ZigBee Cluster Library
Door Lock Cluster (0x0101)
Test Specification
Version 0.9

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Abstract	This document describes the certification tests for devices which implement the ZCL Door Lock cluster.
Keywords	ZCL, Door Lock, cluster

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000	February 15th, 2017	Converted from ZHA test specification.	Phil Jamieson
001	February 15th, 2017	Added document number.	Phil Jamieson
002	August 3rd, 2017	Resolved CCB #2410 & #2426.	Phil Jamieson
003	March 5th, 2018	Fixed some editorial issues found during the February 2018 ScVE and added the PICS items into the test cases.	Phil Jamieson
004	June 19th, 2018	Resolved CCB #2599.	Phil Jamieson
005	November 26th, 2018	Resolved CCB #2619.	Phil Jamieson

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1 Introduction

This document contains the PICS, test specification and PICS/test case cross reference for the ZCL *door lock* cluster.

1.1 Conformance levels

The key words "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED" and "MAY" in this document are to be interpreted as described in [R4].

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2 References

2.1 ZigBee Alliance documents

[R1] ZigBee Cluster Library Specification, ZigBee Alliance document 07-5123.
[R2] ZCL General Test Specification, ZigBee Alliance document *TBD*.
[R3] ZCL Door Lock Cluster XML PICS, ZigBee Alliance document *TBD*.

2.2 IETF documents

[R4] S. Bradner, Key words for use in RFCs to Indicate Requirement Levels, IETF RFC 2119, March 1997.

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3 PIXIT items

Item number	Feature	Support
DRLK.PIXIT01	What is the upper limit for the *WrongCodeEntryLimit* attribute?	*"Number of entries"*
DRLK.PIXIT02	Give an invalid value of the *UserCode-TemporaryDisableTime* attribute.	*"Invalid value"*

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4 PICS

All references are for the ZigBee Cluster Library specification [R1] unless otherwise indicated. An XML version of these PICS is also available in [R3].

4.1 Usage

Item number	Feature	Reference	Status	Support
DRLK.S	Does the device implement the *door lock* cluster as a server?	7.3.2	O	Yes/No
DRLK.C	Does the device implement the *door lock* cluster as a client?	7.3.3	O	Yes/No

4.2 Server

4.2.1 Attributes

Item number	Feature	Reference	Status	Support
DRLK.S.A0000	Does the device implement the *LockState* attribute?	Table 7-8, 7.3.2.11.1	DRLK.S: M	Yes/No
DRLK.S.A0001	Does the device implement the *LockType* attribute?	Table 7-8, 7.3.2.11.2	DRLK.S: M	Yes/No
DRLK.S.A0002	Does the device implement the *ActuatorEnabled* attribute?	Table 7-8, 7.3.2.11.3	DRLK.S: M	Yes/No
DRLK.S.A0003	Does the device implement the *DoorState* attribute?	Table 7-8, 7.3.2.11.4	DRLK.S: O	Yes/No
DRLK.S.A0004	Does the device implement the *DoorOpenEvents* attribute?	Table 7-8, 7.3.2.11.5	DRLK.S: O	Yes/No
DRLK.S.A0005	Does the device implement the *DoorClosedEvents* attribute?	Table 7-8, 7.3.2.11.6	DRLK.S: O	Yes/No
DRLK.S.A0006	Does the device implement the *OpenPeriod* attribute?	Table 7-8, 7.3.2.11.7	DRLK.S: O	Yes/No
DRLK.S.A0010	Does the device implement the *NumberOfLogRecordsSupported* attribute?	Table 7-13, 7.3.2.12.1	DRLK.S: O	Yes/No
DRLK.S.A0011	Does the device implement the *NumberOfTotalUsersSupported* attribute?	Table 7-13, 7.3.2.12.2	DRLK.S: O	Yes/No
DRLK.S.A0012	Does the device implement the *NumberOfPINUsersSupported* attribute?	Table 7-13, 7.3.2.12.3	DRLK.S: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.S.A0013	Does the device implement the *NumberOfRFIDUsersSupported* attribute?	Table 7-13, 7.3.2.12.4	DRLK.S: O	Yes/No
DRLK.S.A0014	Does the device implement the *NumberOfWeekDaySchedules-SupportedPerUser* attribute?	Table 7-13, 7.3.2.12.5	DRLK.S: O	Yes/No
DRLK.S.A0015	Does the device implement the *NumberOfYearDaySchedules-SupportedPerUser* attribute?	Table 7-13, 7.3.2.12.6	DRLK.S: O	Yes/No
DRLK.S.A0016	Does the device implement the *NumberOfHolidaySchedulesSupported* attribute?	Table 7-13, 7.3.2.12.7	DRLK.S: O	Yes/No
DRLK.S.A0017	Does the device implement the *MaxPINCodeLength* attribute?	Table 7-13, 7.3.2.12.8	DRLK.S: O	Yes/No
DRLK.S.A0018	Does the device implement the *MinPINCodeLength* attribute?	Table 7-13, 7.3.2.12.9	DRLK.S: O	Yes/No
DRLK.S.A0019	Does the device implement the *MaxRFIDCodeLength* attribute?	Table 7-13, 7.3.2.12.10	DRLK.S: O	Yes/No
DRLK.S.A001a	Does the device implement the *MinRFIDCodeLength* attribute?	Table 7-13, 7.3.2.12.11	DRLK.S: O	Yes/No
DRLK.S.A0020	Does the device implement the *EnableLogging* attribute?	Table 7-14, 7.3.2.13.1	DRLK.S: O	Yes/No
DRLK.S.A0021	Does the device implement the *Language* attribute?	Table 7-14, 7.3.2.13.2	DRLK.S: O	Yes/No
DRLK.S.A0022	Does the device implement the *LEDSettings* attribute?	Table 7-14, 7.3.2.13.5	DRLK.S: O	Yes/No
DRLK.S.A0023	Does the device implement the *AutoRelockTime* attribute?	Table 7-14, 7.3.2.13.6	DRLK.S: O	Yes/No
DRLK.S.A0024	Does the device implement the *SoundVolume* attribute?	Table 7-14, 7.3.2.13.7	DRLK.S: O	Yes/No
DRLK.S.A0025	Does the device implement the *OperatingMode* attribute?	Table 7-14, 7.3.2.13.3	DRLK.S: O	Yes/No
DRLK.S.A0026	Does the device implement the *SupportedOperatingModes* attribute?	Table 7-14, 7.3.2.13.4	DRLK.S: O	Yes/No
DRLK.S.A0027	Does the device implement the *DefaultConfigurationRegister* attribute?	Table 7-14, 7.3.2.13.8	DRLK.S: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.S.A0028	Does the device implement the *EnableLocalProgramming* attribute?	Table 7-14, 7.3.2.13.9	DRLK.S: O	Yes/No
DRLK.S.A0029	Does the device implement the *EnableOneTouchLocking* attribute?	Table 7-14, 7.3.2.13.10	DRLK.S: O	Yes/No
DRLK.S.A002a	Does the device implement the *EnableInsideStatusLED* attribute?	Table 7-14, 7.3.2.13.11	DRLK.S: O	Yes/No
DRLK.S.A002b	Does the device implement the *EnablePrivacyModeButton* attribute?	Table 7-14, 7.3.2.13.12	DRLK.S: O	Yes/No
DRLK.S.A0030	Does the device implement the *WrongCodeEntryLimit* attribute?	Table 7-20, 7.3.2.14.1	DRLK.S: O	Yes/No
DRLK.S.A0031	Does the device implement the *UserCodeTemporaryDisableTime* attribute?	Table 7-20, 7.3.2.14.2	DRLK.S: O	Yes/No
DRLK.S.A0032	Does the device implement the *SendPINOverTheAir* attribute?	Table 7-20, 7.3.2.14.3	DRLK.S: O	Yes/No
DRLK.S.A0033	Does the device implement the *RequirePINforRFOperation* attribute?	Table 7-20, 7.3.2.14.4	DRLK.S: O	Yes/No
DRLK.S.A0034	Does the device implement the *ZigBeeSecurityLevel* attribute?	Table 7-20, 7.3.2.14.5	DRLK.S: O	Yes/No
DRLK.S.A0040	Does the device implement the *AlarmMask* attribute?	Table 7-21, 7.3.2.15.1	DRLK.S: O	Yes/No
DRLK.S.A0041	Does the device implement the *KeypadOperationEventMask* attribute?	Table 7-21, 7.3.2.15.2	DRLK.S: O	Yes/No
DRLK.S.A0042	Does the device implement the *RFOperationEventMask* attribute?	Table 7-21, 7.3.2.15.3	DRLK.S: O	Yes/No
DRLK.S.A0043	Does the device implement the *ManualOperationEventMask* attribute?	Table 7-21, 7.3.2.15.4	DRLK.S: O	Yes/No
DRLK.S.A0044	Does the device implement the *RFIDOperationEventMask* attribute?	Table 7-21, 7.3.2.15.5	DRLK.S: O	Yes/No
DRLK.S.A0045	Does the device implement the *KeypadProgrammingEventMask* attribute?	Table 7-21, 7.3.2.15.6	DRLK.S: O	Yes/No
DRLK.S.A0046	Does the device implement the *RFProgrammingEventMask* attribute?	Table 7-21, 7.3.2.15.7	DRLK.S: O	Yes/No
DRLK.S.A0047	Does the device implement the *RFIDProgrammingEventMask* attribute?	Table 7-21, 7.3.2.15.8	DRLK.S: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.S.Afffd	Does the device implement the *ClusterRevision* global attribute?	Table 2-1, 2.3.5.1.1	DRLK.S: M	Yes/No
DRLK.S.Afffe	Does the device implement the *AttributeReportingStatus* global attribute?	Table 2-1, 2.3.5.1.2	DRLK.S: O	Yes/No

4.2.2 Commands received

Item number	Feature	Reference	Status	Support
DRLK.S.C00.Rsp	Does the device implement receiving the *Lock Door* command?	Table 7.23, 7.3.2.16.1	DRLK.S: M	Yes/No
DRLK.S.C01.Rsp	Does the device implement receiving the *Unlock Door* command?	Table 7.23, 7.3.2.16.2	DRLK.S: M	Yes/No
DRLK.S.C02.Rsp	Does the device implement receiving the *Toggle* command?	Table 7.23, 7.3.2.16.3	DRLK.S: O	Yes/No
DRLK.S.C03.Rsp	Does the device implement receiving the *Unlock with Timeout* command?	Table 7.23, 7.3.2.16.4	DRLK.S: O	Yes/No
DRLK.S.C04.Rsp	Does the device implement receiving the *Get Log Record* command?	Table 7.23, 7.3.2.16.5	DRLK.S: O	Yes/No
DRLK.S.C05.Rsp	Does the device implement receiving the *Set PIN Code* command?	Table 7.23, 7.3.2.16.7	DRLK.S: O	Yes/No
DRLK.S.C06.Rsp	Does the device implement receiving the *Get PIN Code* command?	Table 7.23, 7.3.2.16.8	DRLK.S: O	Yes/No
DRLK.S.C07.Rsp	Does the device implement receiving the *Clear PIN Code* command?	Table 7.23, 7.3.2.16.9	DRLK.S: O	Yes/No
DRLK.S.C08.Rsp	Does the device implement receiving the *Clear All PIN Codes* command?	Table 7.23, 7.3.2.16.10	DRLK.S: O	Yes/No
DRLK.S.C09.Rsp	Does the device implement receiving the *Set User Status* command?	Table 7.23, 7.3.2.16.11	DRLK.S: O	Yes/No
DRLK.S.C0a.Rsp	Does the device implement receiving the *Get User Status* command?	Table 7.23, 7.3.2.16.12	DRLK.S: O	Yes/No
DRLK.S.C0b.Rsp	Does the device implement receiving the *Set Weekday Schedule* command?	Table 7.23, 7.3.2.16.13	DRLK.S: O	Yes/No
DRLK.S.C0c.Rsp	Does the device implement receiving the *Get Weekday Schedule* command?	Table 7.23, 7.3.2.16.14	DRLK.S: O	Yes/No
DRLK.S.C0d.Rsp	Does the device implement receiving the *Clear Weekday Schedule* command?	Table 7.23, 7.3.2.16.15	DRLK.S: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.S.C0e.Rsp	Does the device implement receiving the *Set Year Day Schedule* command?	Table 7.23, 7.3.2.16.16	DRLK.S: O	Yes/No
DRLK.S.C0f.Rsp	Does the device implement receiving the *Get Year Day Schedule* command?	Table 7.23, 7.3.2.16.17	DRLK.S: O	Yes/No
DRLK.S.C10.Rsp	Does the device implement receiving the *Clear Year Day Schedule* command?	Table 7.23, 7.3.2.16.18	DRLK.S: O	Yes/No
DRLK.S.C11.Rsp	Does the device implement receiving the *Set Holiday Schedule* command?	Table 7.23, 7.3.2.16.19	DRLK.S: O	Yes/No
DRLK.S.C12.Rsp	Does the device implement receiving the *Get Holiday Schedule* command?	Table 7.23, 7.3.2.16.20	DRLK.S: O	Yes/No
DRLK.S.C13.Rsp	Does the device implement receiving the *Clear Holiday Schedule* command?	Table 7.23, 7.3.2.16.21	DRLK.S: O	Yes/No
DRLK.S.C14.Rsp	Does the device implement receiving the *Set User Type* command?	Table 7.23, 7.3.2.16.22	DRLK.S: O	Yes/No
DRLK.S.C15.Rsp	Does the device implement receiving the *Get User Type* command?	Table 7.23, 7.3.2.16.23	DRLK.S: O	Yes/No
DRLK.S.C16.Rsp	Does the device implement receiving the *Set RFID Code* command?	Table 7.23, 7.3.2.16.24	DRLK.S: O	Yes/No
DRLK.S.C17.Rsp	Does the device implement receiving the *Get RFID Code* command?	Table 7.23, 7.3.2.16.25	DRLK.S: O	Yes/No
DRLK.S.C18.Rsp	Does the device implement receiving the *Clear RFID Code* command?	Table 7.23, 7.3.2.16.26	DRLK.S: O	Yes/No
DRLK.S.C19.Rsp	Does the device implement receiving the *Clear All RFID Codes* command?	Table 7.23, 7.3.2.16.27	DRLK.S: O	Yes/No

