3	DD8:M	
ADNCC3	Does the device support the on/off cluster as a client?	[R3]/5.3.3	DD8:M	
ADNCC4	Does the device support the level control cluster as a client?	[R3]/5.3.3	DD8:M	
ADNCC5	Does the device support the ZLL commissioning cluster: utility as both a server and a client?	[R3]/5.3.3	DD8:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5.3.4 [ADNCSC] Non-color scene controller

Note: Only fill out this section if DD9 is supported.

Item number	Item description	Reference	Status	Support
ADNCSC0	Is the device programmed as a commissioning server, a commissioning server/client or a commissioning client?	[R3]/5	DD9: (CDD1: O14 CDD2: O14 CDD3: O14)	
ADNCSC1	Does the device support the identify cluster as a client?	[R3]/5.3.4	DD9:M	
ADNCSC2	Does the device support the groups cluster as a client?	[R3]/5.3.4	DD9:M	
ADNCSC3	Does the device support the scenes cluster as a client?	[R3]/5.3.4	DD9:M	
ADNCSC4	Does the device support the on/off cluster as a client?	[R3]/5.3.4	DD9:M	
ADNCSC5	Does the device support the level control cluster as a client?	[R3]/5.3.4	DD9:M	
ADNCSC6	Does the device support the ZLL commissioning cluster: utility as both a server and a client?	[R3]/5.3.4	DD9:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

5.3.5 [ADCB] Control bridge

Note: Only fill out this section if DD10 is supported.

Item number	Item description	Reference	Status	Support
ADCB0	Is the device programmed as a commissioning server, a commissioning server/client or a commissioning client?	[R3]/5	DD10: (CDD1: O15 CDD2: O15 CDD3: O15)	
ADCB9	Does the device support the identify cluster as a client?	[R3]/5.3.5	DD10:M	
ADCB10	Does the device support the groups cluster as a client?	[R3]/5.3.5	DD10:M	
ADCB11	Does the device support the scenes cluster as a client?	[R3]/5.3.5	DD10:M	
ADCB12	Does the device support the on/off cluster as a client?	[R3]/5.3.5	DD10:M	
ADCB13	Does the device support the level control cluster as a client?	[R3]/5.3.5	DD10:M	
ADCB14	Does the device support the color control cluster as a client?	[R3]/5.3.5	DD10: M	
ADCB15	Does the device support the ZLL commissioning cluster: utility as both a server and a client?	[R3]/5.3.5	DD10:M	

5.3.6 [ADOOS] On/off sensor

Note: Only fill out this section if DD11 is supported.

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ADOOS0	Is the device programmed as a commissioning server, a commissioning server/client or a commissioning client?	[R3]/5	DD11: (CDD1: O16 CDD2: O16 CDD3: O16)	
ADOOS3	Does the device support the identify cluster as a client?	[R3]/5.3.6	DD11:M	
ADOOS4	Does the device support the groups cluster as a client?	[R3]/5.3.6	DD11:M	
ADOOS5	Does the device support the scenes cluster as a client?	[R3]/5.3.6	DD11:M	
ADOOS6	Does the device support the on/off cluster as a client?	[R3]/5.3.6	DD11:M	
ADOOS7	Does the device support the level control cluster as a client?	[R3]/5.3.6	DD11:M	
ADOOS8	Does the device support the color control cluster as a client?	[R3]/5.3.6	DD11:M	
ADOOS9	Does the device support the ZLL commissioning cluster: utility as both a server and a client?	[R3]/5.3.6	DD11:M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6 ZCL usage and enhancements

6.1 [GCF] General command frames

Item number	Item description	Reference	Status	Support
GCF1	Does the device support the transmission of the **read attributes** command?	[R4]/2.4.1	O	
GCF1a	Does the device support the reception of the **read attributes** command?	[R4]/2.4.1	M	YES
GCF2	Does the device support the transmission of the **read attributes response** command?	[R4]/2.4.2	M	YES
GCF2a	Does the device support the reception of the **read attributes response** command?	[R4]/2.4.2	GCF1: M	
GCF3	Does the device support the transmission of the **write attributes** command?	[R4]/2.4.3	O	
GCF3a	Does the device support the reception of the **write attributes** command?	[R4]/2.4.3	M	YES
GCF4	Does the device support the transmission of the **write attributes undivided** command?	[R4]/2.4.4	O	
GCF4a	Does the device support the reception of the **write attributes undivided** command?	[R4]/2.4.4	M	Yes
GCF5	Does the device support the transmission of the **write attributes response** command?	[R4]/2.4.5	M	YES
GCF5a	Does the device support the reception of the **write attributes response** command?	[R4]/2.4.5	GCF3: M GCF4: M	
GCF6	Does the device support the transmission of the **write attributes no response** command?	[R4]/2.4.6	O	
GCF6a	Does the device support the reception of the **write attributes no response** command?	[R4]/2.4.6	M	YES
GCF7	Does the device support the transmission and reception of the **default response** command?	[R4]/2.4.12	M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.2 Basic cluster

6.2.1 [BCS] Server

Item number	Item description	Reference	Status	Support
BCS1	Does the device support the **basic** cluster as a server?	[R4]/3.2.2	M	YES

6.2.1.1 [BCSA] Attributes

Item number	Item description	Reference	Status	Support
BCSA1	Does the device support the **ZCLVersion** attribute?	[R4]/3.2.2.2.2	M	YES
BCSA2	Does the device support the **ApplicationVersion** attribute?	[R4]/3.2.2.2.3	M	YES
BCSA3	Does the device support the **StackVersion** attribute?	[R4]/3.2.2.2.4	M	YES
BCSA4	Does the device support the **HWVersion** attribute?	[R4]/3.2.2.2.5	M	YES
BCSA5	Does the device support the **ManufacturerName** attribute?	[R4]/3.2.2.2.6	M	YES
BCSA6	Does the device support the **ModelIdentifier** attribute?	[R4]/3.2.2.2.7	M	YES
BCSA7	Does the device support the **DateCode** attribute?	[R4]/3.2.2.2.8	M	YES
BCSA8	Does the device support the **PowerSource** attribute?	[R4]/3.2.2.2.9	M	YES
BCSA9	Does the device support the **SWBuildID** attribute?	[R3]/6.2.1.1.1	M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.2.2 [BCC] Client

Item number	Item description	Reference	Status	Support
BCC1	Does the device support the **basic** cluster as a client?	[R4]/3.2.3	O	

6.3 Identify cluster

6.3.1 [ICS] Server

Item number	Item description	Reference	Status	Support
ICS1	Does the device support the **identify** cluster as a server?	[R4]/3.5.2	DD1: M DD2: M DD3: M DD4: M DD5: M DD51: M DD52: M	YES

6.3.1.1 [ICSA] Attributes

Item number	Item description	Reference	Status	Support
ICSA1	Does the device support the **IdentifyTime** attribute?	[R4]/3.5.2.2.1	ICS1: M	YES

6.3.1.2 [ICSCR] Commands received

Item number	Item description	Reference	Status	Support
ICSCR1	Does the device support the reception of the **identify** command?	[R4]/3.5.2.3.1	ICS1: M	YES
ICSCR2	Does the device support the reception of the **identify query** command?	[R4]/3.5.2.3.2	ICS1: M	YES

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ICSCR3	Does the device support the reception of the **trigger effect** command?	[R3]/6.3.1.2.1	ICS1: M	YES

6.3.1.3 [ICSCG] Commands generated

Item number	Item description	Reference	Status	Support
ICSCG1	Does the device support the generation and transmission of the **identify query response** command?	[R4]/3.5.2.4.1	ICS1: M	YES

6.3.2 [ICC] Client

Item number	Item description	Reference	Status	Support
ICC1	Does the device support the **identify** cluster as a client?	[R4]/3.5.3	DD6: M DD7: M DD8: M DD9: M DD10: M DD11: M	

6.3.2.1 Attributes

There are no PICS requirements for this section.

