

# Smart Downlight 2.0

## Quick Start

### V1.1



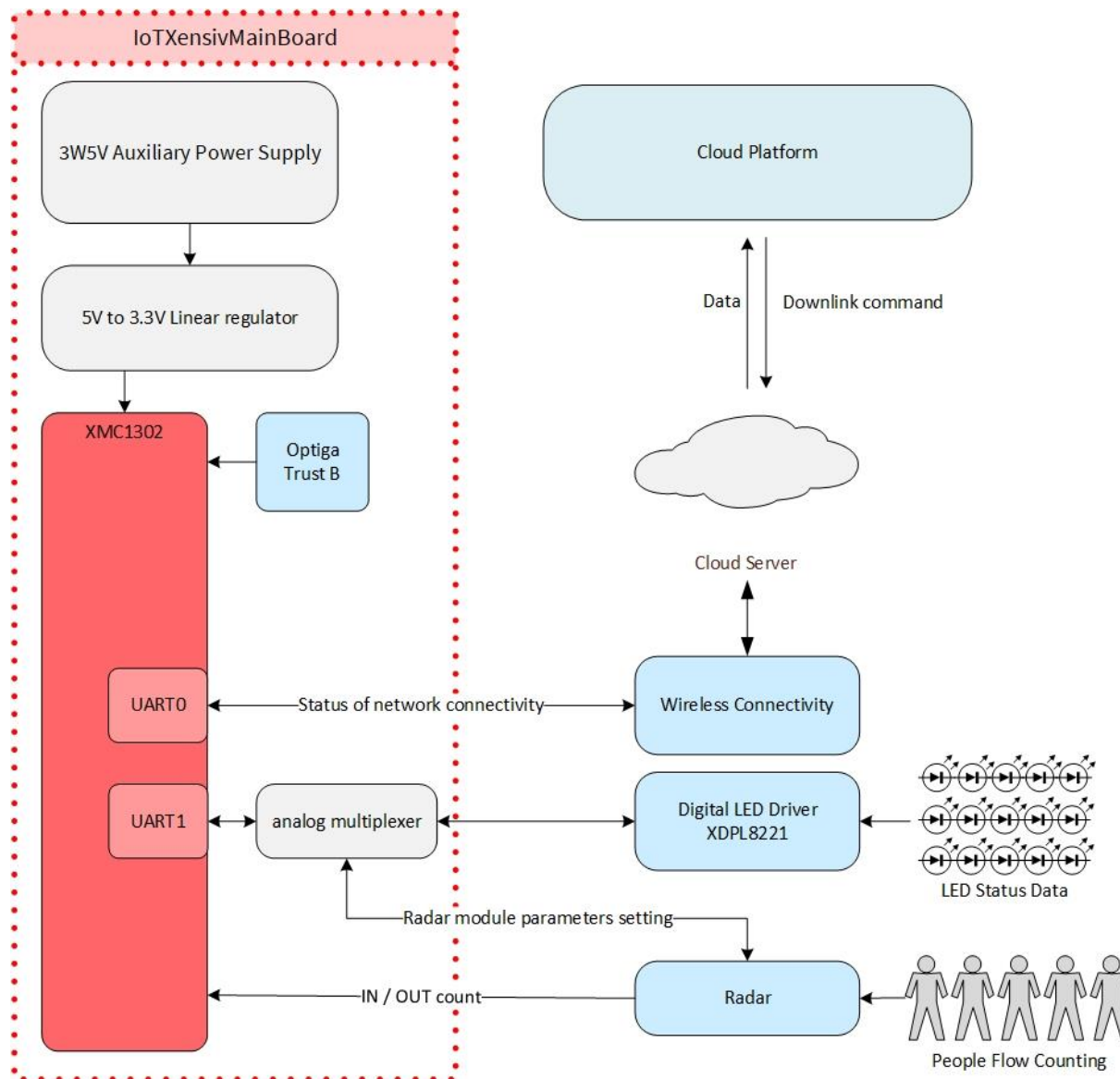
# Agenda

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

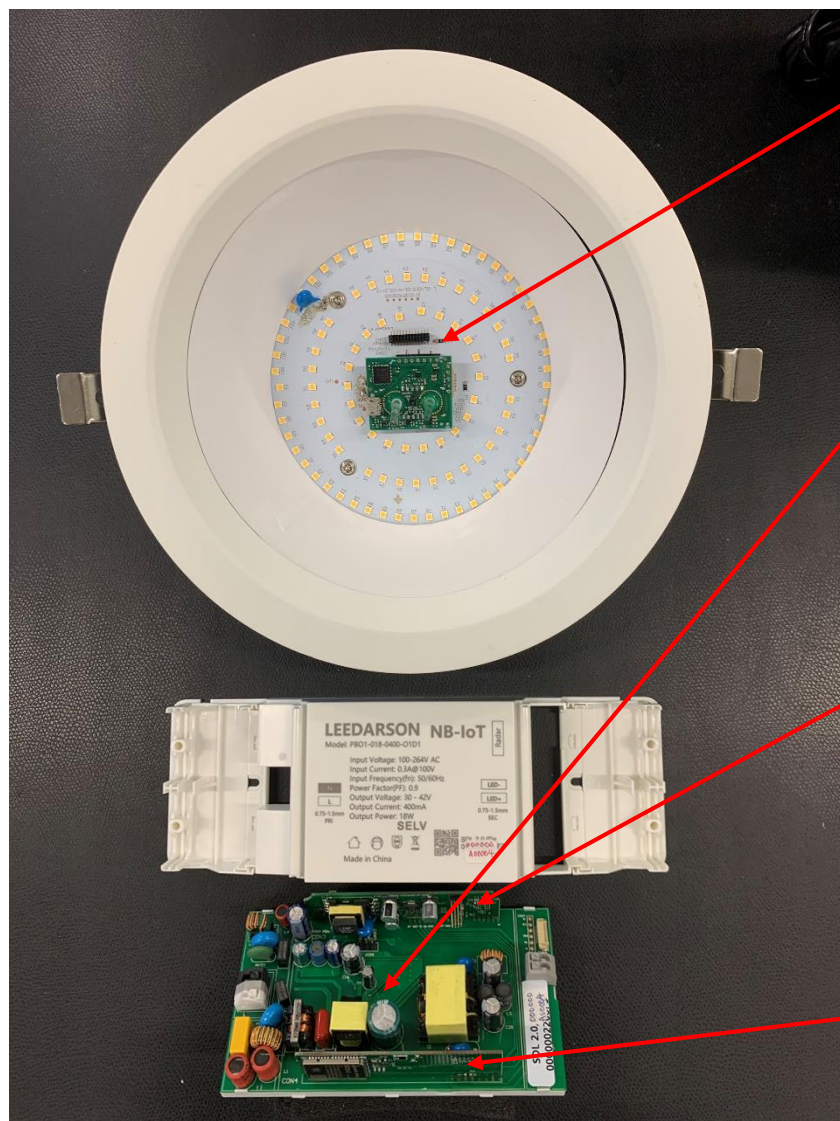
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# Smart Downlight 2.0 – Block Diagram