4.2.3 Commands generated

Item number	Feature	Reference	Status	Support
DRLK.S.C00.Tx	Does the device implement sending the *Lock Door Response* command?	Table 7.27, 7.3.2.17.1	DRLK.S: M	Yes/No
DRLK.S.C01.Tx	Does the device implement sending the *Unlock Door Response* command?	Table 7.27, 7.3.2.17.2	DRLK.S: M	Yes/No
DRLK.S.C02.Tx	Does the device implement sending the *Toggle Response* command?	Table 7.27, 7.3.2.17.3	DRLK.S: O	Yes/No
DRLK.S.C03.Tx	Does the device implement sending the *Unlock with Timeout Response* command?	Table 7.27, 7.3.2.17.4	DRLK.S: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.S.C04.Tx	Does the device implement sending the *Get Log Record Response* command?	Table 7.27, 7.3.2.17.5	DRLK.S: O	Yes/No
DRLK.S.C05.Tx	Does the device implement sending the *Set PIN Code Response* command?	Table 7.27, 7.3.2.17.6	DRLK.S: O	Yes/No
DRLK.S.C06.Tx	Does the device implement sending the *Get PIN Code Response* command?	Table 7.27, 7.3.2.17.7	DRLK.S: O	Yes/No
DRLK.S.C07.Tx	Does the device implement sending the *Clear PIN Code Response* command?	Table 7.27, 7.3.2.17.8	DRLK.S: O	Yes/No
DRLK.S.C08.Tx	Does the device implement sending the *Clear All PIN Codes Response* command?	Table 7.27, 7.3.2.17.9	DRLK.S: O	Yes/No
DRLK.S.C09.Tx	Does the device implement sending the *Set User Status Response* command?	Table 7.27, 7.3.2.17.10	DRLK.S: O	Yes/No
DRLK.S.C0a.Tx	Does the device implement sending the *Get User Status Response* command?	Table 7.27, 7.3.2.17.11	DRLK.S: O	Yes/No
DRLK.S.C0b.Tx	Does the device implement sending the *Set Weekday Schedule Response* command?	Table 7.27, 7.3.2.17.12	DRLK.S: O	Yes/No
DRLK.S.C0c.Tx	Does the device implement sending the *Get Weekday Schedule Response* command?	Table 7.27, 7.3.2.17.13	DRLK.S: O	Yes/No
DRLK.S.C0d.Tx	Does the device implement sending the *Clear Weekday Schedule Response* command?	Table 7.27, 7.3.2.17.14	DRLK.S: O	Yes/No
DRLK.S.C0e.Tx	Does the device implement sending the *Set Year Day Schedule Response* command?	Table 7.27, 7.3.2.17.15	DRLK.S: O	Yes/No
DRLK.S.C0f.Tx	Does the device implement sending the *Get Year Day Schedule Response* command?	Table 7.27, 7.3.2.17.16	DRLK.S: O	Yes/No
DRLK.S.C10.Tx	Does the device implement sending the *Clear Year Day Schedule response* command?	Table 7.27, 7.3.2.17.17	DRLK.S: O	Yes/No
DRLK.S.C11.Tx	Does the device implement sending the *Set Holiday Schedule Response* command?	Table 7.27, 7.3.2.17.18	DRLK.S: O	Yes/No
DRLK.S.C12.Tx	Does the device implement sending the *Get Holiday Schedule Response* command?	Table 7.27, 7.3.2.17.19	DRLK.S: O	Yes/No
DRLK.S.C13.Tx	Does the device implement sending the *Clear Holiday Schedule response* command?	Table 7.27, 7.3.2.17.20	DRLK.S: O	Yes/No
DRLK.S.C14.Tx	Does the device implement sending the *Set User Type Response* command?	Table 7.27, 7.3.2.17.21	DRLK.S: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.S.C15.Tx	Does the device implement sending the *Get User Type Response* command?	Table 7.27, 7.3.2.17.22	DRLK.S: O	Yes/No
DRLK.S.C16.Tx	Does the device implement sending the *Set RFID Code Response* command?	Table 7.27, 7.3.2.17.23	DRLK.S: O	Yes/No
DRLK.S.C17.Tx	Does the device implement sending the *Get RFID Code Response* command?	Table 7.27, 7.3.2.17.24	DRLK.S: O	Yes/No
DRLK.S.C18.Tx	Does the device implement sending the *Clear RFID Code Response* command?	Table 7.27, 7.3.2.17.25	DRLK.S: O	Yes/No
DRLK.S.C19.Tx	Does the device implement sending the *Clear All RFID Codes Response* command?	Table 7.27, 7.3.2.17.26	DRLK.S: O	Yes/No
DRLK.S.C20.Tx	Does the device implement sending the *Operation Event Notification* command?	Table 7.27, 7.3.2.17.27	DRLK.S: O	Yes/No
DRLK.S.C21.Tx	Does the device implement sending the *Programming Event Notification* command?	Table 7.27, 7.3.2.17.28	DRLK.S: O	Yes/No

4.3 Client

4.3.1 Attributes

Item number	Feature	Reference	Status	Support
DRLK.C.Afffd	Does the device implement the *ClusterRevision* global attribute?	Table 2-1, 2.3.5.1.1	DRLK.C: M	Yes/No
DRLK.C.Afffe	Does the device implement the *AttributeReportingStatus* global attribute?	Table 2-1, 2.3.5.1.2	DRLK.C: O	Yes/No

4.3.2 Commands received

Item number	Feature	Reference	Status	Support
DRLK.C.C00.Rsp	Does the device implement receiving the *Lock Door Response* command?	Table 7.27, 7.3.2.17.1	DRLK.C.C00.Tx: M	Yes/No
DRLK.C.C01.Rsp	Does the device implement receiving the *Unlock Door Response* command?	Table 7.27, 7.3.2.17.2	DRLK.C.C01.Tx: M	Yes/No
DRLK.C.C02.Rsp	Does the device implement receiving the *Toggle Response* command?	Table 7.27, 7.3.2.17.3	DRLK.C.C02.Tx: M	Yes/No
DRLK.C.C03.Rsp	Does the device implement receiving the *Unlock with Timeout Response* command?	Table 7.27, 7.3.2.17.4	DRLK.C.C03.Tx: M	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.C.C04.Rsp	Does the device implement receiving the *Get Log Record Response* command?	Table 7.27, 7.3.2.17.5	DRLK.C.C04.Tx: M	Yes/No
DRLK.C.C05.Rsp	Does the device implement receiving the *Set PIN Code Response* command?	Table 7.27, 7.3.2.17.6	DRLK.C.C05.Tx: M	Yes/No
DRLK.C.C06.Rsp	Does the device implement receiving the *Get PIN Code Response* command?	Table 7.27, 7.3.2.17.7	DRLK.C.C06.Tx: M	Yes/No
DRLK.C.C07.Rsp	Does the device implement receiving the *Clear PIN Code Response* command?	Table 7.27, 7.3.2.17.8	DRLK.C.C07.Tx: M	Yes/No
DRLK.C.C08.Rsp	Does the device implement receiving the *Clear All PIN Codes Response* command?	Table 7.27, 7.3.2.17.9	DRLK.C.C08.Tx: M	Yes/No
DRLK.C.C09.Rsp	Does the device implement receiving the *Set User Status Response* command?	Table 7.27, 7.3.2.17.10	DRLK.C.C09.Tx: M	Yes/No
DRLK.C.C0a.Rsp	Does the device implement receiving the *Get User Status Response* command?	Table 7.27, 7.3.2.17.11	DRLK.C.C0a.Tx: M	Yes/No
DRLK.C.C0b.Rsp	Does the device implement receiving the *Set Weekday Schedule Response* command?	Table 7.27, 7.3.2.17.12	DRLK.C.C0b.Tx: M	Yes/No
DRLK.C.C0c.Rsp	Does the device implement receiving the *Get Weekday Schedule Response* command?	Table 7.27, 7.3.2.17.13	DRLK.C.C0c.Tx: M	Yes/No
DRLK.C.C0d.Rsp	Does the device implement receiving the *Clear Weekday Schedule Response* command?	Table 7.27, 7.3.2.17.14	DRLK.C.C0d.Tx: M	Yes/No
DRLK.C.C0e.Rsp	Does the device implement receiving the *Set Year Day Schedule Response* command?	Table 7.27, 7.3.2.17.15	DRLK.C.C0e.Tx: M	Yes/No
DRLK.C.C0f.Rsp	Does the device implement receiving the *Get Year Day Schedule Response* command?	Table 7.27, 7.3.2.17.16	DRLK.C.C0f.Tx: M	Yes/No
DRLK.C.C10.Rsp	Does the device implement receiving the *Clear Year Day Schedule response* command?	Table 7.27, 7.3.2.17.17	DRLK.C.C10.Tx: M	Yes/No
DRLK.C.C11.Rsp	Does the device implement receiving the *Set Holiday Schedule Response* command?	Table 7.27, 7.3.2.17.18	DRLK.C.C11.Tx: M	Yes/No
DRLK.C.C12.Rsp	Does the device implement receiving the *Get Holiday Schedule Response* command?	Table 7.27, 7.3.2.17.19	DRLK.C.C12.Tx: M	Yes/No
DRLK.C.C13.Rsp	Does the device implement receiving the *Clear Holiday Schedule response* command?	Table 7.27, 7.3.2.17.20	DRLK.C.C13.Tx: M	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.C.C14.Rsp	Does the device implement receiving the *Set User Type Response* command?	Table 7.27, 7.3.2.17.21	DRLK.C.C14.Tx: M	Yes/No
DRLK.C.C15.Rsp	Does the device implement receiving the *Get User Type Schedule Response* command?	Table 7.27, 7.3.2.17.22	DRLK.C.C15.Tx: M	Yes/No
DRLK.C.C16.Rsp	Does the device implement receiving the *Set RFID Code Response* command?	Table 7.27, 7.3.2.17.23	DRLK.C.C16.Tx: M	Yes/No
DRLK.C.C17.Rsp	Does the device implement receiving the *Get RFID Code Response* command?	Table 7.27, 7.3.2.17.24	DRLK.C.C17.Tx: M	Yes/No
DRLK.C.C18.Rsp	Does the device implement receiving the *Clear RFID Code Response* command?	Table 7.27, 7.3.2.17.25	DRLK.C.C18.Tx: M	Yes/No
DRLK.C.C19.Rsp	Does the device implement receiving the *Clear All RFID Codes Response* command?	Table 7.27, 7.3.2.17.26	DRLK.C.C19.Tx: M	Yes/No
DRLK.C.C20.Rsp	Does the device implement receiving the *Operation Event Notification* command?	Table 7.27, 7.3.2.17.27	DRLK.C: O	Yes/No
DRLK.C.C21.Rsp	Does the device implement receiving the *Programming Event Notification* command?	Table 7.27, 7.3.2.17.28	DRLK.C: O	Yes/No