6.3.2.2 [ICCCR] Commands received

Item number	Item description	Reference	Status	Support
ICCCR1	Does the device support the reception of the **identify query response** command?	[R4]/3.5.2.4.1	ICCCG2: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.3.2.3 [ICCCG] Commands generated

Item number	Item description	Reference	Status	Support
ICCCG1	Does the device support the generation and transmission of the **identify** command?	[R4]/3.5.2.3.1	ICC1: O	
ICCCG2	Does the device support the generation and transmission of the **identify query** command?	[R4]/3.5.2.3.2	ICC1: O	
ICCCG3	Does the device support the generation and transmission of the **trigger effect** command?	[R3]/6.3.1.2.1	ICC1: O	

6.4 Groups cluster

6.4.1 [GCS] Server

Item number	Item description	Reference	Status	Support
GCS1	Does the device support the **groups** cluster as a server?	[R4]/3.6.2	DD1: M DD2: M DD3: M DD4: M DD5: M DD51: M DD52: M	YES

6.4.1.1 [GCSA] Attributes

Item number	Item description	Reference	Status	Support
GCSA1	Does the device support the **NameSupport** attribute?	[R4]/3.6.2.2	GCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.4.1.2 [GCSCR] Commands received

Item number	Item description	Reference	Status	Support
GCSCR1	Does the device support the reception of the **add group** command?	[R4]/3.6.2.2.3	GCS1:M	YES
GCSCR2	Does the device support the reception of the **view group** command?	[R4]/3.6.2.2.4	GCS1:M	YES
GCSCR3	Does the device support the reception of the **get group membership** command?	[R4]/3.6.2.2.5	GCS1:M	YES
GCSCR4	Does the device support the reception of the **remove group** command?	[R4]/3.6.2.2.6	GCS1:M	YES
GCSCR5	Does the device support the reception of the **remove all groups** command?	[R4]/3.6.2.2.7	GCS1:M	YES
GCSCR6	Does the device support the reception of the **add group if identifying** command?	[R4]/3.6.2.2.8	GCS1:M	YES

6.4.1.3 [GCSCG] Commands generated

Item number	Item description	Reference	Status	Support
GCSCG1	Does the device support the generation and transmission of the **add group response** command in the case that an **add group** command was received as a unicast?	[R4]/3.6.2.3.1	GCS1:M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
GCSCG1a	Does the device not support the generation and transmission of the **add group response** command in the case that an **add group** command was received as a groupcast or broadcast?	[R3]/6.4.1.2.1	GCS1:M	YES
GCSCG2	Does the device support the generation and transmission of the **view group response** command in the case that an **view group** command was received as a unicast?	[R4]/3.6.2.3.2	GCS1:M	YES
GCSCG2a	Does the device not support the generation and transmission of the **view group response** command in the case that an **view group** command was received as a groupcast or broadcast?	[R3]/6.4.1.2.1	GCS1:M	YES
GCSCG3	Does the device support the generation and transmission of the **get group membership response** command in the case that a **get group membership** command was received as a unicast?	[R4]/3.6.2.3.3	GCS1: M	YES
GCSCG3a	Does the device not support the generation and transmission of the **get group membership response** command in the case that a **get group membership** command was received as a groupcast or broadcast?	[R3]/6.4.1.2.1	GCS1:M	YES
GCSCG4	Does the device support the generation and transmission of the **remove group response** command in the case that a **remove group** command was received as a unicast?	[R4]/3.6.2.3.4	GCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
GCSCG4a	Does the device not support the generation and transmission of the **remove group response** command in the case that a **remove group** command was received as a groupcast or broadcast?	[R3]/6.4.1.2.1	GCS1:M	YES

6.4.2 [GCC] Client

Item number	Item description	Reference	Status	Support
GCC1	Does the device support the **groups** cluster as a client?	[R4]/3.6.3	DD6: M DD7: M DD8: M DD9: M DD10: M DD11: M	

6.4.2.1 Attributes

There are no PICS requirements for this section.

6.4.2.2 [GCCCR] Commands received

Item number	Item description	Reference	Status	Support
GCCCR1	Does the device support the reception of the **add group response** command?	[R4]/3.6.2.3.1	GCCCG1: M	
GCCCR2	Does the device support the reception of the **view group response** command?	[R4]/3.6.2.3.2	GCCCG2: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
GCCCR3	Does the device support the reception of the **get group membership response** command?	[R4]/3.6.2.3.3	GCCCG3: M	
GCCCR4	Does the device support the reception of the **remove group response** command?	[R4]/3.6.2.3.4	GCCCG4: M	

6.4.2.3 [GCCCG] Commands generated

Item number	Item description	Reference	Status	Support
GCCCG1	Does the device support the generation and transmission of the **add group** command?	[R4]/3.6.2.2.3	GCC1: O	
GCCCG2	Does the device support the generation and transmission of the **view group** command?	[R4]/3.6.2.2.4	GCC1: O	
GCCCG3	Does the device support the generation and transmission of the **get group membership** command?	[R4]/3.6.2.2.5	GCC1: O	
GCCCG4	Does the device support the generation and transmission of the **remove group** command?	[R4]/3.6.2.2.6	GCC1: O	
GCCCG5	Does the device support the generation and transmission of the **remove all groups** command?	[R4]/3.6.2.2.7	GCC1: O	
GCCCG6	Does the device support the generation and transmission of the **add group if identifying** command?	[R4]/3.6.2.2.8	GCC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.5 Scenes cluster

6.5.1 [SCS] Server

Item number	Item description	Reference	Status	Support
SCS1	Does the device support the **scenes** cluster as a server?	[R4]/3.7.2	DD1: M DD2: M DD3: M DD4: M DD5: M DD51: M DD52: M	YES

6.5.1.1 [SCSA] Attributes

Item number	Item description	Reference	Status	Support
SCSA1	Does the device support the **SceneCount** attribute?	[R4]/3.7.2.2.1.1	SCS1: M	YES
SCSA2	Does the device support the **CurrentScene** attribute?	[R4]/3.7.2.2.1.2	SCS1: M	YES
SCSA3	Does the device support the **CurrentGroup** attribute?	[R4]/3.7.2.2.1.3	SCS1: M	YES
SCSA4	Does the device support the **SceneValid** attribute?	[R4]/3.7.2.2.1.4	SCS1: M	YES
SCSA5	Does the device support the **NameSupport** attribute, fixed to 0, indicating no name support?	[R4]/3.7.2.2.1.5	SCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.5.1.2 [SCSSTE] Scene table enhancements

Item number	Item description	Reference	Status	Support
SCSSTE1	Does the device support the scene table item **TransitionTime100ms**?	[R3]/6.5.1.2	SCS1: M	YES

6.5.1.3 [SCSCR] Commands received

Item number	Item description	Reference	Status	Support
SCSCR1	Does the device support the reception of the **add scene** command?	[R4]/3.7.2.4.1	SCS1: M	YES
SCSCR2	Does the device support the reception of the **view scene** command?	[R4]/3.7.2.4.2	SCS1: M	YES
SCSCR3	Does the device support the reception of the **remove scene** command?	[R4]/3.7.2.4.3	SCS1: M	YES
SCSCR4	Does the device support the reception of the **remove all scenes** command?	[R4]/3.7.2.4.4	SCS1: M	YES
SCSCR5	Does the device support the reception of the **store scene** command?	[R4]/3.7.2.4.5	SCS1: M	YES
SCSCR6	Does the device support the reception of the **recall scene** command?	[R4]/3.7.2.4.6	SCS1: M	YES
SCSCR7	Does the device support the reception of the **get scene membership** command?	[R4]/3.7.2.4.7	SCS1: M	YES
SCSCR8	Does the device support the reception of the **enhanced add scene** command?	[R3]/6.5.1.3.1	SCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
SCSCR9	Does the device support the reception of the **enhanced view scene** command?	[R3]/6.5.1.3.2	SCS1: M	YES
SCSCR10	Does the device support the reception of the **copy scene** command?	[R3]/6.5.1.3.3	SCS1: M	YES