# 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

- NB-IOT Module: Qucetel BC35/95G
- or Sigfox Module: Wilsol WSSFM10R4AT

## Main Control Board

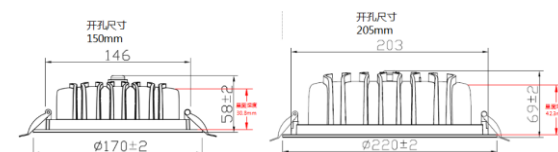
- MCU Cortex M0: XMC1302
- Security Chip: OPTIGA™ Trust B
- Aux 5V CoolSET™: ICE3RBR4765JG

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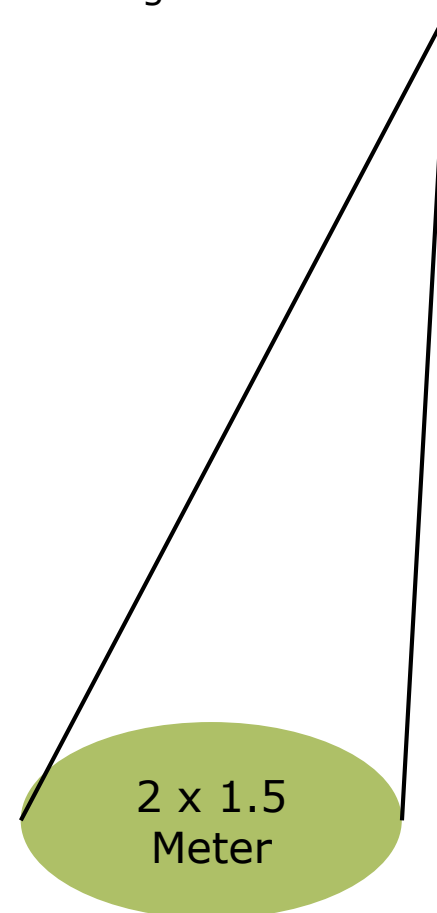
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# Specifications

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 $\Phi$ *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



Height : 3-5 Meter



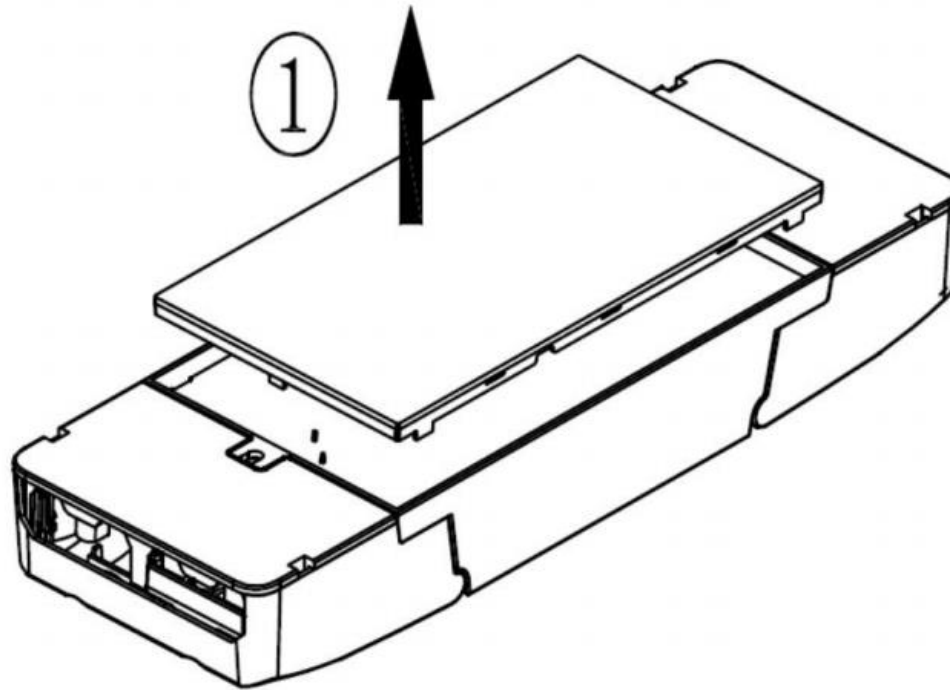
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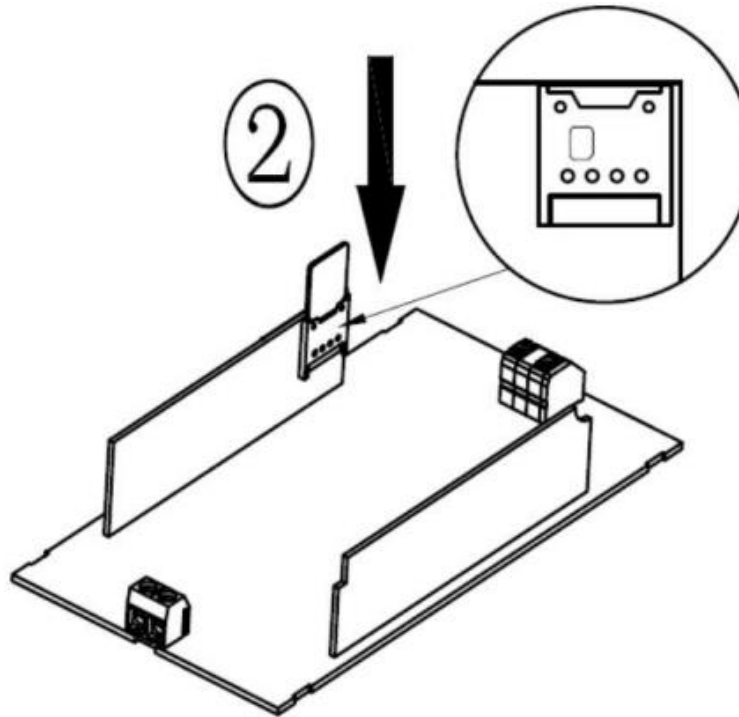
# Installation of SIM Card

