Smart Downlight 2.0
Quick Start
V1.1

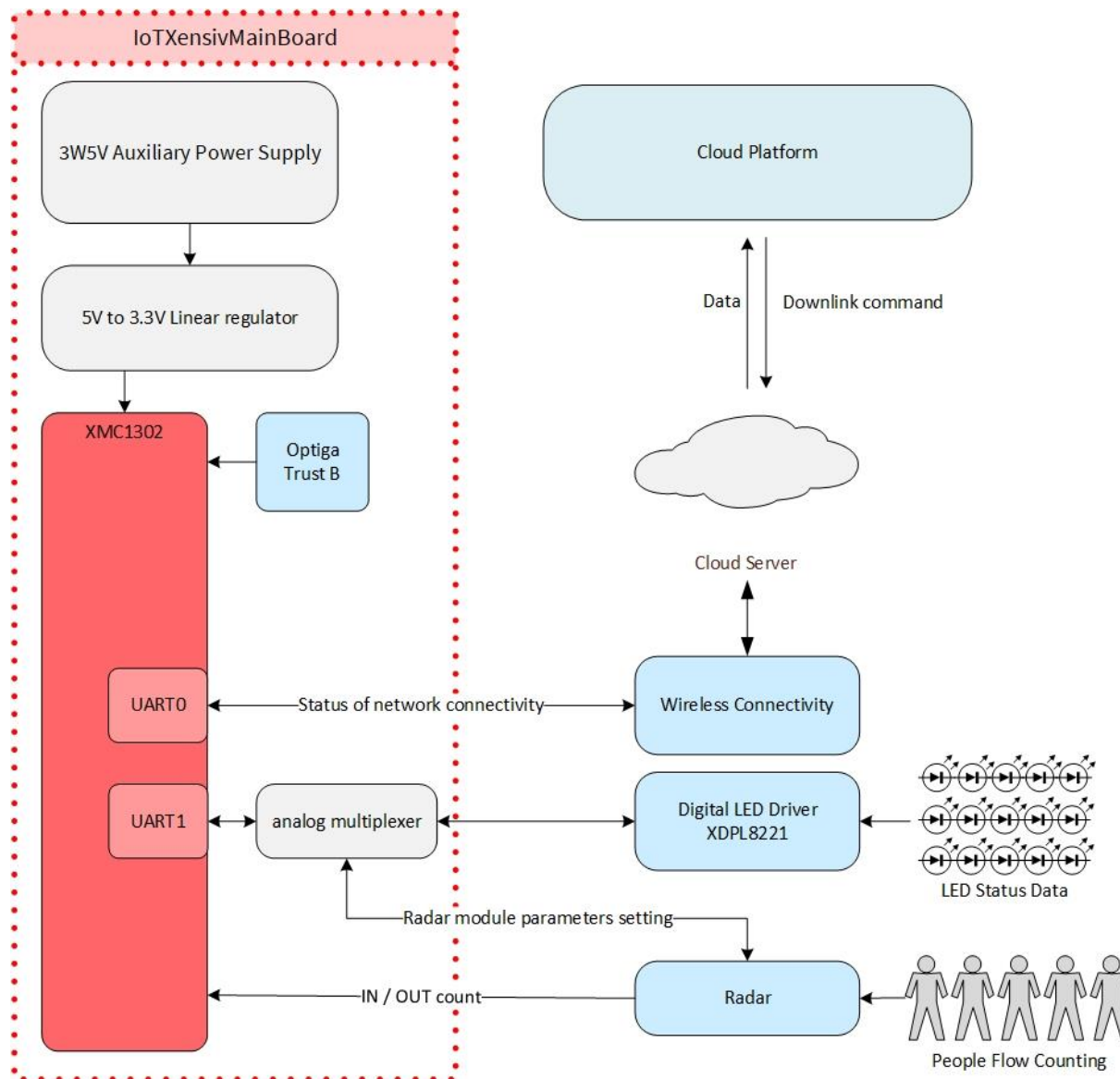# Agenda

Agenda

Smart Downlight 2.0 – Block Diagram

Smart Downlight 2.0 – Components
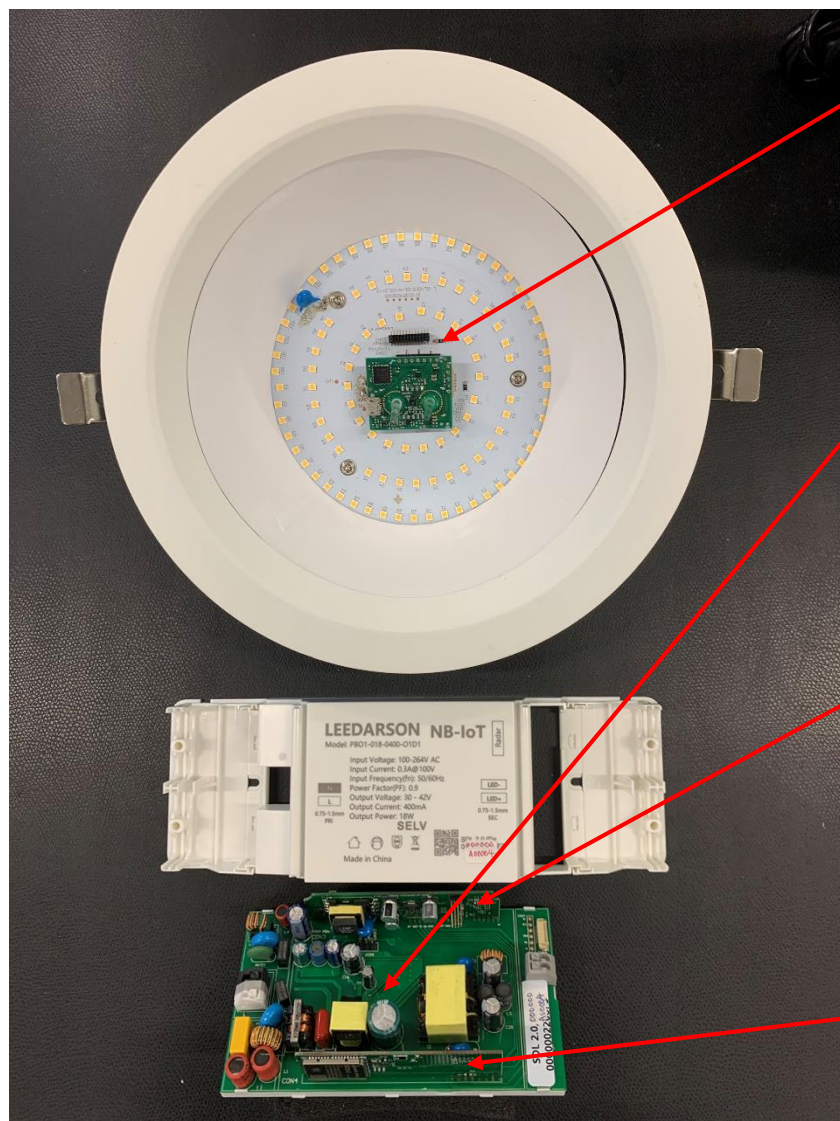
Radar Module
-24Ghz Radar chip: BGT24LTR11
-MCU Cortex M0: XMC1302

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

Agenda

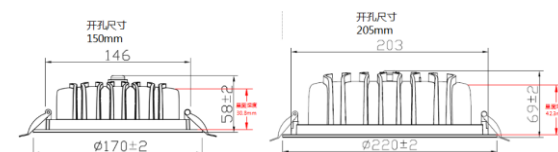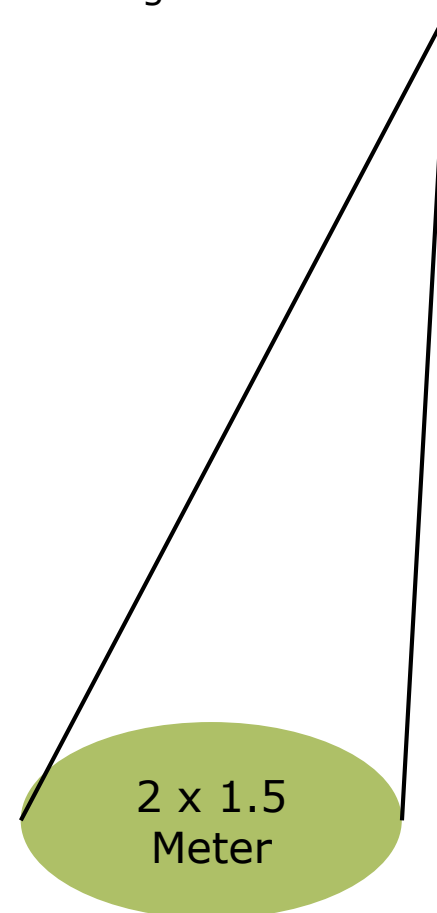|	
1	Block Diagram and Pictures
2	Specifications
3	Installation
4	Connecting to power supply
5	IOT XENSIV™ Lighting Platform Portal

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	170*58 mm or 220*69
	LED Driver	mm 149*74*31mm
People Count	Radar Sensor	24Ghz
	Height	3-5m
	FOV Angle	10x45°
	Detection (@ 3.5 meter)	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