6.5.1.4 [SCSCG] Commands generated

Item number	Item description	Reference	Status	Support
SCSCG1	Does the device support the generation and transmission of the **add scene response** command in the case that an **add scene** command was received as a unicast?	[R4]/3.7.2.5.1	SCS1: M	YES
SCSCG1a	Does the device not support the generation and transmission of the **add scene response** command in the case that an **add scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES
SCSCG2	Does the device support the generation and transmission of the **view scene response** command in the case that a **view scene** command was received as a unicast?	[R4]/3.7.2.5.2	SCS1: M	YES
SCSCG2a	Does the device not support the generation and transmission of the **view scene response** command in the case that a **view scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
SCSCG3	Does the device support the generation and transmission of the **remove scene response** command in the case that a **remove scene** command was received as a unicast?	[R4]/3.7.2.5.3	SCS1: M	YES
SCSCG3a	Does the device not support the generation and transmission of the **remove scene response** command in the case that a **remove scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES
SCSCG4	Does the device support the generation and transmission of the **remove all scenes response** command in the case that a **remove all scenes** command was received as a unicast?	[R4]/3.7.2.5.4	SCS1: M	YES
SCSCG4a	Does the device not support the generation and transmission of the **remove all scenes response** command in the case that a **remove all scenes** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES
SCSCG5	Does the device support the generation and transmission of the **store scene response** command in the case that a **store scene** command was received as a unicast?	[R4]/3.7.2.5.5	SCS1: M	YES
SCSCG5a	Does the device not support the generation and transmission of the **store scene response** command in the case that a **store scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
SCSCG6	Does the device support the generation and transmission of the **get scene membership response** command in the case that a **get scene membership** command was received as a unicast?	[R4]/3.7.2.5.6	SCS1: M	YES
SCSCG6a	Does the device not support the generation and transmission of the **get scene membership response** command in the case that a **get scene membership** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES
SCSCG7	Does the device support the generation and transmission of the **enhanced add scene response** command in the case that an **enhanced add scene** command was received as a unicast?	[R3]/6.5.1.4.1	SCS1: M	YES
SCSCG7a	Does the device not support the generation and transmission of the **enhanced add scene response** command in the case that an **enhanced add scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES
SCSCG8	Does the device support the generation and transmission of the **enhanced view scene response** command in the case that an **enhanced view scene** command was received as a unicast?	[R3]/6.5.1.4.2	SCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
SCSCG8a	Does the device not support the generation and transmission of the **enhanced view scene response** command in the case that an **enhanced view scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES
SCSCG9	Does the device support the generation and transmission of the **copy scene response** command in the case that a **copy scene** command was received as a unicast?	[R3]/6.5.1.4.3	SCS1: M	YES
SCSCG9a	Does the device not support the generation and transmission of the **copy scene response** command in the case that a **copy scene** command was received as a groupcast or broadcast?	[R3]/6.5.1.3.1	SCS1: M	YES

6.5.2 [SCC] Client

Item number	Item description	Reference	Status	Support
SCC1	Does the device support the **scenes** cluster as a client?	[R4]/3.7.3	DD7: M DD9: M DD10: M DD11: M	

6.5.2.1 Attributes

There are no PICS requirements for this section.

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.5.2.2 [SCCCR] Commands received

Item number	Item description	Reference	Status	Support
SCCCR1	Does the device support the reception of the **add scene response** command?	[R3]/6.5.2.2	SCCCG1: M	
SCCCR2	Does the device support the reception of the **view scene response** command?	[R3]/6.5.2.2	SCCCG2: M	
SCCCR3	Does the device support the reception of the **remove scene response** command?	[R3]/6.5.2.2	SCCCG3: M	
SCCCR4	Does the device support the reception of the **remove all scenes response** command?	[R3]/6.5.2.2	SCCCG4: M	
SCCCR5	Does the device support the reception of the **store scene response** command?	[R3]/6.5.2.2	SCCCG5: M	
SCCCR6	Does the device support the reception of the **get scene membership response** command?	[R3]/6.5.2.2	SCCCG7: M	
SCCCR7	Does the device support the reception of the **enhanced add scene response** command?	[R3]/6.5.1.4.1	SCCCG8: M	
SCCCR8	Does the device support the reception of the **enhanced view scene response** command?	[R3]/6.5.1.4.2	SCCCG9: M	
SCCCR9	Does the device support the reception of the **copy scene response** command?	[R3]/6.5.1.4.3	SCCCG10: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.5.2.3 [SCCCG] Commands generated

Item number	Item description	Reference	Status	Support
SCCCG1	Does the device support the generation and transmission of the **add scene** command?	[R4]/3.7.2.4.1	SCC1: O	
SCCCG2	Does the device support the generation and transmission of the **view scene** command?	[R4]/3.7.2.4.2	SCC1: O	
SCCCG3	Does the device support the generation and transmission of the **remove scene** command?	[R4]/3.7.2.4.3	SCC1: O	
SCCCG4	Does the device support the generation and transmission of the **remove all scenes** command?	[R4]/3.7.2.4.4	SCC1: O	
SCCCG5	Does the device support the generation and transmission of the **store scene** command?	[R4]/3.7.2.4.5	SCC1: O	
SCCCG6	Does the device support the generation and transmission of the **recall scene** command?	[R4]/3.7.2.4.6	SCC1: O	
SCCCG7	Does the device support the generation and transmission of the **get scene membership** command?	[R4]/3.7.2.4.7	SCC1: O	
SCCCG8	Does the device support the generation and transmission of the **enhanced add scene** command?	[R3]/6.5.1.3.1	SCC1: O	
SCCCG9	Does the device support the generation of the **enhanced view scene** command?	[R3]/6.5.1.3.2	SCC1: O	
SCCCG10	Does the device support the generation of the **copy scene** command?	[R3]/6.5.1.3.3	SCC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.6 On/off cluster

6.6.1 [OOCS] Server

Item number	Item description	Reference	Status	Support
OOCS1	Does the device support the **on/off** cluster as a server?	[R4]/3.8.2	DD1: M DD2: M DD3: M DD4: M DD5: M DD51: M DD52: M	YES

6.6.1.1 [OOCSD] Dependencies

Item number	Item description	Reference	Status	Support
OOCSD1	Does the device set the **OnTime** attribute to 0x0000 on receipt of a **level control** cluster command that causes the **OnOff** attribute to be set to 0x00?	6.6.1.1.1	OOCS1: M	YES
OOCSD2	Does the device set the **OffWaitTime** attribute to 0x0000 on receipt of a **level control** cluster command that causes the **OnOff** attribute to be set to 0x01 if the **OnTime** attribute is equal to 0x0000?	6.6.1.1.1	OOCS1: M	YES

6.6.1.2 [OOCSA] Attributes

Item number	Item description	Reference	Status	Support
OOCSA1	Does the device support the **OnOff** attribute?	[R4]/3.8.2.2	OOCS1:M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
OOCSA2	Does the device support the **GlobalSceneControl** attribute?	[R3]/6.6.1.2.1	OOCS1:M	YES
OOCSA3	Does the device support the **OnTime** attribute?	[R3]/6.6.1.2.2	OOCS1:M	YES
OOCSA4	Does the device support the **OffWaitTime** attribute?	[R3]/6.6.1.2.3	OOCS1:M	YES

6.6.1.3 [OOCSSTE] Scene table enhancement

Item number	Item description	Reference	Status	Support
OOCSSTE1	Does the device support the scene table item **OnOff**?	[R3]/6.6.1.3	OOCS1: M	YES

6.6.1.4 [OOCSCR] Commands received

Item number	Item description	Reference	Status	Support
OOCSCR1	Does the device support the reception of the **off** command?	[R3]/6.6.1.4.1 [R4]/3.8.2.3.1	OOCS1: M	YES
OOCSCR2	Does the device support the reception of the **on** command?	[R3]/6.6.1.4.2 [R4]/3.8.2.3.2	OOCS1: M	YES
OOCSCR3	Does the device support the reception of the **toggle** command?	[R3]/6.6.1.4.3 [R4]/3.8.2.3.3	OOCS1: M	YES
OOCSCR4	Does the device support the reception of the **off with effect** command?	[R3]/6.6.1.4.4	OOCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
OOCSCR5	Does the device support the reception of the **on with recall global scene** command?	[R3]/6.6.1.4.5	OOCS1: M	YES
OOCSCR6	Does the device support the reception of the **on with timed off** command?	[R3]/6.6.1.4.6	OOCS1: M	YES

6.6.2 [OOCC] Client

Item number	Item description	Reference	Status	Support
OOCC1	Does the device support the **on/off** cluster as a client?	[R4]/3.8.3	DD6: M DD7: M DD8: M DD9: M DD10: M DD11: M	

6.6.2.1 Attributes

There are no PICS requirements for this section.

6.6.2.2 Commands received

There are no PICS requirements for this section.