- › 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

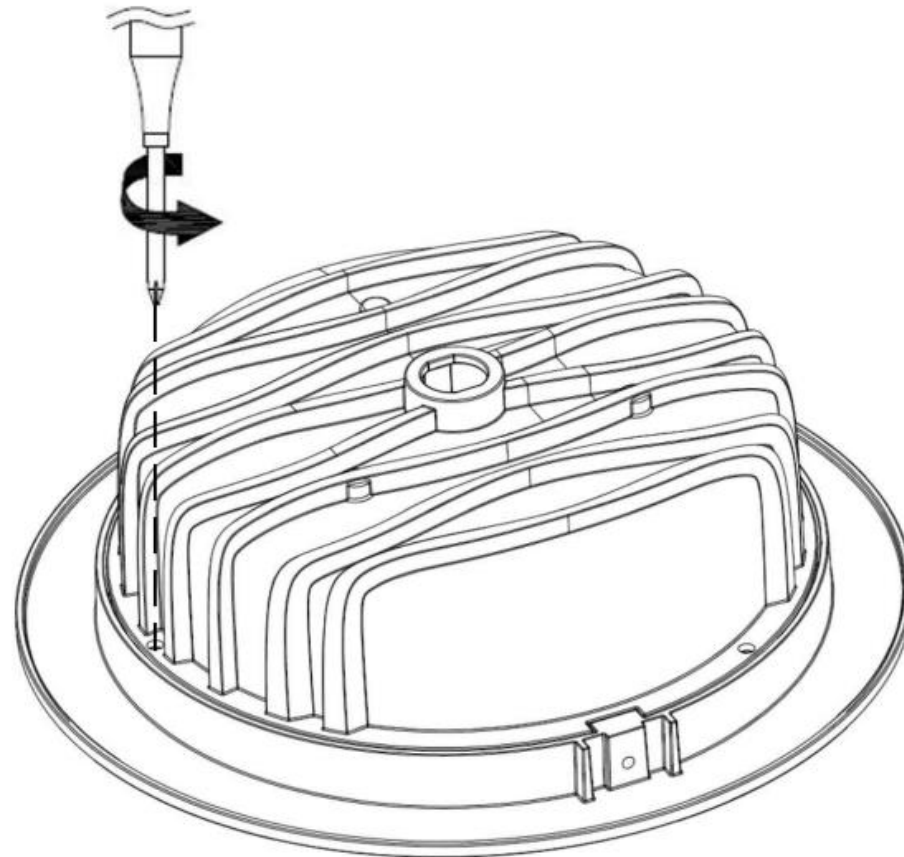
- › Step 2: Insert the NB-IoT SIM Card. The SIM card needs to be bought from telecom operator.



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

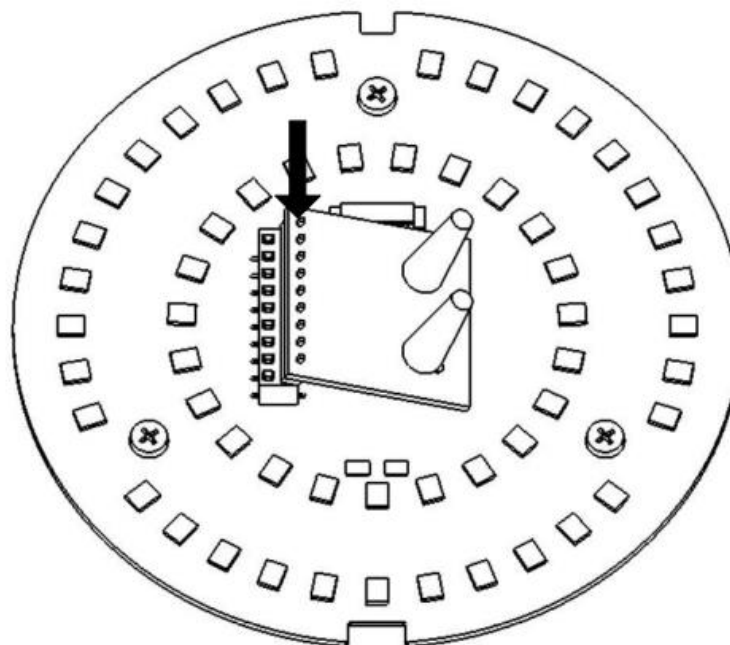
# Installation of Radar Module

- › 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:



Indicate radar direction

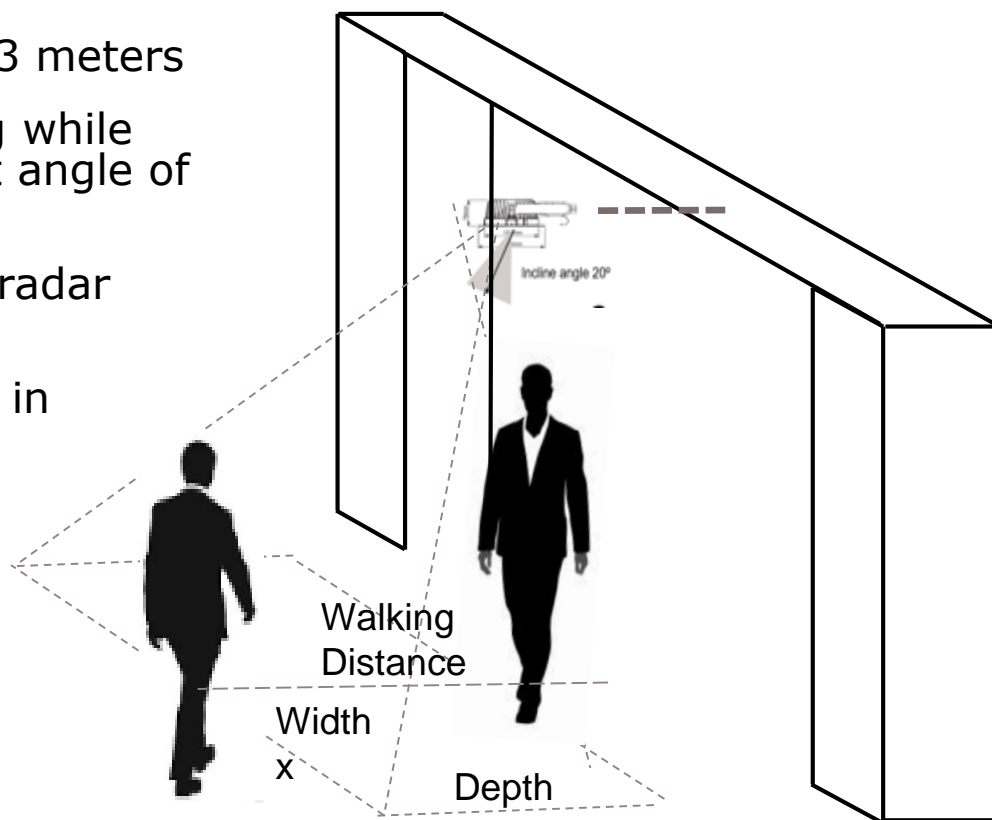
# Installation Locations

## 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

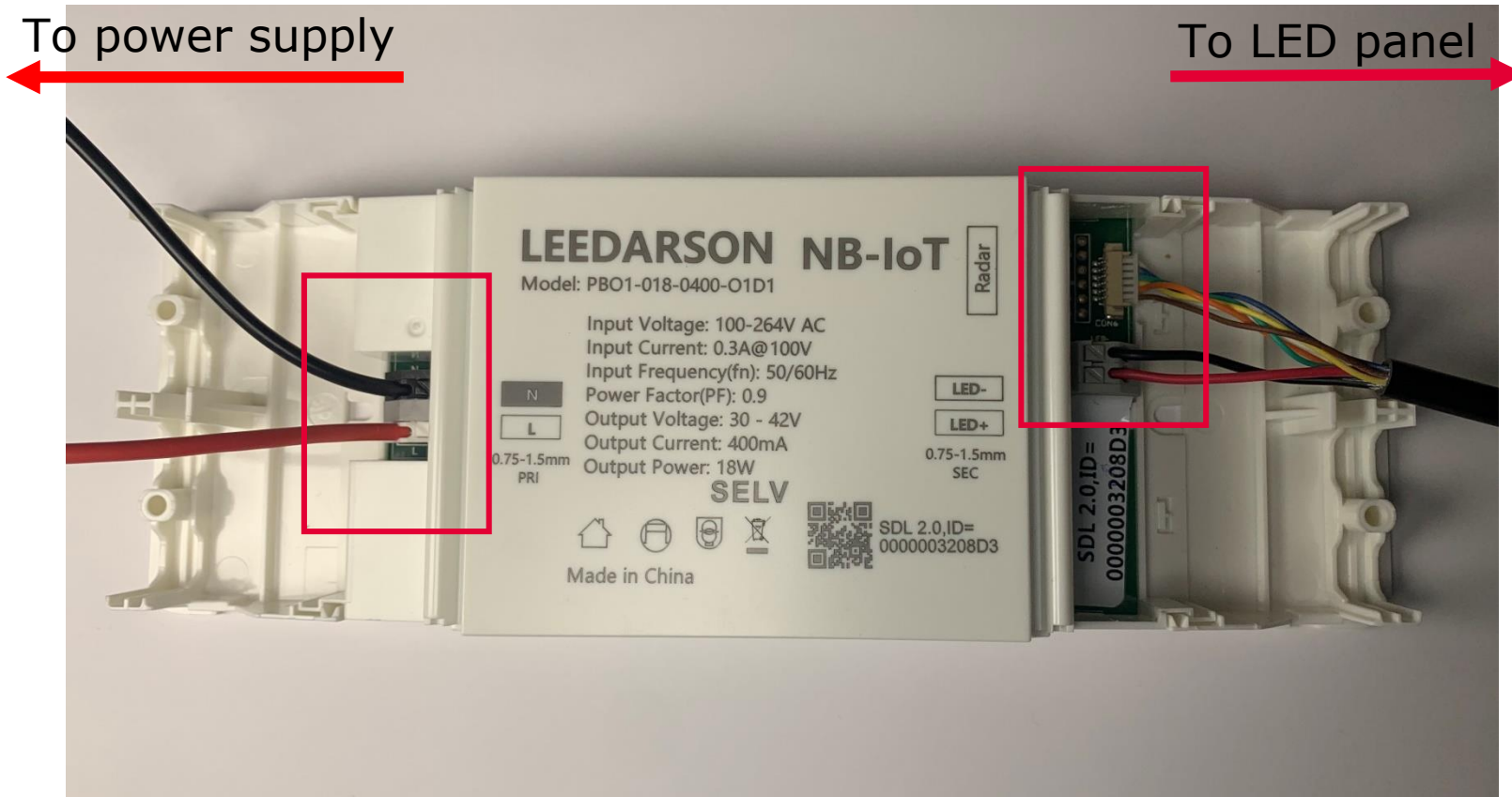


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# Connecting to Power Supply

