

Manual Tests

1 – CCA_AlarmNotificationCmdClass_Rev01

The DUT pass the test (see folder:

- 1.zniffer_logs/CCA_AlarmNotificationCmdClass_Rev01(CC Notification)
- 2.zniffer_logs/CCA_AlarmNotificationCmdClass_Rev01(CC Alarm)

2 – CCA_ConfigurationCmdClass_Rev01

The DUT pass the test.

3 - CCR_ControlViaAssociationComplies_Rev01

The DUT pass the test(see folder: zniffer_logs/CCR_ControlViaAssociationComplies_Rev01)

4 - CSR_ConfigMustNotReplaceCCs_Rev01

Configuration parameters accessed via this command class DO NOT replace similar commands provided by other existing application Command Classes.

5 – CSR_FirmwareUpdateCCConfig_Rev01

The DUT pass the test (see folder: zniffer_logs/CSR_FirmwareUpdateCCConfig_Rev01)

6 - CDR_ApplicationStatusCCSupport_Rev01

The DUT pass the test because according to the Form selection, the DUT is always capable to service a GET or SET command request. Test Case does not apply.

7 - CDR_DetermineResetCompleted_Rev01

Device implement a mechanism that allows the user to determine when the reset operation is completed: **After execute this operation Z-WAVE LED is on.**

8 - CDR_DynamicCapabilities_Rev01

The DUT **CAN NOT** change capabilities based on user interaction.

9 – CDR_MulticastNoGet_Rev01

No Get command sent via multicast addressing has been detected until all certification tests have been completed

10 - CDR_PollingRequirements_Rev01

The device can control other nodes through association groups by sending commands such as *Basic Set, Multilevel Set, or similar.*

However, it does not autonomously send any *Get* commands to other nodes.

The device does not perform polling and only responds to requests or reports state changes via *unsolicited reports.*

11 - CDR_ResponseTimeouts_Rev01

N/A. The DUT is a slave device and does not control other nodes by sending Get commands. *Therefore, this test is not applicable.*

12 - CDR_UnsolicitedFrames_Rev01

Unsolicited reports are sent only in response to events (e.g., motor stopping, rain sensor activation) or control commands (e.g., BASIC_SET, SWITCH_MULTILEVEL_SET, SWITCH_MULTILEVEL_STOP, SWITCH_MULTILEVEL_START_LEVEL_CHANGE); the 30 - second interval requirement does not apply.

13 - CDR_UseOfMultiCommandEncap_Rev01

The DUT pass the test because Multi Command CC is neither supported nor controlled

14 – H_RadioRangeZW_Rev02

The DUT meets the range test criteria, at 75 meters (Extended Range)!

15 - CCM_AssociationCmdClass_Rev01

The DUT pass the test (see folder: zniffer_logs/CCM_AssociationCmdClass_Rev01)

16 – CCM_AssociationGrpInfoCmdClass_Rev01

The DUT pass the test (see folder:

1. zniffer_logs/CCM_AssociationGrpInfoCmdClass_Rev01,
2. zniffer_logs/CCM_AssociationCmdClass_Rev01)

1. Lifeline (Group 1)

- a) Includes all required reports: Device Reset Locally Notification Report, Indicator Report, Multilevel Switch Report, Window Covering Report, and Notification Report.
- b) All commands are sent only to Lifeline

2. Groups 2–4 (Control Keys)

- a) Each group sends only commands listed in its AGI Command List Report.
- b) Triggering corresponds to the group profile:
 - **Group 2** – Basic Set from controller
 - **Group 3** – Multilevel Switch Set, Switch Multilevel Start(Stop) Level Change from controller
 - **Group 4** – Basic Set triggered by rain sensor
- c) No extra or unauthorized commands are sent.

17 – PI_CertifiedZWaveStack_Rev01

The entire application runs on the Z-Wave chip (Embedded system).

