Smart Downlight 2.0

Quick Start

V1.1

Agenda

1. Block Diagram and Pictures
2. Specifications
3. Installation
4. Connecting to power supply
5. IOT XENSIV™ Lighting Platform Portal

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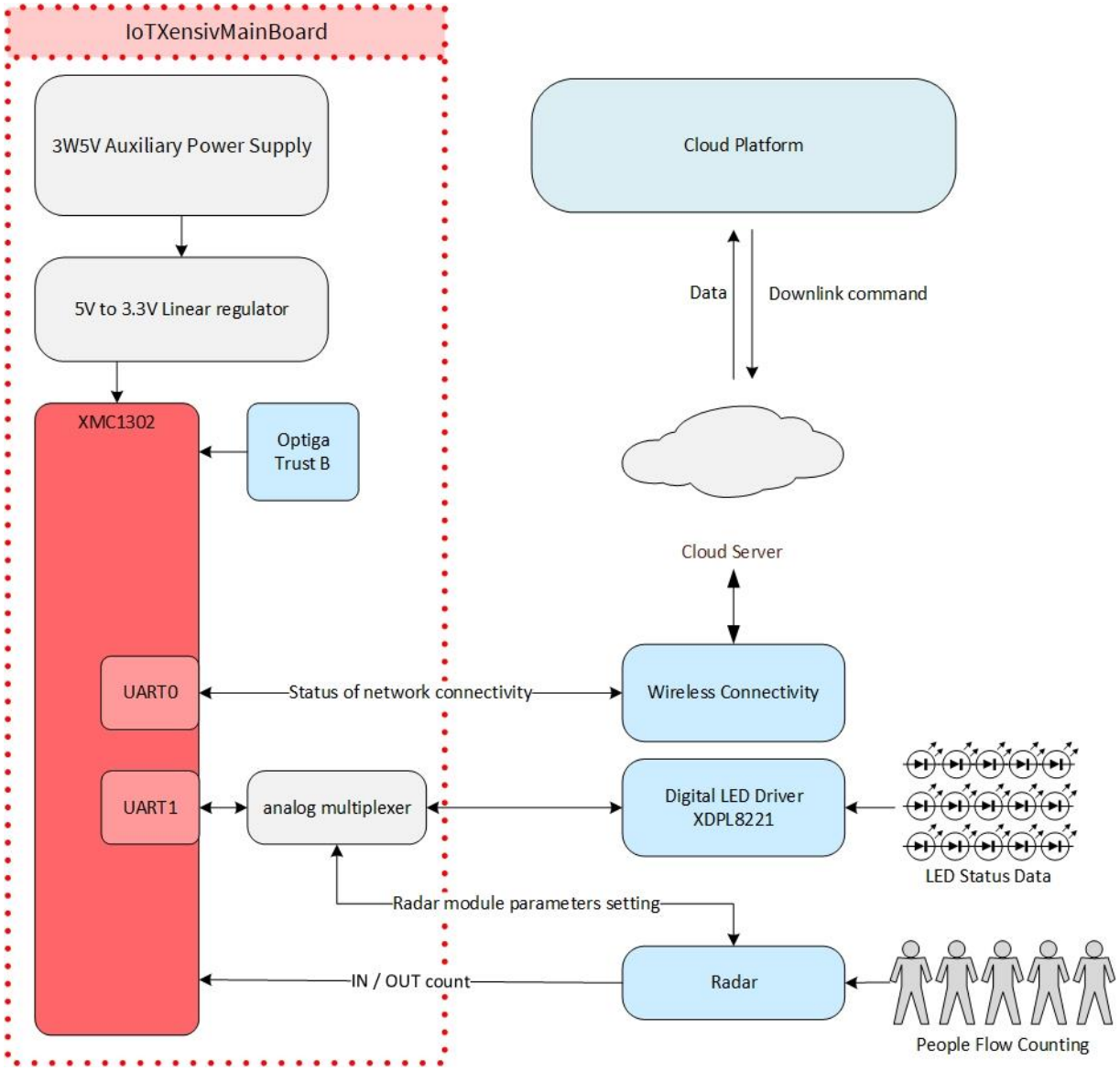
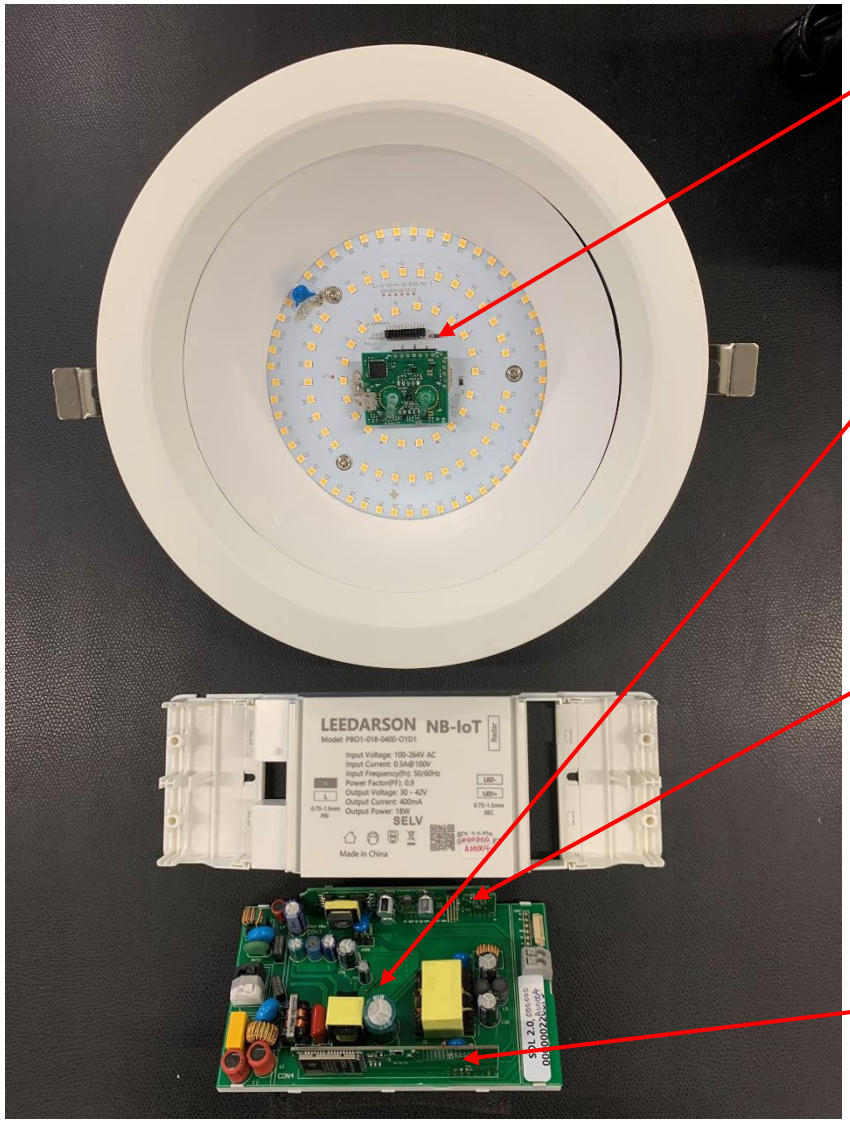
Smart Downlight 2.0 – Block Diagram



Smart Downlight 2.0 – Components



Radar Module
-24Ghz Radar chip: BGT24LTR11
-MCU Cortex M0: XMC1302

LED Driver Board
--Digital LED Driver: XDLP8221 (30V-42V C.C.)