- › 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:

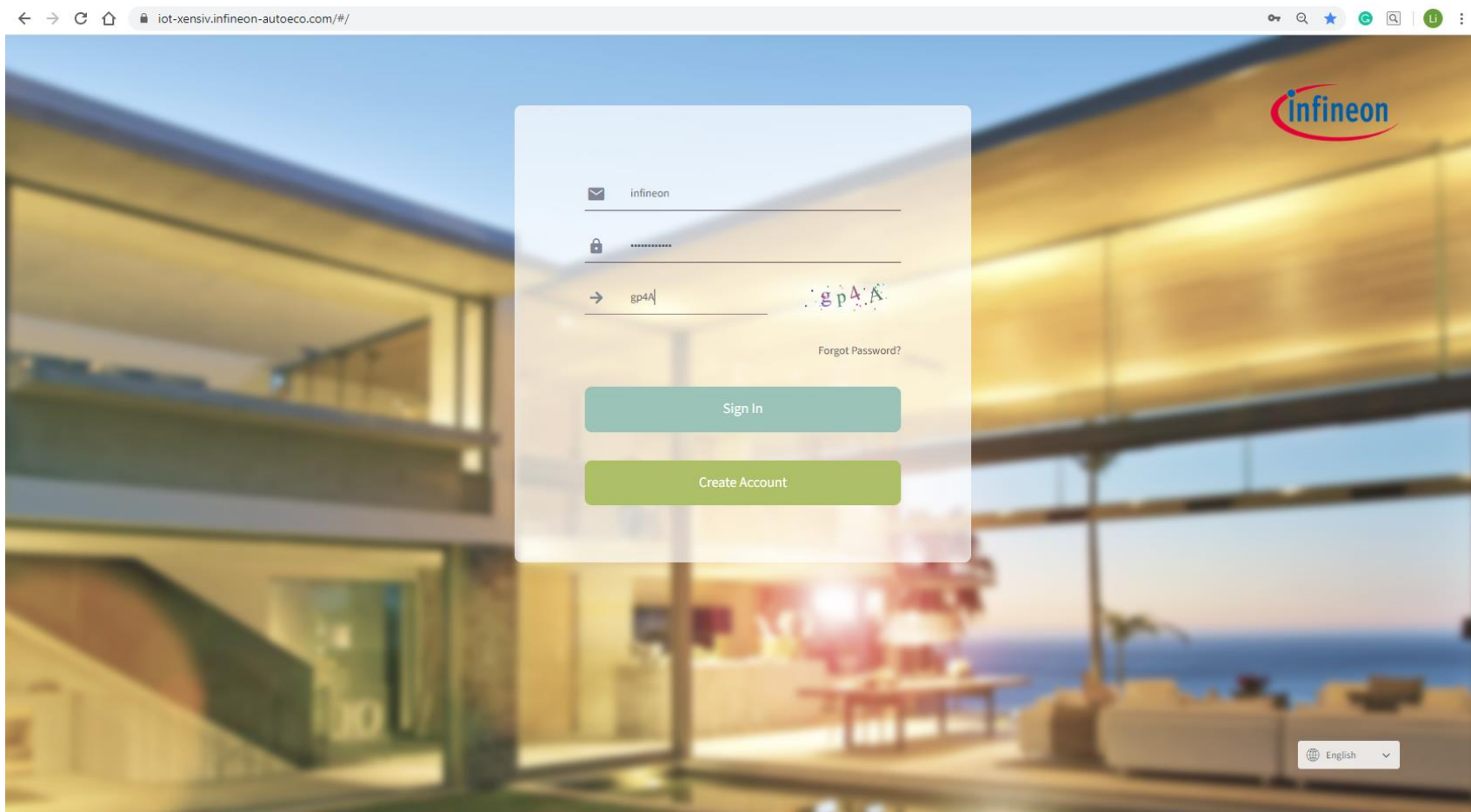


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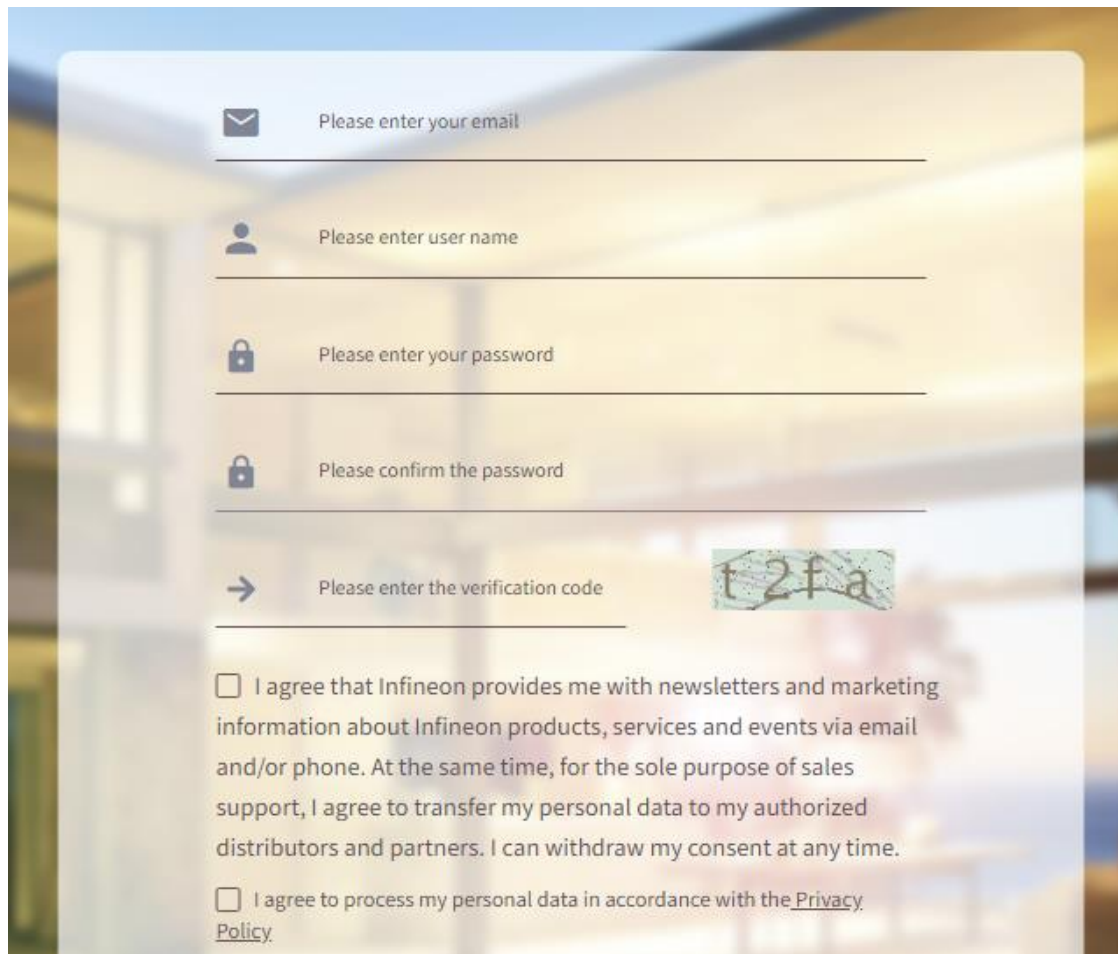
# IOT XENSIV™ Lighting Platform Portal

