TheoryLight

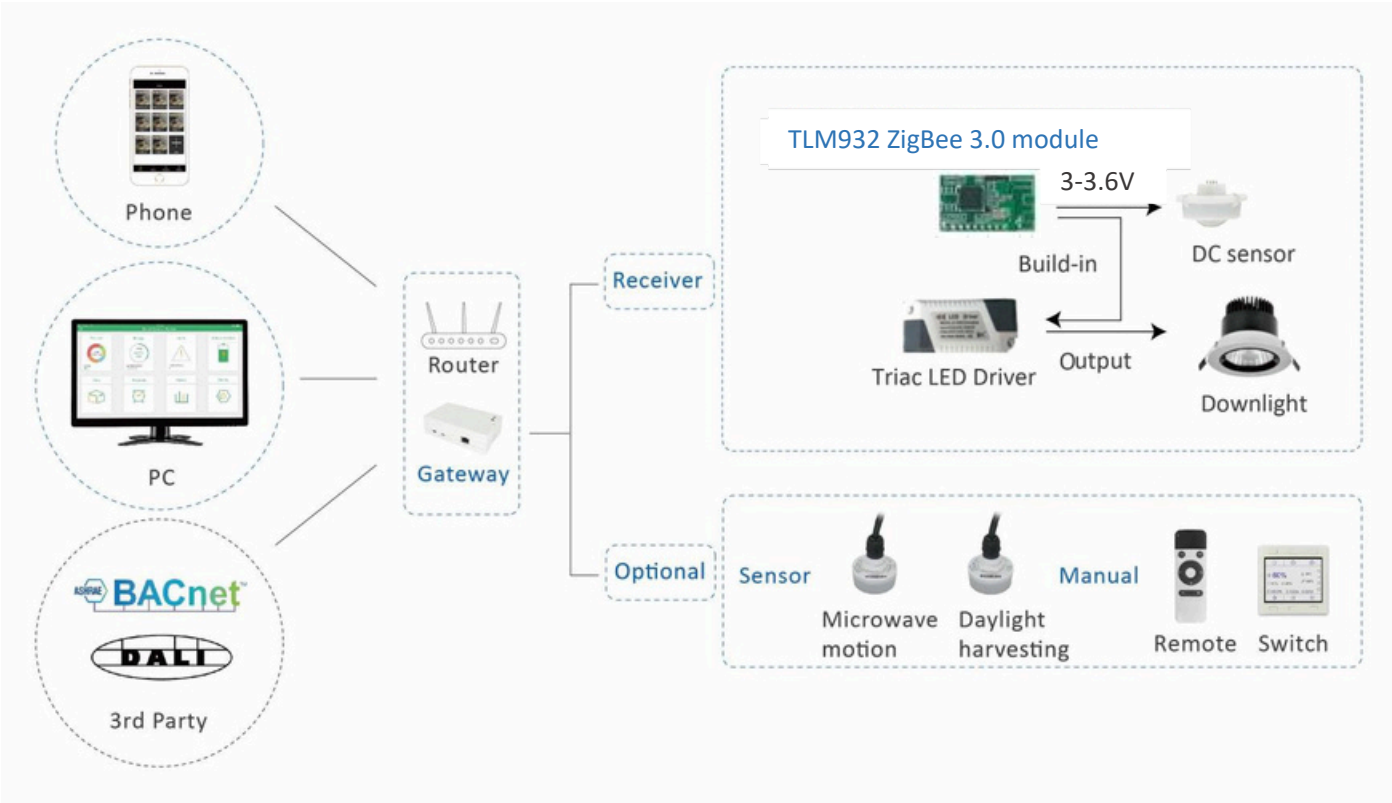
TLM932-Z-XX-XX-XX-XX-OTA-3.0 is a kind of Zigbee 3.0 standard module. It outputs 1 channel PWM, 2 channel PWMs, 3 channel PWMs, 4 channel PWMs, 5 channel PWMs for dimming, CCT, RGB, RGBW, RGBCW driver or controller.

TLM932-Z-XX-3.0 Module makes fixture compatible with ZigBee standard gateways/hubs like Philips Hue or other ZigBee 3.0 standard gateway. The Apple homekit also available to control this module by Philips Hue bridge. It works with theorylight's ZigBee lighting control system to achieve long-distance controlling led lights by Mobile Phone, Tablet, PC, Touch Switch, Remote Control, Daylight Sensor and Motion Sensor. The module is used in DIP or SMT mode, which is reliable and convenient.

Part no. TLM932-Z-XX-XX-PA-OTA-3.0

TLMA06	project name/ index		
Z	ZigBee		
XX	SC/CT/RGB/RGBW/RGBCW		
XX	antenna option	IA	internal antenna
		EA	external antenna
PA	Power amplifier		
OTA	Over the air update		
3.0	ZigBee 3.0 protocol		

System Diagram



Software Operation

1. Initial states. When the ZigBee module is powered up, the LED of module will keep blinking.
2. First 30 minutes. The ZigBee module in initial state is searchable by the ZigBee gateway in the first 30 minutes after power up.
3. Choose a gateway. Power on the ZigBee gateway, open the App “Theorylight Pro”, select gateway from Settings/Add device.
4. Add device. Click “Search” button. The LED of module stops blinking and then stay ON after added.
5. Create a new area and add the ZigBee module into this area. On/off the bridge in this area.
6. Binding. Click “Binding Setting” on “Setting” page. Bind the ZigBee module with other device/group.
7. For more operating details please refer to user manual of gateway.