Connectivity Board
-NBIOT Module: Qucetel BC35/95G
-or Sigfox Module: Wilsol WSSFM10R4AT

Main Control Board
-MCU Cortex M0: XMC1302
-Security Chip: OPTIGA™ Trust B
-Aux 5V CoolSET™: ICE3RBR4765JG

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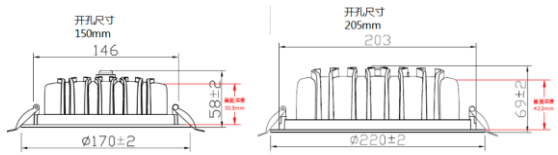
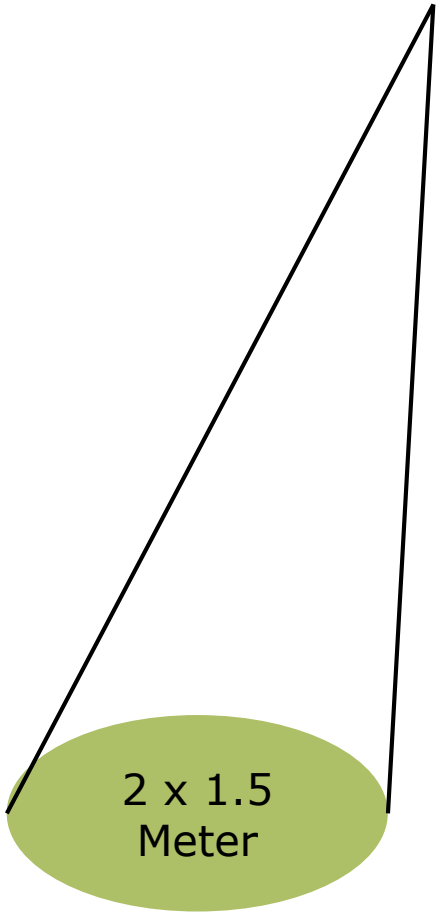
Specifications

Item	Specification	Value
Output	Lux (lm)	1400
	Color Temperature	4000K
	Output Power	20W (Max)
Electrical	Input Voltage	90-264V
	Output Voltage	30-42V
	Output Current	440mA (Programmable)
Dimension	Light Head Diameter Φ *H LED Driver	170*58 mm or 220*69 mm 149*74*31mm
People Count	Radar Sensor Height FOV Angle Detection (@ 3.5 meter)	24Ghz 3-5m 10x45° Width x Depth : 2 x 1.5m
Connectivity	Low Power Wan	NB-IOT
Data Refresh	Frequency	2-10 min
Data Storage	Cloud Server	AWS and China Cloud Server
Security	Optiga™ Trust B	Digital Certificate 163 bit
Cloud / Display	Infineon Web Portal	Device/Data Management
Display	Web Browser	Dashboard



Height : 3-5 Meter



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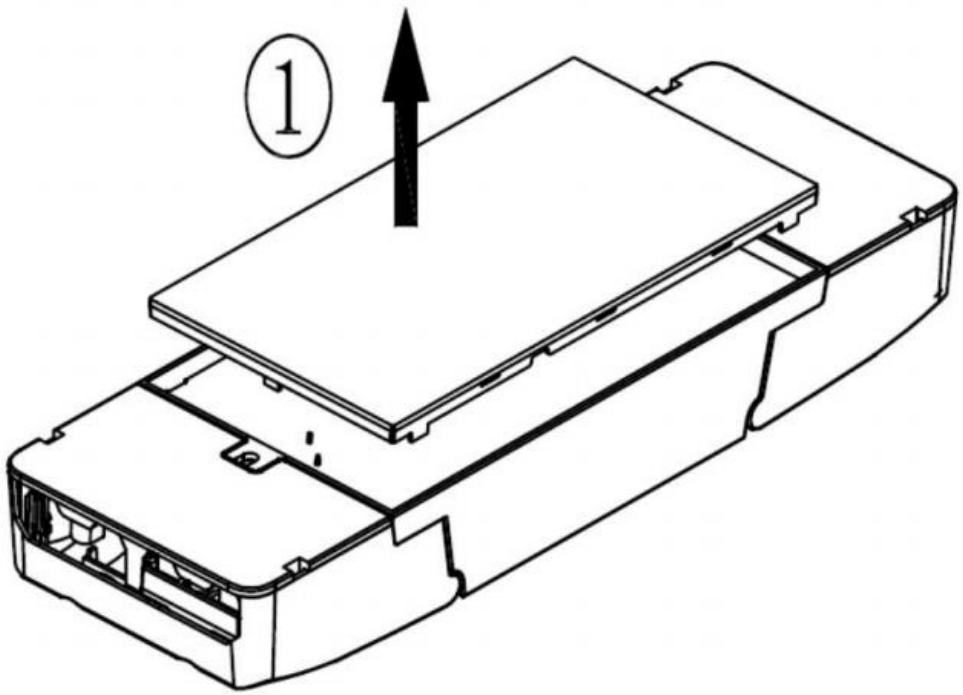
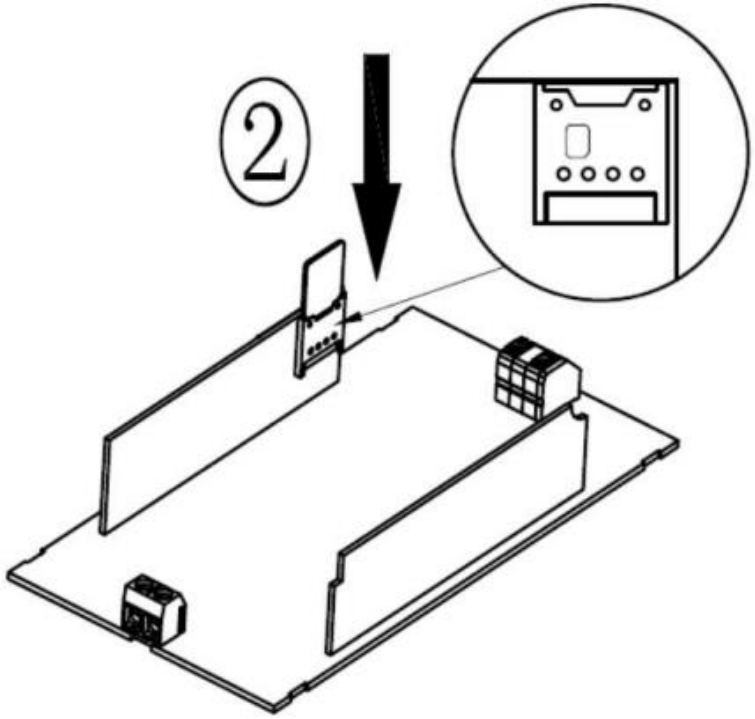
Installation of SIM Card

› Step 1: Pry off the back cover of the drive and take out the drive (Use a screwdriver for help if needed).



Installation of SIM Card

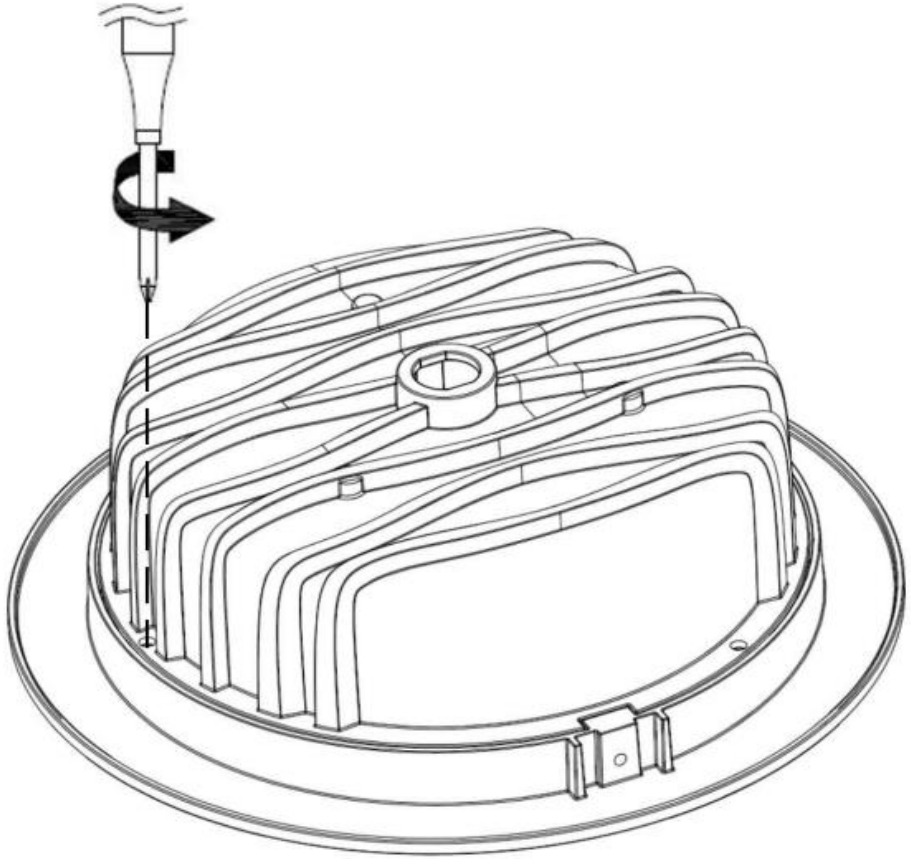
- Step 2: Insert the NBIOT SIM Card. The SIM card needs to be bought from telecom operator.