- › 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:



The screenshot shows a web form for creating an account. It includes five input fields with icons: an envelope for email, a person for user name, a padlock for password, another padlock for password confirmation, and a right arrow for the verification code. Below the fields are two checkboxes for terms and conditions. A CAPTCHA image with the text 't2fa' is positioned to the right of the verification code field.

Please enter your email

Please enter user name

Please enter your password

Please confirm the password

Please enter the verification code

☐ I agree that Infineon provides me with newsletters and marketing information about Infineon products, services and events via email and/or phone. At the same time, for the sole purpose of sales support, I agree to transfer my personal data to my authorized distributors and partners. I can withdraw my consent at any time.

☐ I agree to process my personal data in accordance with the [Privacy Policy](#).

t2fa

# 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.

Please complete your personal information

\* User Name infineon

\* Name

\* E-mail Address infineon@infineon.com

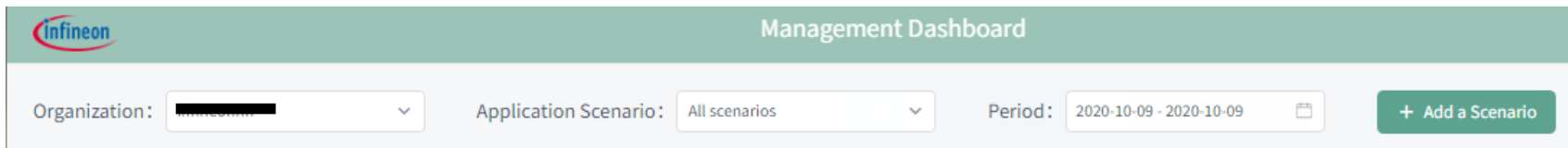
\* Company

\* Mobile Number 86

\* Mobile verification code

# Adding a scenario

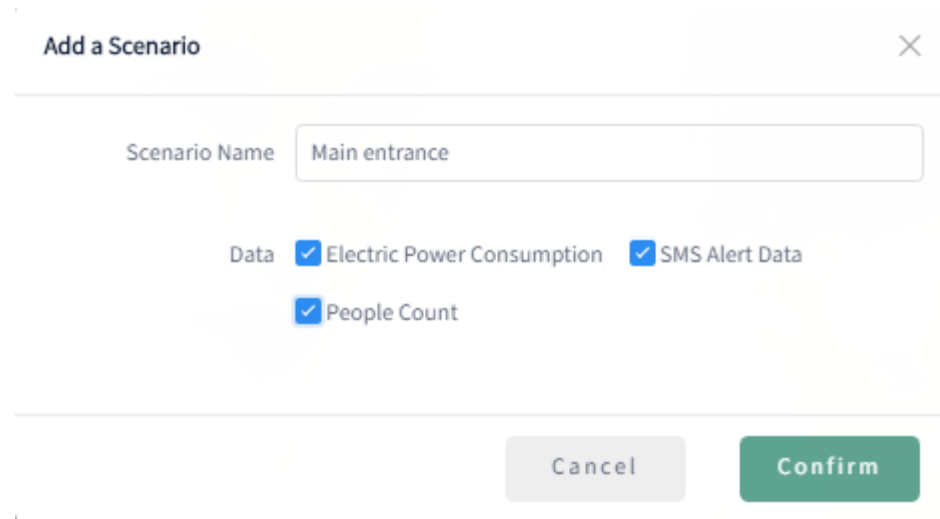
- › Before adding a device, you must add a scenario first (in the Management Dashboard plane), which corresponds to a group of devices:



The Management Dashboard interface includes the Infineon logo, a title bar, and filter fields for Organization, Application Scenario, and Period, along with an 'Add a Scenario' button.

- › Then, fill in the details of the scenario:

One example of scenario is te Main Entrance



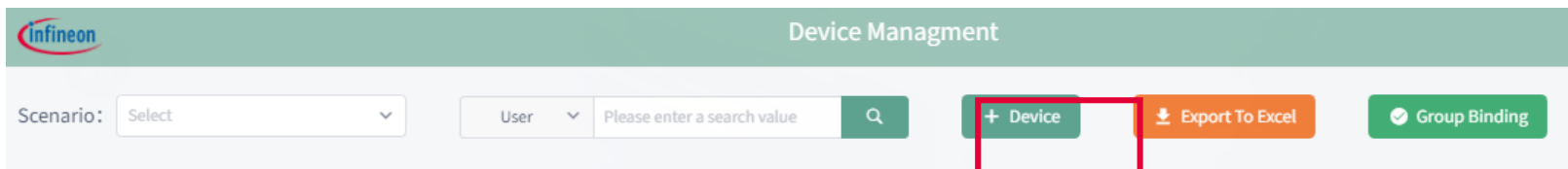
The 'Add a Scenario' dialog box contains a title bar, a close button, a text input for the Scenario Name, and a list of data items with checkboxes.

