**Communication catalog**

**Messages to be received by the device:**

Format:

|  |  |
| --- | --- |
| Function ID (8bit) | Function parameter (8bit) |

The functions are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Name | Description | Data range | Description |
| 0x00 | reserved |  |  |  |
| 0x01 | LED ON | Lights the specified LED | 0x01 – 0x09 | 0x01-0x08 – number of single led  0x09 – All LEDs |
| 0x02 | LED OFF | Turns the specified LED off | 0x01 – 0x09 | 0x01-0x08 – number of single led  0x09 – All LEDs |
| 0x03 | Set LED PWM | Sets the PWM of the specified LED to specified value | 0x01 – 0xE4 | The data is divided on 2 parts the first bit specifies the LED number and the second specifies the percentage of the PWM.  xyyy yyyyb  x = 0 – LED1  x = 1 – LED2  y = 0 – 100 – PWM value in % |
| 0x04 | Read sensor | Reads the current value from the specified sensor. | 0x01 – 0x02 | 0x01 – temperature  0x02 – ambient light |
| 0x05 | LED self drive | The specified LEDs will be left to be internally controlled by the SW to determine its PWM value based on ambient light. | 0x01 – 0x02 | 0x01 – LED 1  0x02 – LED 2 |
| 0x06 – 0xFF | Reserved |  |  |  |

**Messages to be send by the device:**

These are the messages that the device send back for confirmation about the completed action or the requested data.

Format:

|  |  |  |
| --- | --- | --- |
| Function ID (8bit) | Function parameter (8bit) Byte 1 | Function parameter (8bit) Byte 2 |

The functions are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Name | Description | Data range | Description |
| 0x00 | reserved |  |  |  |
| 0x01 | LED ON confirmation | Sends back confirmation after the action is completed | Byte1: 0x01 – 0x09  Byte2: 0x0 | Which LED was driven  0x01-0x08 – number of single led  0x09 – All LEDs |
| 0x02 | LED OFF confirmation | Sends back confirmation after the action is completed | Byte1: 0x01 – 0x09  Byte2: 0x0 | Which LED was driven  0x01-0x08 – number of single led  0x09 – All LEDs |
| 0x03 | Set LED PWM confirmation | Confirms the setting | Byte1: 0x01 – 0xE4  Byte2: 0x0 | Sends back the driven LED and the percentages. |
| 0x04 | Read sensor confirmation. | Sends back the current value from the specified sensor. | 0x0000 – 0x1000 | ADC value |
| 0x05 | LED self drive | The specified LEDs will be left to be internally controlled by the SW to determine its PWM value based on ambient light. | Byte1: 0x01 – 0x02  Byte2: 0x0 | 0x01 – LED 1  0x02 – LED 2 |
| 0x06 – 0xFF | Reserved |  |  |  |