PWR-LINE AP

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The PWR-LINE series devices allow Ethernet-like connectivity between supported devices over regular electrical power lines. When plugged into the same electrical circuit, the PWR devices will establish Ethernet connectivity by using the HomePlug AV standard.
The PWR-LINE AP is a wireless access point with a single Ethernet port, a built-in 802.11b/g/n WiFi Access Point and integrated PWR-LINE support. Simply plug this device directly into one of the LAN ports of your MikroTik router, and add another one somewhere further in your premises, allowing to extend wireless network coverage without needing to install any LAN cables. You can install more PWR-LINE devices to further build your network, up to eight devices are supported.

Connecting

1. Plug one PWR-LINE AP device into a power socket.
2. The main device should be plugged into one of the LAN ports of a router.
3. Other PWR-LINE AP devices can be placed anywhere in any sockets in the same power circuit.
4. Use the Winbox "Neighbors" tab to discover the addresses of the PWR LINE units.
5. Since there is no password by default, you will be logged in automatically (or, for some models, check user and wireless passwords on the sticker) . Set up your wifi password and your country, to make sure local regulations are observed.
6. To add more devices that will connect over the electrical lines, add compatible devices somewhere in the same electrical circuit. See section Buttons and Jumpers on how to pair individual PWR-LINE devices.

Important note! The device is configured as a bridge, for extending your LAN network. By default, it does not have a password or firewall, and should not be connected directly to the internet, without configuring it accordingly.
RouterOS includes many configuration options in addition to what is described in this document. We suggest starting here to get yourself accustomed to the possibilities: https://mt.lv/help
In case IP connection is not available, the Winbox tool (https://mt.lv/winbox) can be used to connect to the MAC address of the device from the LAN side (all access is blocked from the internet port by default). For recovery purposes, it is possible to boot the device from the network, see section Buttons and Jumpers.

Powering

The device accepts powering directly from 100-240 V ~50/60Hz wall socket it is plugged into. The power consumption under maximum load can reach 7 W.

Extension Slots and Ports

- One 10/100 Ethernet port, supporting automatic cross/straight cable correction (Auto MDI/X), so you can use either straight or cross-over cables for connecting to other network devices.
- Integrated Wireless 2.4 GHz 802.11b/g/n with onboard PIF antennas, max gain 1.5 dBi.

Buttons and Jumpers

The PWR-LINE AP has the following buttons:

Reset button

- Hold the button before powering on the device, and at power-up, the button will force load the backup boot loader. Continue holding the button for the other two functions of this button.
- Release the button when the green LED starts flashing, to reset RouterOS configuration. To not load the backup boot loader, you can start holding the button after power is already applied.
- Release the button after LED is no longer flashing (~20 seconds) to cause the device to look for Netinstall servers (required for reinstalling RouterOS over the network).

Regardless of the above option used, the system will load the backup RouterBOOT loader if the button is pressed before power is applied to the device. Useful for RouterBOOT debugging and recovery.

Sync button

- Hold 0.5 – 3 seconds. For 120 seconds will try to communicate with another PWR-LINE device. A blinking orange LED light indicates that it is in search mode. You have to also do the same on the other PWR device, so they can synchronize. Press button again to cancel the search. You can also manually set the security keys in RouterOS settings.
- Hold 5 – 8 seconds. A new security key is generated. This is needed to remove a PWR-LINE device from an existing PWR network.
- Hold 10 – 15 seconds. Resets all PWR related settings.

Mode button

This button can be configured from RouterOS software to execute any user-supplied RouterOS script. You can also disable this button.

Notice

- The Frequency band 5.470-5.725 GHz isn't allowed for commercial use.
- In case WLAN devices work with different ranges than the above regulations, then a customized firmware version from the manufacturer/supplier is required to be applied to the end-user equipment and also prevent the end-user from reconfiguration.
- For Outdoor Usage: End-user requires approval/license from the NTRA.
- Datasheet for any device is available on the official manufacturer website.
- Products with the letters "EG" at the end of their serial number have their wireless frequency range limited to 2.400 – 2.4835 GHz, the TX power is limited to 20dBm (EIRP).
- Products with the letters "EG" at the end of their serial number have their wireless frequency range limited to 5.150 – 5.250 GHz, the TX power is limited to 23dBm (EIRP).
- Products with the letters "EG" at the end of their serial number have their wireless frequency range limited to 5.250 – 5.350 GHz, the TX power is limited to 20dBm (EIRP).