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.6.2.3 [OOCCCG] Commands generated

Item number	Item description	Reference	Status	Support
OOCCCG1	Does the device support the generation and transmission of the **off** command?	[R4]/3.8.2.3.1	OOCC1: O	
OOCCCG2	Does the device support the generation and transmission of the **on** command?	[R4]/3.8.2.3.2	OOCC1: O	
OOCCCG3	Does the device support the generation and transmission of the **toggle** command?	[R4]/3.8.2.3.3	OOCC1: O	
OOCCCG4	Does the device support the generation and transmission of the **off with effect** command?	[R3]/6.6.1.4.4	OOCC1: O	
OOCCCG5	Does the device support the generation and transmission of the **on with recall global scene** command?	[R3]/6.6.1.4.5	OOCC1: O	
OOCCCG6	Does the device support the generation and transmission of the **on with timed off** command?	[R3]/6.6.1.4.6	OOCC1: O	

6.7 Level control cluster

6.7.1 [LCCS] Server

Item number	Item description	Reference	Status	Support
LCCS1	Does the device support the **level control** cluster as a server?	[R4]/3.10.2	DD3: M DD4: M DD5: M DD51: M DD52: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.7.1.1 [LCCSA] Attributes

Item number	Item description	Reference	Status	Support
LCCSA1	Does the device support the **CurrentLevel** attribute?	[R4]/3.10.2.2.1	LCCS1: M	YES
LCCSA2	Does the device support the **RemainingTime** attribute?	[R4]/3.10.2.2.2	LCCS1: M	YES

6.7.1.2 [LCCSSTE] Scene table enhancements

Item number	Item description	Reference	Status	Support
LCCSSTE1	Does the device support the scene table item **CurrentLevel**?	[R3]/6.7.1.2	LCCS1: M	YES

6.7.1.3 [LCCSCR] Commands received

Item number	Item description	Reference	Status	Support
LCCSCR1	Does the device support the reception of the **move to level** command?	[R4]/3.10.2.3.1	LCCS1: M	YES
LCCSCR2	Does the device support the reception of the **move** command?	[R4]/3.10.2.3.2	LCCS1: M	YES
LCCSCR3	Does the device support the reception of the **step** command?	[R4]/3.10.2.3.3	LCCS1: M	YES
LCCSCR4	Does the device support the reception of the **stop** command?	[R4]/3.10.2.3.4	LCCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
LCCSCR5	Does the device support the reception of the **move to level (with on/off)** command?	[R4]/3.10.2.3.5	LCCS1: M	YES
LCCSCR6	Does the device support the reception of the **move (with on/off)** command?	[R4]/3.10.2.3.5	LCCS1: M	YES
LCCSCR7	Does the device support the reception of the **step (with on/off)** command?	[R4]/3.10.2.3.5	LCCS1: M	YES
LCCSCR8	Does the device support the reception of the **stop (with on/off)** command?	[R4]/3.10.2.3.4	LCCS1: M	YES

6.7.2 [LCCC] Client

Item number	Item description	Reference	Status	Support
LCCC1	Does the device support the **level control** cluster as a client?	[R4]/3.10.3	DD6: M DD7: M DD8: M DD9: M DD10: M DD11: M	

6.7.2.1 Attributes

There are no PICS requirements for this section.

6.7.2.2 Commands received

There are no PICS requirements for this section.

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.7.2.3 [LCCCCG] Commands generated

Item number	Item description	Reference	Status	Support
LCCCCG1	Does the device support the generation and transmission of the **move to level** command?	[R4]/3.10.2.3.1	LCCC1: O	
LCCCCG2	Does the device support the generation and transmission of the **move** command?	[R4]/3.10.2.3.2	LCCC1: O	
LCCCCG3	Does the device support the generation and transmission of the **step** command?	[R4]/3.10.2.3.3	LCCC1: O	
LCCCCG4	Does the device support the generation and transmission of the **stop** command?	[R4]/3.10.2.3.4	LCCC1: O	
LCCCCG5	Does the device support the generation and transmission of the **move to level (with on/Off)** command?	[R4]/3.10.2.3.5	LCCC1: O	
LCCCCG6	Does the device support the generation and transmission of the **move (with on/off)** command?	[R4]/3.10.2.3.5	LCCC1: O	
LCCCCG7	Does the device support the generation and transmission of the **step (with on/off)** command?	[R4]/3.10.2.3.5	LCCC1: O	
LCCCCG8	Does the device support the generation and transmission of the **stop (with on/off)** command?	[R4]/3.10.2.3.4	LCCC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.8 Color control cluster

6.8.1 [CCCS] Server

Item number	Item description	Reference	Status	Support
CCCS1	Does the device support the **color control** cluster as a server?	[R4]/5.2.2	DD5: M DD51: M DD52: M	

6.8.1.1 [CCCSA] Attributes

Item number	Item description	Reference	Status	Support
CCCSA1	Does the device support the **CurrentHue** attribute?	[R4]/5.2.2.2.1.1	CCCS1: M	
CCCSA2	Does the device support the **CurrentSaturation** attribute?	[R4]/5.2.2.2.1.2	CCCS1: M	
CCCSA3	Does the device support the **RemainingTime** attribute?	[R4]/5.2.2.2.1.3	CCCS1: M	
CCCSA4	Does the device support the **CurrentX** attribute?	[R4]/5.2.2.2.1.4	CCCS1: M	
CCCSA5	Does the device support the **CurrentY** attribute?	[R4]/5.2.2.2.1.5	CCCS1: M	
CCCSA51	Does the device support the **ColorTemperature** attribute?	[R4]/5.2.2.2.1.8	CCCS1: M	
CCCSA6	Does the device support the **ColorMode** attribute?	[R4]/5.2.2.2.1.9	CCCS1: M	
CCCSA7	Does the device support the **NumberOfPrimaries** attribute?	[R4]/5.2.2.2.2.1	CCCS1: M	
CCCSA8	Does the device support the **Primary1X** attribute?	[R4]/5.2.2.2.2.2	CCCS1: M	
CCCSA9	Does the device support the **Primary1Y** attribute?	[R4]/5.2.2.2.2.3	CCCS1: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CCCSA10	Does the device support the **Primary1Intensity** attribute?	[R4]/5.2.2.2.2.4	CCCS1: M	
CCCSA11	Does the device support the **Primary2X** attribute?	[R4]/5.2.2.2.2.5	CCCS1: M	
CCCSA12	Does the device support the **Primary2Y** attribute?	[R4]/5.2.2.2.2.5	CCCS1: M	
CCCSA13	Does the device support the **Primary2Intensity** attribute?	[R4]/5.2.2.2.2.5	CCCS1: M	
CCCSA14	Does the device support the **Primary3X** attribute?	[R4]/5.2.2.2.2.5	CCCS1: M	
CCCSA15	Does the device support the **Primary3Y** attribute?	[R4]/5.2.2.2.2.5	CCCS1: M	
CCCSA16	Does the device support the **Primary3Intensity** attribute?	[R4]/5.2.2.2.2.5	CCCS1: M	
CCCSA17	Does the device support the **Primary4X** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA18	Does the device support the **Primary4Y** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA19	Does the device support the **Primary4Intensity** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA20	Does the device support the **Primary5X** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA21	Does the device support the **Primary5Y** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA22	Does the device support the **Primary5Intensity** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA23	Does the device support the **Primary6X** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CCCSA24	Does the device support the **Primary6Y** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA25	Does the device support the **Primary6Intensity** attribute?	[R4]/5.2.2.2.3.1	CCCS1: M	
CCCSA26	Does the device support the **EnhancedCurrentHue** attribute?	[R3]/6.8.1.1.1	CCCS1: M	
CCCSA27	Does the device support the **EnhancedColorMode** attribute?	[R3]/6.8.1.1.2	CCCS1: M	
CCCSA28	Does the device support the **ColorLoopActive** attribute?	[R3]/6.8.1.1.3	CCCS1: M	
CCCSA29	Does the device support the **ColorLoopDirection** attribute?	[R3]/6.8.1.1.4	CCCS1: M	
CCCSA30	Does the device support the **ColorLoopTime** attribute?	[R3]/6.8.1.1.5	CCCS1: M	
CCCSA31	Does the device support the **ColorLoopStartEnhancedHue** attribute?	[R3]/6.8.1.1.6	CCCS1: M	
CCCSA32	Does the device support the **ColorLoopStoredEnhancedHue** attribute?	[R3]/6.8.1.1.7	CCCS1: M	
CCCSA33	Does the device support the **ColorCapabilities** attribute?	[R3]/6.8.1.1.8	CCCS1: M	
CCCSA34	Does the device support the **ColorTempPhysicalMin** attribute?	[R3]/6.8.1.1.9	CCCSACC4: M	
CCCSA35	Does the device support the **ColorTempPhysicalMax** attribute?	[R3]/6.8.1.1.10	CCCSACC4: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.8.1.1.8 [CCCSACC] ColorCapabilities attribute

