

LHG LTE kit

Assembly

Attach the two legs to the LHG case by sliding them onto the respective sides (when looking at the logo, leg marked R is for the right side, leg marked L is for the left side). Snap the assembled LHG unit to the grid in the appropriate central location. Fix the two legs in place with two self thread screws (included, use Phillips screw driver PH2). The package also contains a grounding cable connector and a 5 degree angle adapter, for easier up or downward tilt adjustment.

Quick start

1. While holding the unit by its central column, apply force to the tab, which holds the latch closed, until the latch pops open.
2. Connect an ethernet cable to the ethernet port, connect the other end of the ethernet cable to the included PoE injector.
3. Plug the PoE injector into your network switch or ISP internet outlet.
4. Plug the included power supply into the PoE injector to start up the device.

Powering

The device can be powered from 12-57 V 802.3af/at sources and also Passive PoE injectors (one power supply and PoE injector are included).

Mounting

Slide the included metallic mounting rings into the two slots on the back of the antenna dish. Attach the unit to a pole, with the Ethernet cable pointing downward. Use a PH2 screwdriver to tighten the rings. Fix the Ethernet cable to the pole less than one meter from the unit, to avoid the cable being pulled out of the port. Optional: if required, before mounting the unit, you can insert the included 5 degree adjustment adapter into the top or bottom slot where the mounting ring is inserted. This will create an additional upward or downward angle, when the unit is tightened to a vertical pole. Warning! This equipment should be installed and operated with minimum distance of 120 cm between the radiator and your body,

Expansion slots and ports

- 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 9-30 V DC powering from a passive PoE injector.
- miniPCle slot and SIM slot (can't be used separately) to be used with a 3G/4G/LTE modem (the LTE kit includes the modem already inside the device).

Buttons and jumpers

RouterBOOT reset button has the following functions. Press the button and apply the power, then:

- Release the button when green LED starts flashing, to reset RouterOS configuration to defaults.
- Release the button when the LED turns solid green to clear all configuration and defaults.
- Release the button after LED is no longer lit (~20 seconds) to cause device to look for Netinstall servers (required for reinstalling RouterOS over 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.

The device includes a grounding connection behind the ethernet port door, which you should connect to the grounding installation of the tower or building where the device will be used. This is to substantially reduce risk of ESD and lightning damage.

Configuration

We recommend clicking the “Check for updates” button and updating your RouterOS software to the latest version to ensure the best performance and stability. RouterOS includes many configuration options in addition to what is described in this document. We suggest to visit the RouterOS documentation page to get yourself accustomed to the possibilities: <http://mt.lv/help>.

In case IP connection is not available, the Winbox tool (<http://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).

It is possible to boot the device from network, for reinstalling RouterOS for recovery purposes. This can be done from the Ethernet port. See above how to do this.

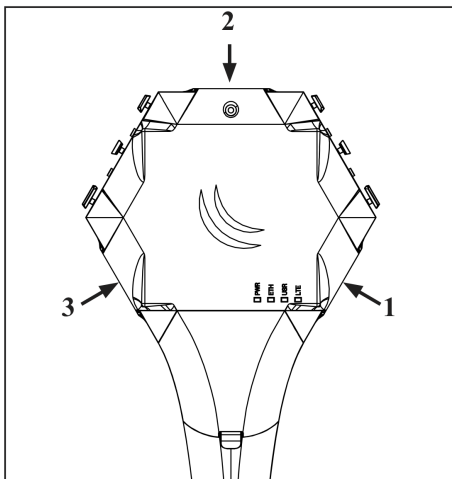
Operating system support

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.