4.3.3 Commands generated

Item number	Feature	Reference	Status	Support
DRLK.C.C00.Tx	Does the device implement sending the *Lock Door* command?	Table 7.23, 7.3.2.16.1	DRLK.C: O	Yes/No
DRLK.C.C01.Tx	Does the device implement sending the *Unlock Door* command?	Table 7.23, 7.3.2.16.2	DRLK.C: O	Yes/No
DRLK.C.C02.Tx	Does the device implement sending the *Toggle* command?	Table 7.23, 7.3.2.16.3	DRLK.C: O	Yes/No
DRLK.C.C03.Tx	Does the device implement sending the *Unlock with Timeout* command?	Table 7.23, 7.3.2.16.4	DRLK.C: O	Yes/No
DRLK.C.C04.Tx	Does the device implement sending the *Get Log Record* command?	Table 7.23, 7.3.2.16.5	DRLK.C: O	Yes/No
DRLK.C.C05.Tx	Does the device implement sending the *Set PIN Code* command?	Table 7.23, 7.3.2.16.7	DRLK.C: O	Yes/No
DRLK.C.C06.Tx	Does the device implement sending the *Get PIN Code* command?	Table 7.23, 7.3.2.16.8	DRLK.C: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.C.C07.Tx	Does the device implement sending the *Clear PIN Code* command?	Table 7.23, 7.3.2.16.9	DRLK.C: O	Yes/No
DRLK.C.C08.Tx	Does the device implement sending the *Clear All PIN Codes* command?	Table 7.23, 7.3.2.16.10	DRLK.C: O	Yes/No
DRLK.C.C09.Tx	Does the device implement sending the *Set User Status* command?	Table 7.23, 7.3.2.16.11	DRLK.C: O	Yes/No
DRLK.C.C0a.Tx	Does the device implement sending the *Get User Status* command?	Table 7.23, 7.3.2.16.12	DRLK.C: O	Yes/No
DRLK.C.C0b.Tx	Does the device implement sending the *Set Weekday Schedule* command?	Table 7.23, 7.3.2.16.13	DRLK.C: O	Yes/No
DRLK.C.C0c.Tx	Does the device implement sending the *Get Weekday Schedule* command?	Table 7.23, 7.3.2.16.14	DRLK.C: O	Yes/No
DRLK.C.C0d.Tx	Does the device implement sending the *Clear Weekday Schedule* command?	Table 7.23, 7.3.2.16.15	DRLK.C: O	Yes/No
DRLK.C.C0e.Tx	Does the device implement sending the *Set Year Day Schedule* command?	Table 7.23, 7.3.2.16.16	DRLK.C: O	Yes/No
DRLK.C.C0f.Tx	Does the device implement sending the *Get Year Day Schedule* command?	Table 7.23, 7.3.2.16.17	DRLK.C: O	Yes/No
DRLK.C.C10.Tx	Does the device implement sending the *Clear Year Day Schedule* command?	Table 7.23, 7.3.2.16.18	DRLK.C: O	Yes/No
DRLK.C.C11.Tx	Does the device implement sending the *Set Holiday Schedule* command?	Table 7.23, 7.3.2.16.19	DRLK.C: O	Yes/No
DRLK.C.C12.Tx	Does the device implement sending the *Get Holiday Schedule* command?	Table 7.23, 7.3.2.16.20	DRLK.C: O	Yes/No
DRLK.C.C13.Tx	Does the device implement sending the *Clear Holiday Schedule* command?	Table 7.23, 7.3.2.16.21	DRLK.C: O	Yes/No
DRLK.C.C14.Tx	Does the device implement sending the *Set User Type* command?	Table 7.23, 7.3.2.16.22	DRLK.C: O	Yes/No
DRLK.C.C15.Tx	Does the device implement sending the *Get User Type* command?	Table 7.23, 7.3.2.16.23	DRLK.C: O	Yes/No
DRLK.C.C16.Tx	Does the device implement sending the *Set RFID Code* command?	Table 7.23, 7.3.2.16.24	DRLK.C: O	Yes/No
DRLK.C.C17.Tx	Does the device implement sending the *Get RFID Code* command?	Table 7.23, 7.3.2.16.25	DRLK.C: O	Yes/No
DRLK.C.C18.Tx	Does the device implement sending the *Clear RFID Code* command?	Table 7.23, 7.3.2.16.26	DRLK.C: O	Yes/No

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Item number	Feature	Reference	Status	Support
DRLK.C.C19.Tx	Does the device implement sending the *Clear All RFID Codes* command?	Table 7.23, 7.3.2.16.27	DRLK.C: O	Yes/No

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5 Test specification

5.1 Introduction

5.1.1 Test case overview

The following test cases are available for the *door lock* cluster:

Test ID	Description	Reference
Global tests		
DRLK-TC-01G	Global attributes	5.2.1
Server side tests		
DRLK-TC-01S	Attributes	5.3.1
DRLK-TC-02S	Primary functionality	5.3.2
DRLK-TC-03S	Get log records	5.3.3
DRLK-TC-04S	Week day schedule	5.3.4
DRLK-TC-05S	Year day schedule	5.3.5
DRLK-TC-06S	User interface	5.3.6
DRLK-TC-07S	RFID	5.3.7
DRLK-TC-08S	Attribute reporting	5.3.8
DRLK-TC-09S	Door state	5.3.9
DRLK-TC-10S	PIN	5.3.10
DRLK-TC-11S	Holiday schedule	5.3.11
DRLK-TC-12S	Auto-relock	5.3.12
Client side tests		
DRLK-TC-01C	Functionality with client as DUT	5.4.1

5.1.2 Testing tolerances

In test cases where a change in an attribute value is tested over time, it is permitted for the devices involved in the test to be within a tolerance of ±15% of the expected value. As such, these test cases indicate that the attribute value must be approximately equal to an expected value, to which the ±15% tolerance should then be applied. All other attribute values presented are expected to be exact.

5.1.3 Client DUTs

For client test cases only test steps that pertain to commands that are supported on the DUT are required to be executed. All commands in this cluster for which support is indicated in the PICS shall be exercised, using valid, application achievable values.

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Note that for the client attribute test case, it is permissible for the client not to be able to execute any of the test steps.

The client SHALL ensure that an application link, e.g. a binding link, exists between itself and the test harness. This should be configured before starting the test.

5.1.4 Test steps manipulating attributes

In test case steps that require more than one attribute to be manipulated (e.g. read), the tester may decide whether it is appropriate or practical to send a single attribute manipulation command, containing multiple attributes, or multiple attribute manipulation commands, each containing a single attribute. The test case is designed to verify the behavior of the device supporting the attribute rather that verifying the attribute manipulation command in question.

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5.2 Generic test cases

5.2.1 DRLK-TC-01G: Global attributes

This test case verifies the behavior of the global attributes of the *door lock* cluster client and server.

In this test, the PICS notation DRLK.S.A*gm* and DRLK.C.A*gm* represents the list of global attributes that are specified as being mandatory for either the server or client, respectively. Similarly, the PICS notation DRLK.S.A*go* and DRLK.C.A*go* represents the list of global attributes that are specified as being optional for either the server or client, respectively.

5.2.1.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- All global attributes

PICS:

- DRLK.S, DRLK.C
- DRLK.S.A*gm*, DRLK.C.A*gm*, DRLK.S.A*go*, DRLK.C.A*go*

5.2.1.2 Required devices

Designation	Symbol	Description
DUT		Device under test implementing: • The *door lock* cluster server or client.
TH		Test harness implementing: • The *door lock* cluster client or server, i.e. the opposite cluster instantiation as implemented on the DUT.

5.2.1.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

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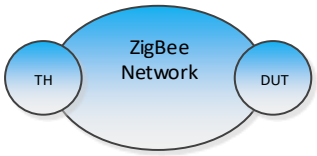
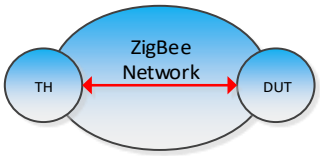
Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

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DRLK-TC-01G: Global attributes		
Item	**Preparation Step**	**Observation**
P2	Power on TH and DUT.	TH and DUT are powered on.
P3	Ensure TH and DUT are on the same ZigBee network.	Observe appropriate communication between TH, DUT and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-01G preparation ---

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179 #### 5.2.1.5 Test procedure

DRLK-TC-01G: Global attributes			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
1	DRLK.S.A*gm*, DRLK.C.A*gm*	TH unicasts a ZCL *read attributes* command frame to DUT to read each mandatory global attribute of this cluster one at a time.	DUT unicasts a ZCL *read attributes response* command frame to TH containing each requested attribute. The data type in each command must match the value listed in the specification(s). The data value in each command for the attribute must fall within the valid range described in the specification(s).
2a	DRLK.S.A*gm*, DRLK.C.A*gm*	TH unicasts a ZCL *write attributes* command frame to DUT to write the respective default value to each mandatory global attribute of this cluster one at a time.	DUT unicasts a ZCL *write attributes response* command frame to TH for each attribute. If the access control of DUT is set to READ, the DUT response will indicate that the attribute write command was not a SUCCESS. If the access control of DUT is set to READ/WRITE, the DUT response will indicate that the write command was a SUCCESS.
2b	DRLK.S.A*gm*, DRLK.C.A*gm*	TH unicasts a ZCL *read attributes* command frame to DUT to read back each attribute written in step 2a.	DUT unicasts a ZCL *read attributes response* command frame to TH containing the requested attribute. If the *Status* field of the *write attributes response* command frame was equal to SUCCESS, the updated value is read back. If the *Status* field of the *write attributes response* command frame was not equal to SUCCESS the value is not updated when read back.

Continued…

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DRLK-TC-01G: Global attributes			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
3	DRLK.S.A*go*, DRLK.C.A*go*	TH unicasts a ZCL *read attributes* command frame to DUT to read each optional global attribute of this cluster one at a time.	DUT unicasts a ZCL *read attributes response* command frame to TH containing each attribute. If the DUT implements the attribute, the *Status* field will be equal to SUCCESS and the command will contain the requested attribute. If the DUT does not implement the attribute, the *Status* field will not be equal to SUCCESS. The data type in each command must match the value listed in the specification(s). The data value in each command for the attribute must fall within the valid range described in the specification(s).
4a	DRLK.S.A*go*, DRLK.C.A*go*	TH unicasts a ZCL *write attributes* command frame to DUT to write the respective default value to each optional global attribute of this cluster one at a time.	DUT unicasts a ZCL *write attributes response* command frame to TH for each attribute. If the attribute is not implemented or the access control of DUT is set to READ, the DUT response will indicate that the attribute write command was not a SUCCESS. If the attribute is implemented and the access control of DUT is set to READ/WRITE, the DUT response will indicate that the write command was a SUCCESS.
4b	DRLK.S.A*go*, DRLK.C.A*go*	TH unicasts a ZCL *read attributes* command frame to DUT to read back each attribute written in step 4a.	DUT unicasts a ZCL *read attributes response* command frame to TH containing the requested attribute. If the *Status* field of the *write attributes response* command frame was equal to SUCCESS, the updated value is read back. If the *Status* field of the *write attributes response* command frame was not equal to SUCCESS the value is not updated when read back.

--- End of test case DRLK-TC-01G ---

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5.3 Server test cases

5.3.1 DRLK-TC-01S: Attributes

This test case verifies the behavior of the non-global attributes of the *door lock* cluster server. In this test, the PICS notation DRLK.S.A*m* represents the list of non-global attributes that are specified as being mandatory. Similarly, the PICS notation DRLK.S.A*o* represents the list of non-global attributes that are specified as being optional.

5.3.1.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- All non-global attributes

PICS:

- DRLK.S,
- DRLK.S.A*m*, DRLK.S.A*o*

5.3.1.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

5.3.1.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

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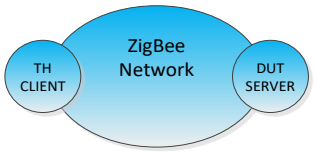
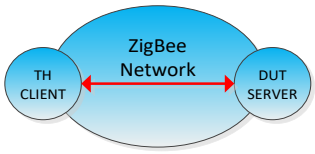
5.3.1.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-01S: Attributes with server as DUT		
Item	**Preparation Step**	**Observation**
P2	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P3	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-01C preparation ---

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206 **5.3.1.5 Test procedure**

DRLK-TC-01S: Attributes with server as DUT			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
1	DRLK.S.A*m*	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read each mandatory attribute of this cluster one at a time.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT containing each requested attribute. The data type in each command must match the value listed in the specification(s). The data value in each command for the attribute must fall within the valid range described in the specification(s).
2a	DRLK.S.A*m*	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to write the respective default value to each mandatory attribute of this cluster one at a time.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT for each attribute. If the access control of DUT SERVER is set to READ, the DUT SERVER response will indicate that the attribute write command was not a SUCCESS. If the access control of DUT SERVER is set to READ/WRITE, the DUT SERVER response will indicate that the write command was a SUCCESS.
2b	DRLK.S.A*m*	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read back each attribute written in step 2a.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT containing the requested attribute. If the *Status* field of the *write attributes response* command frame was equal to SUCCESS, the updated value is read back. If the *Status* field of the *write attributes response* command frame was not equal to SUCCESS the value is not updated when read back.

Continued…

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DRLK-TC-01S: Attributes with server as DUT			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
3	DRLK.S.A*o*	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read each optional attribute of this cluster one at a time.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT containing each attribute. If the DUT SERVER implements the attribute, the *Status* field will be equal to SUCCESS and the command will contain the requested attribute. If the DUT SERVER does not implement the attribute, the *Status* field will not be equal to SUCCESS. The data type in each command must match the value listed in the specification(s). The data value in each command for the attribute must fall within the valid range described in the specification(s).
4a	DRLK.S.A*o*	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to write the respective default value to each optional attribute of this cluster one at a time.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT for each attribute. If the attribute is not implemented or the access control of DUT SERVER is set to READ, the DUT SERVER response will indicate that the attribute write command was not a SUCCESS. If the attribute is implemented and the access control of DUT SERVER is set to READ/WRITE, the DUT response will indicate that the write command was a SUCCESS.

Continued…

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DRLK-TC-01S: Attributes with server as DUT			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
4b	DRLK.S.A*o*	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read back each attribute written in step 4a.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT containing the requested attribute. If the *Status* field of the *write attributes response* command frame was equal to SUCCESS, the updated value is read back. If the *Status* field of the *write attributes response* command frame was not equal to SUCCESS the value is not updated when read back.

--- End of test case DRLK-TC-01S ---

5.3.2 DRLK-TC-02S: Primary functionality

This test verifies the primary behavior of the *door lock* cluster server:

5.3.2.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *LockState* attribute (0x0000)
- *LockType* attribute (0x0001)
- *ActuatorEnabled* attribute (0x0002)
- *AutoRelockTime* attribute (0x0023)
- *Lock door* command (0x00)
- *Lock door response* command (0x00)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)

PICS:

- DRLK.S,
- DRLK.S.A0000 – DRLK.S.A0002, DRLK.S.A0023
- DRLK.S.C00.Rsp, DRLK.S.C01.Rsp
- DRLK.S.C00.Tx, DRLK.S.C01.Tx

5.3.2.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

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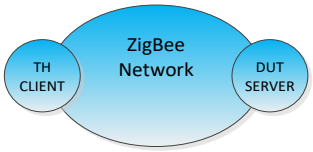
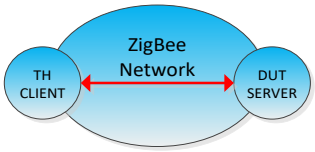
5.3.2.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT shall be setup as factory default mode, with the “lock state”, “lock type”, and “actuator enabled”.