Item number	Item description	Reference	Status	Support
CCCSACC0	Is bit 0 of the ***ColorCapabilities*** attribute set to 1?	[R3]/6.8.1.1.8	CCCSACC1: M CCCSACC2: M ADCL7: M ADECL7: M	
CCCSACC1	Is bit 1 of the ***ColorCapabilities*** attribute set to 1?	[R3]/6.8.1.1.8	CCCSA33: O ADCL7: M ADECL7: M	
CCCSACC2	Is bit 2 of the ***ColorCapabilities*** attribute set to 1?	[R3]/6.8.1.1.8	CCCSA33: O ADCL7: M ADECL7: M	
CCCSACC3	Is bit 3 of the ***ColorCapabilities*** attribute set to 1?	[R3]/6.8.1.1.8	CCCSA33: O ADCL7: M ADECL7: M	
CCCSACC4	Is bit 4 of the ***ColorCapabilities*** attribute set to 1?	[R3]/6.8.1.1.8	CCCSA33: O ADECL7: M ADCTL7: M	

6.8.1.2 [CCCSSTE] Scene table enhancements

Item number	Item description	Reference	Status	Support
CCCSSTE1	Does the device support the scene table item **CurrentX**?	[R3]/6.8.1.2	CCCS1: M	
CCCSSTE2	Does the device support the scene table item **CurrentY**?	[R3]/6.8.1.2	CCCS1: M	
CCCSSTE3	Does the device support the scene table item **EnhancedCurrentHue**?	[R3]/6.8.1.2	CCCS1: M	
CCCSSTE4	Does the device support the scene table item **CurrentSaturation**?	[R3]/6.8.1.2	CCCS1: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CCCSSTE5	Does the device support the scene table item **ColorLoopActive**?	[R3]/6.8.1.2	CCCS1: M	
CCCSSTE6	Does the device support the scene table item **ColorLoopDirection**?	[R3]/6.8.1.2	CCCS1: M	
CCCSSTE7	Does the device support the scene table item **ColorLoopTime**?	[R3]/6.8.1.2	CCCS1: M	

6.8.1.3 [CCCSCR] Commands received

Item number	Item description	Reference	Status	Support
CCCSCR1	Does the device support the reception of the **move to hue** command?	[R4]/5.2.2.3.2	CCCSACC0: M CCCSACC1: M CCCSACC2: M	
CCCSCR2	Does the device support the reception of the **move hue** command?	[R4]/5.2.2.3.3	CCCSACC0: M CCCSACC1: M CCCSACC2: M	
CCCSCR3	Does the device support the reception of the **step hue** command?	[R4]/5.2.2.3.4	CCCSACC0: M CCCSACC1: M CCCSACC2: M	
CCCSCR4	Does the device support the reception of the **move to saturation** command?	[R4]/5.2.2.3.5	CCCSACC0: M CCCSACC1: M CCCSACC2: M	
CCCSCR5	Does the device support the reception of the **move saturation** command?	[R4]/5.2.2.3.6	CCCSACC0: M CCCSACC1: M CCCSACC2: M	
CCCSCR6	Does the device support the reception of the **step saturation** command?	[R4]/5.2.2.3.7	CCCSACC0: M CCCSACC1: M CCCSACC2: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CCCSCR7	Does the device support the reception of the **move to hue and saturation** command?	[R4]/5.2.2.3.8	CCCSACC0: M CCCSACC1: M CCCSACC2: M	
CCCSCR8	Does the device support the reception of the **move to color** command?	[R4]/5.2.2.3.9	CCCSACC3: M	
CCCSCR9	Does the device support the reception of the **move color** command?	[R4]/5.2.2.3.10	CCCSACC3: M	
CCCSCR10	Does the device support the reception of the **step color** command?	[R4]/5.2.2.3.11	CCCSACC3: M	
CCCSCR101	Does the device support the reception of the **move to color temperature** command?	[R4]/5.2.2.3.12	CCCSACC4: M	
CCCSCR11	Does the device support the reception of the **enhanced move to hue** command?	[R3]/6.8.1.3.2	CCCSACC1: M	
CCCSCR12	Does the device support the reception of the **enhanced move hue** command?	[R3]/6.8.1.3.3	CCCSACC1: M	
CCCSCR13	Does the device support the reception of the **enhanced step hue** command?	[R3]/6.8.1.3.4	CCCSACC1: M	
CCCSCR14	Does the device support the reception of the **enhanced move to hue and saturation** command?	[R3]/6.8.1.3.5	CCCSACC1: M	
CCCSCR15	Does the device support the reception of the **color loop set** command?	[R3]/6.8.1.3.6	CCCSACC2: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CCCSCR16	Does the device support the reception of the **stop move step** command?	[R3]/6.8.1.3.7	CCCS1: M	
CCCSCR17	Does the device support the reception of the **move color temperature** command?	[R3]/6.8.1.3.8	CCCSACC4: M	
CCCSCR18	Does the device support the reception of the **step color temperature** command?	[R3]/6.8.1.3.9	CCCSACC4: M	

6.8.2 [CCCC] Client

Item number	Item description	Reference	Status	Support
CCCC1	Does the device support the **color control** cluster as a client?	[R4]/5.2.3	DD6: M DD7: M DD10: M DD11: M	

6.8.2.1 Attributes

There are no PICS requirements for this section.

6.8.2.2 Commands received

There are no PICS requirements for this section.

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

6.8.2.3 [CCCCCG] Commands generated

Item number	Item description	Reference	Status	Support
CCCCCG1	Does the device support the generation and transmission of the **move to hue** command?	[R4]/5.2.2.3.2	CCCC1: O	
CCCCCG2	Does the device support the generation and transmission of the **move hue** command?	[R4]/5.2.2.3.3	CCCC1: O	
CCCCCG3	Does the device support the generation and transmission of the **step hue** command?	[R4]/5.2.2.3.4	CCCC1: O	
CCCCCG4	Does the device support the generation and transmission of the **move to saturation** command?	[R4]/5.2.2.3.5	CCCC1: O	
CCCCCG5	Does the device support the generation and transmission of the **move saturation** command?	[R4]/5.2.2.3.6	CCCC1: O	
CCCCCG6	Does the device support the generation and transmission of the **step saturation** command?	[R4]/5.2.2.3.7	CCCC1: O	
CCCCCG7	Does the device support the generation and transmission of the **move to hue and saturation** command?	[R4]/5.2.2.3.8	CCCC1: O	
CCCCCG8	Does the device support the generation and transmission of the **move to color** command?	[R4]/5.2.2.3.9	CCCC1: O	
CCCCCG9	Does the device support the generation and transmission of the **move color** command?	[R4]/5.2.2.3.10	CCCC1: O	
CCCCCG10	Does the device support the generation and transmission of the **step color** command?	[R4]/5.2.2.3.11	CCCC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CCCCCG101	Does the device support the generation and transmission of the **move to color temperature** command?	[R4]/5.2.2.3.12	CCCC1: O	
CCCCCG11	Does the device support the generation and transmission of the **enhanced move to hue** command?	[R3]/6.8.1.3.2	CCCC1: O	
CCCCCG12	Does the device support the generation and transmission of the **enhanced move hue** command?	[R3]/6.8.1.3.3	CCCC1: O	
CCCCCG13	Does the device support the generation and transmission of the **enhanced step hue** command?	[R3]/6.8.1.3.4	CCCC1: O	
CCCCCG14	Does the device support the generation and transmission of the **enhanced move to hue and saturation** command?	[R3]/6.8.1.3.5	CCCC1: O	
CCCCCG15	Does the device support the generation and transmission of the **color loop set** command?	[R3]/6.8.1.3.6	CCCC1: O	
CCCCCG16	Does the device support the generation and transmission of the **stop move step** command?	[R3]/6.8.1.3.7	CCCC1: O	
CCCCCR17	Does the device support the generation of the **move color temperature** command?	[R3]/6.8.1.3.8	CCCC1: O	
CCCCCR18	Does the device support the generation of the **step color temperature** command?	[R3]/6.8.1.3.9	CCCC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

7 New clusters

Tables in the following sub-clauses detail PICS items for new clusters defined within the ZigBee Light link profile.

7.1 ZLL commissioning cluster

7.1.1 Overview

There are no PICS requirements for this section.

