

LtAP mini kit-series

LtAP mini LTE series user manual for models:

[LtAP mini LTE kit \(RB912R-2nD-LTm&R11e-LTE\)](#)

[LtAP mini LTE kit-US \(RB912R-2nD-LTm&R11e-LTE-US\)](#)

[LtAP mini 4G kit \(RB912R-2nD-LTm&R11e-4G\)](#)

The LtAP mini LTE kit is a wireless access point with two SIM card slots. The LtAP mini LTE, 4G kit comes with a factory-installed card.

Connecting

- If the intent is to use GPS, an external antenna is required (see "GPS usage").
- Choose your powering solution (see "Powering").
- Connect your Internet cable to the Ethernet port.
- Set your computer IP configuration to *automatic* (DHCP).
- Connect your direct input power jack if not using PoE, to start up the device.
- The device will boot up and the Wireless network will be available for connecting.
- Open network connections on your PC, mobile phone, or other device and search for MikroTik wireless network and connect to it.
- Once connected to the wireless network, open <https://192.168.88.1> in your web browser to start configuration, since there is no password by default, you will be logged in automatically. The configuration also can be done using the mobile app (see "MikroTik mobile app"), and WinBox configuration tool <https://mt.lv/winbox>.
- We recommend clicking the "Check for updates" button and updating your RouterOS software to the latest version to ensure the best performance and stability.
- Choose your country, to apply country regulation settings, and set up your password on the screen that loads.

Mounting



1. It is possible to attach the device to a wall, using the provided screw holes on the sides of the unit. The device should be mounted in a way that the cable openings are pointing downward as shown in the picture.
2. The ports are protected with a small door, that is held in place with one screw. Use the Philips PH2 screwdriver to access the ports.
3. The door has cut-out places for all available ports, but please only break out the openings that you will use. The device can be used both indoors and outdoors. The IP rating scale for this device is IP54.
4. The device enclosure has places where you can drill openings for external LTE and GPS antennas. Use a drill to make holes that are appropriate for the antenna cable used.

Alternatively, you can obtain a "DINrail Pro" - mounting bracket, designed to fit standard 35 mm x 7.5 mm DIN rails. https://mikrotik.com/product/dinrail_pro



When mounting outdoors, please ensure that any cable openings are directed downwards. Use PoE injector and proper grounding. Recommended using Cat6 cable.

Warning! This equipment should be installed and operated with a minimum distance of 20 cm between the device and your body. Operation of this equipment in the residential environment could cause radio interference.

Mounting and configuration of this device should be done by a qualified person.

Powering

- Direct-input power jack (5.5 mm outside and 2 mm inside, female, pin positive plug) accepts 8-30 V DC.
- microUSB port accepts 5 V powering.
- Ethernet port accepts passive and 802.3af/at Power over Ethernet 8-57 V DC (compensate for the loss on cable, so more than 12 V recommended).

The power consumption under maximum load with attachments can reach 9 W.

Connecting to a PoE Adapter:

1. Connect the Ethernet cable from the device to the PoE+DATA port of the PoE adapter.
2. Connect an Ethernet cable from your local network (LAN) to the PoE adapter.
3. Connect the power cord to the adapter, and then plug the power cord into a power outlet.

Extension slots and ports



- Built-in 2 GHz wireless access point module, AP/station/bridge/p2p modes are supported. Onboard PIF antennas built-in. Antenna gain 1.5 dBi.
- miniPCIe slot and two SIM slots (can't be used without a modem installed, can't be used both at the same time) to be used with a 3G/4G/LTE modem. Onboard antennas available, but openings for external antennas are provided on the case.
- Built-in GPS module - uFL connector provided for an external antenna. To enable, set the port to serial0 (this disables the DB9 port on the unit). Supports (GPS, GLONASS, BeiDou, Galileo).
- One 10/100 Ethernet port, supporting automatic cross/straight cable correction (Auto MDI/X). Either straight or crossover cable can be used for connecting to other network devices. The Ethernet port accepts 12-57 V DC powering from a passive PoE injector.
- One DB9 RS232 serial port for serial console access. Configured as 115200 bit/s, 8 data bits, 1 stop bit, no parity. Can't be used if built-in GPS is enabled on serial0.
- One microUSB 2.0 port for powering only.

Configuration

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](#).

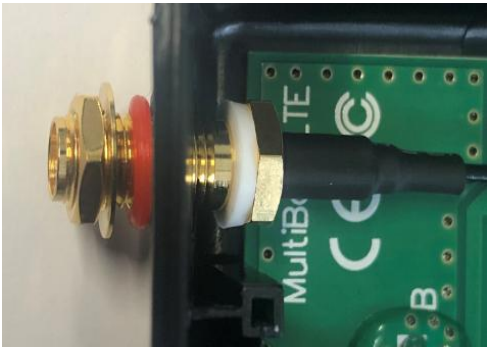
miniPCIe slot usage

The device is equipped with a miniPCIe slot and a factory-installed LTE modem. Two SIM slots are provided for use together with a miniPCIe modem. The SIM slot is not used separately.



