Smart Downlight 2.0 Quick Start V1.1







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Smart Downlight 2.0 – Block Diagram



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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 (Im)	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				



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:



-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:

Image: Definition of the section of the	
Made in China	



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IOT XENSIV[™] Lighting Platform Portal

 Go to <u>https://links.infineon.cn/</u> to access the lighting platform portal

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		infineon
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	ê	
14	→ gp 4 Å	
THE PARTY OF	Forgot Password?	
the second se	Sign In	
	Create Account	
	ST. States	
		English 🗸



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.

Please complete your personal information									
* User Name									
* Name	Please enter your name								
* E-mail Address	<u>fiifiiliteeee</u> g miliin								
* Company	Please enter unit/company	y name							
* Mobile Number	86 ~	Please enter the phone							
* Mobile verification code	Please enter the verific	Verification Code							
		Cancel Submit							



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:

Infineon	Management Dashboard										
Organization:	 Application Scenario:	All scenarios	~	Period:	2020-10-09 - 2020-10-09	Ë	+ Add a Scenario				

> Then, fill in the details of the scenario:

	Add a Scenario	×
One example of sconario	Scenario Name	Main entrance
is te Main Entrance	Data	Electric Power Consumption
		People Count
		Cancel Confirm



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

linfineon	Device Managment											
Scenario: Select	User V Please enter a search value Q + Device Export To	Second Second Binding										

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

Device			×
	* Device ID	Please enter the unique id for the device	
	* Organization	i magonini	
	* 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)





*

> More details to be added for the device:

* Scenario	Please select an application scenario.	~
* Country/Region	Please enter the country/region name	
* City	Please enter the city	
Building	Please enter the building	
Floor	Please enter the floor	
Room	Please enter the room information	
Light Dimming Rules	Please select light dimming rule	~
* Brightness	Please enter the brightness value (0-100)	96
Adjustment In	100	%
Adjustment Out	100	%



*

* Pressure Alarm Threshold	Please enter threshold for a	alarm (1-100)	%
* Enable Alarm	🗌 Yes 💿 No		
* Pressure Alarm Trigger Period	Please select start time	©	
	Please select end time	<u>ی</u>	
* Week	Please select alert date		
	<u></u>		
* Enable Alarm	🔾 Yes 🕘 No		
Emergency Alarm Trigger Period	Please select start time	Ð	
0.0	Please select end time		
* Week	Please select alert date		
* Receiver	Please enter the name of re	responsible to receive the alarm	
* Mobile Number	86 ~	Please enter the phone number	
* How To Alarm	Please choose the way to a	alert	~



 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	e Managment											infineon 🕤
Sce	nario	Select	~	Unit/Comp V infi	neon	٩	+ Device	🛓 Export T	io Excel	Sroup Bindin	ng	IN/OUT Reverse							
De	Device List																		
		Device ID	Access Time	Company	Responsible	Scenario	Building	Floor	Room	Brightness Co ntrol	Alarm	Adjustment In	Adjustment O ut	Online	Authentication		A	ction	
		0000022A736 🔚	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	00000020001 40	НК	IFX office	/	Manual	100%	100%	100%	No	•	Details	Edit	Delete	Unbind
		000000326A13 🔚	2019-11-26	infineon	infineon	LDS 2nd Gen	1	1	/	Manual	100%	100%	100%	Yes	•	Details	Edit	Delete	Unbind
		000000126713 🔚	2019-11-26	infineon	infineon	LDS 2nd Gen	1	1	/	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	1	1	/	Manual	100%	100%	100%	No	•	Details	Edit	Delete	Unbind
		00000200122	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo.test ing_NewNB Module		Manual	100%	100%	100%	No	•	Details	Edit	Delete	Unbind
		00000200121	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo. tes ting_LDS NB Module		Manual	100%	100%	100%	No	•	Details	Edit	Delete	Unbind
		00000200120	2019-11-05	infineon	infineon	lab_test	Lab Test	Thermo. tes ting _LDS N B Module		Manual	100%	100%	100%	No	•	Details	Edit	Delete	Unbind
		000000200110 🔄	2019-11-05	infineon	infineon	lab_test	lab test	thermo. test ing		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 Details-00000022	6573		
Device Information Device ID : 00000225573 Access Time : 2019-12-16 17:12:31	Responsible : infineon Scenario : LOS 2nd Gen	Building : Infineon HK Flaar : Room :	Device Settings Light Dimming Rules : Manual Brightness : 16% Pressure Alarm Period :	Pressure Alarm Thresheld : 100% Pressure Alarm Period :	Receiver : 100 How To Alarm : SMSPressure Alarm Edit
Device Data				C Refresh 🛓 Export To E	acel 🖬 Deshboard 🖀 Table 😒
People Count	-O- People In -O- People Out	Electric Power Consumption	15-36-21 15-37-34 15-38-46 15+40:00 J1-07	Device ID Trig	per Valuer Time
-O-Vekage Valkage(V) 40 30 30 30 19 15:31:27 15:82:42 15:83:53 15:83:07 2020-0	Current (15:30:21 15:37:34 15:38:40 91-07	Currenti(A) 1 0.8 0.4 0.2 134000	16%	Temperature (°C) Temperature	Premiere 15:36:21 15:37:34 15:38:46 15:40:00 91-07



Device Data Visualization – Scenario View

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

	Management Dashboard				(e) infineon
Organization : Infineon × Application Scenario : LDS 2nd Gen ×	Period : 2020-01-07 - 2020-01-07	🗎 🕇 + Add	l a Scenario	rio List 👤 Export To Excel	• View Device C Refresh
Electric Power Consumption Today This Week This Month This Year Watt		SMS Alert Data			
434 400		Device ID	Building	Floor Room	Time Action
300					
200				No Data	
100 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20	21 22 23				
People Count Today This Week This Month This Year	People In People Ou	rt	People Count		
8,955				Daily	Weekly
7,000				93,908	224,779
6,000					
4,000					
				Monthly 898,760	Annual 898,760
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17	7 18 19 20 21 22 23				



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