- Step 3: Replace the drive and put back the drive back cover.

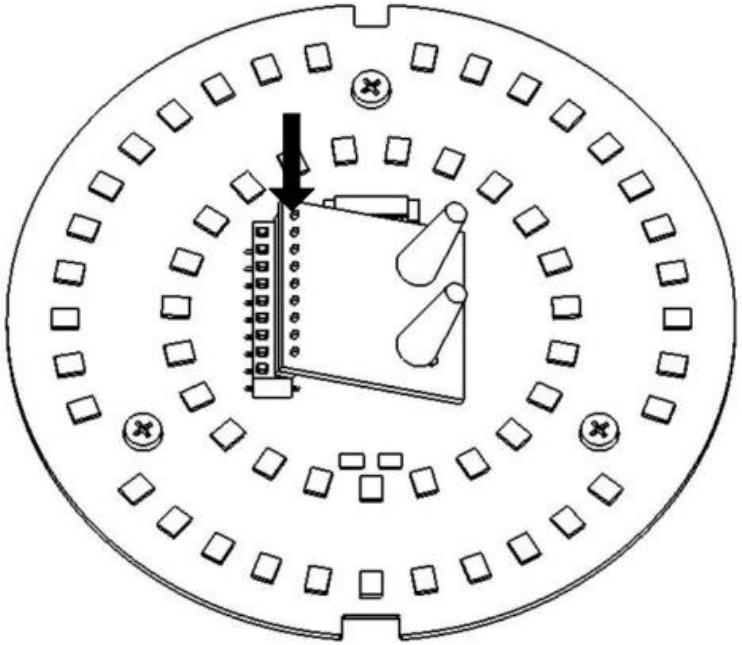
Installation of Radar Module

- Step 1: Screw out all 4 screws on the back with a screwdriver and remove the back cover.



Installation of Radar Module

- Step 2: Insert the radar module on the designated needle arranging seat with the orientation as shown below. Do not put the radar module in the opposite orientation.



- Step 3: Put back the back cover and screw in all 4 screws with a screwdriver.

Installation of Radar Module

› The light should look like this after installing the radar module:

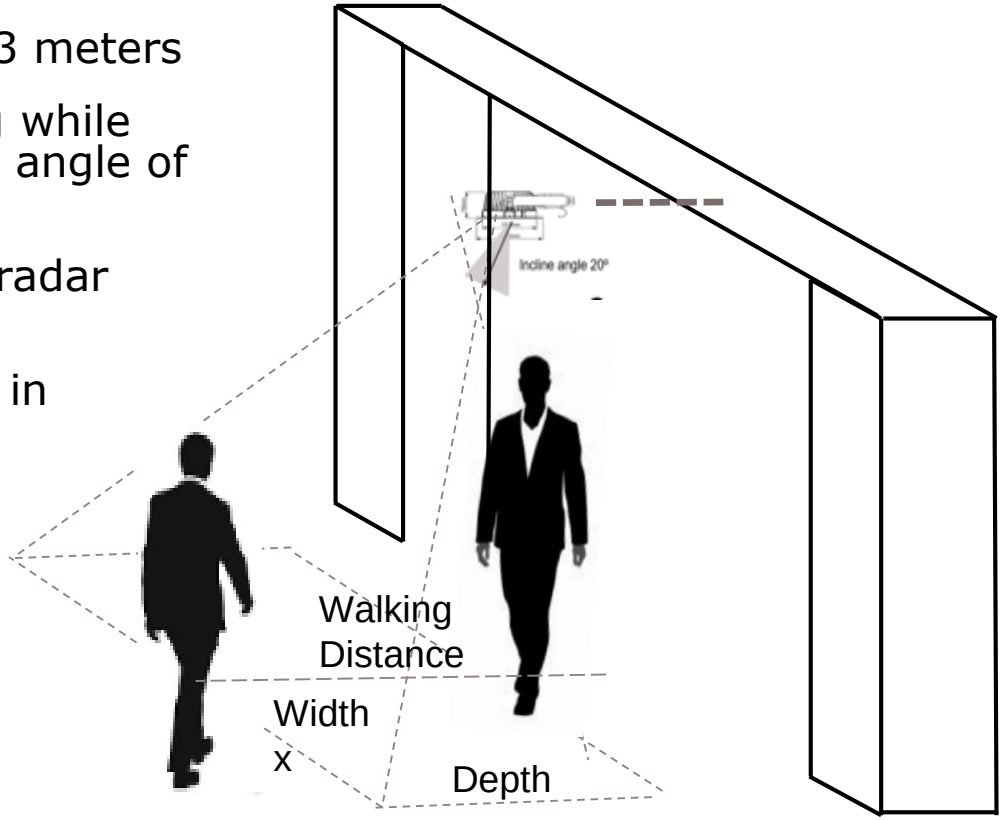
Installation Locations

Requirements:

- Ceiling Height: 3 to 5 meters
- Floor Covering Area: 2 x 1.5 square meters @4 meters height
- Detected walking distance: ideally 3 meters
- Lamp should be set on a flat ceiling while the radar module should have a tilt angle of 45°
- No metal sheet or parts in front of radar module
- No moving object, e.g. fan, door,… in detection area

Use cases examples:

- Main entrance
- Indoor



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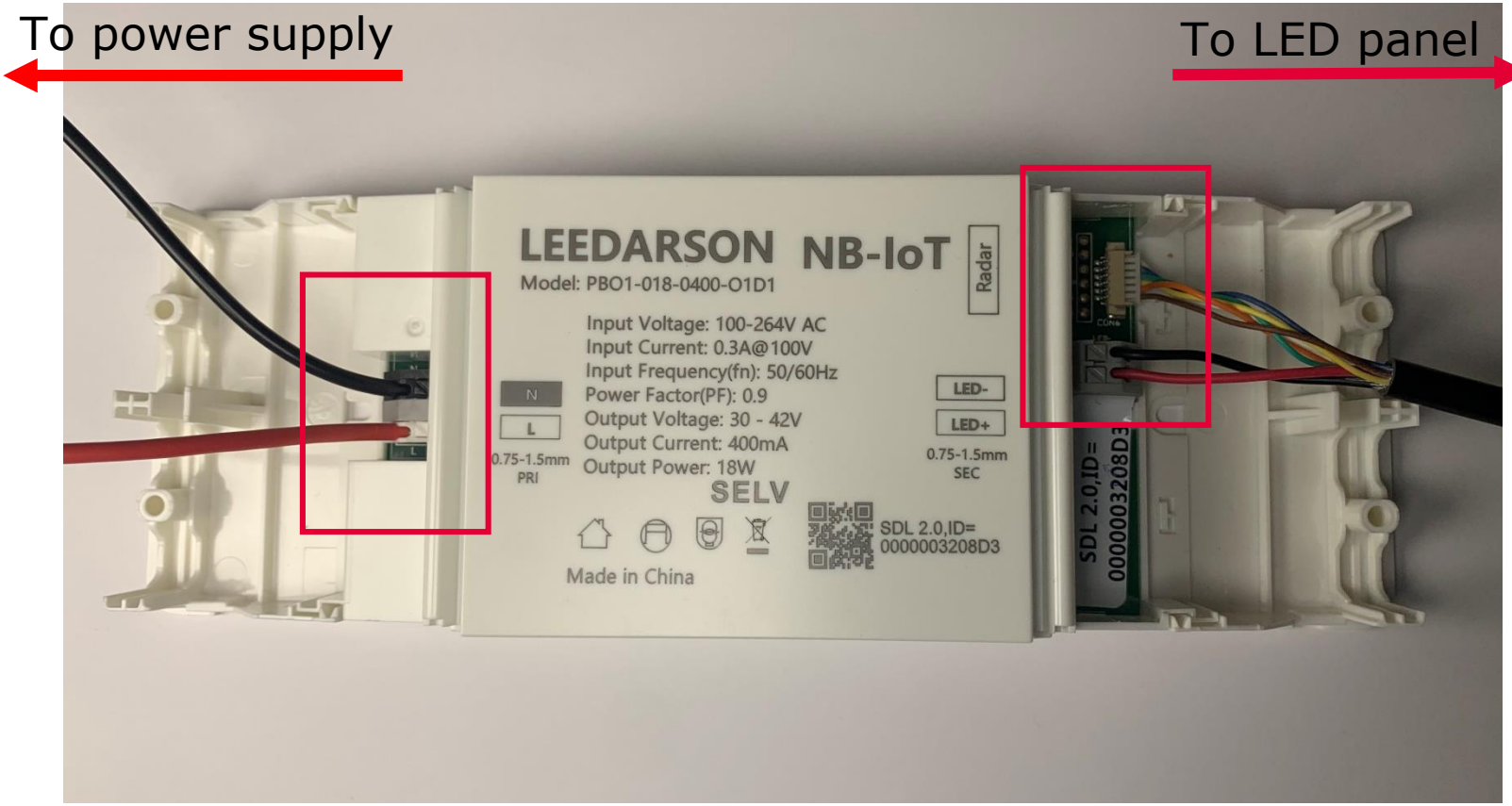
Connecting to Power Supply