5.3.2.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-02S: Primary functionality		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-02S preparation ---

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238 **5.3.2.5 Test procedure**

DRLK-TC-02S: Primary functionality			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0	DRLK.S.A0023	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000 (disabled).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1	DRLK.S.A0000, DRLK.S.A0001, DRLK.S.A0002	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LockState*, *LockType* and *ActuatorEnabled* attributes.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LockState* and *LockType* attributes have values that reflect the physical state of the door. The *ActuatorEnabled* attribute has the value 0 (false) or 1 (true).
2a	DRLK.S.A0000, DRLK.S.C01.Rsp, DRLK.S.C01.Tx	Regardless of the state of the *LockState* attribute, TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS), as an indicator of the message being received successfully. ***Note:*** *If the door was already unlocked, the physical status will not change.*
2b	DLRK.S.A0000	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LockState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LockState* attribute has the value 2 (unlocked). ***Note:*** *In the case where the command is not supported, the door is physically unlocked.*
3a	DRLK.S.C00.Rsp, DRLK.S.C00.Tx	TH CLIENT unicasts a ZCL *lock door* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *lock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

Continued…

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DRLK-TC-02S: Primary functionality			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
3b	DRLK.S.A000	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LockState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LockState* attribute has the value 1 (locked).
4a	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
4b	DRLK.S.A000	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LockState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LockState* attribute has the value 2 (unlocked).

--- End of test case DRLK-TC-02S ---

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5.3.3 DRLK-TC-03S: Get log records

This test verifies the get log records behavior of the *door lock* cluster server:

5.3.3.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *LockState* attribute (0x0000)
- *AutoRelockTime* attribute (0x0023)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)
- *Get log record* command (0x04)
- *Get log record response* command (0x04)

PICS:

- DRLK.S,
- DRLK.S.A0000, DRLK.S.A0023
- DRLK.S.C01.Rsp, DRLK.S.C04.Rsp
- DRLK.S.C01.Tx, DRLK.S.C04.Tx

5.3.3.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

5.3.3.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT shall be in the lock position.

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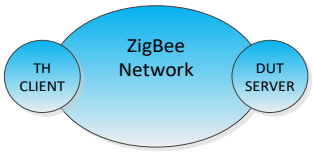
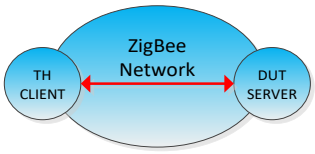
265 #### 5.3.3.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

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DRLK-TC-03S: Get log records		
Item	**Preparation Step**	**Observation**
P2	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P3	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-03S preparation ---

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268 #### 5.3.3.5 Test procedure

DRLK-TC-03S: Get log records			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0	DRLK.S.A0023	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1a	DRLK.S.A0000	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LockState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LockState* attributes has the value 0x01 (locked).
1b	-	The door is unlocked manually.	None.
1c	DRLK.S.A0000	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LockState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LockState* attribute has the value 2 (unlocked).
2	DRLK.S.C04.Rsp, DRLK.S.C04.Tx	TH CLIENT unicasts a ZCL *get log record* command frame to DUT SERVER with the *log index* field set to 0x0000.	DUT SERVER unicasts a ZCL *get log record response* command frame to TH CLIENT with the *Log Entry ID* field equal to the ID of the most recent entry, the *Timestamp* field equal to the time when this entry was logged, the *Event Type* field equal to 0x00 (operation), the *User ID* field set to 0xffff and the *Source*, *Event ID/Alarm Code* and *PIN* fields set to values which match the respective method used.
3	DRLK.S.C04.Rsp, DRLK.S.C04.Tx	TH CLIENT unicasts a ZCL *get log record* command frame to DUT SERVER with the *log index* field set to 0x0001.	DUT SERVER unicasts a ZCL *get log record response* command frame to TH CLIENT with the *Log Entry ID* field equal to 0x0001, the *Timestamp* field equal to a value earlier than the *timestamp* field returned in step 2 and all other fields are in the correct format.

--- End of test case DRLK-TC-03S ---

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5.3.4 DRLK-TC-04S: Week day schedule

This test verifies the week day schedule behavior of the *door lock* cluster server:

5.3.4.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *NumberOfTotalUsersSupported* attribute (0x0011)
- *NumberOfWeekDaySchedulesSupportedPerUser* attribute (0x0014)
- *AutoRelockTime* attribute (0x0023)
- *RequirePINforRFOperation* attribute (0x0033)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)
- *Set PIN code* command (0x05)
- *Set PIN code response* command (0x05)
- *Get PIN code* command (0x06)
- *Get PIN code response* command (0x06)
- *Set week day schedule* command (0x0b)
- *Set week day schedule response* command (0x0b)
- *Get week day schedule* command (0x0c)
- *Get week day schedule response* command (0x0c)
- *Clear week day schedule* command (0x0d)
- *Clear week day schedule response* command (0x0d)
- *Get user type* command (0x15)
- *Get user type response* command (0x15)

PICS:

- DRLK.S,
- DRLK.S.A0011, DRLK.S.A0014, DRLK.S.A0023, DRLK.S.A0033
- DRLK.S.C01.Rsp, DRLK.S.C05.Rsp, DRLK.S.C06.Rsp, DRLK.S.C0b.Rsp, DRLK.S.C0c.Rsp, DRLK.S.C0d.Rsp, DRLK.S.C15.Rsp
- DRLK.S.C01.Tx, DRLK.S.C05.Tx, DRLK.S.C06.Tx, DRLK.S.C0b.Tx, DRLK.S.C0c.Tx, DRLK.S.C0d.Tx, DRLK.S.C15.Tx

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5.3.4.2 Required devices

Designation	Symbol	Description
TH CLIENT	TH CLIENT	Test harness client implementing: • The *time* cluster client and • The *door lock* cluster client.
DUT SERVER	DUT SERVER	Device under test server: • The *time* cluster server and • The *door lock* cluster server.

5.3.4.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT (time client) supports time and have retrieved accurate time successfully from the Test Harness (time server).
4	There are no existing schedules.
5	For RFID support, add appropriate RFID information under User ID 0x0001.

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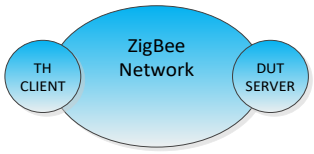
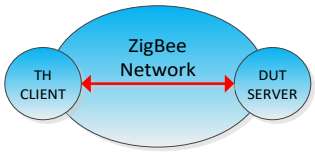
5.3.4.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-04S: Weekday schedule		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-04S preparation ---

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315 #### 5.3.4.5 Test procedure

DRLK-TC-04S: Weekday schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0a	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001, the *User Status* field set to 1 (occupied/enabled), the *User Type* field set to 2 (week day schedule user) and the *PIN* field set to a valid code (if applicable): “1111” (0x04, 0x31, 0x31, 0x31, 0x31).	DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0b	DRLK.S.A0023	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0c	DRLK.S.A0033	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *RequirePINforRF-Operation* attribute to 0x01 (enabled).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0d	DRLK.S.A0014	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *NumberOfWeekDay-SchedulesSupportedPerUser* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. If supported, set S_{max} to the value of the *NumberOfWeekDaySchedules-SupportedPerUser* attribute. Otherwise, set S_{max} to 0x0f.
0e	DRLK.S.A0011	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *NumberOfTotalUsers-Supported* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. If supported, set U_{max} to the value of the *NumberOfTotalUsers-Supported* attribute.

Continued…

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DRLK-TC-04S: Weekday schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
1	DRLK.S.C0b.Rsp, DRLK.S.C0b.Tx	TH CLIENT unicasts a ZCL *set week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x01, the *User ID* field set to 0x0001, the *Days Mask* field set to the all week day mask, the *Start Hour/Start Minute* fields set to 0x00/0x00 (00:00) and the *End Hour/End Minute* fields set to 0x17/0x3b (23:59).	DUT SERVER unicasts a ZCL *set week day schedule response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
2	DRLK.S.C15.Rsp, DRLK.S.C15.Tx	TH CLIENT unicasts a ZCL *get user type* command frame to DUT SERVER with the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get user type response* command frame to TH CLIENT with the *User ID* field equal to 0x0001 and the *User Type* field equal to 2 (week day schedule user).
3	DRLK.S.C0c.Rsp, DRLK.S.C0c.Tx	TH CLIENT unicasts a ZCL *get week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x01 and the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get week day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x01, the *User ID* field equal to 0x0001, the *Status* field equal to 0x00 (SUCCESS) and the remaining fields equal to the schedule configured in step 1.
4	DRLK.S.C0c.Rsp, DRLK.S.C0c.Tx	TH CLIENT unicasts a ZCL *get week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to (S_{max} + 1) and the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get week day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x0f, the *User ID* field equal to 0x0001 and the *Status* field not equal to 0x00 (SUCCESS).
5	DRLK.S.C0c.Rsp, DRLK.S.C0c.Tx	TH CLIENT unicasts a ZCL *get week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x01 and the *User ID* field set to (U_{max} + 1) (invalid).	DUT SERVER unicasts a ZCL *get week day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x01, the *User ID* field equal to (U_{max} + 1) and the *Status* field not equal to 0x00 (SUCCESS).

Continued…

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DRLK-TC-04S: Weekday schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
6	DRLK.S.C0c.Rsp, DRLK.S.C0c.Tx	TH CLIENT unicasts a ZCL *get week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x01 and the *User ID* field set to 0x0000 (valid but non-existing).	DUT SERVER unicasts a ZCL *get week day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x01, the *User ID* field equal to 0x0000 and the *Status* field not equal to 0x00 (SUCCESS).
7	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID code* field set to the PIN configured in step 0a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
8	DRLK.S.C0d.Rsp, DRLK.S.C0d.Tx	TH CLIENT unicasts a ZCL *clear week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x01 and the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *clear week day schedule response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
9a	DRLK.S.C0c.Rsp, DRLK.S.C0c.Tx	TH CLIENT unicasts a ZCL *get week day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x01 and the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get week day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x01, the *User ID* field equal to 0x0001 and the *Status* field not equal to 0x00 (SUCCESS).

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DRLK-TC-04S: Weekday schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
9b	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001, the *User Status* field set to 1 (Occupied/Enabled), the *User Type* field set to 0 (Unrestricted User) and the *PIN* field set to a valid code (if applicable): “1111” (0x04, 0x31, 0x31, 0x31, 0x31).	DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
9c	DRLK.S.C06.Rsp, DRLK.S.C06.Tx	TH CLIENT unicasts a ZCL *get PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get PIN code response* command frame to TH CLIENT with the *User ID* field equal to 0x0001, the *User Status* field equal to 0x01 (*Occupied/Enabled*), the *User Type* field set to 0x00 (*Unrestricted User*) and the *Code* field set to the PIN configured in step 0a.
10	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID code* field set to the PIN configured in step 0a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

--- End of test case DRLK-TC-04S ---

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5.3.5 DRLK-TC-05S: Year day schedule

This test verifies the year day schedule behavior of the *door lock* cluster server:

5.3.5.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *NumberOfTotalUsersSupported* attribute (0x0011)
- *NumberOfYearDaySchedulesSupportedPerUser* attribute (0x0015)
- *AutoRelockTime* attribute (0x0023)
- *RequirePINforRFOperation* attribute (0x0033)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)
- *Set PIN code* command (0x05)
- *Set PIN code response* command (0x05)
- *Set year day schedule* command (0x0e)
- *Set year day schedule response* command (0x0e)
- *Get year day schedule* command (0x0f)
- *Get year day schedule response* command (0x0f)
- *Clear year day schedule* command (0x10)
- *Clear year day schedule response* command (0x10)
- *Get user type* command (0x15)
- *Get user type response* command (0x15)

PICS:

- DRLK.S,
- DRLK.S.A0011, DRLK.S.A0015, DRLK.S.A0023, DRLK.S.A0033
- DRLK.S.C01.Rsp, DRLK.S.C05.Rsp, DRLK.S.C0e.Rsp, DRLK.S.C0f.Rsp, DRLK.S.C10.Rsp, DRLK.S.C15.Rsp
- DRLK.S.C01.Tx, DRLK.S.C05.Tx, DRLK.S.C0e.Tx, DRLK.S.C0f.Tx, DRLK.S.C10.Tx, DRLK.S.C15.Tx

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5.3.5.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *time* cluster client and • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *time* cluster server and • The *door lock* cluster server.

5.3.5.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT (time client) supports time and have retrieved accurate time successfully from the Test Harness (time server).
4	There are no existing schedules.
5	For RFID support, add appropriate RFID information under User ID 0x0001.

