# OLC NEMA PP Factory Test (Version 1)

## Default settings

|  |  |
| --- | --- |
| Network Address | 5000 |
| Network Channel | 4 |
| Authentication Key | none |
| Encryption Key | none |
| Node Address | calculated from unique EFR32FG12 identifier |
| DID | 64-bit unique EFR32FG12 identifier in HEX form |
| APIKEY | 1234 |

## Start-up Sequence

At start-up device publishing message to /APIKEY/DID/attrs:

{

"AOEstart": {

"ts": <UNIX timestamp, seconds>

}

}

If device has RTC configured and running at start-up, or already synchronized its time with neighbors, then the "ts" field will contain a number of seconds since Epoch. Otherwise, it will contain -1 value.

In most cases, device should complete time synchronisation in a few seconds after start.

This message means that device successfully started, connected to the Gateway, and ready for test.

## Digital Input

To test digital input we should send command to /APIKEY/DID/cmd:

{

"Cdin": null

}

This command will read digital input status explicitly, and will return result to /APIKEY/DID/cmdexe:

{

"Cdin": <false | true>

}

False means that digital input opened. True means that digital input connected to the Neutral.

## Test 12V output

To enable or disable 12V output we should send command to /APIKEY/DID/cmd:

{

"C12vo": <false | true | null>

}

False means that output must be turned off. True means that output must be turned on. Null means that we asking for current state. Controller acknowledges this command by publishing message to /APIKEY/DID/cmdexe:

{

"C12vo": <false | true>

}

Result is current state of the 12V output.

## Accelerometer Test

We should request the "AOMaccl" (for 3-axis acceleration) and/or "AOMangl" (for 3-axis angle) attributes explicitly by sending command to the /APIKEY/DID/cmd topic:

{

"Cattrs": ["AOMaccl", "AOMangl"]

}

Device acknowledges command by message in /APIKEY/DID/cmdexe:

{

"Cattrs": 0

}

Then, device publishing requested attributes to the /APIKEY/DID/attrs topic:

{

"AOMaccl": {

"v": {

"x": <acceleration>,

"y": <acceleration>,

"z": <acceleration>,

},

"t": <timestamp>

},

"AOMangl": {

"v": {

"x": <degrees>,

"y": <degrees>,

"z": <degrees>,

},

"t": <timestamp>

}

}

Also, device published these attributes each minute (normal work cycle). In case of communication errors with accelerometer, the device will return null values for 3-axis acceleration and angles.

## Hardware Real Time Clock Check

Device synchronizes time automatically on start-up. To request RTC state explicitly, publish command to /APIKEY/DID/cmd topic:

{

"Crtc": null

}

Device answers to /APIKEY/DID/cmdexe topic with command result:

{

"Crtc": {

"active": <true | false | null>

"ts": "YYYYMMDDThh:mi:ss" or null

}

}

True means that RTC active and running. False means that RTC stopped. Null means communication error with RTC. The "ts" field contains current date and time from RTC, or null if rtc stopped/communication error.

*Note, that RTC always ticks in UTC time.*

## DALI Test

Device initializes and starts DALI cycle automatically on start-up. To request current DALI state, publish command to /APIKEY/DID/cmd topic:

{

"Cdali": null

}

Device answers to /APIKEY/DID/cmdexe topic with command result:

{

"Cdali": {

"exists": <true | false>,

"errors": <number of communication errors since start-up>,

"status": <current DALI driver status>,

"level": <0-100 actual light level>

}

}

Device reports if it found driver or not, number of communication errors since start-up, status and current light level.

To change light level explicitly, at DALI driver level, send command to /APIKEY/DID/cmd:

{

"Cdali": <0-100 target light level>

}

Device answers with the same structure as in previous case, but "level" parameter should be changed after a while. Also, when actual light level changing, device publishes attribute to the /APIKEY/DID/attrs topic:

{

"ANals": <0-100 actual light level>

}