› Open the cover at both sides and connect the board to power supply and the light as shown below:



Connecting to Power Supply

- Cover back the two covers at the side and the board should look like this after connection:

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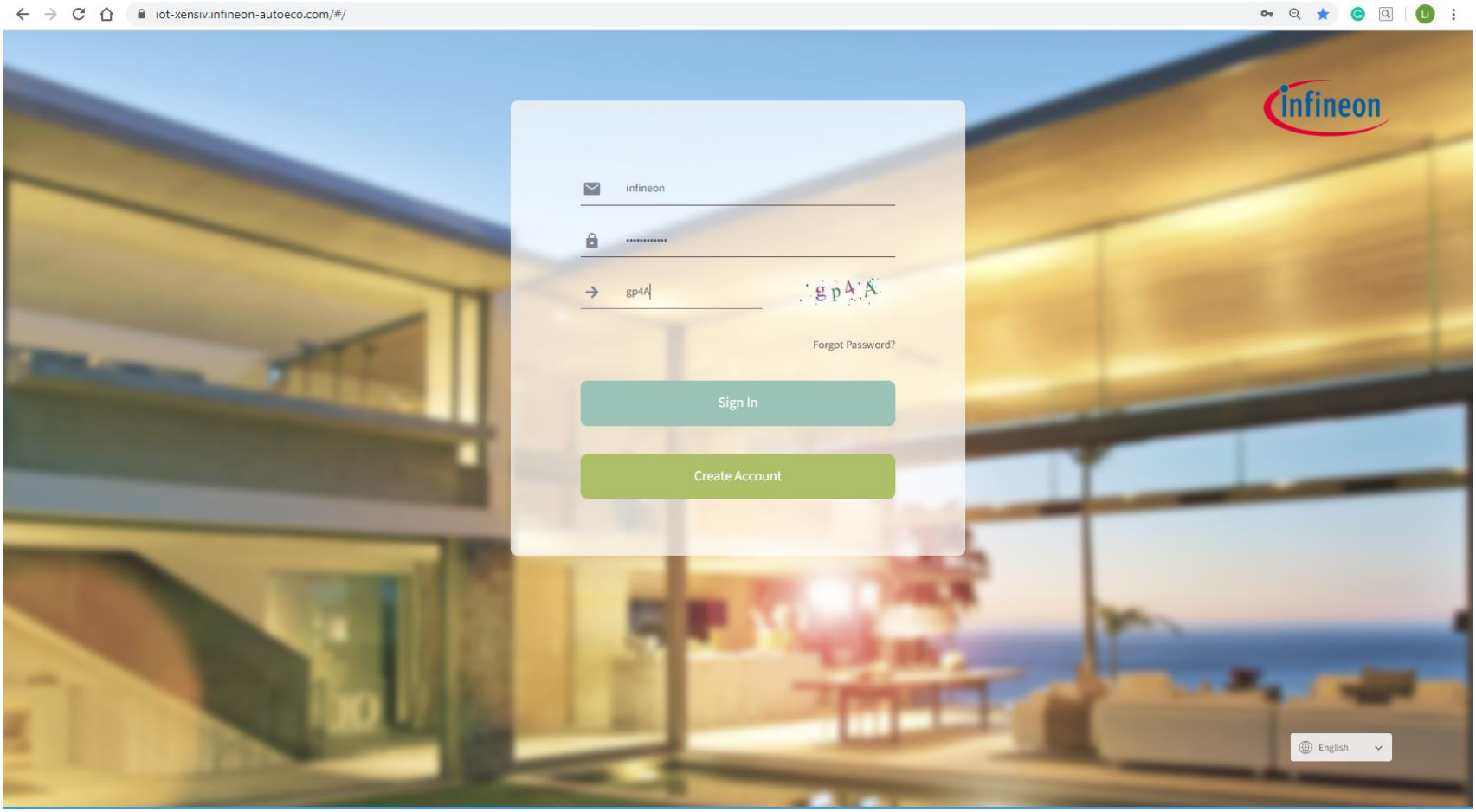
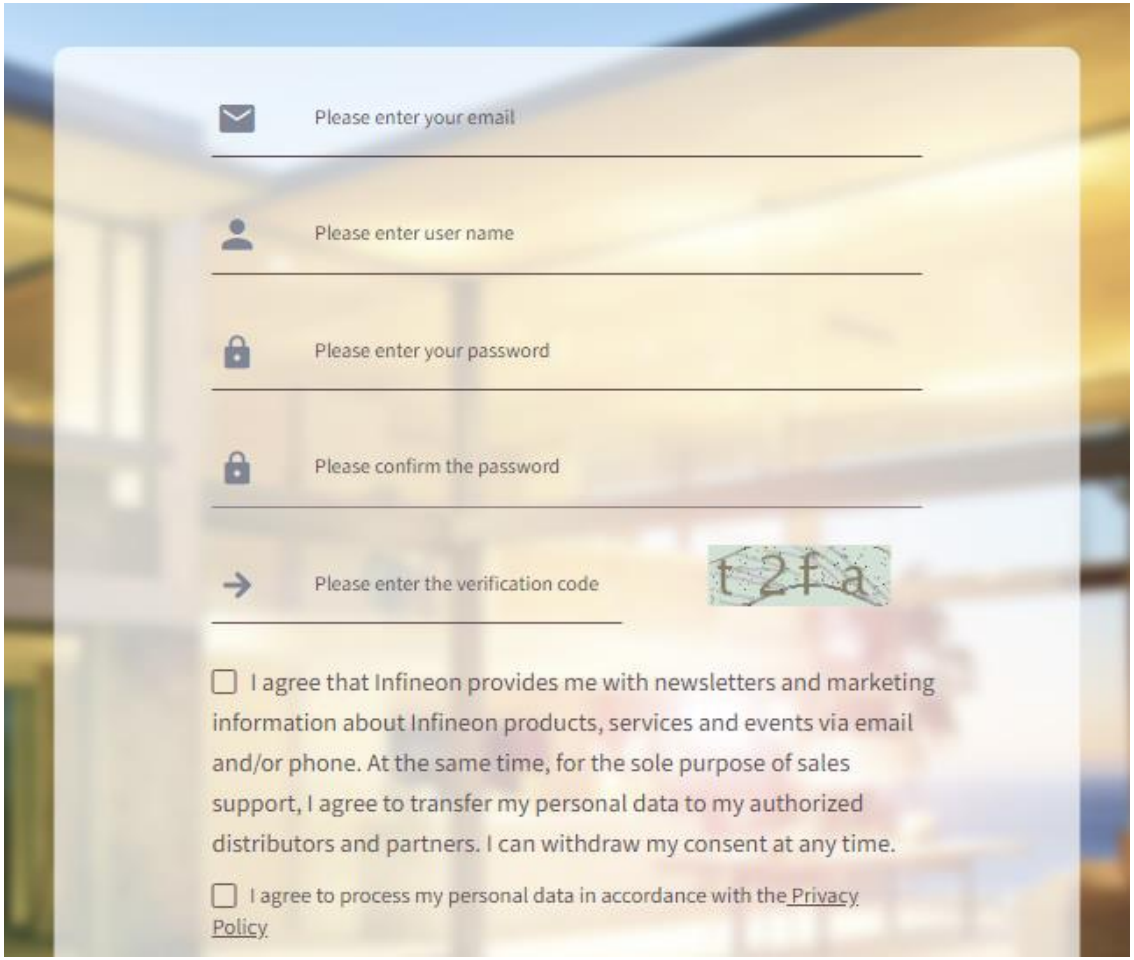
IOT XENSIV™ Lighting Platform Portal

