

# Kontakt.io Portal Light 2 User Manual

Read carefully before installation!



The Portal Light 2 is Kontakt.io's Bluetooth® Low Energy (LE) gateway device. It scans and detects Kontakt.io BLE devices and sends received BLE data to Kio Cloud over the facility's existing Wi-Fi network. With a Kontakt.io subscription, BLE beacons, tags, and badges are automatically processed in Cloud and Applications and can receive configuration/firmware updates over their BLE connection to a Portal Light 2.

## Portal Light 2 Installation Pre-requisites

- ✓ Power socket (100-240 VAC, 50-60Hz)
- ✓ WiFi network (2.4 or 5 GHz)

## Main Features

- ★ Location services, BLE device data in real-time and constant connection to Kontakt.io Cloud via Wi-Fi
- ★ Dual BLE: RTK and STM BLE modules
- ★ Simplified deployment with Kontakt.io mobile application
- ★ Visual status RGB LED
- ★ Over-the-air (OTA) configuration and firmware updates
- ★ Power outlet passthrough (up to 15A and NEMA 5-15 US plug) – prevent occupying power outlets
- ★ No-pass-through model available
- ★ Power disconnect alert – advertising special warning BLE frame for short period of time after mains power is lost

## Electrical Specifications

- For use with NEMA 5-15 Receptacles and other plug-compatible. Must not exceed load ratings
- Input: 100-240VAC, 50-60Hz
- Rated current: 0.06 – 0.12A
- Functional max power: 3W
- Internal DC line: 3-5 VDC
- Coin-cell battery for powering RTC (keep accurate time for Wi-Fi certificates authorization) CR1025 3.0V, 30mAh

## Environmental Specifications

- Operating Temperature -10C to 65C
- Storage Temperature -20C to 85C
- Operating Humidity 10%-95% RH(non-condensing)
- Storage Humidity 5%-95% RH(non-condensing)
- IP 54

## Wi-Fi Specifications

**Wireless Standards:** IEEE 802.11 a/b/g/n  
**Frequency range:** 2.412-2.462GHz  
& 5.180-5.825GHz

**Data Rates:** 802.11a : 6,9,12,18,24,36,48,54Mbps /  
802.11b : 1,2,5,5,11Mbps /802.11g  
6,9,12,18,24,36,48,54Mbps  
MCS0--MCS7 @ HT20 /2.4GHz and 5GHz band  
MCS0--MCS7 @ HT40 /2.4GHz and 5GHz band  
**Work Mode:** Station  
**Security:** WEP, WPA™ / WPA2™ PSK, WPA2 Enterprise,  
EAP TLS, EAP TTLS, PEAPv0, WPA3™ Personal  
**Wi-Fi output power:** 13(+/- 2) dBm (400mW)

## BLE Specifications

- **RTL8720DN:** ARM® V8 MCU / 2.402GHz-2.480GHz
  - **BLUENRG-355MC:** Cortex®-M0+ / 2.402GHz -2.480GHz
- Max output power: +4dBm (63mW)  
➤ Bluetooth LE 5.0 and 5.2 compatible

## Applications

Portal Light 2 is used in offices, educational facilities, other business establishments, residences (homes), churches, government or private institutions and other similar environments. The installation in healthcare facilities can be made on discretion of AHJ (Authority Having Jurisdiction).

## Portal Light 2 Models

- Portal Light 2 NPT (No-Pass-Thru) / PNR:  
[KHWPO121F001](#)  
Model of device without pass-through functionality incorporating outlet wall-plate mounting tab.

**PLEASE READ AND FOLLOW BELOW PRECAUTIONS CAREFULLY WHEN USING SCREW MOUNTING TAB**



**NOTICE** – Local Regulations in Canada do not permit use of a mounting tab. In Canada, do not use the mounting tab to attach the unit to an outlet.

**AVIS** – Les réglementations locales au Canada n'autorisent pas l'utilisation d'une languette de montage. Au Canada, n'utilisez pas la languette de montage pour fixer l'appareil à une prise.

## WARNING! 52.1

- Risk of Electric Shock – Disconnect power to the receptacle before installing or removing the unit. When removing receptacle cover screw, cover may fall across plug pins or receptacle may become displaced;
  - If using mounting tab, use only with duplex receptacle having center screw;
  - Secure unit in place by receptacle cover screw.
- Note:** Installation is possible without mounting tab, in this case the above restrictions do not apply.

## Installation & Commissioning

- Portal Lights 2 are deployed in the area according to floorplans and RTLS design provided by Kontakt.io. Depending on selected RF density and room size it could require up to several devices to be installed in a single room.
- After Portal Light 2 is connected to power it establishes connection to local Wi-Fi network that was pre-configured at factory. In case Wi-Fi credential are not available before shipping, user is able to utilize Kontakt.io mobile application to configure Wi-Fi SSID and Password with help of BLE OTA configuration functionality.
- User must select location of deployed device on Kontakt.io Smart Location App using mobile or web applications. Portal Light 2 will show up as online on UI interface. Data is accessible via APIs or as outcomes in use-case specific applications.



## WARNING

Portal Light 2 contains electronic elements which should be properly disposed of. If a Portal Light 2 needs to be disposed of, please contact the manufacturer technical support first.

## FCC Caution

This device complies with part 15 of applicable FCC Rules. Its operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## Produced for:

Kontakt Micro-Location Sp. z o.o.  
ul. Stoczniewców 3, 30-709 Kraków  
POLAND

**Kontakt Micro-Location Sp. z o.o.**  
hereby confirms that the devices are  
compliant with:

IEC/EN 61000-4-2  
IEC/EN 61000-4-3  
IEC/EN 61000-4-4  
IEC/EN 61000-4-5  
IEC/EN 61000-4-6  
IEC/EN 61000-4-11  
CE directive 2014/53/UE  
UL 498A  
UL 62368-1  
IEC 62368-1:2023  
FCC Part 15 subpart B  
TSCA  
RoHS

Full Declaration of Conformity text can  
be found under the link:

<https://kontakt.io/compliance/portal-light-2/>