Please make sure the device has a lock package (firmware version from the manufacturer) which is required to be applied to the end-user equipment to prevent the end-user from reconfiguration. The product will be marked with country code "-EG". This device needs to be upgraded to the latest version to ensure compliance with local authority regulations! It is the end users responsibility to follow local country regulations, including operation within legal frequency channels, output power, cabling requirements, and Dynamic Frequency Selection (DFS) requirements. All MikroTik radio devices must be professionally installed.

Operating system support

The device supports RouterOS software with the version number at or above what is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

To avoid pollution of the environment, please separate the device from household waste and dispose of it in a safe manner, such as in designated waste disposal sites. Familiarize yourself with the procedures for the proper transportation of the equipment to the designated disposal sites in your area.

Federal Communication Commission Interference Statement

FCC ID: TV7PL64112ND
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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. 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. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

Innovation, Science and Economic Development Canada

IC: 7442A-PL64112ND This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

UKCA marking

Eurasian Conformity Mark

Частотный диапазон	Мощность передатчика
2400-2483.5 МГц	≤100 мВт

*Доступные частотные каналы могут различаться в зависимости от модели продукта и сертификации.

Информация о дате изготовления устройства указана в конце серийного номера на его наклейке через дробь. Первая цифра означает номер года (последняя цифра года), две последующие означают номер недели.

Изготовитель: Mikrotikls SIA, Aizkraukles iela 23, Riga, LV-1006, Латвия, support@mikrotik.com. Сделано в Китае, Латвии или Литве. См. на упаковке.

Для получения подробных сведений о гарантийном обслуживании обратитесь к продавцу. Информация об импортерах продукции MikroTik в Российскую Федерацию: https://mikrotik.com/buy/europe/russia

Продукты MikroTik, которые поставляются в Евразийский таможенный союз, оцениваются с учетом соответствующих требований и помечены знаком EAC, как показано ниже:

Norma Oficial Mexicana

Rango de frecuencia (potencia de salida máxima): 2400-2483.5 MHz (30 dBm). Los canales de frecuencia disponibles pueden variar según el modelo y la certificación del producto.

EFICIENCIA ENERGETICA CUMPLE CON LA NOM-029-ENER-2017.

La operacion de este equipo esta sujeta a las siguientes dos condiciones:

- Es posible que este equipo o dispositivo no cause interferencia perjudicial y.
- Este equipo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operacion no deseada.

Fabricante: Mikrotikls SIA, Brivibas gatve 214i, Riga, LV-1039, Latvia.

País De Origen: Letonia; Lituania; China (Republica Popular); Estados Unidos De America; Mexico.

Por favor contacte a su distribuidor local para preguntas regionales específicas. La lista de importadores se puede encontrar en nuestra página de inicio – https://mikrotik.com/buy/latinamerica/mexico.

The National Commission for the State Regulation of Communications and Informatization by Ukraine

Виробник: Mikrotikls SIA, Brivibas gatve 214i Рига, Латвія, LV1039.

Робоча частота (Максимальна вихідна потужність): 2480-2483.5 МГц (20 дБм).

Справжнім Mikrotikls SIA заявляє, що маршрутизатор відповідає основним вимогам та іншим відповідним положенням директиви 2014/53/ЕС, а також суттєвим вимогам Технічного регламенту радіообладнання, затвердженого постановою Кабінету Міністрів України від 24 травня 2017 року № 355.

Для експлуатації в Україні необхідно отримати дозвіл на експлуатацію у порядку, затвердженому рішенням НКРЗІ від 01.11.2012 № 559, зареєстрованому в Міністерстві юстиції України 03.01.2013 за № 57/22589.

CE Declaration of Conformity

Manufacturer: Mikrotikls SIA, Brivibas gatve 214i Riga, Latvia, LV1039.

Hereby, Mikrotīkls SIA declares that the radio equipment type PWR-LINE AP is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://mikrotik.com/products

Frequency bands terms of use

Frequency range (for applicable models)	Channels used	Maximum Output Power (EIRP)	Restriction
2400-2483.5 MHz	1 - 13	20 dBm	Without any restriction to use in all EU Member States

** It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, cabling requirements, and Dynamic Frequency Selection (DFS) requirements. All MikroTik radio devices must be professionally installed!*

Note. The information contained here is subject to change. Please visit the product page on www.mikrotik.com for the most up to date version of this document.