- Go to https://links.infineon.cn/ to access the lighting platform portal



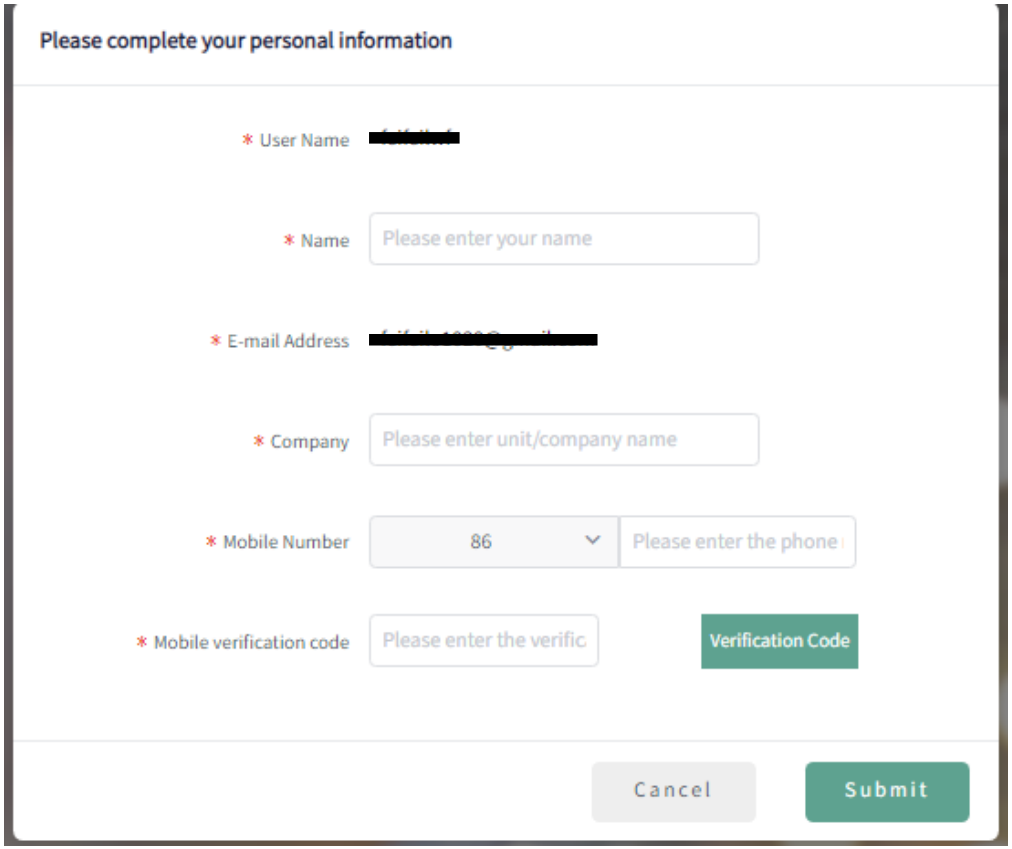
Creating an account at the portal

› For first time access, please create an account at the portal:



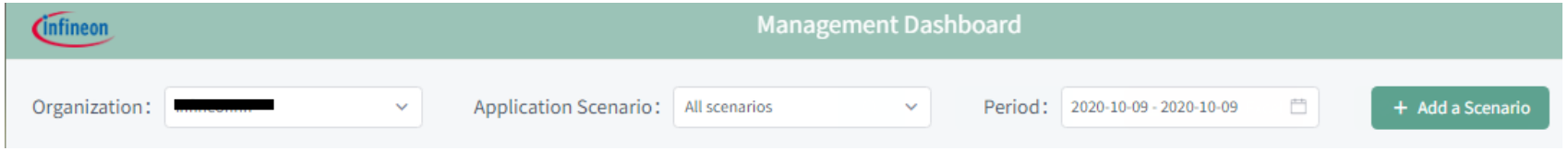
Completing personal information

- After logging in, you will see a page prompting you to complete your personal information. Please remember to enter your mobile number as well as the verification code sent to your mobile.



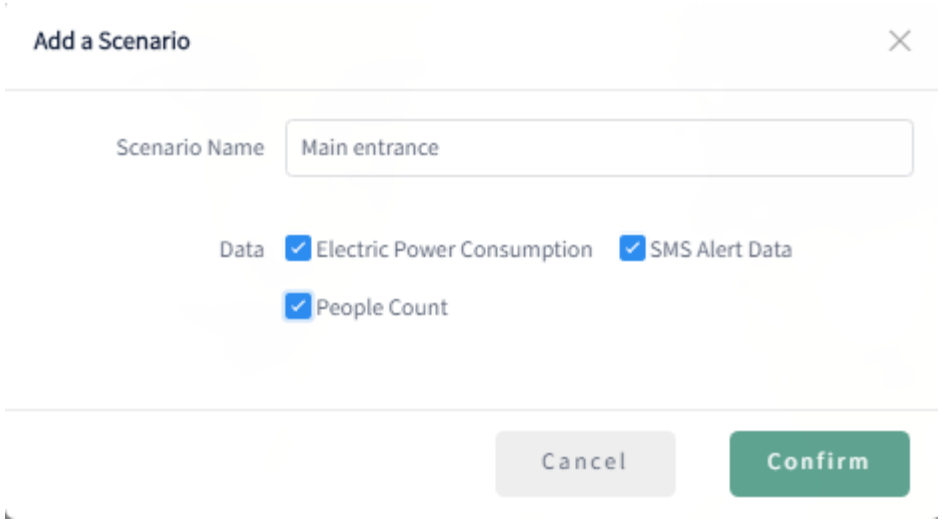
Adding a scenario

› Before adding a device, you must add a scenario first (in the Management Dashboard plane), which corresponds to a group of devices:



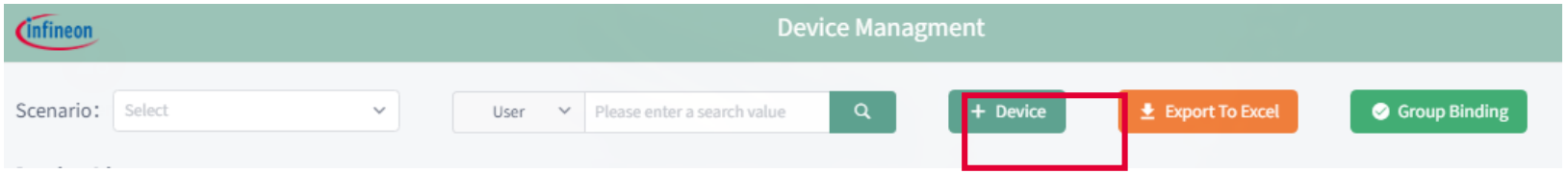
› Then, fill in the details of the scenario:

One example of scenario is te Main Entrance

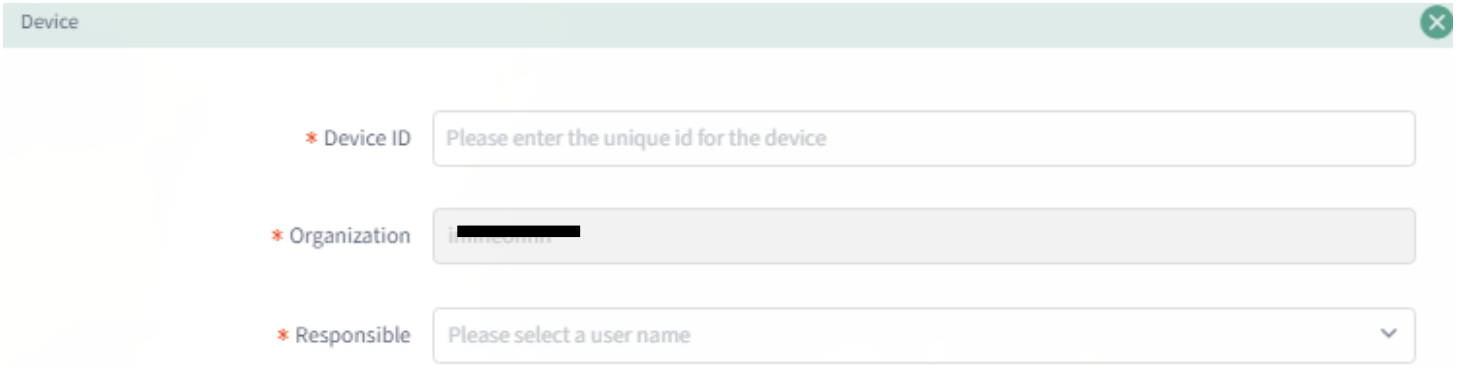


Adding a Device

- To add a device in the portal, click the '+Device' button in the Device Management plane:



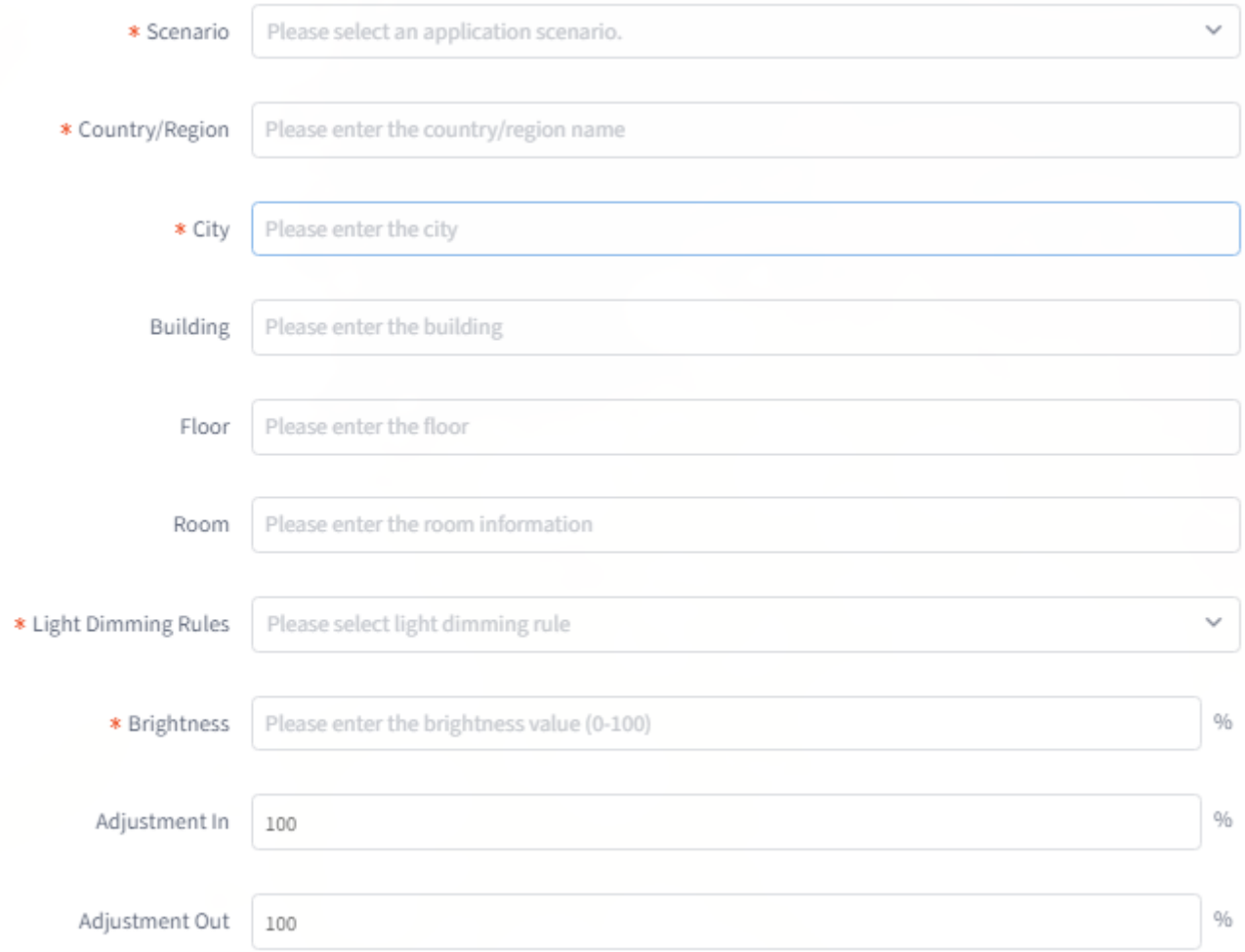
- Then, fill in the details of the new device as prompted:



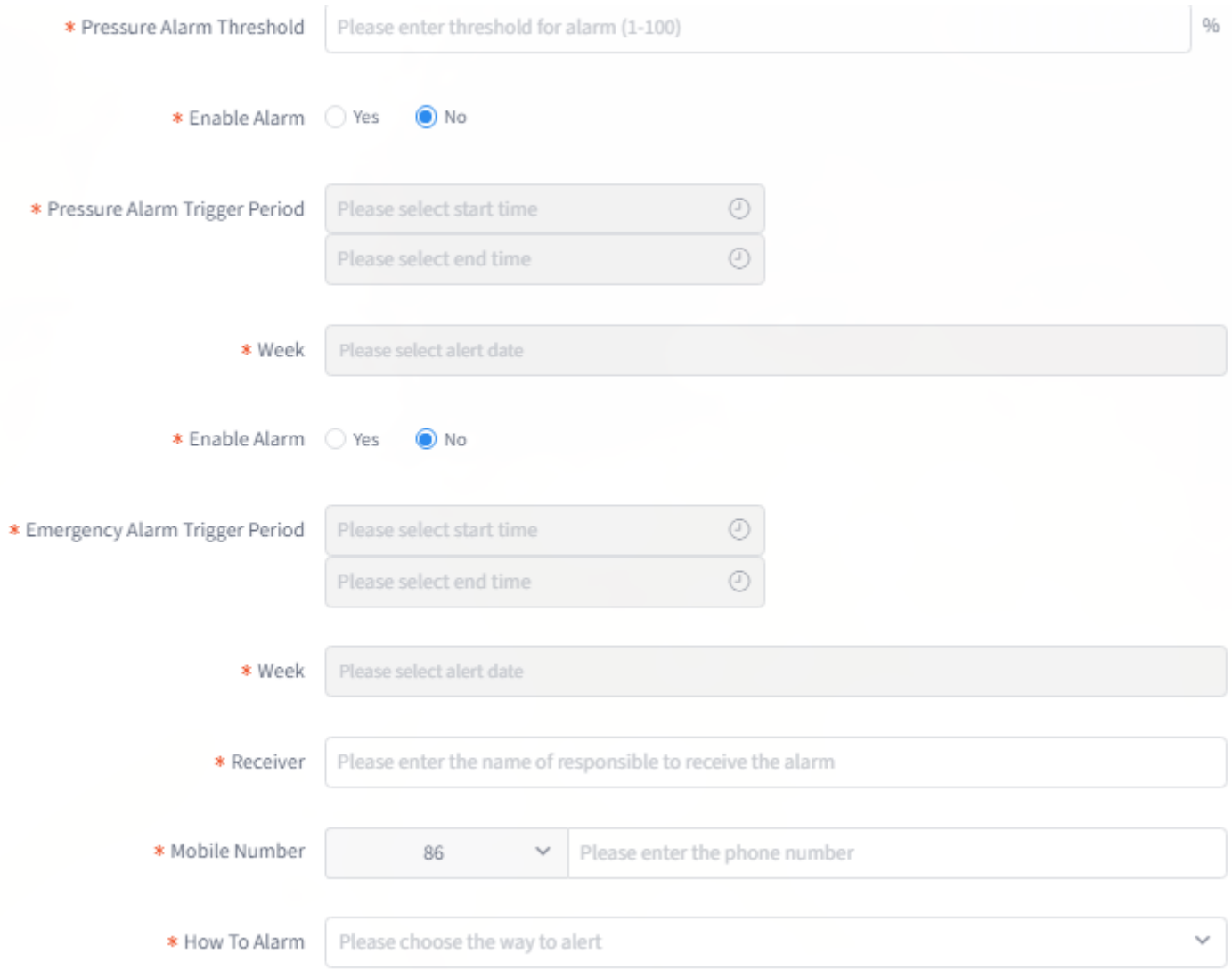
  - The device ID can be found on the cover of the main board (please also fill in the 6 zeros at the front)

