

IoT DoorCam

Guide Document

1. IoT DoorCam description.

LG Uplus IoT DoorCam streams live video feed to your phone remotely. The app receives push notifications of different activities and record motion videos when visitors arrive. It also checks the battery life with the app and receives reminders when the battery is low.

2. IoT DoorCam Z-Wave Specifications

- Device Type : On/Off Power Switch
- Role Type : LSS (Listening Sleeping Slave)
- Security Enabled Z-Wave Plus Product
- Security Enabled Z-Wave Controller must be used
- Command Class Support/Control
 - ✓ Z-Wave plus info Command Class Version 2
 - ✓ Manufacture Specific Command Class Version 1
 - ✓ Association Command Class Version 2
 - ✓ Association Group Information Command Class Version 1
 - ✓ Battery Command Class Version 1
 - ✓ Device Reset Locally Command Class Version 1
 - ✓ Power Level Command Class Version 1
 - ✓ Firmware Update MD Command Class Version 1

- ✓ Security Command Class Version 1
- ✓ Version Command Class version 2
- ✓ Switch Binary Command Class Version 1 (Secured mode)
- ✓ Basic Command Class Version 1 (Secured mode)
- ✓ Alarm Command Class Version 1 (Secured mode)

3. Technical Specifications

- a. South Korea 919-923 MHz RF Frequency
- b. Battery Powered (D type Battery)
- c. Operating Temperature 0 °C ~ 50 °C.

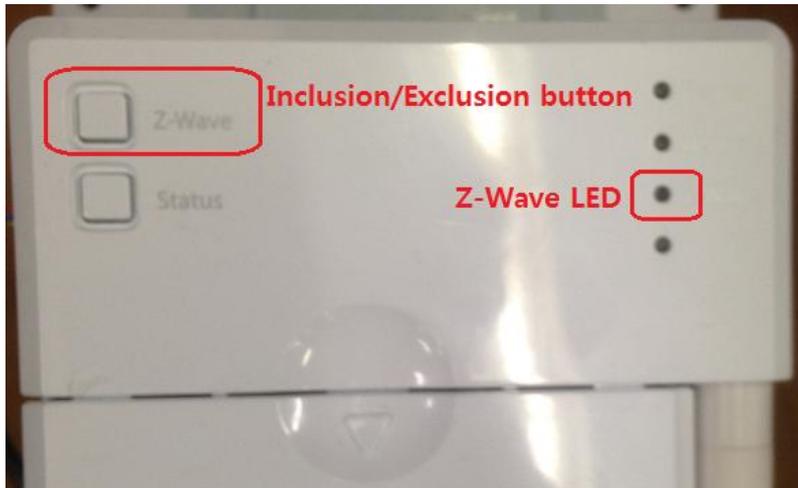
4. Add for Inclusion

This must be done when the DoorCam is in an excluded status, which means that it is not a part of any Z-Wave network; you will know this because the Z-Wave LED will remain on.

After starting the inclusion process on your Z-Wave controller, please do the following:

- a. Press & hold 'Z-Wave' button for 5 seconds when DoorCam is exclusion status.
- b. When Z-Wave LED blinks with 250ms interval, release 'Z-Wave' button to try inclusion.
- c. DoorCam will try inclusion for 30sec.

- d. Z-Wave LED will be turned off if inclusion is successful.



5. Remove for Exclusion

This must be done when the DoorCam is in an included status, which means that it is a part of any Z-Wave network; you will know this because the Z-Wave LED will remain off.

After starting the exclusion process on your Z-Wave Controller, please do the following.

- a. Press & hold 'Z-Wave' button for 5 seconds when DoorCam is inclusion status.
- b. When Z-Wave LED blinks with 250ms interval, Release 'Z-Wave' button to try exclusion.
- c. DoorCam will try exclusion for 30sec.
- d. Z-Wave LED will be turned on if exclusion is successful.

6. Factory Default Reset

- a. Hold the 'Z-Wave' button for 10seconds.

(Z-Wave LED will blink after 5 seconds with 250ms interval then Z-Wave LED will be turned off after another 5 seconds.)
- b. When Z-Wave LED stops blinking after 10 seconds, release Z-Wave button.
- c. When factory reset is successful, LED will be on.

Please use this procedure only if the network primary controller is missing or inoperable.

7. Supported Alarm Report (COMMAND_CLASS_ALARM)

No	Description	Byte size	Value	Note
1	Alarm Type	1	0x01	Power status
2	Alarm Level	1	0x00/0xFF	Power On/Power off

8. Association & Association Group Information

- a. Grouping identifier : Association Group support is only 1.
- b. Maximum number of devices that can be added to the group :

The maximum number of nodes is 2.

- c. Description of how the association group is used and/or triggered by the product : This product's Association Group are used by Life Line of products.

9. Battery Report

- a. The device sends Battery Report when the power is on.
- b. The device sends Battery Report when battery level is changed.
- c. The device sends Low Battery Report 1 time if battery voltages drops under 4.6V

Battery Level	Battery Voltage	%	Data
FULL	6.4V	100%	64(h)
HIGH1	...	74%	...
HIGH2	...	45%	...
HIGH3	...	23%	...
LOW	~ 4.6V(Low battery warning)	~ 14%	FF(h)

10. ZWAVE_PLUS_INFO

No	Description	Byte size	Value	Note
1	Z-Wave Plus Version	1	0x01	
2	Role Type	1	0x07	LSS
3	Node Type	1	0x00	Z-Wave Plus node
4	Installer Icon Type	2	0x1500	ICON_TYPE_GENERIC_VALVE _OPEN_CLOSE
5	User Icon Type	2	0x1500	

11. Version Command

No	Description	Byte size	Value	Note
1	Z-Wave Library Type	1	0x03	Enhanced Slave
2	Z-Wave Protocol Version	2	0x0405	
3	Firmware Version	2	0x2726	v1.00.22
4	Hardware Version	1	0x01	

12. Manufacturer Command

No	Description	Byte size	Value	Note
1	Manufacturer ID	2	0x023D	LG Uplus
2	Product Type ID	2	0x0043	
3	Product ID	2	0x0001	DoorCam
4	Device ID Type	3bits	2	Pseudo Random
5	Device ID Data Format	3bits	1	Binary
6	Device ID Data Length Indicator	5bits	6	Device ID Data Length Indicator
7	Device ID Data 1 ~ 6	6	023D43xxxxxx	Serial Number

13. Basic Command Class's SET

- a. Same as Switch Binary Command Class SET.
- b. Will wake up DoorCam's camera module by value 0xFF.
- c. As DoorCam's camera module will not work on SoftAP mode (Users must register DoorCam as SoftAp mode does not connect DoorCam to the server), please ignore this command.

14. Security Enabled Z-Wave Plus Product

This device is a security enabled Z-Wave Plus product that is able to use encrypted Z-Wave Plus messages to communicate to other security enabled Z-Wave Plus products.

15. Security Enabled Z-Wave Controller must be used

This device must be used in conjunction with a Security Enabled Z-Wave Controller in order to fully utilize all implemented functions.

16. Devices from multiple manufacturers in one network

This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.