开孔尺寸 150mm 146 58±2 Ø170±2

开孔尺寸 205mm 203 69±2 Ø220±2

Height : 3-5 Meter

2 x 1.5 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).
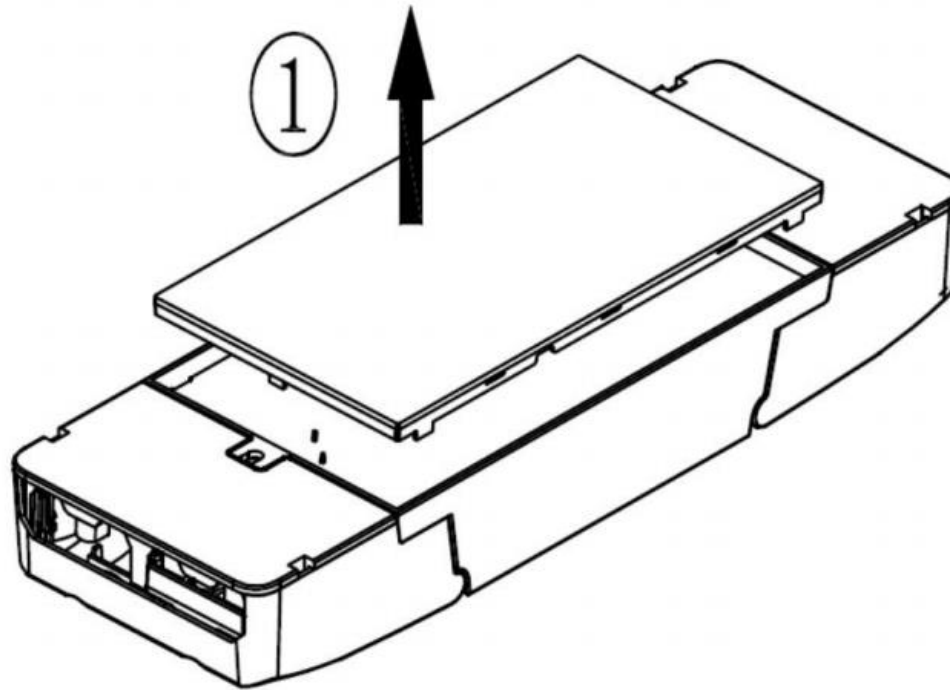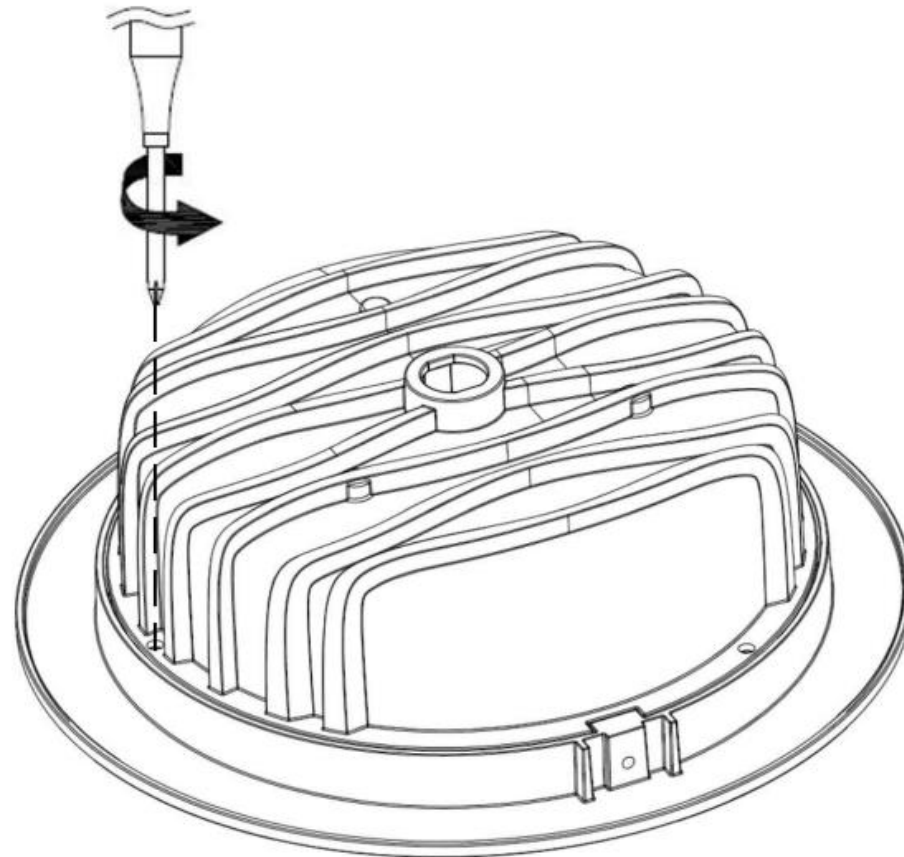
Installation of SIM Card

› Step 2: Insert the NBIOT SIM Card. The SIM card needs to be bought from telecom operator.
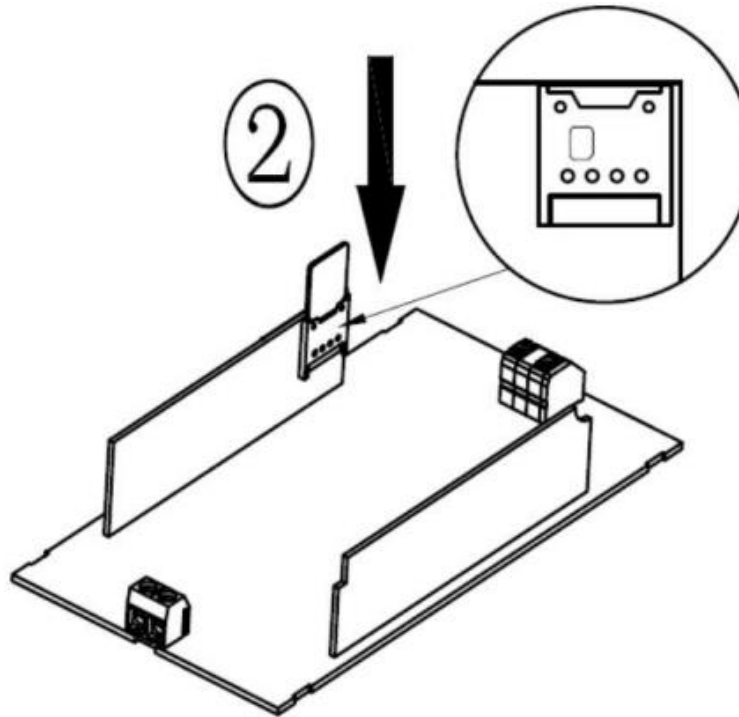
› Step 3: Replace the drive and put back the drive back cover.