18 – PI_MarketAndFrequency_Rev02

- 1) Yes – The product supports the EU frequency plan (868.40 MHz, 868.20 MHz, 868.60 MHz).
- 2) Yes – The product will be available in the CEPT region (EU frequency plan 868.40 MHz, 868.20 MHz, 868.60 MHz).

19 – PI_ZWavePlusProductType_Rev01

- 1) Yes, both the hardware and software of the product are being certified.
- 2) Yes, the DUT has an integrated Z-Wave ASIC/Module.

20 – RD_AdditionalDocuRequirements_Rev01

- Inclusion / Exclusion / send NIF
→ quickly double-press button P (2× within 1 s)
- LED status
→ solid green = not included
→ off = included in network
- Trigger overload alarm
→ physically block chain during closing when opening >20 %
- Trigger rain alarm
→ wet ZRD12 rain sensor
- Factory reset (restore defaults + exclude from network)
→ double-press button P five times quickly (5×2 presses within ~5 s)
→ after 5th double-press green LED lights solid
- Calibration
→ automatic on first full open/close cycle

21 – RD_AssociationCC_Rev01

There are four association groups in actuator ZWS12:

Group 1 – Lifeline (max. 5 nodes)

Sends Switch Multilevel Report after every movement/stop and notifications on alarms (overload and rain).

Group 2 – Basic Repeat (max. 5 nodes)

Repeats received Basic Set commands to associated devices.

Group 3 – Multilevel Repeat (max. 5 nodes)

Repeats received Switch Multilevel Set/Switch Multilevel Start/Stop Level Change commands to associated devices.

Group 4 – Basic Rain (max. 5 nodes)

Sends Basic Set 0x00 when rain sensor is activated.

22 – RD_BasicCCSupport_Rev01

Basic Set 0x00 → close window (level 0 %)

Basic Set 0x01–0x63 → set window position to corresponding level (1–99 %)

Basic Set 0xFF → go to last remembered non-zero position (resume previous level before closing)

Basic Get → returns current window position as Basic Report:
0x00–0x63 = current level

Basic Report

→ reports current position values

This mapping ensures full compatibility with legacy controllers and correct behaviour of “ON = resume last position” functionality.

23 – RD_ConfigurationCC_Rev01

Parameter number	Description (Effect on the Product)	Default Value	Size (Bytes)	Range / Allowed values
7 (0x07)	Motor speed	2	1	1 = slowest, 2 = medium (default), 3 = fast, 4 = fastest
8 (0x08)	Motor speed when rain sensor is triggered	2	1	1 = slowest, 2 = medium (default), 3 = fast, 4 = fastest
15 (0x0F)	Ventilation function (close window after time)	0	1	0–255 minutes 0 = disabled
76 (0x4C)	Overload Release Time (Time the actuator recoils/releases power after detecting an overload/blockage)	10	1	1–255 ms
77 (0x4D)	Undercurrent Threshold (Close) (Current level below which the motor is considered unloaded in the closing direction).	30	1	1–255 mA
78 (0x4E)	Undercurrent Threshold (Open) (Current level below which the motor is considered unloaded in the opening direction).	30	1	1–255 mA
79 (0x4F)	Overload current threshold closing direction	105	1	1-255 (x10 mA)
80 (0x50)	Overload current threshold opening direction	137	1	1-255 (x10 mA)

24 – RD_FactoryDefaultReset_Rev01

To perform factory reset (restore default parameters and remove from network):

- Quickly double-press button P (2× within 1 s) – green LED flashes once as confirmation
- Repeat this double-press 5 times within approximately 5 seconds
- After the 5th double-press the green LED lights solid
- All parameters are restored to factory defaults and the device is excluded from the network

25 - RD_IndicatorCC_Rev01

When the controller sends the Identify command (Indicator Set → Indicator ID = 0x50, Value = 0xFF), the built-in status LED on the ZWS12 flashes green 3 times (approximately 1 second on / 0.3 second off) for a total duration of about 3 seconds.

This allows the user to physically identify the correct actuator among multiple installed devices."