Adding a Device

› More details to be added for the device:

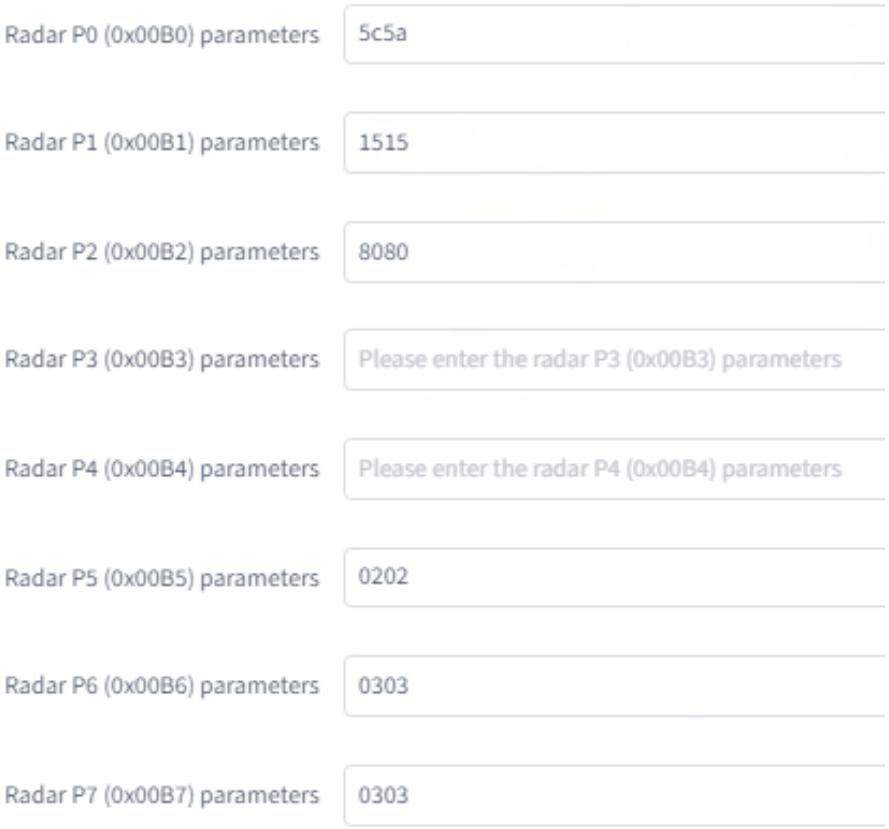


Adding a Device



Adding a Device

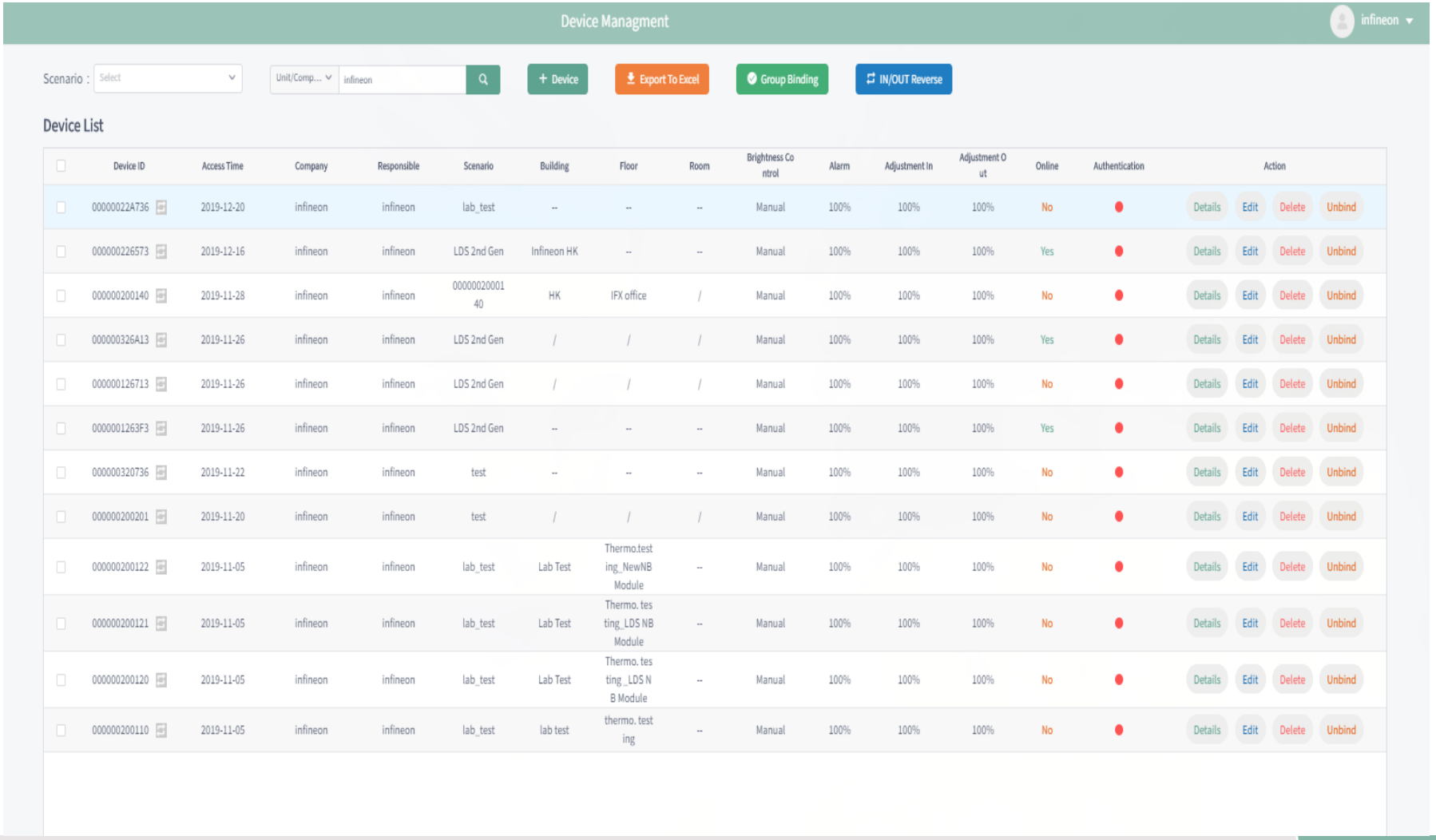
- Radar parameters are also needed to be input to the portal for the radar module:



Parameter values are depending on corresponding radar modules, pls check with the radar module specification.