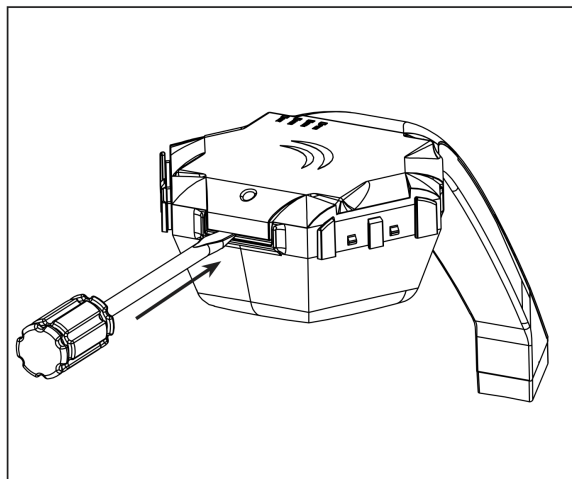
Opening the case

To access the miniPCle modem, opening of the unit is required. As an opening tool you can use a large size flat head screwdriver or a small coin. Be extremely cautious when opening, because incorrect opening of the clip can break it off! Follow these steps:

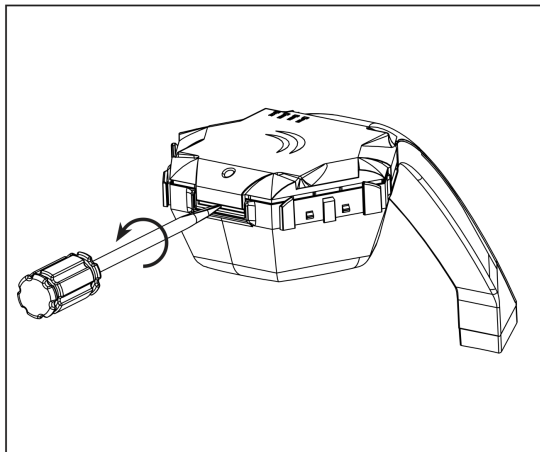
Follow this order when opening the unit



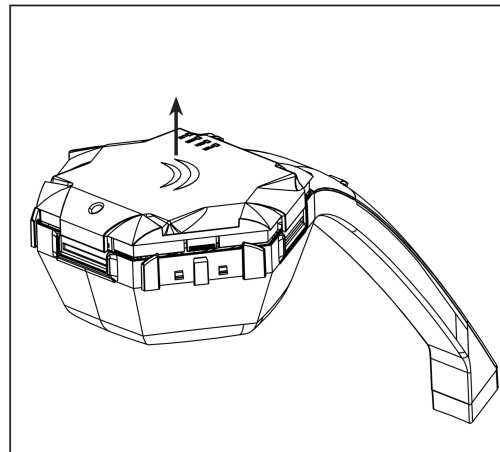
Insert a screwdriver into the first slot



Turn the screwdriver, until one side pops open.
Continue in the above order.



Lift cover to access the card.



Federal communication commission interference statement



R11e-LTE: FCC ID TV7R11ELTE, TV7R11E4G

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.

IMPORTANT: Exposure to Radio Frequency Radiation. 20 cm minimum distance has to be maintained between the antenna and user. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

Antenna Installation. WARNING: It is installer's responsibility to ensure that when using the authorized antennas in the United States (or where FCC rules apply); only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required of equipment with connectors to ensure compliance with health and safety issues.

CE Declaration of Conformity

Full Declaration of Conformity (DoC) may be obtained by visiting our product page on <https://mikrotik.com/products>
 Manufacturer: Mikrotikls SIA, Brivibas gatve 214i Riga, Latvia, LV1039.