Installation of Radar Module

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

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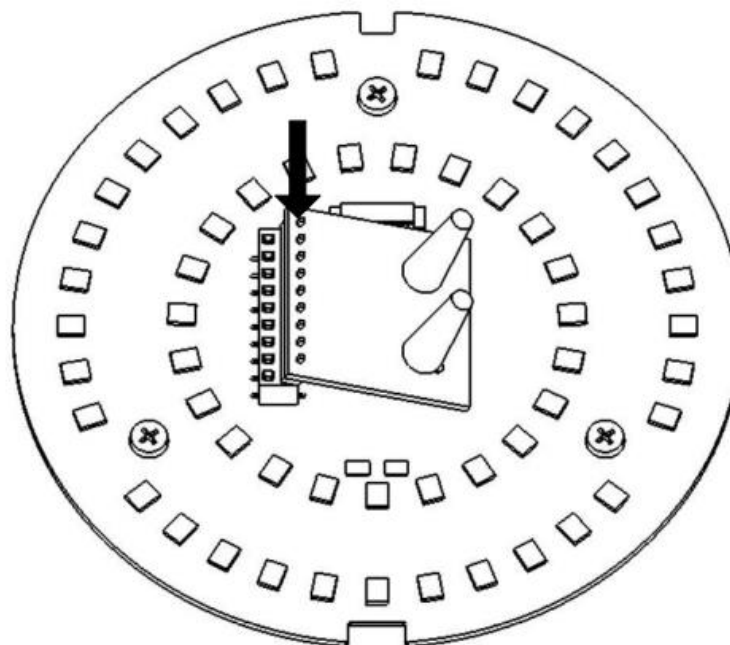
› Step 3: Put back the back cover and screw in all 4 screws with a screwdriver.

Installation of Radar Module

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

Indicate radar direction

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
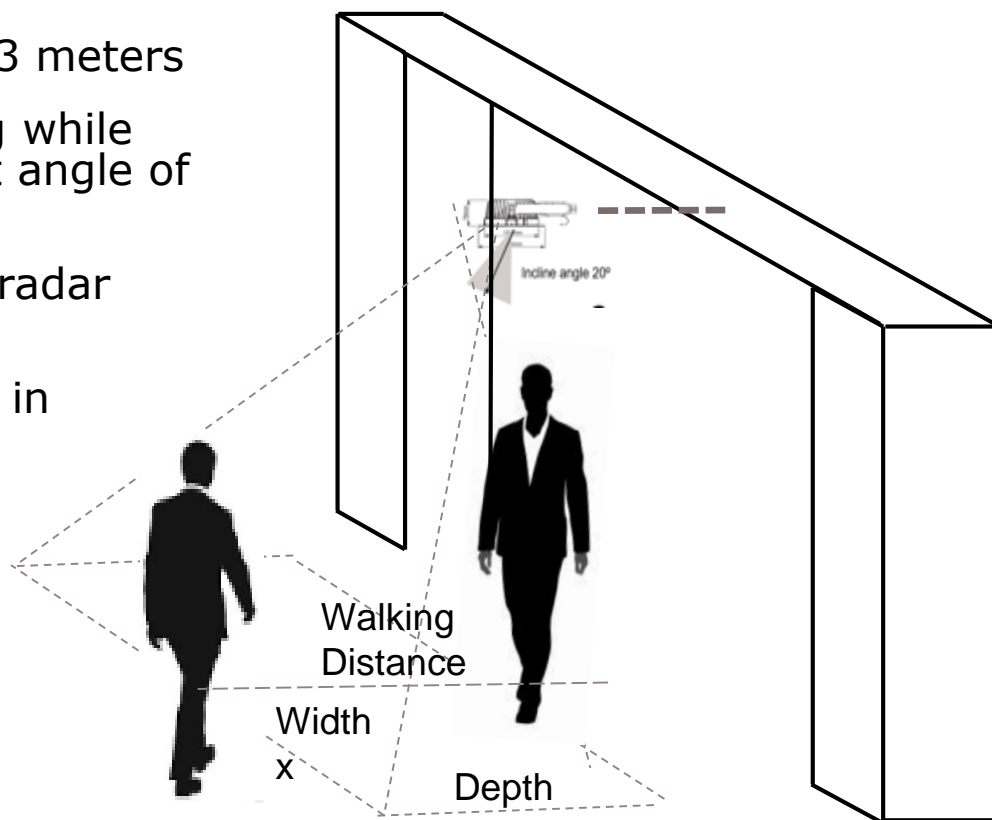
Incline angle 20°

Walking Distance

Width x

Depth

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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:

To power supply

To LED panel
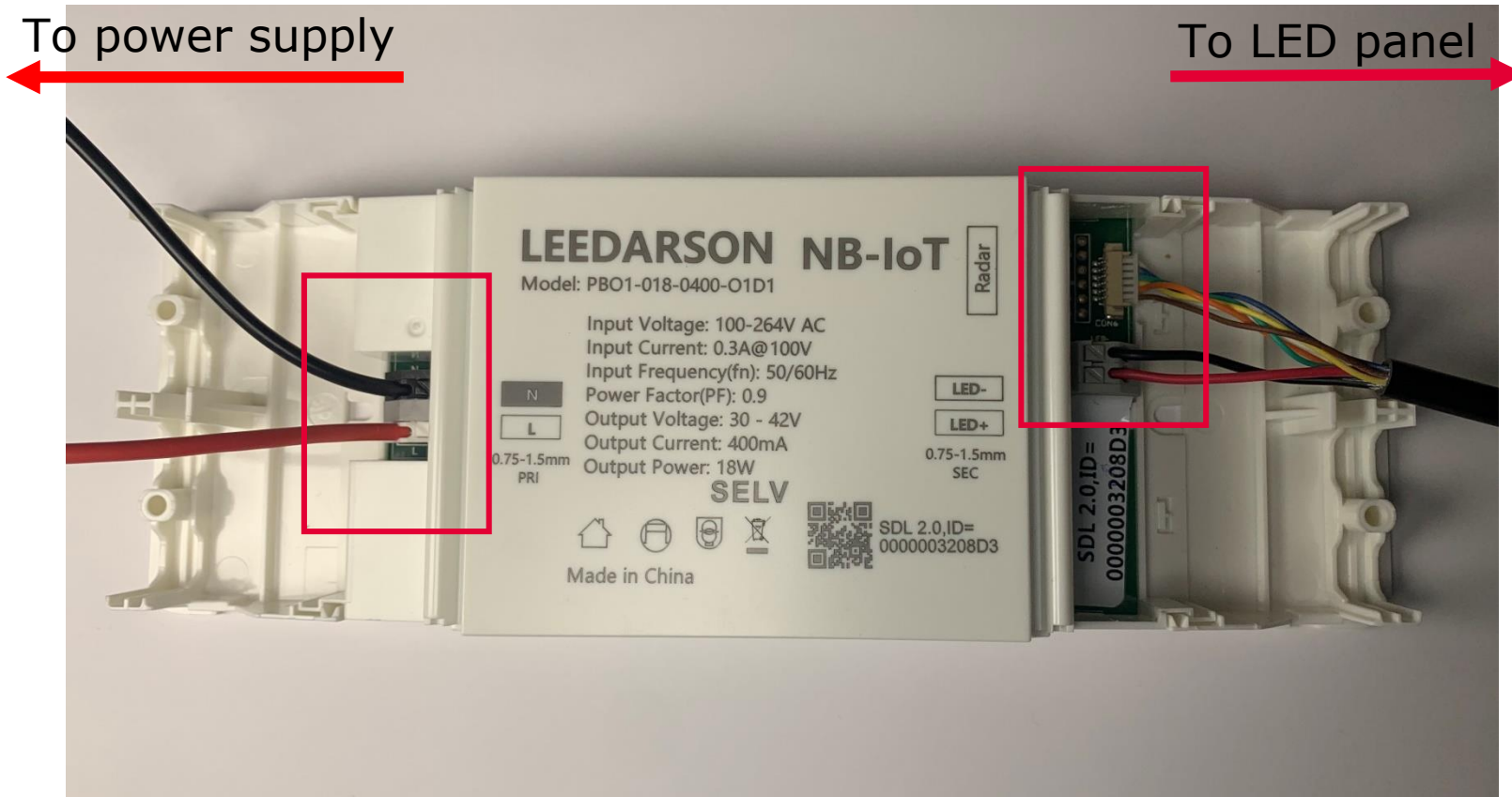
Connecting to Power Supply

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

Agenda

1 Block Diagram and Pictures

2 Specifications

3 Installation

4 Connecting to power supply

5 IOT XENSIV™ Lighting Platform Portal
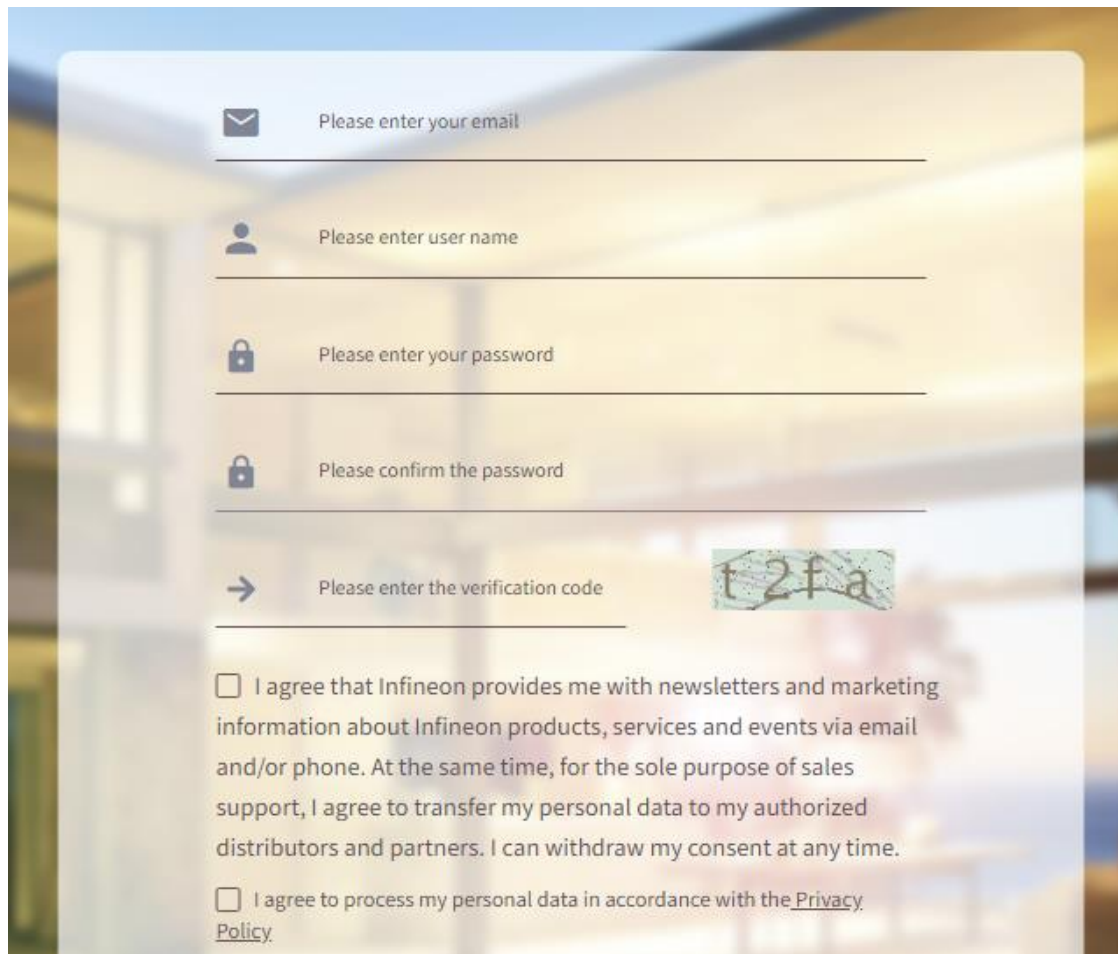
IOT XENSIV™ Lighting Platform Portal