The device fully supports Indicator Command Class v3 and correctly responds to the standard Identify command sent by the PC Controller from the main interface

26 – NotificationCC_Rev01

Notification Type 0x05 – Water Alarm

- Event 0x02 – Water leak detected,Unknown Location
Trigger: rain sensor ZRD12 is wet (used as rain detection)

Notification Type 0x08 – Power Management

- Event 0x08 – Over-load detected
Trigger: motor overload – occurs when the chain is physically blocked while the window closing position is greater than 20 %

27 - RD_SecurityS2CC_Rev01

Command Class	Version
Non – Secure Command Classes	
Z-Wave Plus Info	' v 2
Basic	'v 2
Transport Service	' v 2
Security	' v 1
Security 2	' v 1
Supervision	' v 1
Secure (S2) Command Classes	
Switch Multilevel	' v 4
Window Covering	' v 1
Association	' v 2
Multi Channel Association	' v 3
Association Group Info	' v 3
Notification	' v 8
Version	' v 3
Manufacturer Specific	' v 2
Device Reset Locally	' v 1
Indicator	' v 3
Powerlevel	' v 1
Firmware Update Md	' v 5
Node Naming	' v 1
Configuration	' v 4

28 - RD_SupervisionCC_Rev01

ZWS12 implements Supervision Command Class v1 (0x6C) and always uses it for S2-encapsulated commands.

For any valid and supported encapsulated command (e.g. Switch Multilevel Set, Configuration Set, Association Set, Firmware Update, etc.) ZWS12 returns:

Supervision Report

Status = 0xFF ← SUCCESS

Status = 0x02 ← FAIL

ZWS12 never returns:

- Status 0x01 (WORKING) – all operations are completed within the standard Supervision timeout

29 – RD_ZWPv2EndDeviceDocu_Rev01

ZWS12 – Inclusion / Exclusion activation and LED indication

The ZWS12 has one programming button labelled “P” and two LEDs:

- Green LED → network status

To send NIF and enter Inclusion or Exclusion mode:

- Quickly double-press button P (2 presses within 1 second)

LED behaviour:

- Device NOT included in any network → green LED is SOLID ON

- Device successfully INCLUDED → green LED turns OFF

- Device successfully EXCLUDED → green LED turns ON again (solid)

Double-press of button P activates both Inclusion and Exclusion mode – the controller decides which action is performed.

S2 Security Enabled Controller Required

ATTENTION: Full and secure operation of this device requires the use of a Z-Wave network primary controller (gateway) that supports the Security 2 (S2) protocol.

This device utilizes the Access Control Security Key. Using older controllers without S2 support may prevent its full configuration and secure operation.

30 - RD_ZWPv2RequiredTerminology_Rev01

ZWS12 Documentation - Z-Wave Terminology Check Date: Verification of terminology compliance for Z-Wave certification.

It is confirmed that:

- For **INCLUSION**, the term "**Add**" was used.
- For **EXCLUSION**, the term "**Remove**" was used

31 - S2_UpgradeExistingDevice_Rev01

NO – The firmware under test is not used to upgrade a non-S2 device.

The device supports S2 in its factory firmware, so this scenario does not apply.

32 - SSR_DSKLifetimeTest2_Rev01

The DUT pass the test - DUT carries and keeps the same Learn Mode DSK during its entire lifetime (see folder: **zniffer_logs/SSR_DSKLifetimeTest2_Rev01**)

33 - SSR_NonDefaultBehavior_Rev01

After every power cycle, the device automatically enters SmartStart inclusion mode and begins advertising its presence to SmartStart-enabled controllers. The SmartStart inclusion process continues indefinitely until the device is successfully included in a Z-Wave network.

34 - SSR_PrintedQRCode_Rev01

YES – The device fulfills the requirements.

The SmartStart QR code is present on the product, the PIN (first 5 digits) is printed next to it, and the full DSK is provided in the documentation (leaflet/packaging).

The device does not provide a user interface capable of displaying the DSK; therefore, accessing the DSK via UI is not applicable.

The documentation clearly describes where the QR code and DSK can be found on the product and in the accompanying materials