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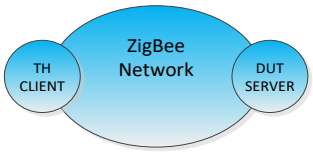
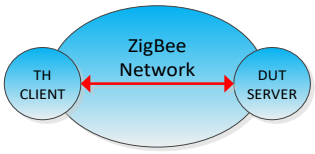
5.3.5.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-05S: Year day schedule		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-05S preparation ---

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359 #### 5.3.5.5 Test procedure

DRLK-TC-05S: Year day schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0a	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0007, the *User Status* field set to 1 (occupied/enabled), the *User Type* field set to 1 (year day schedule user) and the *PIN* field set to a valid code (if applicable): “7777” (0x04, 0x37, 0x37, 0x37, 0x37).	DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0b	DRLK.S.A0023	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0c	DRLK.S.A0033	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *RequirePINforRF-Operation* attribute to 0x01 (enabled).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0d	DRLK.S.A0015	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *NumberOfYearDay-SchedulesSupportedPerUser* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. If supported, set S_{max} to the value of the *NumberOfYearDaySchedules-SupportedPerUser* attribute. Otherwise, set S_{max} to 0x0f.
0e	DRLK.S.A0011	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *NumberOfTotalUsers-Supported* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. If supported, set U_{max} to the value of the *NumberOfTotalUsers-Supported* attribute.

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DRLK-TC-05S: Year day schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
1	DRLK.S.C0e.Rsp, DRLK.S.C0e.Tx	TH CLIENT unicasts a ZCL *set year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x00, the *User ID* field set to 0x0007, the *ZigBee Local Start Time* field set to the current local time – 30 minutes and the *ZigBee Local End Time* field set to the current local time + 30 minutes. ***Note:*** *All times are in ZigBee time format.*	DUT SERVER unicasts a ZCL *set year day schedule response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
2	DRLK.S.C15.Rsp, DRLK.S.C15.Tx	TH CLIENT unicasts a ZCL *get user type* command frame to DUT SERVER with the *User ID* field set to 0x0007.	DUT SERVER unicasts a ZCL *get user type response* command frame to TH CLIENT with the *User ID* field equal to 0x0007 and the *User Type* field equal to 1 (year day schedule user).
3	DRLK.S.C0f.Rsp, DRLK.S.C0f.Tx	TH CLIENT unicasts a ZCL *get year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x00 and the *User ID* field set to 0x0007.	DUT SERVER unicasts a ZCL *get year day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x00, the *User ID* field equal to 0x0007, the *Status* field equal to 0x00 (SUCCESS) and the remaining fields equal to the schedule configured in step 1.
4	DRLK.S.C0f.Rsp, DRLK.S.C0f.Tx	TH CLIENT unicasts a ZCL *get year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to (S_{max} + 1) and the *User ID* field set to 0x0007.	DUT SERVER unicasts a ZCL *get year day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x10, the *User ID* field equal to 0x0007 and the *Status* field equal to 0x85 (INVALID_FIELD).
5	DRLK.S.C0f.Rsp, DRLK.S.C0f.Tx	TH CLIENT unicasts a ZCL *get year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x00 and the *User ID* field set to (U_{max} + 1) (invalid).	DUT SERVER unicasts a ZCL *get year day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x00, the *User ID* field equal to (U_{max} + 1) and the *Status* field equal to 0x85 (INVALID_VALUE).

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DRLK-TC-05S: Year day schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
6	DRLK.S.C0f.Rsp, DRLK.S.C0f.Tx	TH CLIENT unicasts a ZCL *get year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x00 and the *User ID* field set to 0x0000 (valid but non-existing).	DUT SERVER unicasts a ZCL *get year day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x00, the *User ID* field equal to 0x0000 and the *Status* field equal to 0x88 (NOT_FOUND).
7	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID code* field set to the PIN configured in step 0a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
8	DRLK.S.C10.Rsp, DRLK.S.C10.Tx	TH CLIENT unicasts a ZCL *clear year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x00 and the *User ID* field set to 0x0007.	DUT SERVER unicasts a ZCL *clear year day schedule response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
9a	DRLK.S.C0f.Rsp, DRLK.S.C0f.Tx	TH CLIENT unicasts a ZCL *get year day schedule* command frame to DUT SERVER with the *Schedule ID* field set to 0x00 and the *User ID* field set to 0x0007.	DUT SERVER unicasts a ZCL *get year day schedule response* command frame to TH CLIENT with the *Schedule ID* field equal to 0x00, the *User ID* field equal to 0x0007 and the *Status* field not equal to 0x00 (SUCCESS).

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DRLK-TC-05S: Year day schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
9b	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0007, the *User Status* field set to 1 (Occupied/Enabled), the *User Type* field set to 0 (Unrestricted User) and the *PIN* field set to a valid code (if applicable): “7777” (0x04, 0x37, 0x37, 0x37, 0x37).	DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
9c	DRLK.S.C06.Rsp, DRLK.S.C06.Tx	TH CLIENT unicasts a ZCL *get PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0007.	DUT SERVER unicasts a ZCL *get PIN code response* command frame to TH CLIENT with the *User ID* field equal to 0x0007, the *User Status* field equal to 0x01 (*Occupied/Enabled*), the *User Type* field set to 0x00 (*Unrestricted User*) and the *Code* field set to the PIN configured in step 0a.
10	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID code* field set to the PIN configured in step 0a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

--- End of test case DRLK-TC-05S ---

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5.3.6 DRLK-TC-06S: User interface

This test verifies the user interface behavior of the *door lock* cluster server:

5.3.6.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *LockState* attribute (0x0000)
- *LockType* attribute (0x0001)
- *ActuatorEnabled* attribute (0x0002)
- *EnableLogging* attribute (0x0020)
- *Language* attribute (0x0021)
- *LEDSettings* attribute (0x0022)
- *AutoRelockTime* attribute (0x0023)
- *SoundVolume* attribute (0x0024)
- *OperatingMode* attribute (0x0025)
- *WrongCodeEntryLimit* attribute (0x0030)
- *UserCodeTemporaryDisableTime* attribute (0x0031)
- *SendPINOverTheAir* attribute (0x0032)
- *Set PIN code* command (0x05)
- *Set PIN code response* command (0x05)
- *Get PIN code* command (0x06)
- *Get PIN code response* command (0x06)

PICS:

- DRLK.S,
- DRLK.S.A0000 – DRLK.S.A0002, DRLK.S.A0020 – DRLK.S.A0025, DRLK.S.A0030 – DRLK.S.A0032
- DRLK.S.C05.Rsp, DRLK.S.C06.Rsp
- DRLK.S.C05.Tx, DRLK.S.C06.Tx

5.3.6.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.

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DUT SERVER		Device under test server: • The *door lock* cluster server.

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395 ### 5.3.6.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT shall be setup as factory default mode, with the “lock state”, “lock type”, and “actuator enabled”.

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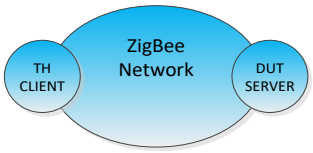
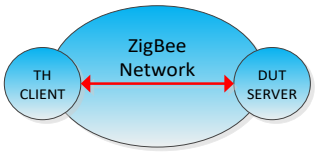
397 ### 5.3.6.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

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DRLK-TC-06S: User interface		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-06S preparation ---

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400 #### 5.3.6.5 Test procedure

DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0a	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001, the *User Status* field set to 1 (Occupied/Enabled), the *User Type* field set to 0 (Unrestricted User) and the *PIN* field set to a valid code (if applicable): "1111" (0x04, 0x31, 0x31, 0x31, 0x31).	DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1	DRLK.S.A0020, DRLK.S.A0021, DRLK.S.A0022, DRLK.S.A0023, DRLK.S.A0024, DRLK.S.A0025	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *EnableLogging*, *Language*, *LEDSettings*, *AutoRelockTime*, *SoundVolume* and *OperatingMode* attributes.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. If supported on DUT SERVER the values are in the permitted range. If not supported on DUT SERVER the respective *Status* fields are equal to 0x86 (UNSUPPORTED_ATTRIBUTE).
2a	DRLK.S.A0021	**If the *Language* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *Language* attribute to "fr" (French).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the Language value is not supported.*
2b	DRLK.S.A0021	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *Language* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *Language* attribute has the value "fr" (French). DUT SERVER operates in the French language mode.

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
3a	DRLK.S.A0021	**If the *Language* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *Language* attribute to “es” (Spanish).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the Language value is not supported.*
3b	DRLK.S.A0021	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *Language* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *Language* attribute has the value “es” (Spanish). DUT SERVER operates in the Spanish language mode.
4a	DRLK.S.A0021	**If the *Language* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *Language* attribute to “en” (English).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the Language value is not supported.*
4b	DRLK.S.A0021	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *Language* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *Language* attribute has the value “en” (English). DUT SERVER operates in the English language mode.
5a	DRLK.S.A0021	**If the *Language* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *Language* attribute to “aa” (English).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x87 (INVALID_VALUE).

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
5b	DRLK.S.A0021	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *Language* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *Language* attribute has the value “en” (English). DUT SERVER operates in the English language mode.
6a	DRLK.S.A0022	**If the *LEDSettings* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *LEDSettings* attribute to 0x00 (never use LED for signalization).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the LEDSetting value is not supported.*
6b	DRLK.S.A0022	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LEDSettings* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LEDSettings* attribute has the value 0x00 (never use LED for signalization). DUT SERVER operates under LED settings mode 0x00.
7a	DRLK.S.A0022	**If the *LEDSettings* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *LEDSettings* attribute to 0x01 (use LED signalization except for access allowed events).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the LEDSetting value is not supported.*

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
7b	DRLK.S.A0022	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LEDSettings* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LEDSettings* attribute has the value 0x01 (use LED signalization except for access allowed events). DUT SERVER operates under LED settings mode 0x01.
8a	DRLK.S.A0022	**If the *LEDSettings* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *LEDSettings* attribute to 0x02 (use LED signalization for all events).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the LEDSetting value is not supported.*
8b	DRLK.S.A0022	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LEDSettings* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LEDSettings* attribute has the value 0x02 (use LED signalization for all events). DUT SERVER operates under LED settings mode 0x02.
9a	DRLK.S.A0022	**If the *LEDSettings* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *LEDSettings* attribute to 0x03 (invalid).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x87 (INVALID_VALUE).

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
9b	DRLK.S.A0022	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *LEDSettings* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *LEDSettings* attribute has the value 0x02 (use LED signalization for all events). DUT SERVER operates under LED settings mode 0x02.
10a	DRLK.S.A0024	**If the *SoundVolume* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *SoundVolume* attribute to 0x00 (silent mode).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the SoundVolume value is not supported.*
10b	DRLK.S.A0024	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *SoundVolume* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *SoundVolume* attribute has the value 0x00 (silent mode). DUT SERVER operates in silent mode.
11a	DRLK.S.A0024	**If the *SoundVolume* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *SoundVolume* attribute to 0x01 (low volume).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the SoundVolume value is not supported.*
11b	DRLK.S.A0024	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *SoundVolume* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *SoundVolume* attribute has the value 0x01 (low volume). DUT SERVER operates in low volume mode.

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
12a	DRLK.S.A0024	**If the *SoundVolume* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *SoundVolume* attribute to 0x02 (high volume).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS) or 0x87 (INVALID_VALUE). ***Note:*** *DUT SERVER responds with status 0x87 if the SoundVolume value is not supported.*
12b	DRLK.S.A0024	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *SoundVolume* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *SoundVolume* attribute has the value 0x02 (high volume). DUT SERVER operates in high volume mode.
13a	DRLK.S.A0024	**If the *SoundVolume* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *SoundVolume* attribute to 0x03 (invalid).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x87 (INVALID_VALUE).
13b	DRLK.S.A0024	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *SoundVolume* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *SoundVolume* attribute has the value 0x02 (high volume). DUT SERVER operates in high volume mode.
14a	DRLK.S.A0030	**If the *WrongCodeEntryLimit* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *WrongCodeEntryLimit* attribute to DRLK.PIXIT01.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
14b	DRLK.S.A0030	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *WrongCodeEntryLimit* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *WrongCodeEntryLimit* attribute has the value DRLK.PIXIT01.
14c	-	Test engineer enters DRLK.PIXIT01 invalid PINs at DUT SERVER.	DUT SERVER goes into lockout mode after the last invalid PIN is entered.
15a	DRLK.S.A0030	**If the *WrongCodeEntryLimit* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *WrongCodeEntryLimit* attribute to 0x01.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
15b	DRLK.S.A0030	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *WrongCodeEntryLimit* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *WrongCodeEntryLimit* attribute has the value 0x01.
15c	-	Test engineer enters one invalid PIN at DUT SERVER.	DUT SERVER goes into lockout mode after the invalid PIN is entered.
16a	DRLK.S.A0030	**If the *WrongCodeEntryLimit* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *WrongCodeEntryLimit* attribute to (DRLK.PIXIT01 + 1).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field not equal to 0x00 (SUCCESS).
16b	DRLK.S.A0030	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *WrongCodeEntryLimit* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *WrongCodeEntryLimit* attribute has the value 0x01.