EN	Hereby, Mikrotikls SIA declares that this routerboard is in compliance with the essential requirements and other relevant provisions of directive 2014/53/EC.
BG	С настоящето, Mikrotikls SIA декларира, че routerboard е в съответствие със съществените изисквания и другите приложими разпоредби на директива 2014/53/EC.
CZ	Mikrotikls SIA tímto prohlašuje, že routerboard splňuje základní požadavky a všechna příslušná ustanovení směrnice 2014/53/ES.
DK	Undertegnede Mikrotikls SIA erklærer herved, at følgende udstyr routerboard overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EF.
DE	Hiermit erkläre Mikrotikls SIA dass sich das gerät routerboard in übereinstimmung mit den grundlegenden anforderungen und den übrigen einschlägigen bestimmungen der richtlinie 2014/53/EG befindet.
EE	Käesolevaga kinnitab Mikrotikls SIA seadme routerboard vastavust direktiivi 2014/53/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
GR	Με την παρούσα ο κατασκευαστής Mikrotikls SIA δηλώνει ότι routerboard συμμορφώνεται προς τις ουσιαστικές απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 2014/53/ΕΚ
ES	Por la presente, Mikrotikls SIA declara que este routerboard cumple con los requisitos esenciales y otras exigencias relevantes de la directiva 2014/53/EC.
IT	Con la presente Mikrotikls SIA dichiara che questo routerboard è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/CE.
LV	Ar šo Mikrotikls SIA deklarē, ka routerboard atbilst direktīvas 2014/53/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
LT	Šiuo Mikrotikls SIA deklaruoja, kad šis routerboard atitinka esminius reikalavimus ir kitas 2014/53/EB direktyvos nuostatas
HU	A Mikrotikls SIA ezzennel kijelenti, hogy a routerboard típusú beren-dezés teljesíti az alapvető követelményeket és más 2014/53/EK irányelvben meghatározott vonatkozó rendelkezéseket.
NL	Hierbij verklaart Mikrotikls SIA dat het toestel I routerboard in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EG.
PL	Niniejszym Mikrotikls SIA deklaruje że routerboard jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami dyrektywy 2014/53/EC.
PT	Eu, Mikrotikls SIA declaro que o routerboard cumpre os requisitos essenciais e outras provisões relevantes da directiva 2014/53/EC.
RO	Prin prezenta, Mikrotikls SIA declară că aparatul routerboard este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale directivei 2014/53/CE.
SL	Mikrotikls SIA tímto vyhlasuje, že routerboard splňa základné požiadavky a všetky príslušné ustanovenia smernice 2014/53/ES.
SI	Mikrotikls SIA izjavlja, da je ta routerboard v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 2014/53/ES.
FI	Mikrotikls SIA vakuuttaa täten että routerboard tyyppinen laite on direktiivin 2014/53/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
SE	Härmed intygar Mikrotikls SIA att denna routerboard är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EG.
NO	Mikrotikls SIA erklærer herved at routerboard er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EF.