7.1.2 [ZCCS] Server

Item number	Item description	Reference	Status	Support
ZCCS1	Does the device support the **ZLL commissioning: touchlink** cluster as a server?	[R3]/7.1.2	CDD1: M CDD2: M	YES
ZCCUS1	Does the device support the **ZLL commissioning: utility** cluster as a server?	[R3]/7.1.2	DD6: M DD7: M DD8: M DD9: M DD10: M DD11: M	

7.1.2.1 Attributes

There are no PICS requirements for this section.

7.1.2.2 [ZCCSCR] Commands received

Item number	Item description	Reference	Status	Support
ZCCSCR1	Does the device support the reception of the **scan request** inter-PAN command?	[R3]/7.1.2.2.1	ZCCS1: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ZCCSCR2	Does the device support the reception of the **device information request** inter-PAN command?	[R3]/7.1.2.2.2	ZCCS1: M	YES
ZCCSCR3	Does the device support the reception of the **identify request** inter-PAN command?	[R3]/7.1.2.2.3	ZCCS1: M	YES
ZCCSCR4	Does the device support the reception of the **reset to factory new request** inter-PAN command?	[R3]/7.1.2.2.4	ZCCS1: M	YES
ZCCSCR5	Does the device support the reception of the **network start request** inter-PAN command?	[R3]/7.1.2.2.5	ZCCS1: M	YES
ZCCSCR6	Does the device support the reception of the **network join router request** inter-PAN command?	[R3]/7.1.2.2.6	ZCCS1: M	YES
ZCCSCR7	Does the device support the reception of the **network join end device request** inter-PAN command?	[R3]/7.1.2.2.7	ZCCS1: M	YES
ZCCSCR8	Does the device support the reception of the **network update request** inter-PAN command?	[R3]/7.1.2.2.8	ZCCS1: M	YES
ZCCSCR9	Does the device support the reception of the **get group identifiers** request command?	[R3]/7.1.2.2.9	ZCCUS1: M	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ZCCSCR10	Does the device support the reception of the **get endpoint list request** command?	[R3]/7.1.2.2.10	ZCCUS1: M	

7.1.2.3 [ZCCSCG] Commands generated

Item number	Item description	Reference	Status	Support
ZCCSCG1	Does the device support the generation and transmission of the **scan response** inter-PAN command?	[R3]/7.1.2.3.1	ZCCS1: M	YES
ZCCSCG2	Does the device support the generation and transmission of the **device information response** inter-PAN command?	[R3]/7.1.2.3.2	ZCCS1: M	YES
ZCCSCG3	Does the device support the generation and transmission of the **network start response** inter-PAN command?	[R3]/7.1.2.3.3	ZCCS1: M	YES
ZCCSCG4	Does the device support the generation and transmission of the **network join router response** inter-PAN command?	[R3]/7.1.2.3.4	ZCCS1: M	YES
ZCCSCG5	Does the device support the generation and transmission of the **network join end device response** inter-PAN command?	[R3]/7.1.2.3.5	ZCCS1: M	YES
ZCCSCG6	Does the device support the generation and transmission of the **endpoint information** command?	[R3]/7.1.2.3.6	ZCCUS1: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ZCCSCG7	Does the device support the generation and transmission of the **get group identifiers response** command?	[R3]/7.1.2.3.7	ZCCUS1: M	
ZCCSCG8	Does the device support the generation and transmission of the **get endpoint list response** command?	[R3]/7.1.2.3.8	ZCCUS1: M	

7.1.3 [ZCCC] Client

Item number	Item description	Reference	Status	Support
ZCCC1	Does the device support the **ZLL commissioning: touchlink** cluster component as a client?	[R3]/7.1.3	CDD2: M CDD3: M	
ZCCUC1	Does the device support the **ZLL commissioning: utility** cluster component as a client?	[R3]/7.1.3	DD6: M DD7: M DD8: M DD9: M DD10: M DD11: M	

7.1.3.1 Attributes

There are no PICS requirements for this section.

7.1.3.2 [ZCCCCR] Commands received

Item number	Item description	Reference	Status	Support
ZCCCCR1	Does the device support the reception of the **scan response** inter-PAN command?	[R3]/7.1.2.3.1	ZCCC1: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ZCCCCR2	Does the device support the reception of the **device information response** inter-PAN command?	[R3]/7.1.2.3.2	ZCCC1: M	
ZCCCCR3	Does the device support the reception of the **network start response** inter-PAN command?	[R3]/7.1.2.3.3	ZCCC1: M	
ZCCCCR4	Does the device support the reception of the **network join router response** inter-PAN command?	[R3]/7.1.2.3.4	ZCCC1: M	
ZCCCCR5	Does the device support the reception of the **network join end device response** inter-PAN command?	[R3]/7.1.2.3.5	ZCCC1: M	
ZCCCCR6	Does the device support the reception of the **endpoint information** command?	[R3]/7.1.2.3.6	ZCCUC1: O	
ZCCCCR7	Does the device support the reception of the **get group identifiers response** command?	[R3]/7.1.2.3.7	ZCCCCG9: M	
ZCCCCR8	Does the device support the reception of the **get endpoint list response** command?	[R3]/7.1.2.3.8	ZCCCCG10: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

7.1.3.3 [ZCCCCG] Commands generated

Item number	Item description	Reference	Status	Support
ZCCCCG1	Does the device support the generation and transmission of the **scan request** inter-PAN command?	[R3]/7.1.2.2.1	ZCCC1: M	
ZCCCCG2	Does the device support the generation and transmission of the **device information request** inter-PAN command?	[R3]/7.1.2.2.2	ZCCC1: M	
ZCCCCG3	Does the device support the generation and transmission of the **identify request** inter-PAN command?	[R3]/7.1.2.2.3	ZCCC1: M	
ZCCCCG4	Does the device support the generation and transmission of the **reset to factory new request** inter-PAN command?	[R3]/7.1.2.2.4	ZCCC1: M	
ZCCCCG5	Does the device support the generation and transmission of the **network start request** inter-PAN command?	[R3]/7.1.2.2.5	ZCCC1: M	
ZCCCCG6	Does the device support the generation and transmission of the **network join router request** inter-PAN command?	[R3]/7.1.2.2.6	ZCCC1: M	
ZCCCCG7	Does the device support the generation and transmission of the **network join end device request** inter-PAN command?	[R3]/7.1.2.2.7	ZCCC1: M	
ZCCCCG8	Does the device support the generation and transmission of the **network update request** inter-PAN command?	[R3]/7.1.2.2.8	ZCCC1: M	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
ZCCCCG9	Does the device support the generation and transmission of the **get group identifiers request** command?	[R3]/7.1.2.2.9	ZCCUC1: O	
ZCCCCG10	Does the device support the generation and transmission of the **get endpoint list request** command?	[R3]/7.1.2.2.10	ZCCUC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8 Functional description

8.1 General

8.1.1 [ZSP] ZigBee Stack Profile

Item number	Item description	Reference	Status	Support
ZSP1	Is the device built on a ZigBee Compliant Platform certified for the ZigBee PRO stack profile?	8.1.1	M	YES

8.1.2 [C] Channels

Item number	Item description	Reference	Status	Support
C1	Is the device able to operate on any of the 16 channels available at 2.4GHz?	8.1.2	M	YES

8.1.3 [ADV] Application device version

Item number	Item description	Reference	Status	Support
ADV1	Is the **application device version** field of all simple descriptors supported by the device, and hence the **version** field used in the *scan response*, *device information response*, *endpoint information* and *get endpoint list response* inter-PAN command frames, equal to 0x2?	8.1.3	M	YES

8.1.4 [PI] Profile identifier

Item number	Item description	Reference	Status	Support
PI1	Does the device indicate the **profile identifier** field of the corresponding ZLL simple descriptor as 0xc05e or 0x0104?	8.1.4	M	YES

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
PI2	When the device transmits a ZLL commissioning cluster command is the profile identifier indicated as being 0xc05e?	8.1.4	M	YES
PI3	When the device transmits a ZLL specified ZCL cluster command is the profile identifier indicated as being 0x0104?	8.1.4	M	YES

8.1.5 ZDO requirements

There are no PICS requirements for this section.

8.1.6 Startup attribute set

There are no PICS requirements for this section.

8.1.7 [DIT] Device information table

Item number	Item description	Reference	Status	Support
DIT1	Does the device maintain a device information table with an entry for each sub-device in accordance with the device information table record format?	[R3]/8.1.7	M	YES

8.1.8 Constants

There are no PICS requirements for this section.

8.1.9 ZLL profile attributes

There are no PICS requirements for this section.