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
16c	-	Test engineer enters one invalid PIN at DUT SERVER.	DUT SERVER goes into lockout mode after the invalid PIN is entered.
17a	DRLK.S.A0031	**If the *UserCodeTemperary-DisableTime* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *UserCodeTemporary-DisableTime* attribute to 0x01.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
17b	DRLK.S.A0031	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *UserCodeTemporary-DisableTime* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *UserCodeTemporaryDisable-Time* attribute has the value 0x01.
17c	-	Test engineer enters one invalid PIN at DUT SERVER.	DUT SERVER goes into lockout mode after the invalid PIN is entered. After 1 second DUT SERVER goes into normal mode.
18a	DRLK.S.A0031	**If the *UserCodeTemperary-DisableTime* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *UserCodeTemporary-DisableTime* attribute to 0x3c.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
18b	DRLK.S.A0031	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *UserCodeTemporary-DisableTime* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *UserCodeTemporaryDisable-Time* attribute has the value 0x3c.
18c	-	Test engineer enters one invalid PIN at DUT SERVER.	DUT SERVER goes into lockout mode after the invalid PIN is entered. After 60 seconds DUT SERVER goes into normal mode.

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
19a	DRLK.S.A0031	**If the *UserCodeTemperary-DisableTime* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *UserCodeTemporary-DisableTime* attribute to DRLK.PIXIT02.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field not equal to 0x00 (SUCCESS).
19b	DRLK.S.A0031	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *UserCodeTemporary-DisableTime* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *UserCodeTemporaryDisable-Time* attribute has the value 0x3c.
19c	-	Test engineer enters one invalid PIN at DUT SERVER.	DUT SERVER goes into lockout mode after the invalid PIN is entered. After 60 seconds DUT SERVER goes into normal mode.
20a	DRLK.S.A0032	**If the *SendPINOverTheAir* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *SendPINOverTheAir* attribute to 0x00 (FALSE).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
20b	DRLK.S.A0032	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *SendPINOverTheAir* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *SendPINOverTheAir* attribute has the value 0x00 (FALSE).
20c	DRLK.S.C06.Rsp, DRLK.S.C06.Tx	TH CLIENT unicasts a ZCL *get PIN code* command frame to DUT SERVER with the *User ID* fields set to a known user identifier.	DUT SERVER unicasts a ZCL *get PIN code response* command frame with the *User ID*, *User Status* and *User Type* fields corresponding to a known user. The *Code* field is not included.

Continued…

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DRLK-TC-06S: User interface			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
21a	DRLK.S.A0032	**If the *SendPINOverTheAir* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *SendPINOverTheAir* attribute to 0x01 (TRUE).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
20b	DRLK.S.A0032	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *SendPINOverTheAir* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *SendPINOverTheAir* attribute has the value 0x01 (TRUE).
20c	DRLK.S.C06.Rsp, DRLK.S.C06.Tx	TH CLIENT unicasts a ZCL *get PIN code* command frame to DUT SERVER with the *User ID* fields set to a known user identifier.	DUT SERVER unicasts a ZCL *get PIN code response* command frame with the *User ID*, *User Status* and *User Type* and *Code* fields corresponding to a known user.

--- End of test case DRLK-TC-06S ---

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5.3.7 DRLK-TC-07S: RFID

This test verifies the RFID behavior of the *door lock* cluster server:

5.3.7.1 Scope

General:

- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *DoorOpenEvents* attribute (0x0004)
- *DoorClosedEvents* attribute (0x0005)
- *AutoRelockTime* attribute (0x0023)
- *Set RFID code* command (0x16)
- *Set RFID code response* command (0x16)
- *Get RFID code* command (0x17)
- *Get RFID code response* command (0x17)
- *Clear RFID code* command (0x18)
- *Clear RFID code response* command (0x18)
- *Clear all RFID codes* command (0x19)
- *Clear all RFID codes response* command (0x19)

PICS:

- DRLK.S,
- DRLK.S.A0004, DRLK.S.A0005, DRLK.S.A0023
- DRLK.S.C16.Rsp, DRLK.S.C17.Rsp, DRLK.S.C18.Rsp, DRLK.S.C19.Rsp
- DRLK.S.C16.Tx, DRLK.S.C17.Tx, DRLK.S.C18.Tx, DRLK.S.C19.Tx

5.3.7.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

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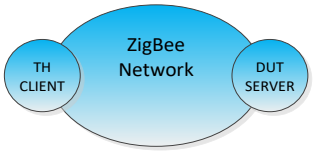
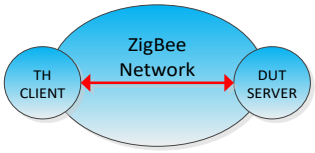
5.3.7.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT shall be setup as factory default mode, with the *LockState*, *LockType*, *ActuatorEnabled* and *DoorState* (if supported) attributes set up to represent the state of the door.

5.3.7.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-07S: RFID		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-07S preparation ---

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433 #### 5.3.7.5 Test procedure

DRLK-TC-07S: RFID			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0a	DRLK.S.A0004	**If the *DoorOpenEvents* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *DoorOpenEvents* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0b	DRLK.S.A0005	**If the *DoorClosedEvents* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *DoorClosedEvents* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0c	DRLK.S.A0023	**If the *AutoRelockTime* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000 (disabled).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1	DRLK.S.C19.Rsp, DRLK.S.C19.Tx	TH CLIENT unicasts a ZCL *clear all RFID codes* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *clear all RFID codes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
2	-	Attempt to unlock DUT SERVER with at least 3 RFID cards provided with the lock.	DUT SERVER does not unlock with any of the cards.

Continued…

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DRLK-TC-07S: RFID			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
3a	DRLK.S.C16.Rsp, DRLK.S.C16.Tx	TH CLIENT unicasts a ZCL *set RFID code* command frame to DUT SERVER with the *User ID* field set to 0x0001, the *User Status* field set to 0x01 (occupied/enabled), the *User Type* field set to 0x00 (unrestricted user) and the *RFID Code* field set to a suitable value for this user.	DUT SERVER unicasts a ZCL *set RFID code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
3b	DRLK.S.C16.Rsp, DRLK.S.C16.Tx	TH CLIENT unicasts a ZCL *set RFID code* command frame to DUT SERVER with the *User ID* field set to 0x0002, the *User Status* field set to 0x01 (occupied/enabled), the *User Type* field set to 0x00 (unrestricted user) and the *RFID Code* field set to a suitable value for this user.	DUT SERVER unicasts a ZCL *set RFID code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
3c	DRLK.S.C16.Rsp, DRLK.S.C16.Tx	TH CLIENT unicasts a ZCL *set RFID code* command frame to DUT SERVER with the *User ID* field set to 0x0003, the *User Status* field set to 0x01 (occupied/enabled), the *User Type* field set to 0x00 (unrestricted user) and the *RFID Code* field set to a suitable value for this user.	DUT SERVER unicasts a ZCL *set RFID code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
4	-	Attempt to unlock DUT SERVER with one of the RFID cards programmed in steps 3a-3c.	DUT SERVER unlocks. AutoRelockTime is disabled so will not relock.

Continued…

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DRLK-TC-07S: RFID			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
5	DRLK.S.C17.Rsp, DRLK.S.C17.Tx	TH CLIENT unicasts a ZCL *get RFID code* command frame to DUT SERVER with the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get RFID code response* command frame to TH CLIENT with the *User ID* field equal to 0x0001, the *User Status* field equal to 0x01 (occupied/enabled), the *User Type* field equal to 0x00 (unrestricted user) and the *RFID Code* field equal to the corresponding code set for this user in step 3a.
6	DRLK.S.C18.Rsp, DRLK.S.C18.Tx	TH CLIENT unicasts a ZCL *clear RFID code* command frame to DUT SERVER with the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *clear RFID code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
7	DRLK.S.C17.Rsp, DRLK.S.C17.Tx	TH CLIENT unicasts a ZCL *get RFID code* command frame to DUT SERVER with the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *get RFID code response* command frame to TH CLIENT with the *User ID* field equal to 0x0001, the *User Status* field equal to 0x00 (available), the *User Type* field equal to a value within range and the *RFID Code* field equal to an empty string.
8	-	Attempt to unlock DUT SERVER with at the first RFID card that was configured in step 3a.	DUT SERVER remains locked.
9	DRLK.S.C19.Rsp, DRLK.S.C19.Tx	TH CLIENT unicasts a ZCL *clear all RFID codes* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *clear all RFID codes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
10	-	Attempt to unlock DUT SERVER with at least 3 RFID cards provided with the lock.	DUT SERVER does not unlock with any of the cards.

--- End of test case DRLK-TC-07S ---

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5.3.8 DRLK-TC-08S: Attribute reporting

This test verifies the attribute reporting behavior of the *door lock* cluster server:

5.3.8.1 Scope

General:

- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)
- *Configure reporting* command (0x06)
- *Configure reporting response* command (0x07)
- *Report attributes* command (0x0a)

Door lock cluster (0x0101):

- *LockState* attribute (0x0000)
- *DoorState* attribute (0x0003)
- *EnableLogging* attribute (0x0020)
- *Language* attribute (0x0021)
- *LEDSettings* attribute (0x0022)
- *AutoRelockTime* attribute (0x0023)
- *SoundVolume* attribute (0x0024)
- *OperatingMode* attribute (0x0025)
- *DefaultConfigurationRegister* attribute (0x0027)
- *EnableLocalProgramming* attribute (0x0028)
- *EnableOneTouchLocking* attribute (0x0029)
- *EnableInsideStatusLED* attribute (0x002a)
- *EnablePrivateModeButton* attribute (0x002b)
- *WrongCodeEntryLimit* attribute (0x0030)
- *UserCodeTemporaryDisableTime* attribute (0x0031)
- *SendPINOverTheAir* attribute (0x0032)
- *RequirePINForRFOperation* attribute (0x0033)
- *ZigBeeSecuirtyLevel* attribute (0x0034)
- *AlarmMask* attribute (0x0040)
- *KeypadOperationEventMask* attribute (0x0041)
- *RFOperationEventMask* attribute (0x0042)
- *ManualOperationEventMask* attribute (0x0043)
- *RFIDOperationEventMask* attribute (0x0044)
- *KeypadProgrammingEventMask* attribute (0x0045)
- *RFProgrammingEventMask* attribute (0x0046)
- *RFIDProgrammingEventMask* attribute (0x0047)

PICS:

- DRLK.S,

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- DRLK.S.A0000, DRLK.S.A0003,
- DRLK.S.A0020 – DRLK.S.A0025, DRLK.S.A0027 – DRLK.S.A002b, DRLK.S.A0030 – DRLK.S.A0034, DRLK.S.A0040 – DRLK.S.A0047

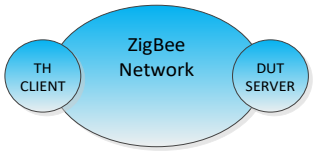
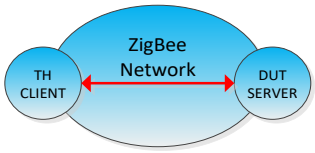
5.3.8.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

5.3.8.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

5.3.8.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-08S: Attribute reporting		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

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DRLK-TC-08S: Attribute reporting		
Item	**Preparation Step**	**Observation**
P3	Establish a binding link in the reverse direction from an endpoint on DUT SERVER to a corresponding endpoint on TH CLIENT that both support the *door lock* cluster.	Observe appropriate communication between DUT SERVER, TH CLIENT and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-08S preparation ---

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483 #### 5.3.8.5 Test procedure

DRLK-TC-08S: Attribute reporting			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
1a	DRLK.S.A0000, DRLK.S.A0003, DRLK.S.A0020 – DRLK.S.A0025, DRLK.S.A0027 – DRLK.S.A002b, DRLK.S.A0030 – DRLK.S.A0034, DRLK.S.A0040 – DRLK.S.A0047	TH CLIENT unicasts a ZCL *configure reporting* command to DUT SERVER for any of the supported attributes listed in section 5.3.8.1 each with the *direction* field set to 0x00, the *minimum reporting interval* field set to 0x001e (30 seconds), the *maximum reporting interval* field set to 0x003c (60 seconds) and (for "analog" attribute values) the *reportable change* field set equal to or less than 25% of the device's valid value range (if valid range is between 0 – 100 with a resolution of 1, set the *reportable change* field to 0x0a (10%)).	DUT SERVER unicasts a ZCL *configure reporting response* command to TH CLIENT, confirming the configured attributes and with the *status* field set to SUCCESS.
1b	-	None	At a time ≤ 62s after step 1a, DUT SERVER unicasts one or more ZCL *report attributes* command to TH CLIENT with the attributes configured in step 1a.
2	-	Test engineer increases the value of the attribute(s) using a value equal to or greater than that of the reportable change field (if applicable).	At a time ≤ 32s after the respective attribute values have changed, DUT SERVER unicasts one or more ZCL *report attributes* command to TH CLIENT with the attributes that have changed.
3	-	Test engineer reduces the value of the attribute(s) using a value equal to or greater than that of the reportable change field (if applicable).	At a time ≤ 32s after the respective attribute values have changed, DUT SERVER unicasts one or more ZCL *report attributes* command to TH CLIENT with the attributes that have changed.

Continued…

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DRLK-TC-08S: Attribute reporting			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
4	DRLK.S.A0000, DRLK.S.A0003, DRLK.S.A0020 – DRLK.S.A0025, DRLK.S.A0027 – DRLK.S.A002b, DRLK.S.A0030 – DRLK.S.A0034, DRLK.S.A0040 – DRLK.S.A0047	TH CLIENT unicasts a ZCL *configure reporting* command to DUT SERVER for the supported attributes listed in section 5.3.8.1 each with the *maximum reporting interval* field set to 0xffff (do not send reports).	DUT SERVER unicasts a ZCL *configure reporting response* command to TH CLIENT, confirming the configured attributes and with the *status* field set to SUCCESS.