In this case, an internal antenna is connected to the modem. Replacing a miniPCIe module should be done by a qualified person, please follow safety precautions when handling electrical equipment:

- Use a wrist grounding strap when unpacking and working with electrical components to avoid electrical discharge (ESD) damage.
- Open the front cover by unscrewing one screw with the Philips PH2 screwdriver.
- Remove four screws on the bottom of the case and lift off the top part of the case. You will see the antenna attached to it.
- Locate the miniPCIe card on the PCB and remove two screws.
- Attach provided a thick thermal pad to the card, and install the card into miniPCIe slot so that the thermal pad is between PCB and card.
- The secure card in place using previously removed two screws.
- Attach the grey uFL connector to the MAIN antenna connector of the modem, attach the black cable to the secondary (or AUX) connector.
- To use external antennas, attach antenna connectors and use a 6.5 mm drill bit to drill holes on the side of the unit. (see "[Mounting](#)") description 4.
- Please see the picture below on how to place rubber seals for the best water protection.



- Attach antenna connectors to the installed card and GPS connector on the PCB, as additional rubber silicone can be used to secure connectors in place on card and PCB board.



Attach a thinner thermal pad to the top of the card.

- Reassembly.

After you have reinserted the device into the case and secured it with the screws that were removed earlier, slide in the SIM cards from your mobile operator into the SIM slots, with the chips facing as shown on the port label. The slot accepts miniSIM (2FF). Close the black latch for SIM cards, to secure them in the slots.

GPS usage

In order to use GPS, an external antenna is needed to connect.

We recommend to use the "ACGPSA" - can be obtained separately. ACGPSA is a standalone active GPS antenna, that works in the 1575.4 MHz spectrum. Antenna size is 46.5 mm x 26.5 mm x 12.5 mm with an IP67 rating and includes an internal magnet and double-sided tape, so it can easily be attached to various surfaces. It has a long 5m cable with an SMA connector, to be connected to LtAP mini via the ACSMAUFL pigtail (not included, product code ACSMAUFL)

<https://mikrotik.com/product/acgpsa>

<https://mikrotik.com/product/acsmaufl>

To connect a GPS antenna, see "miniPCle slot usage" step 10.

Supports - GPS, GLONASS, BeiDou, Galileo).

Configuration information - https://wiki.mikrotik.com/wiki/Manual:System/GPS#Basic_examples



The GPS uses an active antenna, connect only when power is turned off.

Buttons and jumpers

Reset button

- Hold this button during boot time until LED light starts flashing, release the button to reset RouterOS configuration (total 5 seconds).
- Keep holding for 5 more seconds, LED turns solid, release now to turn on CAP mode. The device will now look for a CAPsMAN server (total 10 seconds).
- Or keep holding the button for 5 more seconds until LED turns off, then release it to make the RouterBOARD look for Netinstall servers (total 15 seconds).

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.

Mode button

The action of the mode buttons can be configured from RouterOS software to execute any user-supplied RouterOS script. You can also disable this button. The mode button can be configured in RouterOS menu /system routerboard mode-button

Accessories

Package includes the following accessories that come with the device:

- DC Switching Power Supply 24 V, 1.2 A, 28.8 W, 86.8 %, VI, cable:220 cm RA DC.
- Cable DC plug RA 5.5x2.1x10.5 to Striped 2*24 AWG Tin 8 mm, length 0.35 m.
- PoE Injector with shielded Ethernet cable/connector (RBPoE).
- DC 24 V 1.2 A power adapter.
- Mounting kit K-55 VMS.
- Elastic thermal pad, 25x40x3.5 mm.

Specifications

For more information about this product, specification, and pictures please visit our web page: https://mikrotik.com/product/ltap_mini_lte_kit+

Operating system support

The device supports RouterOS software version 6. The specific factory-installed version number is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

MikroTik mobile app

Use the MikroTik smartphone app to configure your router in the field, or to apply the most basic initial settings for your MikroTik home access point.



1. Scan QR code and choose your preferred OS.
2. Install and open application.
3. By default, the IP address and user name will be already entered.
4. Click Connect to establish a connection to your device through a wireless network.
5. Choose Quick setup and application will guide you through all basic configuration settings in a couple of easy steps.
6. An advanced menu is available to fully configure all necessary settings.

Información México:

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.

Número de Certificado de Homologación (IFT): Ver la etiqueta del producto.

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

La operación 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 operación 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>.

Federal Communication Commission Interference Statement

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.