› Go to https://links.infineon.cn/ to access the lighting platform portal
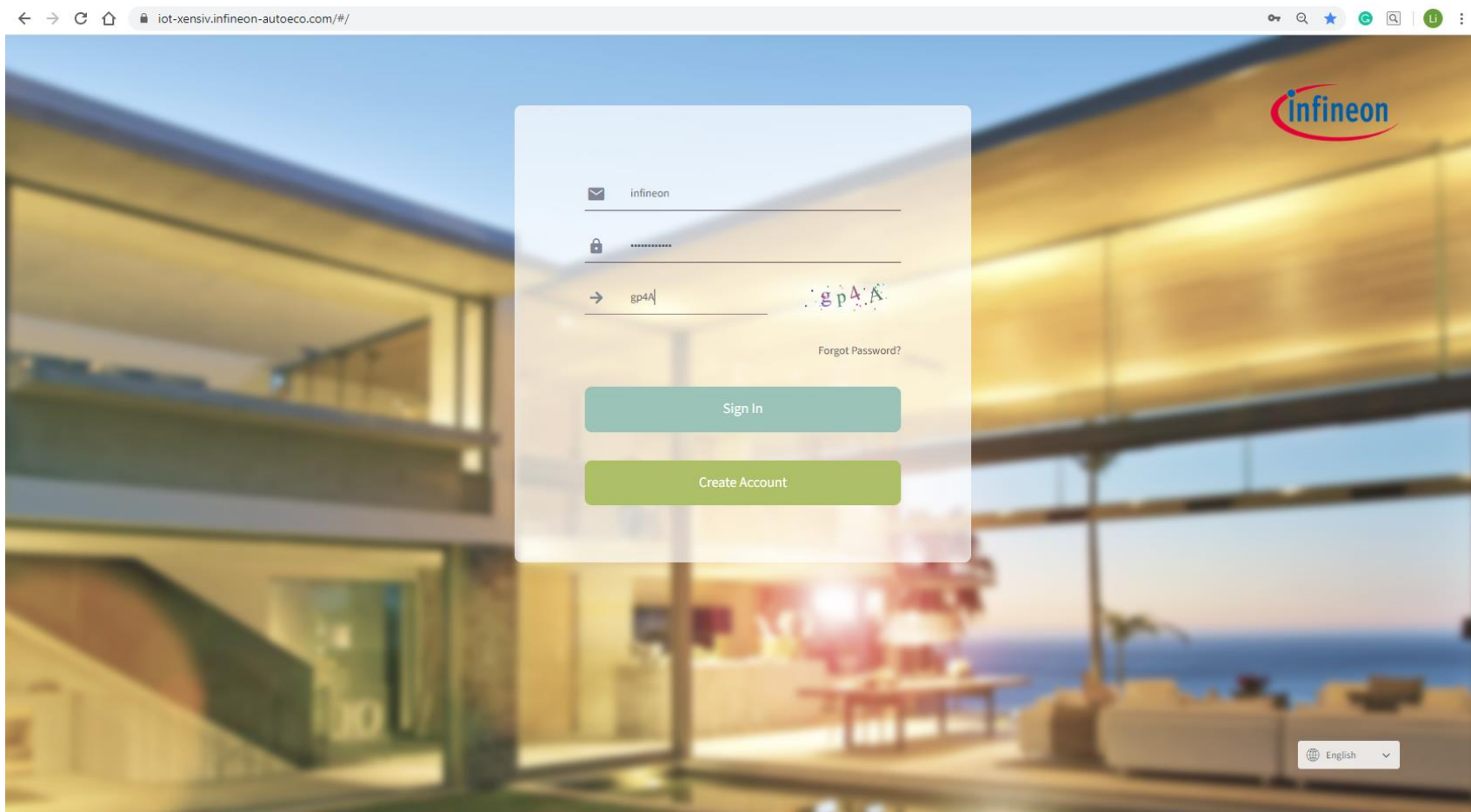
Creating an account at the portal

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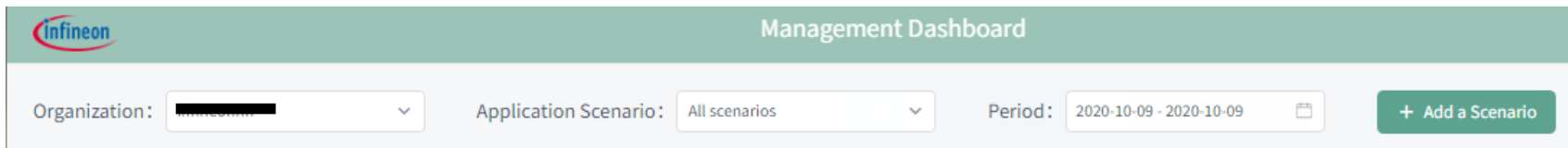
Adding a scenario
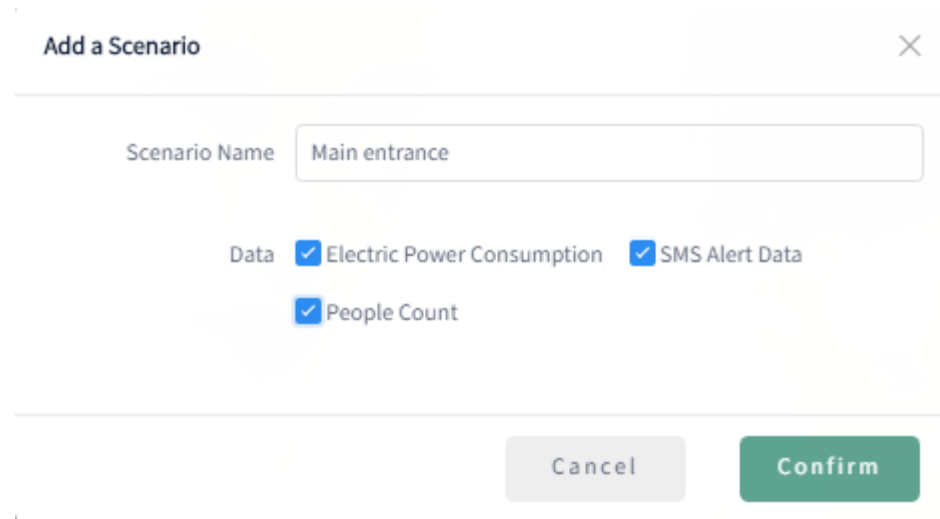
› Before adding a device, you must add a scenario first (in the Management Dashboard plane), which corresponds to a group of devices:

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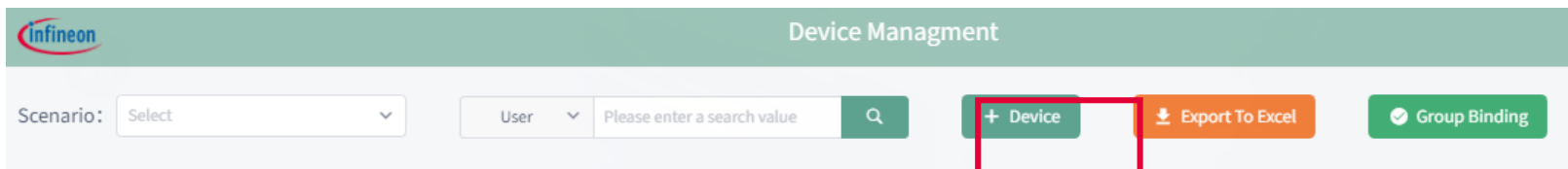
› Then, fill in the details of the new device as prompted:

– 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

* Pressure Alarm Threshold   Please enter threshold for alarm (1-100)   %

* Enable Alarm   ○ Yes   ● No

* Pressure Alarm Trigger Period

Please select start time 🕐

Please select end time 🕐

* Week   Please select alert date

* Enable Alarm   ○ Yes   ● No

* Emergency Alarm Trigger Period

Please select start time 🕐

Please select end time 🕐

* Week   Please select alert date

* Receiver   Please enter the name of responsible to receive the alarm

* Mobile Number   86 ⌄   Please enter the phone number

* How To Alarm   Please choose the way to alert ⌄

Adding a Device

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

Radar P0 (0x00B0) parameters	5c5a
Radar P1 (0x00B1) parameters	1515
Radar P2 (0x00B2) parameters	8080
Radar P3 (0x00B3) parameters	Please enter the radar P3 (0x00B3) parameters
Radar P4 (0x00B4) parameters	Please enter the radar P4 (0x00B4) parameters
Radar P5 (0x00B5) parameters	0202
Radar P6 (0x00B6) parameters	0303
Radar P7 (0x00B7) parameters	0303

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 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
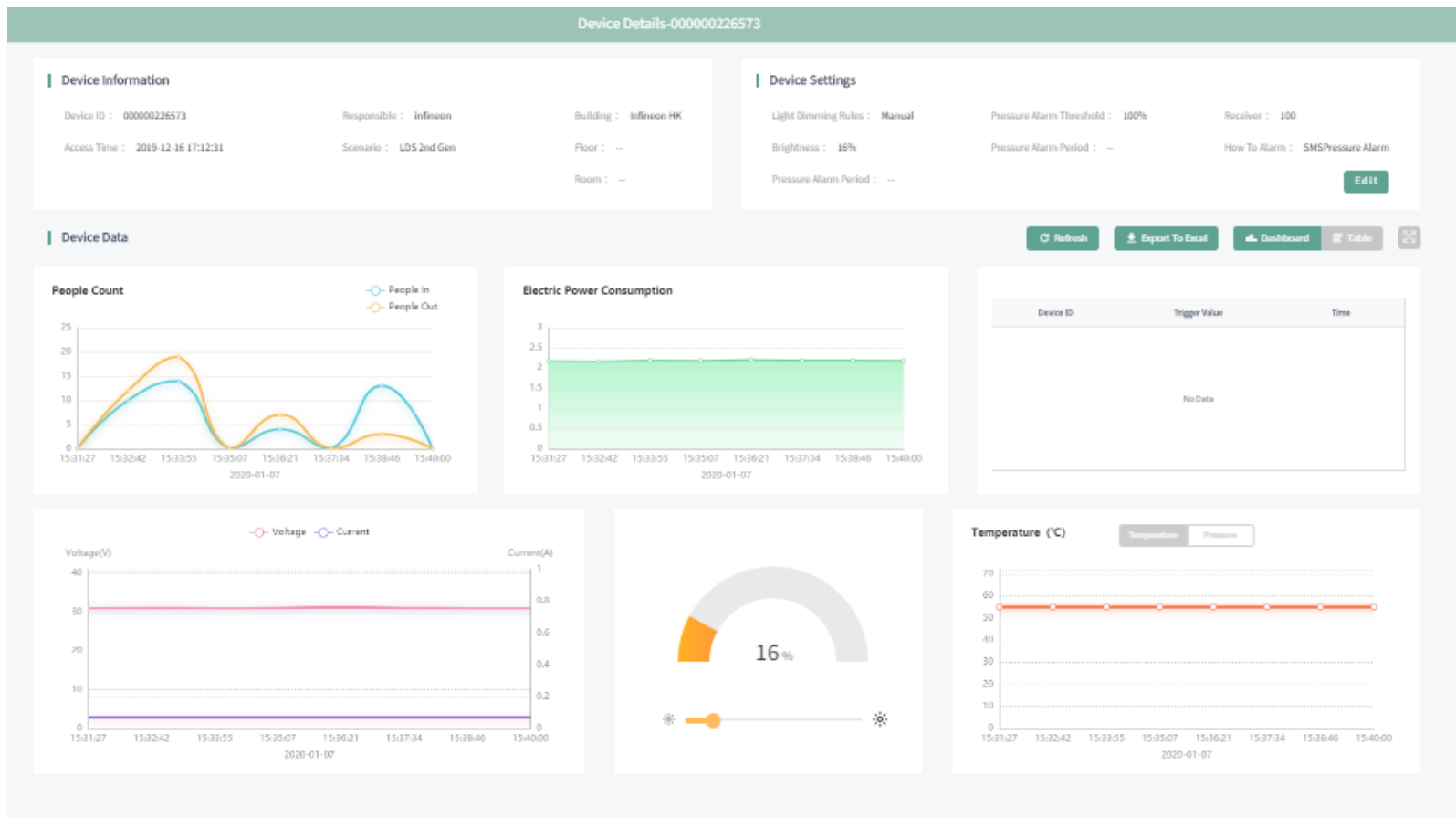
Device Data Visualization – Scenario View