--- End of test case DRLK-TC-08S ---

5.3.9 DRLK-TC-09S: Door state

This test verifies the door state behavior of the *door lock* cluster server.

NOTE: Currently, this test is **un-certifiable** and will be considered **OPTIONAL.**

5.3.9.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *DoorState* attribute (0x0003)
- *DoorOpenEvents* attribute (0x0004)
- *DoorClosedEvents* attribute (0x0005)
- *OpenPeriod* attribute (0x0006)
- *AutoRelockTime* attribute (0x0023)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)

PICS:

- DRLK.S,
- DRLK.S.A0003 – DRLK.S.A0006, DRLK.S.A0023
- DRLK.S.C01.Rsp
- DRLK.S.C01.Tx

5.3.9.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

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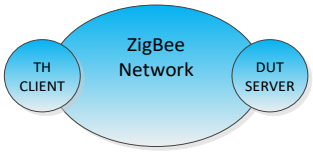
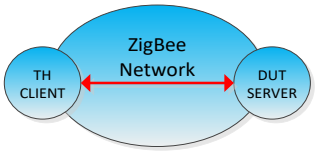
5.3.9.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.
3	The DUT shall be setup as factory default mode, with the *DoorState* (if supported) attribute set up to represent the state of the door.

5.3.9.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-09S: Door state		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-09S preparation ---

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515 #### 5.3.9.5 Test procedure

DRLK-TC-09S: Door state			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0a	DRLK.S.A0004	**If the *DoorOpenEvents* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *DoorOpenEvents* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0b	DRLK.S.A0005	**If the *DoorClosedEvents* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *DoorClosedEvents* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
0c	DRLK.S.A0023	**If the *AutoRelockTime* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000 (disabled).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1	DRLK.S.A0003, DRLK.S.A0004, DRLK.S.A0005, DRLK.S.A0006	**For those attributes supported on DUT SERVER:** TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *DoorState*, *DoorOpenEvents*, *DoorClosedEvents* and *OpenPeriod* attributes.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *DoorState* attribute has a value appropriate to DUT SERVER. The *DoorOpenEvents* and *DoorClosedEvents* attributes each have the value 0x00000000. The *OpenPeriods* attribute has a value appropriate to the state of the door.
2a	-	Test engineer physically closes the door if it is not closed.	DUT SERVER does nothing.

Continued…

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DRLK-TC-09S: Door state			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
2b	DRLK.S.A0003	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *DoorState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *DoorState* attribute has the value 0x01 (closed).
3	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS). DUT SERVER unlocks.
4a	-	Test engineer physically opens the door.	DUT SERVER does nothing.
4b	DRLK.S.A0003, DRLK.S.A0004	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *DoorState* and *DoorOpenEvents* attributes.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *DoorState* attribute has the value 0x00 (open). The *DoorOpenEvents* attribute has the value 0x00000001.
5a	-	After 3 minutes, test engineer physically closed the door.	DUT SERVER does nothing.
5b	-	Test engineer physically opens the door.	DUT SERVER does nothing.
5c	DRLK.S.A0003	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *DoorState* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *DoorState* attribute has the value 0x00 (open).
5d	-	After 3 minutes, test engineer physically closed the door.	DUT SERVER does nothing.

Continued…

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DRLK-TC-09S: Door state			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
5e	DRLK.S.A0003, DRLK.S.A0004, DRLK.S.A0005	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *DoorState*, *DoorOpenEvents* and *DoorCloseEvents* attributes.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *DoorState* attribute has the value 0x01 (closed). The *DoorOpenEvents* and *DoorClosedEvents* attributes have increased in value from when they were read in step 1.

--- End of test case DRLK-TC-09S ---

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5.3.10 DRLK-TC-10S: PIN

This test verifies the PIN behavior of the *door lock* cluster server:

5.3.10.1 Scope

General:

- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *AutoRelockTime* attribute (0x0023)
- *RequirePINForRFOperation* attribute (0x0033)
- *KeypadOperationEventMask* attribute (0x0041)
- *RFOperationEventMask* attribute (0x0042)
- *ManualOperationEventMask* attribute (0x0043)
- *KeypadProgrammingEventMask* attribute (0x0045)
- *RFProgrammingEventMask* attribute (0x0046)
- *Lock door* command (0x00)
- *Lock door response* command (0x00)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)
- *Set PIN code* command (0x05)
- *Set PIN code response* command (0x05)
- *Clear PIN code* command (0x07)
- *Clear PIN code response* command (0x07)
- *Operation event notification* command (0x20)
- *Programming event notification* command (0x21)

PICS:

- DRLK.S,
- DRLK.S.A0023, DRLK.S.A0033, DRLK.S.A0041 – DRLK.S.A0043, DRLK.S.A0045, DRLK.S.A0046
- DRLK.S.C00.Rsp, DRLK.S.C01.Rsp, DRLK.S.C05.Rsp, DRLK.S.C07.Rsp
- DRLK.S.C00.Tx, DRLK.S.C01.Tx, DRLK.S.C05.Tx, DRLK.S.C07.Tx, DRLK.S.C20.Tx, DRLK.S.C21.Tx

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5.3.10.2 Required devices

Designation	Symbol	Description
TH CLIENT	TH CLIENT	Test harness client implementing: • The *door lock* cluster client.
DUT SERVER	DUT SERVER	Device under test server: • The *door lock* cluster server.

5.3.10.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

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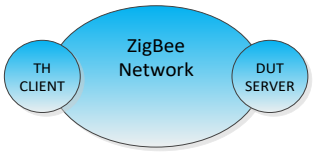
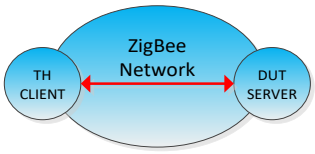
556 #### 5.3.10.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

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DRLK-TC-10S: PIN		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.
P3	Establish a binding link in the reverse direction from an endpoint on DUT SERVER to a corresponding endpoint on TH CLIENT that both support the *door lock* cluster.	Observe appropriate communication between DUT SERVER, TH CLIENT and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-10S preparation ---

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559 #### 5.3.10.5 Test procedure

DRLK-TC-10S: PIN			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0a	DRLK.S.A0023	**If the *AutoRelockTime* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000 (disabled).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1a	DRLK.S.A0033	**If the *RequirePINForRFOperation* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *RequirePINForRF-Operation* attribute to 1 (PIN required).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1b	DRLK.S.A0033, DRLK.S.C01.Rsp, DRLK.S.C01.Tx	**If the *RequirePINForRFOperation* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER without including the *PIN/RFID Code* field.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x01 (FAILURE).
2a	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001, the *User Status* field set to 0x01 (occupied/enabled), the *User Type* field set to 0x00 (unrestricted user) and the *PIN Code* field set to a suitable value for this user. ***NOTE:*** *If the set PIN code command is not supported the test engineer sets a PIN code physically on DUT SERVER.*	**If reception of the *set PIN code* command is supported on DUT SERVER:** DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

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DRLK-TC-10S: PIN			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**

Continued…

2b	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID Code* field set to the PIN configured in step 2a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS). DUT SERVER unlocks.
3a	DRLK.S.C00.Rsp, DRLK.S.C00.Tx	TH CLIENT unicasts a ZCL *lock door* command frame to DUT SERVER with the *PIN/RFID Code* field set to the PIN configured in step 2a.	DUT SERVER unicasts a ZCL *lock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS). DUT SERVER locks.
3b	DRLK.S.A0033, DRLK.S.C01.Rsp, DRLK.S.C01.Tx	**If the *RequirePINForRFOperation* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID Code* field set to a value other than the PIN configured in step 2a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x01 (FAILURE). DUT SERVER does not unlock.
4a	DRLK.S.C07.Rsp, DRLK.S.C07.Tx	TH CLIENT unicasts a ZCL *clear PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001.	DUT SERVER unicasts a ZCL *clear PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
4b	DRLK.S.A0033, DRLK.S.C01.Rsp, DRLK.S.C01.Tx	**If the *RequirePINForRFOperation* attribute is supported on DUT SERVER:** TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID Code* field set to the PIN configured in step 2a.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x01 (FAILURE). DUT SERVER does not unlock.

Continued…

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DRLK-TC-10S: PIN			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
5a	DRLK.S.A0041, DRLK.S.A0042, DRLK.S.A0043, DRLK.S.A0045, DRLK.S.A0046	**For those attributes supported on DUT SERVER:** TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *KeypadOperationEvent-Mask*, *RFOperationEvent-Mask*, *ManualOperationEvent-Mask*, *KeypadProgramming-EventMask*, *RFProgramming-EventMask* attributes all to 0xffff (turn on event reporting).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
5b	DRLK.S.C05.Rsp, DRLK.S.C05.Tx	TH CLIENT unicasts a ZCL *set PIN code* command frame to DUT SERVER with the *User ID* field set to 0x0001, the *User Status* field set to 0x01 (occupied/enabled), the *User Type* field set to 0x00 (unrestricted user) and the *PIN Code* field set to a suitable value for this user. ***NOTE:*** *If the set PIN code command is not supported the test engineer sets a PIN code physically on DUT SERVER.*	**If reception of the *set PIN code* command is supported on DUT SERVER:** DUT SERVER unicasts a ZCL *set PIN code response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
5c	DRLK.S.C21.Tx	None.	**If transmission of the *programming event notification* command is supported on DUT SERVER:** DUT SERVER unicasts a ZCL *programming event notification* command frame to TH CLIENT indicating that a user was created.
6a	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER with the *PIN/RFID Code* field set to the PIN configured in step 5b.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS). DUT SERVER unlocks.

Continued…

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DRLK-TC-10S: PIN			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
6b	DRLK.S.C20.Tx	None.	**If transmission of the *operation event notification* command is supported on DUT SERVER:** DUT SERVER unicasts a ZCL *operation event notification* command frame to TH CLIENT indicating that the door was unlocked successfully.

--- End of test case DRLK-TC-10S ---

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5.3.11 DRLK-TC-11S: Holiday schedule

This test verifies the holiday schedule behavior of the *door lock* cluster server:

5.3.11.1 Scope

General:

- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *AutoRelockTime* attribute (0x0023)
- *Set holiday schedule* command (0x11)
- *Set holiday schedule response* command (0x11)
- *Get holiday schedule* command (0x12)
- *Get holiday schedule response* command (0x12)
- *Clear holiday schedule* command (0x13)
- *Clear holiday schedule response* command (0x13)

PICS:

- DRLK.S,
- DRLK.S.A0023
- DRLK.S.C11.Rsp – DRLK.S.C13.Rsp
- DRLK.S.C11.Tx – DRLK.S.C13.Tx

5.3.11.2 Required devices

Designation	Symbol	Description
TH CLIENT		Test harness client implementing: • The *door lock* cluster client.
DUT SERVER		Device under test server: • The *door lock* cluster server.

5.3.11.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

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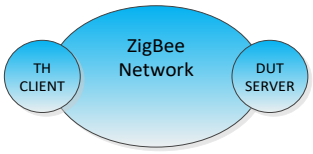
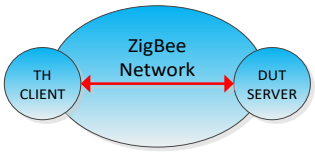
5.3.11.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-11S: Holiday schedule		
Item	**Preparation Step**	**Observation**
P2	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P3	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-11S preparation ---

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5.3.11.5 Test procedure

DRLK-TC-11S: Holiday schedule			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
0	DRLK.S.A0023	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x00000000.	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1	DRLK.S.C11.Rsp, DRLK.S.C11.Tx	TH CLIENT unicasts a ZCL *set holiday schedule* command frame to DUT SERVER with the *Holiday Schedule ID* set to 0x00 and the remaining fields set to configure an appropriate holiday schedule. ***NOTE:*** *If the set holiday schedule command is not supported the test engineer sets a holiday schedule physically on DUT SERVER.*	**If reception of the *set holiday schedule* command is supported on DUT SERVER:** DUT SERVER unicasts a ZCL *set holiday schedule response* command frame to TH CLIENT.
2	DRLK.S.C12.Rsp, DRLK.S.C12.Tx	TH CLIENT unicasts a ZCL *get holiday schedule* command frame to DUT SERVER with the *Holiday Schedule ID* set to 0x00.	DUT SERVER unicasts a ZCL *get holiday schedule response* command frame to TH CLIENT with the *Holiday Schedule ID* field equal to 0x00, the *Status* field equal to 0x00 (SUCCESS) and the remaining fields equal to the holiday schedule configured in step 1.
3	DRLK.S.C13.Rsp, DRLK.S.C13.Tx	TH CLIENT unicasts a ZCL *clear holiday schedule* command frame to DUT SERVER with the *Holiday Schedule ID* set to 0x00.	DUT SERVER unicasts a ZCL *clear holiday schedule response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

--- End of test case DRLK-TC-11S ---

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5.3.12 DRLK-TC-12S: Auto-relock

This test verifies the auto-relock behavior of the *door lock* cluster server:

5.3.12.1 Scope

General:

- *Read attributes* command (0x00)
- *Read attributes response* command (0x01)
- *Write attributes* command (0x02)
- *Write attributes response* command (0x04)

Door lock cluster (0x0101):

- *AutoRelockTime* attribute (0x0023)
- *Unlock door* command (0x01)
- *Unlock door response* command (0x01)
- *Unlock with timeout* command (0x03)
- *Unlock with timeout response* command (0x03)

PICS:

- DRLK.S,
- DRLK.S.A0023
- DRLK.S.C01.Rsp, DRLK.S.C03.Rsp
- DRLK.S.C01.Tx, DRLK.S.C03.Tx

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5.3.12.2 Required devices

Designation	Symbol	Description
TH CLIENT	TH CLIENT	Test harness client implementing: • The *door lock* cluster client.
DUT SERVER	DUT SERVER	Device under test server: • The *door lock* cluster server.