EN. Instruction manual: Connect the power adapter to turn on the device. Open 192.168.88.1 in your web browser, to configure it. More information on <http://mt.lv/help>
BG. Инструкции: Свържете адаптера на захранване, за да включите устройството. Отворете 192.168.88.1 в уеб браузър, за да настроите продукта. Повече информация в <http://mt.lv/help>
CZ. Návod k použití: Připojte napájecí adaptér k zapnutí přístroje. Otevřete 192.168.88.1 ve webovém prohlížeči pro konfiguraci produktu. Více informací najdete v <http://mt.lv/help>
DK. Instruktionsbog: Tilslut strømadapteren for at tænde for enheden. Åbn 192.168.88.1 i en webbrowser til at konfigurere produktet. Mere information i <http://mt.lv/help>
FR. Mode d'emploi: Connectez l'adaptateur d'alimentation pour allumer l'appareil. Ouvrez 192.168.88.1 dans un navigateur Web pour configurer le produit. Plus d'informations dans <http://mt.lv/help>
DE. Bedienungsanleitung: Verbinden Sie das Netzteil, um das Gerät einzuschalten. Öffnen Sie 192.168.88.1 in einem Web-Browser, um das Produkt zu konfigurieren. Weitere Informationen im <http://mt.lv/help>
EE. Kasutusjuhend: Ühendage toiteadapter seadme sisselülitamiseks. Avatud 192.168.88.1 in veebilehite seadistada toodet. Rohkem teavet <http://mt.lv/help>
ES. Manual de instrucciones: Conecte el adaptador de alimentación para encender la unidad. Abra 192.168.88.1 en un navegador web para configurar el producto. Más información en <http://mt.lv/help>
IT. Manuale di istruzioni: Collegare l'adattatore di alimentazione per accendere l'unità. Aprire 192.168.88.1 in un browser Web per configurare il prodotto. Maggiori informazioni in <http://mt.lv/help>
LV. Lietošanas instrukcija: Pievienojiet Strāvas adapteri, lai ieslēgtu ierīci. Atvērt 192.168.88.1 ar interneta pārlūku, lai konfigurētu produktu. Plašāka informācija <http://mt.lv/help>
LT. Naudojimosi instrukcija: Prijunkite maitinimo adapterį įjunkite įrenginį. Į interneto naršyklę 192.168.88.1 Atidarykite galite konfigūruoti gaminį. Daugiau informacijos rasite <http://mt.lv/help>
HU. Használati utasítás: Csatlakoztassa a hálózati adaptert a készülék bekapcsolásához. Megnyitása 192.168.88.1 egy webböngészőben beállítani a terméket. Több információ <http://mt.lv/help>
NL. Handleiding: Sluit voedingsadapter aan op het apparaat in te schakelen. Open 192.168.88.1 in een webbrowser om het product te configureren. Meer informatie in <http://mt.lv/help>
PL. Instrukcja obsługi: Podłącz adapter zasilania, aby włączyć urządzenie. Otwórz 192.168.88.1 w przeglądarce internetowej, aby skonfigurować urządzenie. Więcej informacji w <http://mt.lv/help>
PT. Manual de instruções: Conecte o adaptador de alimentação para ligar o aparelho. Abra 192.168.88.1 em um navegador da web para configurar o produto. Mais informações em <http://mt.lv/help>
RO. Instrucțiuni de utilizare: Conectați adaptorul de alimentare pentru a porni aparatul. Deschide 192.168.88.1 într-un browser web pentru a configura produsul. Mai multe informații în <http://mt.lv/help>
SK. Návod na použitie: Pripojte napájací adaptér k zapnutiu prístroja. Otvorte 192.168.88.1 vo webovom prehliadači pre konfiguráciu produktu. Viac informácií nájdete v <http://mt.lv/help>
SI. Navodila: Priključite napajalnik za vklop naprave. Odprite 192.168.88.1 v spletnem brskalniku nastaviti izdelek. Več informacij v <http://mt.lv/help>
FI. Käyttöohje: Kytke virtalähde päälle laitteen. Avaa 192.168.88.1 in selaimen määrittää tuotteen. Lisää tietoa <http://mt.lv/help>
SE. Instruktionsmanual: Anslut nätadaptern för att slå på enheten. Öppna 192.168.88.1 i en webbläsare för att konfigurera produkten. Mer information på <http://mt.lv/help>
NO. Bruksanvisningen: Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i en netleser for å konfigurere produktet. Mer informasjon på <http://mt.lv/help>
GR. εγχειρίδιο οδηγιών: Συνδέστε τον προσαρμογέα τροφοδοσίας για να ενεργοποιήσετε τη μονάδα. Ανοίξτε 192.168.88.1 σε ένα πρόγραμμα περιήγησης στο Web για να διαμορφώσετε το προϊόν. Περισσότερες πληροφορίες στο <http://mt.lv/help>
RU. Руководство по эксплуатации: подключите адаптер питания чтобы включить устройство. Откройте 192.168.88.1 в своем веб-браузере для конфигурации. Дополнительная информация: <http://mt.lv/help>

MPE statement

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body, unless specifically stated otherwise in page 1 of this document. In RouterOS you must specify your country, to make sure local wireless regulations are observed.

Frequency bands terms of use

Frequency range (for applicable models)	Channels used	Maximum Output Power (EIRP)	Restriction
2412-2472 MHz	1 - 13	20 dBm	Without any restriction to use in all EU Member States
5150-5250 MHz	26 - 48	23 dBm	Restricted to indoor use only*
5250-5350 MHz	52 - 64	20 dBm	Restricted to indoor use only*
5470-5725 MHz	100 - 140	27 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. 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.