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.1.10 [IPFF] Inter-PAN frame format

Item number	Item description	Reference	Status	Support
IPFF1	Does the device support generation of inter-PAN command frames according to the general inter-PAN command frame format?	[R3]/8.1.10	M	YES
IPFF2	Does the device support reception of inter-PAN command frames according to the general inter-PAN command frame format?	[R3]/8.1.10	M	YES

8.1.11 [IPTI] Inter-PAN transaction identifier

Item number	Item description	Reference	Status	Support
IPTI1	Does the device transmitting a scan request inter-PAN command frame preserve the same transaction identifier within the same inter-PAN transaction?	[R3]/8.1.11	TC1: M	YES
IPTI2	Does the device receiving a scan request inter-PAN command frame reuse the same transaction identifier in all responses within the same inter-PAN transaction?	[R3]/8.1.11	M	YES

8.1.12 Commissioning scenarios

There are no PICS requirements for this section.

8.2 ZigBee-pro stack requirements

8.2.1 [INS] Initialization NIB settings

Item number	Item description	Reference	Status	Support
INS1	Does the device set *nwkUseMulticast* to FALSE?	[R3]/8.2.1	M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.2.2 [EDRJ] End-device rejoining

Item number	Item description	Reference	Status	Support
EDRJ1	If an end device has lost communication with its parent does it attempt to poll at most *aplcMaxLostParentRetryAttempts* times?	[R3]/8.2.2	FDT3: M	
EDRJ2	If the poll is unsuccessful, does the end device perform a network scan on the primary channels and, if *apsTrustCenterAddress* is not equal to 0xffffffffffffffff, also on the secondary channels for a new parent.	[R3]/8.2.2	FDT3: M	
EDRJ3	After a successful rejoin to a new parent, does the device transmit a **Device_annce** command frame?	[R3]/8.2.2	FDT3: M	

8.2.3 [LSM] Link status messages

Item number	Item description	Reference	Status	Support
LSM1	When a router device is non factory new does it set ***nwkLinkStatusPeriod*** to 0x0f?	[R3]/8.1.14	FDT2: M	YES

8.2.4 [ZDA] ZigBee device announcement

Item number	Item description	Reference	Status	Support
ZDA1	Is the device capable of broadcasting a Device_annce command frame after joining or rejoining a network?	[R3]/8.1.14	FDT3: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.2.5 [EDP] End device polling

Item number	Item description	Reference	Status	Support
EDP1	Does the end device poll its parent?	[R3]/8.2.5	FDT3: O	
EDP2	If the end device polls at a rate greater than *aplcMaxPollInterval* or does not poll at all, does it transmit a NWK rejoin command frame to its assumed parent before transmitting any application data?	[R3]/8.2.5	FDT3: M	
EDP3	If the NWK rejoin was successful, does the end device NOT transmit a device_annce command frame?	[R3]/8.2.5	EDP2: M	
EDP4	If the NWK rejoin was not successful, does the end device continue to scan for suitable parents?	[R3]/8.2.5	EDP2: M	
EDP5	If the end device has been in contact with its parent for a time greater than *aplcMaxPollInterval*, does it attempt a rejoin before transmitting any application data?	[R3]/8.2.5	EDT3: M	

8.2.6 [CTM] Child table maintenance

Item number	Item description	Reference	Status	Support
CTM1	Are the contents of the child table preserved through a power cycle?	[R3]/8.2.6	FDT2: M	YES
CTM2	If a parent device does not receive a message from one of its child devices within *aplcMinChildPersistenceTime*, does it remove that device from its child table?	[R3]/8.2.6	FDT2: O	YES
CTM3	On receipt of a message from a device which is listed in its child table, does the parent device verify that this device is indeed one of its children, removing it from the child table if not?	[R3]/8.2.6	FDT2: M	YES

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
CTM4	On receipt of a message from a device which is not listed in its child table, does the parent device transmit a NWK leave request to the device using its short network address?	[R3]/8.2.6	FDT2: O	

8.3 Device startup

8.3.1 [EDSU] End-device

Item number	Item description	Reference	Status	Support
EDSU2	If the device is an end device and is not factory new, does it resume ZigBee functionality on start up based on information stored in NVRAM?	[R3]/8.3.1	FDT3: M	
EDSU3	If the device is an end device and is not factory new, does it transmit a **device_annce** command after a successful network rejoin to a new parent?	[R3]/8.3.1	FDT3: M	

8.3.2 [RSU] Router

Item number	Item description	Reference	Status	Support
RSU2	If the device is a router and is not factory new, does it resume ZigBee functionality on start up based on information stored in NVRAM?	[R3]/8.3.2	FDT2: M	YES
RSU5	If the device is a router and is not factory new, does it transmit a **device_annce** command after a successful startup?	[R3]/8.3.2	FDT2: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.4 [TC] Touchlink commissioning

Item number	Item description	Reference	Status	Support
TC1	Is the device capable of initiating a touchlink operation?	[R3]/8.4.1.1	AA1: M	

8.4.1 [TDD] Device discovery

Item number	Item description	Reference	Status	Support
TDD1	Is the device capable of carrying out a series of scan operations, first 5 times on a single channel, then once each on the remaining channels?	[R3]/8.4.1.1	TC1: M	
TDD2	Is the device capable of being discovered by a scan operation?	[R3]/8.4.1.2	M	YES
TDD3	Is the device capable of generating a broadcast **scan request** inter-PAN command frame at 0dBm, and waiting for a response?	[R3]/8.4.1.1	TC1: M	
TDD4	Is the device capable of receiving a broadcast **scan request** inter-PAN command frame?	[R3]/8.4.1.2	M	YES
TDD5	Is the device capable of generating a **scan response** inter-PAN command frame containing the RSSI correction factor, the device information table if it has only one sub-device, and the value of its nwkUpdateId attribute?	[R3]/8.4.1.2 [R3]/8.4.1.1 [R3]/8.6	M	YES
TDD6	Does the device include in its **scan response** inter-PAN command frame the logical channel on which it is currently operating, and if not factory new, also its other network settings?	[R3]/8.4.1.2	M	YES
TDD8	Is the device capable of receiving a **scan response** inter-PAN command frame, and discarding it if the RSSI is too low?	[R3]/8.4.1.2	TC1: M	
TDD9	Is the device capable of gathering detailed device information by use of the **device information request** and **device information response** inter-PAN command frames?	[R3]/8.4.1.1	TC1: O	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
TDD10	Is the device capable of providing detailed device information by use of the **device information request** and **device information response** inter-PAN command frames?	[R3]/8.4.1.2	M	YES

8.4.2 [TI] Identify

Item number	Item description	Reference	Status	Support
TI1	Following the touch-link operation, does the device select one or more devices for further processing?	[R3]/8.4.2	TC1: M	
TI2	Is the device capable of requesting another device to identify itself using the **identify request** inter-PAN command frame?	[R3]/8.4.2.1	O	

8.4.3 [TSNN] Starting a new network

Item number	Item description	Reference	Status	Support
TSNN1	Is the device capable of requesting another device to start a network using the **network start request** inter-PAN command frame?	[R3]/8.4.3.1	TC1: M	
TSNN2	Is the device capable of receiving a **network start request** inter-PAN command frame and carrying out the steps required to start a network, taking account of whether or not it is factory new?	[R3]/8.4.3.2	FDT2: M	YES
TSNN3	Is the device capable of generating a **network start response** inter-PAN command frame?	[R3]/8.4.3.2	FDT2: M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
TSNN4	Is the device capable of receiving a **network start response** inter-PAN command frame and carrying out the steps required to join the new network?	[R3]/8.4.3.1	TC1: M	

8.4.4 [TJR] Joining routers to the network

Item number	Item description	Reference	Status	Support
TJR1	Is the device capable of requesting another device to join a network using the **network join router request** inter-PAN command frame?	[R3]/8.4.4.1	TC1: M	
TJR2	Is the device capable of receiving a **network join router request** inter-PAN command frame and carrying out the steps required to join a network?	[R3]/8.4.4.2	FDT2: M	YES
TJR3	Is the device capable of generating a **network join router response** inter-PAN command frame?	[R3]/8.4.4.2	FDT2: M	YES
TJR4	Is the device capable of receiving a **network join router response** inter-PAN command?	[R3]/8.4.4.1	TC1: M	