Device Management

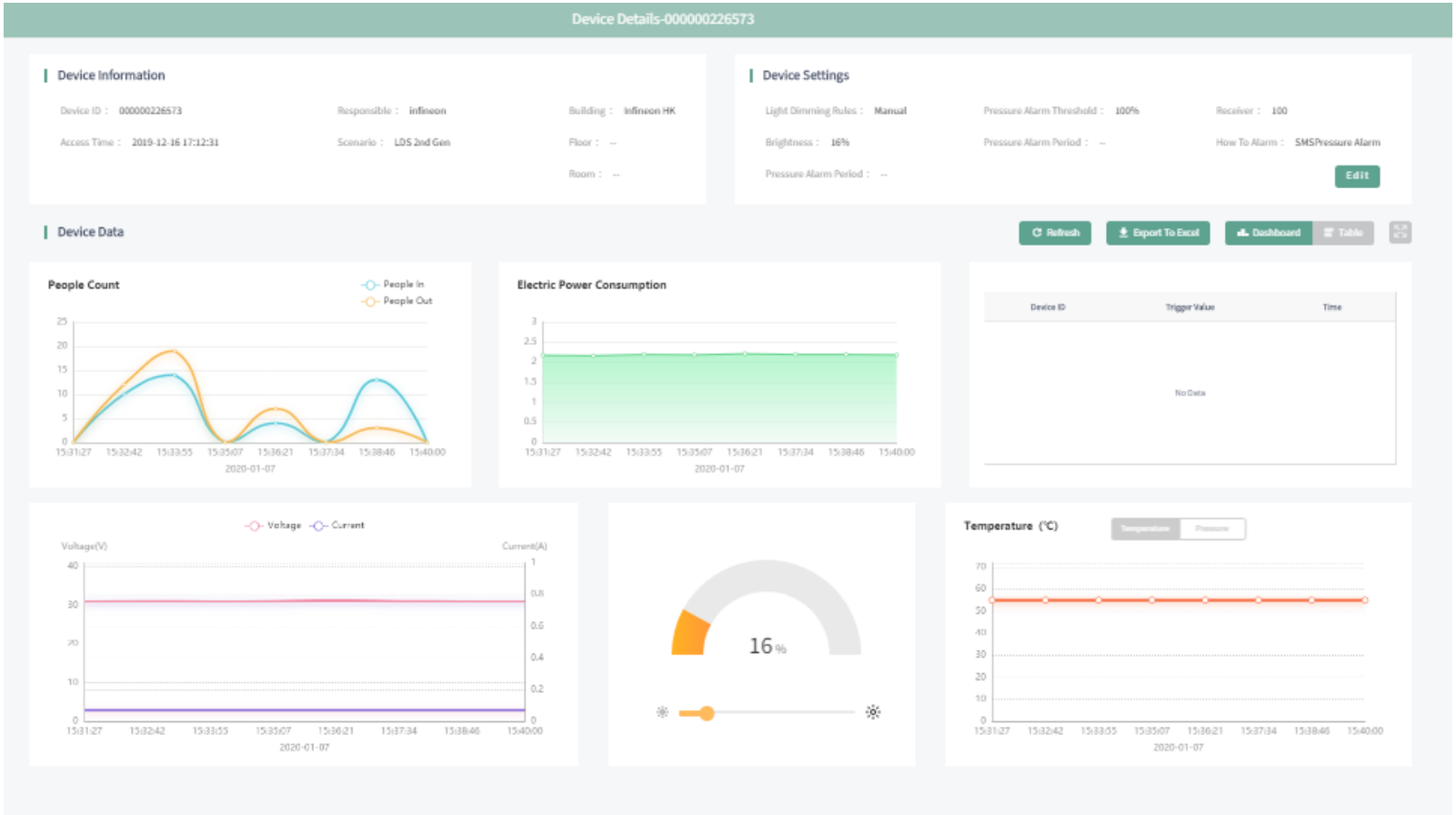
› The device management plane after adding different devices:



Device ID	Access Time	Company	Responsible	Scenario	Building	Floor	Room	Brightness Control	Alarm	Adjustment In	Adjustment Out	Online	Authentication	Action
00000022A736	2019-12-20	infineon	infineon	lab_test	--	--	--	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000226573	2019-12-16	infineon	infineon	LDS 2nd Gen	Infineon HK	--	--	Manual	100%	100%	100%	Yes		Details Edit Delete Unbind
000000200140	2019-11-28	infineon	infineon	0000002000140	HK	IFX office	/	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000326A13	2019-11-26	infineon	infineon	LDS 2nd Gen	/	/	/	Manual	100%	100%	100%	Yes		Details Edit Delete Unbind
000000126713	2019-11-26	infineon	infineon	LDS 2nd Gen	/	/	/	Manual	100%	100%	100%	No		Details Edit Delete Unbind
0000001263F3	2019-11-26	infineon	infineon	LDS 2nd Gen	--	--	--	Manual	100%	100%	100%	Yes		Details Edit Delete Unbind
000000320736	2019-11-22	infineon	infineon	test	--	--	--	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000200201	2019-11-20	infineon	infineon	test	/	/	/	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000200122	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo.testing_NewNB Module	--	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000200121	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo. testing_LDS NB Module	--	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000200120	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo. testing_LDS NB Module	--	Manual	100%	100%	100%	No		Details Edit Delete Unbind
000000200110	2019-11-05	infineon	infineon	lab_test	lab test	thermo. testing	--	Manual	100%	100%	100%	No		Details Edit Delete Unbind

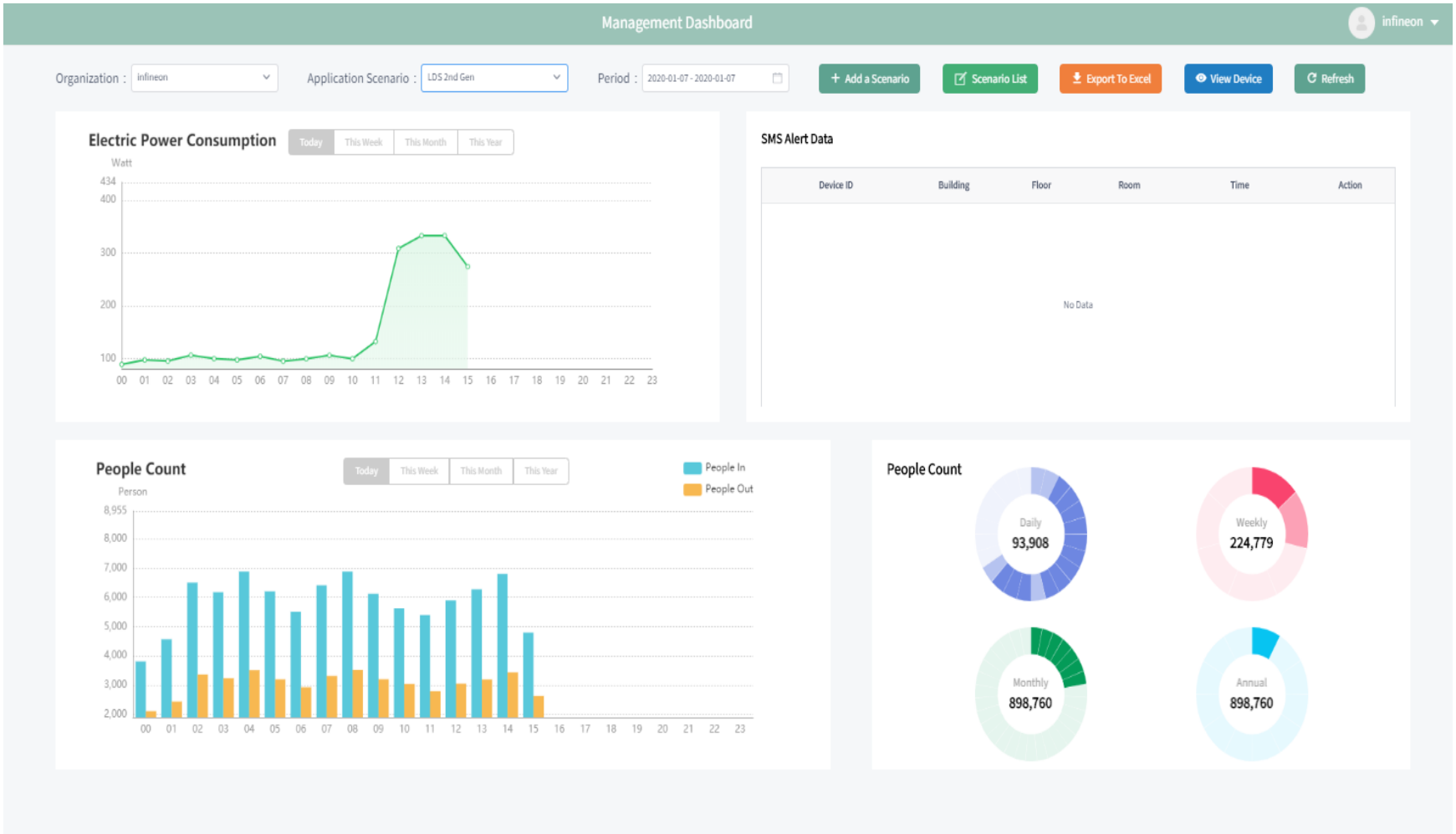
Device Data Visualization – People Count / LED Control

- After clicking into “Details” of each device, you will be able to view different data of the device (e.g. people count, brightness)
- You can also change the brightness of the light



Device Data Visualization – Scenario View

- In the scenario view, data from multiple devices can be viewed at once for analysis and comparison



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