Initial States Setting

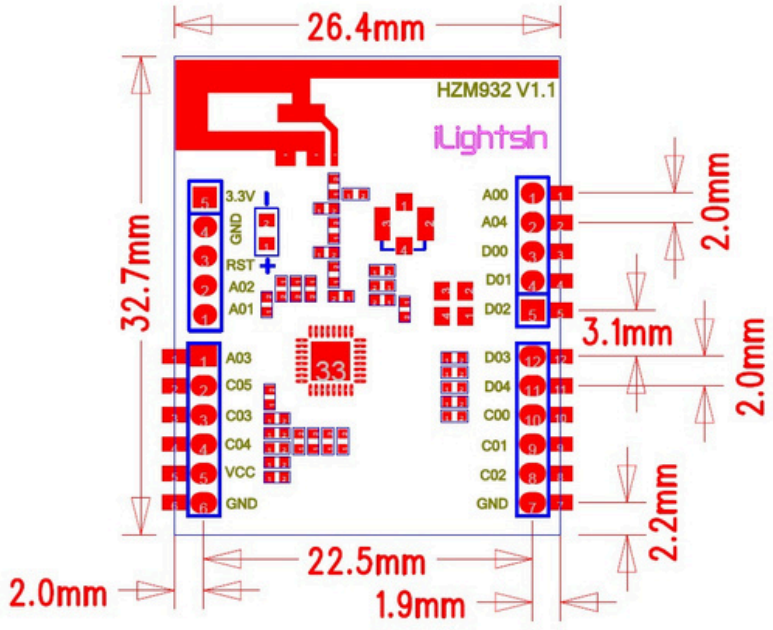
1. Soft reset: keep the device powered on and delete it on the “Theorylight Pro” App. Or,
2. Hard reset: power off the device and wait for > 3 secs, power on and wait for < 3 secs, power off power on, power off power on, 4 times in total.
3. If reset is successful, the LED of bridge will keep blinking. All data of the device is cleaned up.

Parameter

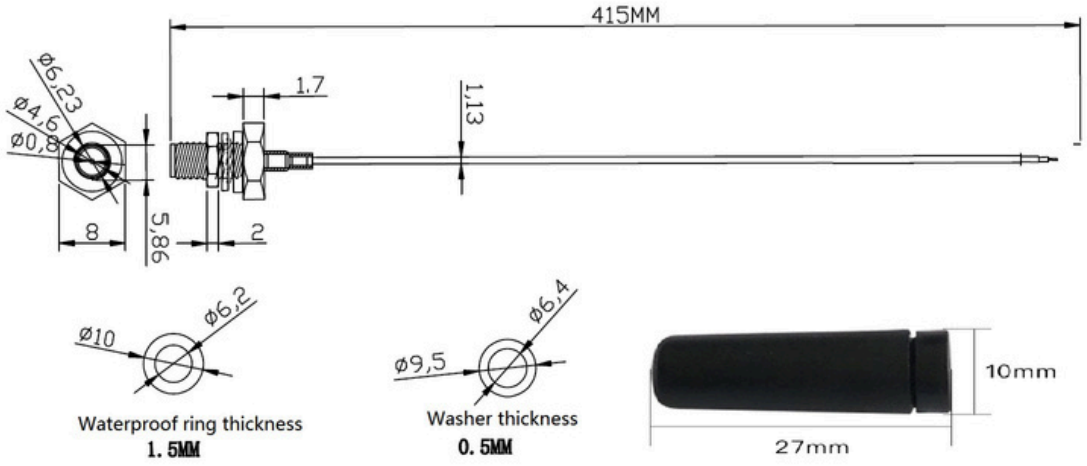
Input Voltage	3-3.6V
Pin direction	90° or 180°
Current	11mA(Peak current 180mA)
Frequency	2.4GTL
PA Power	19dBm
Control Range	20~30m(in door)
Working Temperature	-40℃ to 85℃
Package	1PC/ Package

Dimension

Product



External antenna



Pin Definitio

DIP hardware interface

Index	PIN	Description
1	PA03	Ground -
2	PC05	Digital I/O -
3	PC03	Digital I/O Port PWM output
4	PC04	Digital I/O Port PWM output
5	VCC	Power Input 3V–3.6V power-supply connection
6	GND	Ground -
7	GND	Ground -
8	PC02	Power Input Port PWM output
9	PC01	Digital I/O Port PWM output
10	PD04	Digital I/O Port PWM output
11	PD03	Digital I/O -
12	PA00	Digital I/O -
13	PA00	Digital I/O -
14	PA04	Digital I/O -
15	PD01	Digital I/O UART_TX
16	PD02	Digital I/O UART_RX
17	PD03	Digital I/O -

SMT hardware interface

Index	PIN	Description
1	PA03	Ground -
2	PC05	Digital I/O -
3	PC03	Digital I/O Port PWM output
4	PC04	Digital I/O Port PWM output
5	VCC	Power Input 3V–3.6V power-supply connection
6	GND	Ground -
7	GND	Ground -
8	PC02	Power Input Port PWM output
9	PC01	Digital I/O Port PWM output
10	PD04	Digital I/O Port PWM output
11	PD03	Digital I/O -
12	PA00	Digital I/O -
13	PA00	Digital I/O -
14	PA04	Digital I/O -
15	PD01	Digital I/O UART_TX
16	PD02	Digital I/O UART_RX
17	PD03	Digital I/O -