5.3.12.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

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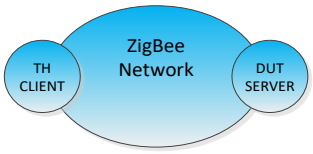
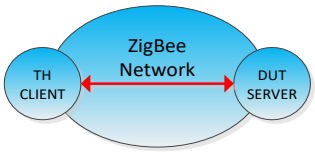
5.3.12.4 Test preparation

Link TH CLIENT with DUT SERVER	
 *Before*	 *After*

DRLK-TC-12S: Auto-relock		
Item	**Preparation Step**	**Observation**
P1	Power on TH CLIENT and DUT SERVER.	TH CLIENT and DUT SERVER are powered on.
P2	Ensure TH CLIENT and DUT SERVER are on the same ZigBee network.	Observe appropriate communication between TH CLIENT, DUT SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-12S preparation ---

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619 #### 5.3.12.5 Test procedure

DRLK-TC-12S: Auto-relock			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
1a	DRLK.S.A0023	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *AutoRelockTime* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *AutoRelockTime* attribute has some initial value.
1b	DRLK.S.A0023	TH CLIENT unicasts a ZCL *write attributes* command frame to DUT SERVER to set the *AutoRelockTime* attribute to 0x0000001e (30s).	DUT SERVER unicasts a ZCL *write attributes response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1c	DRLK.S.A0023	TH CLIENT unicasts a ZCL *read attributes* command frame to DUT SERVER to read the *AutoRelockTime* attribute.	DUT SERVER unicasts a ZCL *read attributes response* command frame to TH CLIENT. The *AutoRelockTime* attribute has the value 0x0000001e (30s).
1d	-	Test engineer ensures door is closed.	DUT SERVER does nothing.
1e	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
1f	-	None.	After 30s (plus up to 8s for sleepy devices) door re-locks.
2a	DRLK.S.C03.Rsp, DRLK.S.C03.Tx	TH CLIENT unicasts a ZCL *unlock with timeout* command frame to DUT SERVER with the *Timeout in Seconds* field set to a value other than the value of the *AutoRelockTime* attribute (e.g. 10s).	DUT SERVER unicasts a ZCL *unlock with timeout response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).
2b	-	None.	After 10s (plus up to 8s for sleepy devices), door re-locks.
3a	DRLK.S.C01.Rsp, DRLK.S.C01.Tx	TH CLIENT unicasts a ZCL *unlock door* command frame to DUT SERVER.	DUT SERVER unicasts a ZCL *unlock door response* command frame to TH CLIENT with the *Status* field equal to 0x00 (SUCCESS).

Continued…

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DRLK-TC-12S: Auto-relock			
Item	**PICS**	**Test Harness Step**	**DUT pass Verification**
3b	-	None.	After 30s (plus up to 8s for sleepy devices) door re-locks.
4a	-	**If an RFID card or PIN code has been configured on DUT SERVER:** Test engineer unlocks the door using the RFID card or PIN code.	Door unlocks.
4b	-	None.	After 30s (plus up to 8s for sleepy devices) door re-locks.
5a	-	Without using an RF command, RFID card or PIN code, test engineer physically unlocks the door.	Door unlocks.
5b	-	None.	After 30s (plus up to 8s for sleepy devices) door re-locks.

--- End of test case DRLK-TC-12S ---

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5.4 Client test cases

5.4.1 DRLK-TC-01C: Functionality with client as DUT

This case test verifies the functionality of the *door lock* cluster client.

The DUT client SHALL be on the same network as a suitable server, provided by the user, and this device SHALL be used by the client to exercise its functionality. The test case uses the test harness to prompt the user, based on the declared PICS, to exercise the functionality of the *basic* cluster client and to verify the results. A sniffer tool SHALL be used to log the exercised functionality and to determine its validity.

5.4.1.1 Scope

PICS:

- DRLK.C

5.4.1.2 Required devices

Designation	Symbol	Description
DUT CLIENT	DUT CLIENT	Device under test client implementing: • The *door lock* cluster client.
SERVER	SERVER	Suitable server device implementing: • The *door lock* cluster server.

5.4.1.3 Initial conditions

Item	Initial Conditions
1	A packet sniffer shall be observing the communication over the air interface.
2	All devices are factory new and powered off until used.

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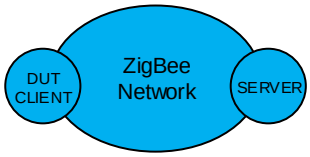
5.4.1.4 Test preparation

Link DUT CLIENT with SERVER	
 Before	 *After*

DRLK-TC-01C: Functionality with client as DUT		
Item	**Preparation Step**	**Observation**
P1	Power on the DUT CLIENT device and the SERVER device.	DUT CLIENT and SERVER are powered on.
P2	Ensure the DUT CLIENT device and the SERVER device are on the same ZigBee network.	Observe appropriate communication between DUT CLIENT, SERVER and any other relevant node on the ZigBee network.

--- End of test case DRLK-TC-01C preparation ---

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644 #### 5.4.1.5 Test procedure

DRLK-TC-01C: Functionality with client as DUT			
Item	**PICS**	**Test Harness Step**	**DUT Pass Verification**
1	-	Test harness prompts the user with a list of commands, based on the declared PICS, which the DUT CLIENT indicates it can transmit.	None.
2	-	None.	DUT CLIENT transmits correctly formed commands in any order and with application achievable values. This is verified using the sniffer log.
3	-	Prompt the user to verify that the cluster commands listed in step 1 were transmitted during step 2.	During step 2, DUT CLIENT has transmitted every command listed by the test harness in step 1.
4	-	Prompt the user to verify that the cluster commands not listed in step 1 were not transmitted during step 2.	During step 2, DUT CLIENT has not transmitted any commands from this cluster that were not listed by the test harness in step 1.

--- End of test case DRLK-TC-01C ---

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6 Annex A: PICS to test case cross reference

6.1 Server

	Test case DRLK-TC.xxx												
PICS	01G	01S	02S	03S	04S	05S	06S	07S	08S	09S	10S	11S	12S
DRLK.S	X	X											
DRLK.S.A0000		X	X	X			X						
DRLK.S.A0001		X	X				X						
DRLK.S.A0002		X	X				X						
DRLK.S.A0003		X								X			
DRLK.S.A0004		X						X		X			
DRLK.S.A0005		X						X		X			
DRLK.S.A0006		X								X			
DRLK.S.A0010		X											
DRLK.S.A0011		X			X	X							
DRLK.S.A0012		X											
DRLK.S.A0013		X											
DRLK.S.A0014		X			X								
DRLK.S.A0015		X				X							
DRLK.S.A0016		X											
DRLK.S.A0017		X											
DRLK.S.A0018		X											
DRLK.S.A0019		X											
DRLK.S.A001a		X											
DRLK.S.A0020		X					X		X				
DRLK.S.A0021		X					X		X				
DRLK.S.A0022		X					X		X				
DRLK.S.A0023		X	X	X	X	X	X	X	X	X	X	X	X
DRLK.S.A0024		X					X		X				
DRLK.S.A0025		X					X		X				
DRLK.S.A0026		X											
DRLK.S.A0027		X							X				
DRLK.S.A0028		X							X				
DRLK.S.A0029		X							X				
DRLK.S.A002a		X							X				
DRLK.S.A002b		X							X				
DRLK.S.A0030		X					X		X				

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	Test case DRLK-TC.xxx												
PICS	01G	01S	02S	03S	04S	05S	06S	07S	08S	09S	10S	11S	12S
DRLK.S.A0031		X					X		X				
DRLK.S.A0032		X					X		X				
DRLK.S.A0033		X			X	X			X		X		
DRLK.S.A0034		X							X				
DRLK.S.A0040		X							X				
DRLK.S.A0041		X							X		X		
DRLK.S.A0042		X							X		X		
DRLK.S.A0043		X							X		X		
DRLK.S.A0044		X							X				
DRLK.S.A0045		X							X		X		
DRLK.S.A0046		X							X		X		
DRLK.S.A0047		X							X				
DRLK.S.Afffd	X	X											
DRLK.S.Afffe	X	X											
DRLK.S.C00.Rsp			X								X		
DRLK.S.C01.Rsp			X	X	X	X				X	X		X
DRLK.S.C02.Rsp													
DRLK.S.C03.Rsp													X
DRLK.S.C04.Rsp				X									
DRLK.S.C05.Rsp					X	X	X				X		
DRLK.S.C06.Rsp							X						
DRLK.S.C07.Rsp											X		
DRLK.S.C08.Rsp													
DRLK.S.C09.Rsp													
DRLK.S.C0a.Rsp													
DRLK.S.C0b.Rsp					X								
DRLK.S.C0c.Rsp					X								
DRLK.S.C0d.Rsp					X								
DRLK.S.C0e.Rsp					X								
DRLK.S.C0f.Rsp					X								
DRLK.S.C10.Rsp					X								
DRLK.S.C11.Rsp												X	
DRLK.S.C12.Rsp												X	
DRLK.S.C13.Rsp												X	
DRLK.S.C14.Rsp													

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	Test case DRLK-TC.xxx												
PICS	01G	01S	02S	03S	04S	05S	06S	07S	08S	09S	10S	11S	12S
DRLK.S.C15.Rsp					X	X							
DRLK.S.C16.Rsp								X					
DRLK.S.C17.Rsp								X					
DRLK.S.C18.Rsp								X					
DRLK.S.C19.Rsp								X					
DRLK.S.C00.Tx			X								X		
DRLK.S.C01.Tx			X	X	X	X				X	X		
DRLK.S.C02.Tx													
DRLK.S.C03.Tx													X
DRLK.S.C04.Tx				X									
DRLK.S.C05.Tx					X	X	X				X		
DRLK.S.C06.Tx							X						
DRLK.S.C07.Tx											X		
DRLK.S.C08.Tx													
DRLK.S.C09.Tx													
DRLK.S.C0a.Tx													
DRLK.S.C0b.Tx					X								
DRLK.S.C0c.Tx					X								
DRLK.S.C0d.Tx					X								
DRLK.S.C0e.Tx						X							
DRLK.S.C0f.Tx						X							
DRLK.S.C10.Tx						X							
DRLK.S.C11.Tx												X	
DRLK.S.C12.Tx												X	
DRLK.S.C13.Tx												X	
DRLK.S.C14.Tx													
DRLK.S.C15.Tx					X	X							
DRLK.S.C16.Tx								X					
DRLK.S.C17.Tx								X					
DRLK.S.C18.Tx								X					
DRLK.S.C19.Tx								X					
DRLK.S.C20.Tx											X		
DRLK.S.C21.Tx											X		

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6.2 Client

	Test case	
PICS	DRLK-TC-01G	DRLK-TC-01C
DRLK.C	X	X
DRLK.C.Afffd	X	
DRLK.C.Afffe	X	
DRLK.C.C00.Rsp		
DRLK.C.C01.Rsp		
DRLK.C.C02.Rsp		
DRLK.C.C03.Rsp		
DRLK.C.C04.Rsp		
DRLK.C.C05.Rsp		
DRLK.C.C06.Rsp		
DRLK.C.C07.Rsp		
DRLK.C.C08.Rsp		
DRLK.C.C09.Rsp		
DRLK.C.C0a.Rsp		
DRLK.C.C0b.Rsp		
DRLK.C.C0c.Rsp		
DRLK.C.C0d.Rsp		
DRLK.C.C0e.Rsp		
DRLK.C.C0f.Rsp		
DRLK.C.C10.Rsp		
DRLK.C.C11.Rsp		
DRLK.C.C12.Rsp		
DRLK.C.C13.Rsp		
DRLK.C.C14.Rsp		
DRLK.C.C15.Rsp		
DRLK.C.C16.Rsp		
DRLK.C.C17.Rsp		
DRLK.C.C18.Rsp		
DRLK.C.C19.Rsp		
DRLK.C.C20.Rsp		
DRLK.C.C21.Rsp		
DRLK.C.C00.Tx		
DRLK.C.C01.Tx		
DRLK.C.C02.Tx		

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	Test case	
PICS	DRLK-TC-01G	DRLK-TC-01C
DRLK.C.C03.Tx		
DRLK.C.C04.Tx		
DRLK.C.C05.Tx		
DRLK.C.C06.Tx		
DRLK.C.C07.Tx		
DRLK.C.C08.Tx		
DRLK.C.C09.Tx		
DRLK.C.C0a.Tx		
DRLK.C.C0b.Tx		
DRLK.C.C0c.Tx		
DRLK.C.C0d.Tx		
DRLK.C.C0e.Tx		
DRLK.C.C0f.Tx		
DRLK.C.C10.Tx		
DRLK.C.C11.Tx		
DRLK.C.C12.Tx		
DRLK.C.C13.Tx		
DRLK.C.C14.Tx		
DRLK.C.C15.Tx		
DRLK.C.C16.Tx		
DRLK.C.C17.Tx		
DRLK.C.C18.Tx		
DRLK.C.C19.Tx		

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