8.4.5 [TJED] Joining end devices

Item number	Item description	Reference	Status	Support
TJED1	Is the device capable of requesting a factory new end device to join a network using the **network join end device request** inter-PAN command frame?	[R3]/8.4.5.1	TC1: M	
TJED2	Is the device capable of receiving a **network join end device request** inter-PAN command and carrying out the steps required to join a network?	[R3]/8.4.5.2	FDT3: M	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
TJED3	Is the device capable of generating a **network join end device response** inter-PAN command frame?	[R3]/8.4.5.2	FDT3: M	
TJED4	Is the device capable of receiving a **network join end device response** inter-PAN command?	[R3]/8.4.5.1	TC1: M	

8.4.6 [TNU] Network update

Item number	Item description	Reference	Status	Support
TNU1	If an initiator receives a **scan response** inter-PAN command frame from a device on its network with a lower network update identifier than its own, does it transmit a **network update request** inter-PAN command frame to the target?	[R3]/8.4.6.1	TC1: O	
TNU2	If an initiator receives a **scan response** inter-PAN command frame from a device on its network with a higher network update identifier than its own, does it update its own value and its logical channel with those values received in the **scan response** inter-PAN command frame.	[R3]/8.4.6.1	TC1: M	
TNU3	If after updating its network update identifier and logical channel, does an end device initiator attempt a network rejoin?	[R3]/8.4.6.1	TC1: (FDT3: M)	
TNU4	If a target receives a **network update request** inter-PAN command frame with a valid transaction identifier and a higher network update identifier than its own, does it update its own value and its logical channel with those values received in the **network update request** inter-PAN command frame.	[R3]/8.4.6.2	M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

8.4.7 [TRFN] Reset to factory new

Item number	Item description	Reference	Status	Support
TRFN1	Is the device capable of requesting another device to reset to its factory new state using the **reset to factory new request** inter-PAN command frame?	[R3]/8.4.7.1	O	
TRFN2	Is the device capable of resetting to its factory new state when requested to do so by reception of the **reset to factory new request** inter-PAN command frame with a valid transaction identifier?	[R3]/8.4.7.2	M	YES

8.4.8 [AA] Address assignment

Item number	Item description	Reference	Status	Support
AA1	Is the device network address and group address assignment capable?	[R3]/8.4.8.1 [R3]/8.4.8.2	O	
AA2	Does the device keep track of its current free network address range?	[R3]/8.4.8.1	AA1: M	
AA3	When starting a network from factory new state, does the device assign itself network address 0x0001, and free network address range 0x0002-0xfff7?	[R3]/8.4.8.1	AA1: M	
AA4	When it requests a device to join a network, is the device assigned the first free network address, and the network address range updated accordingly?	[R3]/8.4.8.1	AA1: M	
AA5	If there are no free network addresses does the device not permit further devices to join the network?	[R3]/8.4.8.1	AA1: M	

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
AA6	When a device requests a network assignment capable device to join the network, does it split its own network address range in two and assign the higher numbered range to the joining device, and update its own address range accordingly?	[R3]/8.4.8.1	AA1: M	
AA7	When joining a network, does the device support being assigned a network address range?	[R3]/8.4.8.1	AA1: M	
AA8	If splitting the range of free network addresses would result in there being less than an implementation specific threshold, then does the device not permit further address assignment capable devices to join the network?	[R3]/8.4.8.1	AA1: M	
AA9	Is the device network address assignment capable but not group address assignment capable?	[R3]/8.4.8.2	X	
AA10	Does the device keep track of its current free group address range?	[R3]/8.4.8.2	AA1: M	
AA11	When starting a network from factory new state, does the device assign itself group addresses starting from 0x0001, and free group address range up to 0xfeff?	[R3]/8.4.8.2	AA1: M	
AA12	When it requests a device to join a network, is the device assigned a range of free group address, and the group address range updated accordingly?	[R3]/8.4.8.2	AA1: M	
AA13	When a device requests an address assignment capable device to join the network, does it, if possible, split its own group address range in two and assign the higher numbered range to the joining device, and update its own group address range accordingly?	[R3]/8.4.8.2	AA1: M	
AA14	When joining a network, does the device support being assigned a group address range?	[R3]/8.4.8.2	AA1: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
AA15	If splitting the range of free group addresses would result in there being less than an implementation specific threshold, then does the device not permit further address assignment capable devices to join the network?	[R3]/8.4.8.2	AA1: M	

8.5 Classical ZigBee commissioning

8.5.1 [NTLC] Classical ZigBee commissioning of ZLL devices

Item number	Item description	Reference	Status	Support
NTLC1	If requested under application control, does the device perform a network discovery over the primary channel set?	[R3]/8.5.1	FDT2: M FDT3: M	YES
NTLC2	If requested under application control, is the device able to join a suitable network on one of the primary channels?	[R3]/8.5.1	FDT2: M FDT3: M	YES
NTLC3	If requested under application control and its primary network discovery failed, does the device perform a network discovery over the secondary channel set?	[R3]/8.5.1	FDT2: M FDT3: M	YES
NTLC4	If requested under application control, is the device able to join a suitable network on one of the secondary channels?	[R3]/8.5.1	FDT2: M FDT3: M	YES

8.5.2 [NTNZD2ZR] Classical ZigBee commissioning of a non-ZLL device to a ZLL router in case there is no trust center

Item number	Item description	Reference	Status	Support
NTNZD2ZR1	If the device is a router, when requested under application control, does the device enable its permit joining flag and receiver for a predetermined period, allowing non-ZLL devices to join?	[R3]/8.5.2	FDT2: M	YES

ZigBee Control your world Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
NTNZD2ZR2	If a non-ZLL device requests to join the ZLL router (as above), does the ZLL router assign an address to the new device using classical ZigBee stochastic addressing.	[R3]/8.5.2	FDT2: M	YES

8.5.3 [NTT2NZN] Touchlinking devices on non-ZLL networks

Item number	Item description	Reference	Status	Support
NTT2NZN1	Can a factory new device initiate a touchlink operation to a ZLL device on a non-ZLL network?	[R3]/8.5.3	TC1: M	
NTT2NZN2	Can a device on a non-ZLL network touchlink to another device on the same network?	[R3]/8.5.3	TC1: M	
NTT2NZN3	Does a device on a non-ZLL network not send network start, network join router or network join end device request command frames (following a scan) to factory new devices or devices connected to a different network?	[R3]/8.5.3	TC1: M	

8.6 [FA] Frequency agility

Item number	Item description	Reference	Status	Support
FA1	Does the device support instigation of the channel change mechanism?	[R3]/8.6	O	YES
FA2	Does the device support transmission of an Mgmt_NWK_Update_req command frame broadcast to all RxOnWhenIdle devices?	[R3]/8.6	FA1: M	YES
FA3	On receipt of an Mgmt_NWK_Update_req command frame, does the device update its NIB and execute the channel change procedure?	[R3]/8.6	FDT2: M	YES
FA4	Following a channel change, does the device rejoin?	[R3]/8.6	FDT3: M	

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
FA5	In that case that a router misses a channel change, does the device support use of the touch-link procedure for bringing a router back into the network?	[R3]/8.6	O	
FA6	Does the device support transmission of an inter-PAN network update request command frame unicast to a router it wishes to bring back into the network?	[R3]/8.6	FA5: M	
FA7	If a device detects a router reporting a nwkUpdateId attribute value newer than its own, does it update its network settings according to the values in the scan response command frame, and execute a rejoin procedure?	[R3]/8.6	TC1: M	

8.7 [S] Security

Item number	Item description	Reference	Status	Support
S1	Does the device use ZigBee network layer security?	[R3]/8.7	M	YES
S2	Does the device randomly generate the network key for use by the network when initiating starting of a new network?	[R3]/8.7	TC1: M	
S3	Does the device transmit the network key encrypted as part of the start and join commands?	[R3]/8.7.1	TC1: M	
S4	Is the nwkSecurityLevel NIB attribute set to 0x05? (use data encryption and frame integrity)	[R3]/8.7.2	M	YES
S5	Is the nwkAllFresh NIB attribute set to False (do not check frame counter)?	[R3]/8.7.2	M	YES
S6	Is the nwkSecureAllFrames NIB attribute set to True? (only accept secured frames)	[R3]/8.7.2	M	YES
S7	Does the device use the ZLL Certification key for certification testing?	[R3]/8.7.4.1.2	M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.

Item number	Item description	Reference	Status	Support
S8	Does the device use the ZLL Master key in commercial products, and not use the ZLL Certification key in commercial products?	[R3]/8.7.4.1.1	M	YES

Copyright © 2015, ZigBee Standards Organization. All rights reserved.