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.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

Innovation, Science and Economic Development Canada

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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; 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-003 (B) / NMB-003 (B)

CE Declaration of Conformity

BG	С настоящото Mikrofikls SIA декларира, че този тип радиосъоръжение RouterBOARD е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: https://mikrotik.com/products
CS	Tímto Mikrofikls SIA prohlašuje, že typ rádiového zařízení RouterBOARD je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: https://mikrotik.com/products
DA	Hermed erklærer Mikrofikls SIA, at radioudstyrstypen RouterBOARD er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: https://mikrotik.com/products
DE	Hiermit erkläre Mikrofikls SIA, dass der Funkanlagentyp RouterBOARD der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: https://mikrotik.com/products
EL	Με την παρούσα ο/η Mikrofikls SIA, δηλώνει ότι ο ραδιοεξοπλισμός RouterBOARD πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: https://mikrotik.com/products
EN	Hereby, Mikrofikls SIA declares that the radio equipment type RouterBOARD 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
ES	Por la presente, Mikrofikls SIA declara que el tipo de equipo radioeléctrico RouterBOARD es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: https://mikrotik.com/products
ET	Käesolevaga deklareerib Mikrofikls SIA, et käesolev raadioseadme tüüp RouterBOARD vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: https://mikrotik.com/products
FI	Mikrofikls SIA vakuuttaa, että radiolaitetyyppi RouterBOARD on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: https://mikrotik.com/products
FR	Le soussigné, Mikrofikls SIA, déclare que l'équipement radioélectrique du type RouterBOARD est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: https://mikrotik.com/products
HR	Mikrofikls SIA ovime izjavljuje da je radijska oprema tipa RouterBOARD u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: https://mikrotik.com/products
HU	Mikrofikls SIA igazolja, hogy a RouterBOARD típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: https://mikrotik.com/products
IT	Il fabbricante, Mikrofikls SIA, dichiara che il tipo di apparecchiatura radio RouterBOARD è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: https://mikrotik.com/products
IS	Hér með lýsir Mikrofikls SIA því yfir að RouterBOARD er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU. Fullur texti ESB samræmisýfirlýsingar er að finna á eftirfarandi veffangi: https://mikrotik.com/products
LT	Aš, Mikrofikls SIA, patvirtinu, kad radijo įrenginių tipas RouterBOARD atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: https://mikrotik.com/products
LV	Ar šo Mikrofikls SIA deklarē, ka radioiekārta RouterBOARD atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: https://mikrotik.com/products

MT	B'dan, MikroTiks SIA , niddikjara li dan it-tip ta' tagħmir tar-radju RouterBOARD huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li gej: https://mikrotik.com/products
NL	Hierbij verklaar ik, MikroTiks SIA , dat het type radioapparatuur RouterBOARD conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: https://mikrotik.com/products
NO	MikroTiks SIA erklærer herved at utstyret RouterBOARD er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EU. Den fulle teksten til EU-samsvarserklæringen er tilgjengelig på følgende internettadresse: https://mikrotik.com/products
PL	MikroTiks SIA niniejszym oświadcza, że typ urządzenia radiowego RouterBOARD jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: https://mikrotik.com/products
PT	O(a) abaixo assinado(a) MikroTiks SIA declara que o presente tipo de equipamento de rádio RouterBOARD está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: https://mikrotik.com/products
RO	Prin prezenta, MikroTiks SIA declară că tipul de echipamente radio RouterBOARD este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: https://mikrotik.com/products
SK	MikroTiks SIA týmto vyhlasuje, že rádiové zariadenie typu RouterBOARD je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: https://mikrotik.com/products
SL	MikroTiks SIA potrjuje, da je tip radijske opreme RouterBOARD skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: https://mikrotik.com/products
SV	Härmed försäkrar MikroTiks SIA att denna typ av radioutrustning RouterBOARD överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: https://mikrotik.com/products

WLAN

Operating Frequency / Maximum output power	2400-2483.5 MHz / 20 dBm
Betriebsfrequenz / maximale Ausgangsleistung	
Fréquence de fonctionnement / puissance de sortie maximale	
Frequenza operativa / massima potenza di uscita	
Frecuencia de funcionamiento / potencia de salida máxima	
Рабочая частота / максимальная выходная мощность	



This MikroTik device meets Maximum WLAN and LTE transmit power limits per ETSI regulations. For more detailed information see Declaration of Conformity above / Dieses MikroTik-Gerät erfüllt die maximalen WLAN- und LTE-Sendeleistung Grenzwerte gemäß ETSI-Bestimmungen. Weitere Informationen finden Sie oben unter Konformitätserklärung / Cet appareil MikroTik respecte les limites maximales de puissance de transmission WLAN et LTE conformément aux réglementations ETSI. Pour plus d'informations, voir la déclaration de conformité ci-dessus / Questo dispositivo MikroTik è conforme ai limiti massimi di potenza di trasmissione WLAN e LTE in conformità con le normative ETSI. Per ulteriori informazioni, consultare la dichiarazione di conformità sopra / Este dispositivo MikroTik cumple con los límites máximos de potencia de transmisión WLAN y LTE de acuerdo con las regulaciones ETSI. Para obtener más información, consulte la declaración de conformidad anterior / Это устройство MikroTik соответствует максимальным пределам мощности передачи WLAN и LTE в соответствии с правилами ETSI. Для получения дополнительной информации см. Декларацию соответствия выше