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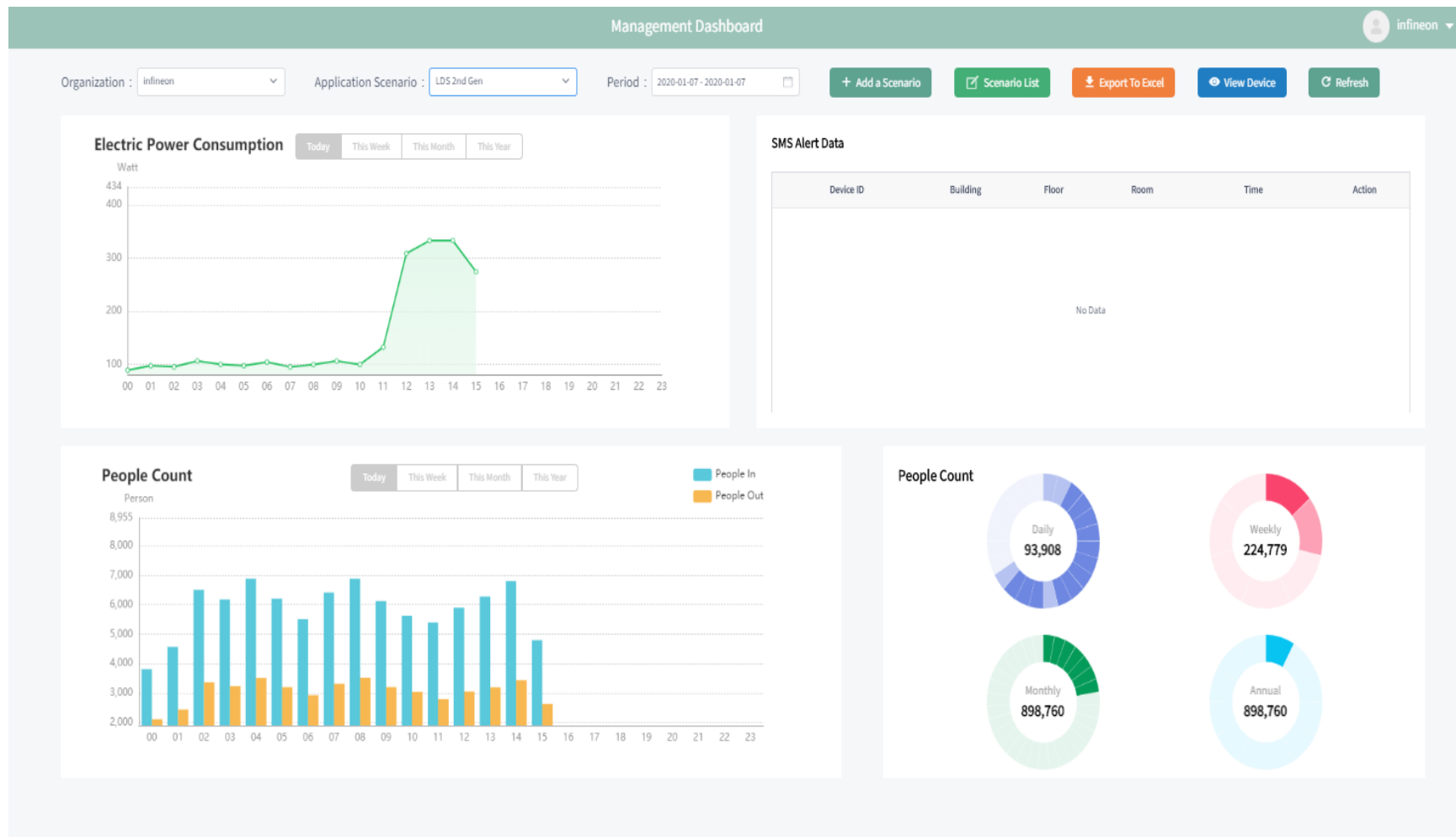
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