Data	Electric Power Consumption	SMS Alert Data
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	

Buttons: Cancel, Confirm

# 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:

Device
×

\* Device ID
Please enter the unique id for the device

\* Organization
infineon

\* Responsible
Please select a user name

- 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:

* Scenario	<input type="text" value="Please select an application scenario."/>	▼
* Country/Region	<input type="text" value="Please enter the country/region name"/>	
* City	<input type="text" value="Please enter the city"/>	
Building	<input type="text" value="Please enter the building"/>	
Floor	<input type="text" value="Please enter the floor"/>	
Room	<input type="text" value="Please enter the room information"/>	
* Light Dimming Rules	<input type="text" value="Please select light dimming rule"/>	▼
* Brightness	<input type="text" value="Please enter the brightness value (0-100)"/>	%
Adjustment In	<input type="text" value="100"/>	%
Adjustment Out	<input type="text" value="100"/>	%



# Adding a Device

\* Pressure Alarm Threshold  %

\* Enable Alarm ☐ Yes ☒ No

\* Pressure Alarm Trigger Period

\* Week

\* Enable Alarm ☐ Yes ☒ No

\* Emergency Alarm Trigger Period

\* Week

\* Receiver

\* Mobile Number

\* How To Alarm

# Adding a Device

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

Radar P0 (0x00B0) parameters	<input type="text" value="5c5a"/>
Radar P1 (0x00B1) parameters	<input type="text" value="1515"/>
Radar P2 (0x00B2) parameters	<input type="text" value="8080"/>
Radar P3 (0x00B3) parameters	<input type="text" value="Please enter the radar P3 (0x00B3) parameters"/>
Radar P4 (0x00B4) parameters	<input type="text" value="Please enter the radar P4 (0x00B4) parameters"/>
Radar P5 (0x00B5) parameters	<input type="text" value="0202"/>
Radar P6 (0x00B6) parameters	<input type="text" value="0303"/>
Radar P7 (0x00B7) parameters	<input type="text" value="0303"/>

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

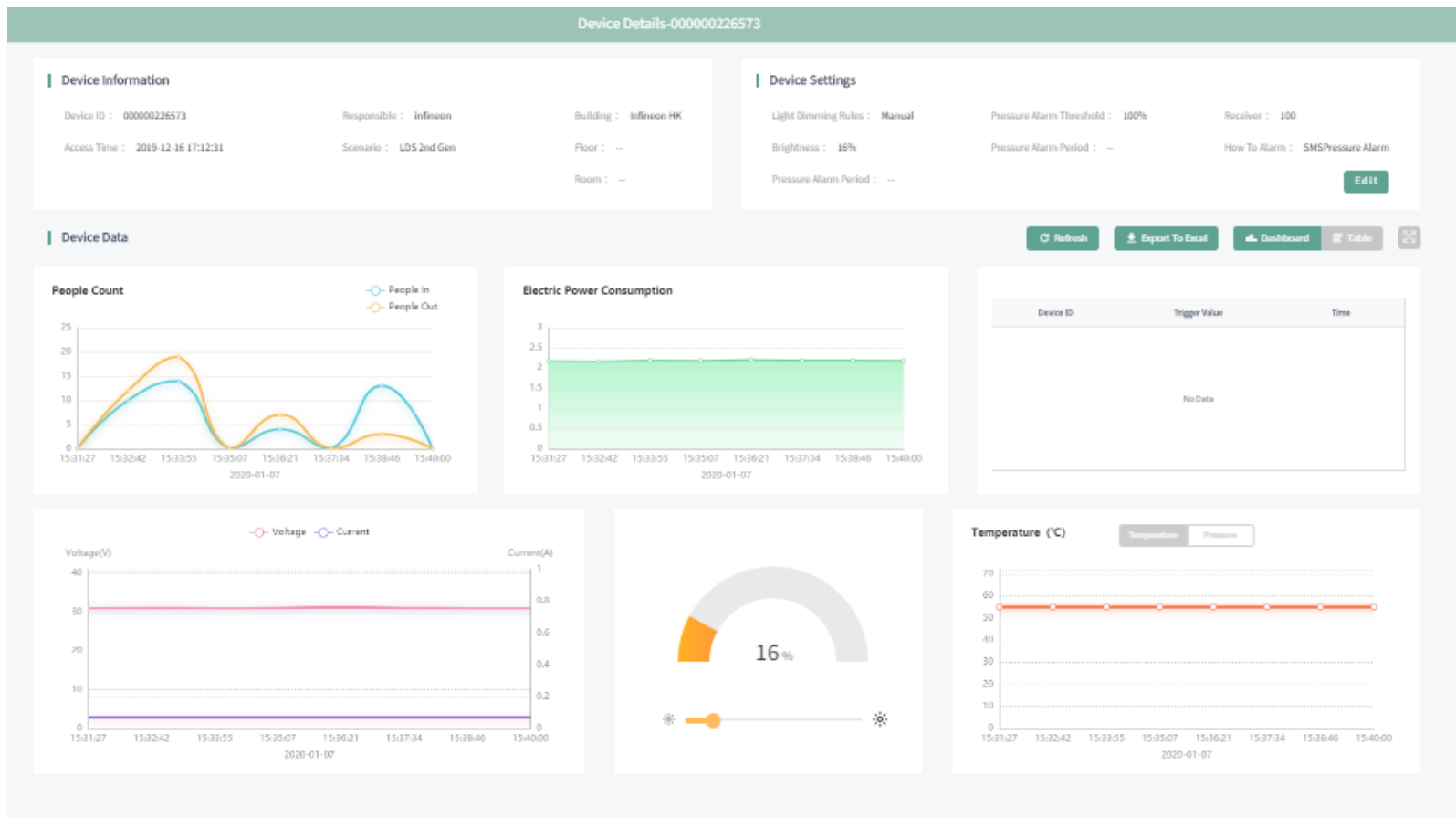
# Device Management

- › The device management plane after adding different devices:

Device Management															
<div> Scenario : <span>Select</span> Unit/Comp... <span>infineon</span> <span>Q</span> <span>+ Device</span> <span>Export To Excel</span> <span>Group Binding</span> <span>IN/OUT Reverse</span> </div>															
Device List															
<input type="checkbox"/>	Device ID	Access Time	Company	Responsible	Scenario	Building	Floor	Room	Brightness Control	Alarm	Adjustment In	Adjustment Out	Online	Authentication	Action
<input type="checkbox"/>	00000022A736	2019-12-20	infineon	infineon	lab_test	--	--	--	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000226573	2019-12-16	infineon	infineon	LDS 2nd Gen	Infineon HK	--	--	Manual	100%	100%	100%	Yes	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000200140	2019-11-28	infineon	infineon	000000200140	HK	IFX office	/	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000226A13	2019-11-26	infineon	infineon	LDS 2nd Gen	/	/	/	Manual	100%	100%	100%	Yes	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000126713	2019-11-26	infineon	infineon	LDS 2nd Gen	/	/	/	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	0000001263F3	2019-11-26	infineon	infineon	LDS 2nd Gen	--	--	--	Manual	100%	100%	100%	Yes	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000320736	2019-11-22	infineon	infineon	test	--	--	--	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000200201	2019-11-20	infineon	infineon	test	/	/	/	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000200122	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo.test ing_NewNB Module	--	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000200121	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo. testing_LDS NB Module	--	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000200120	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo. testing_LDS NB Module	--	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind
<input type="checkbox"/>	000000200110	2019-11-05	infineon	infineon	lab_test	lab test	thermo. testing	--	Manual	100%	100%	100%	No	●	Details Edit Delete Unbind

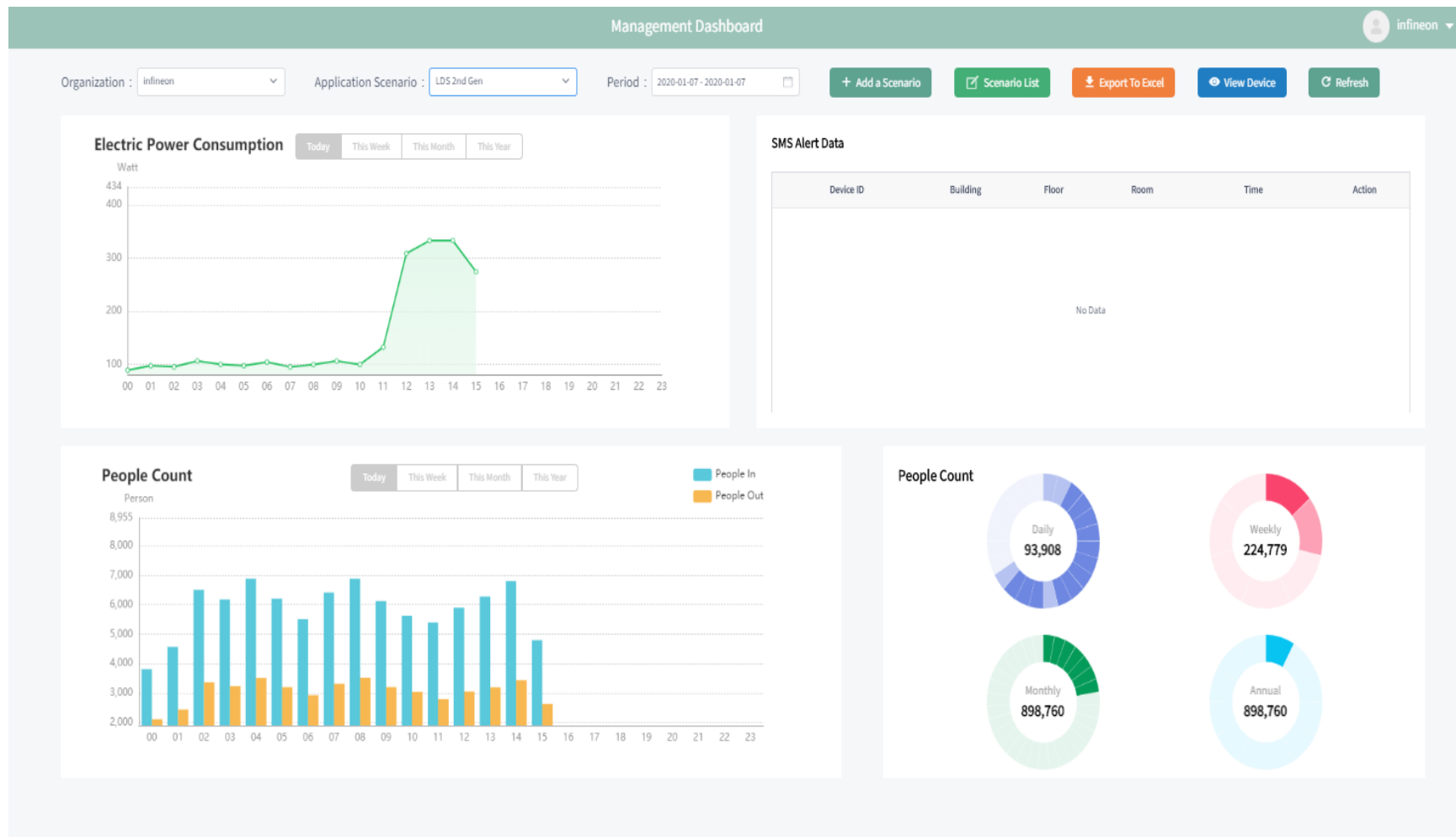
# Device Data Visualization – People Count / LED Control

- › 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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