

# RouterBOARD OmniTik UPA-5HnD

## Quick Setup Guide and Warranty Information

The RouterBOARD **OmniTik** comes preinstalled in an outdoor case, with a built-in 5GHz 802.11a/n wireless and five 10/100 Ethernet ports which support MDI-X auto detection. There are two built-in antennas. One antenna is v-pol, the other is h-pol. Antenna gain is 7.5dbi. The device is packaged with a 24V power adapter, a PoE injector, a mounting bracket and a hose clamp.

### First use

- Open the small door on the bottom of the case, connect an Ethernet cable to the Ethernet port. If you want to connect more than one Ethernet cable, you have to break out the hole-blockers.
- OmniTik accepts 11-30V Passive PoE from a PoE injector. The package includes a 24V power adapter and a PoE injector.
- The default IP address from LAN is 192.168.88.1 for configuration
- Username is **admin** and there is **no password**

### Powering

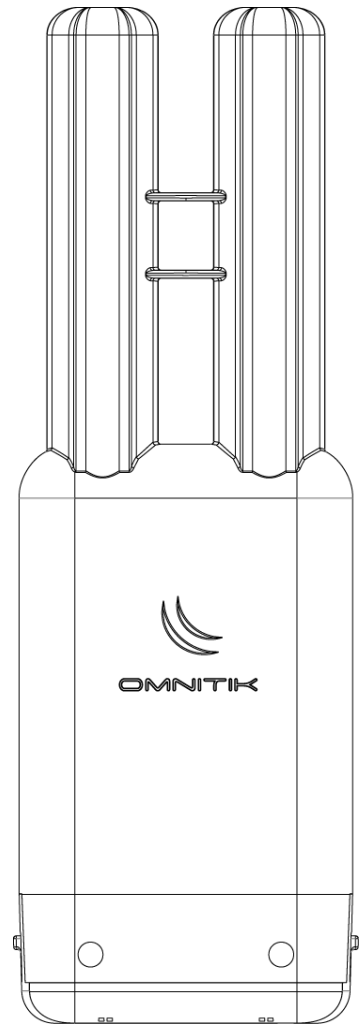
The board accepts powering from the Ethernet port (Passive PoE):

- Ethernet port accepts passive Power over Ethernet 11-30V DC. Package contains a 24V adapter and a PoE injector.

Maximum power consumption of the device is 11W.

### Power output

The OmniTik UPA-5HnD can supply PoE powering to external devices from its Ethernet ports. This is convenient as you don't need any additional PoE injectors on a tower to power other wireless devices. This feature is indicated by the letter "P" in the device model name. The output Voltage will be the same as input Voltage, and this feature will have to be enabled on the specific ports in RouterOS software. By default it is disabled. Output is possible on ports 2-5. Once Power Output is enabled in RouterOS, the Ethernet LED light turns from Green, to Red. Red LED means the port is currently providing PoE power. *Note: Due to a design flaw, OmniTik UPA power LED (red) turns on on the incorrect port. Port 2-5 power out LEDs are reversed, ie. enabling power out on port 2, LED 5 will turn red. Power out will correctly be given to port 2 as configured, only the LED order will be reversed.*



### Booting process

This device doesn't come fitted with a Serial Port connector, so initial connection has to be done via the Ethernet cable, using the MikroTik Winbox utility. Winbox should be used to connect to the default IP address of **192.168.88.1** with the username **admin** and no password.

In case IP connection is not available, Winbox can also be used to connect to the MAC address of the device. Information here: [http://wiki.mikrotik.com/wiki/First\\_time\\_startup](http://wiki.mikrotik.com/wiki/First_time_startup)

In case you wish to boot the device from network, for example to use MikroTik Netinstall, hold the RESET button of the device when starting it until the LED light turns off, and the device will start to look for Netinstall servers.

### Mounting

OmniTik comes bundled with one mounting bracket and one hose clamp for putting the device on a pole. You should avoid connecting a loose Ethernet cable to the Ethernet port, secure the cable to a wall or the pole, so that the cable weight is not pulling

the port. It is recommended to secure the Ethernet cable less than 2m from the device. This is to ensure that the cable doesn't damage the port by its weight, or doesn't fall out.

## Expansion Slots and Ports

- One built in 5GHz 802.11a/n wireless, 2x2 MIMO. Two built-in antennas (h-pol and v-pol)
- Five individual 10/100 Ethernet ports, 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. The First Ethernet port accepts 8-30V DC powering from a passive PoE injector.
- One USB2.0 port

## Buttons and Jumpers

- RouterOS reset jumper hole (no direct access, board has removed from case) – resets RouterOS software to defaults. Must short circuit the metallic sides of the hole (with a screwdriver, for example) and boot the device. Hold screwdriver in place until RouterOS configuration is cleared.
- RouterBOOT reset button (access through the plastic door) has two functions:
  - Hold this button during boot time until LED light starts flashing, release the button to **reset RouterOS configuration** (same result as with reset hole)
  - Hold this button during boot time longer, until LED turns off, and then release it to make the device **look for Netinstall servers**.

## Operating System Support

Currently tested operating system is MikroTik RouterOS (starting from version v5).

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**Hardware.** MikroTik warrants all RouterBOARD series equipment for the term of twelve (12) months from the shipping date to be free of defects in materials and workmanship under normal use and service, except in case of damage caused by mechanical, electrical or other accidental or intended damages caused by improper use or due to wind, rain, fire or other acts of nature.

To return failed units to MikroTik, you must perform the following RMA (Return Merchandise Authorization) procedure. Follow the instructions below to save time, efforts, avoid costs, and improve the speed of the RMA process.

1. If you have purchased your product from a MikroTik Reseller, please contact the Reseller company regarding all warranty and repair issues, the following instructions apply **ONLY** if you purchased your equipment directly from MikroTik in Latvia.
2. We do not offer repairs for products that are not covered by warranty. Exceptions can be made for RB1000 series.
3. Out-of-warranty devices and devices not covered by warranty sent to MikroTik will be returned to the sender at sender's cost.

RMA Instructions are located on our webpage here: <http://rma.mikrotik.com>

This document is provided “as is” without a warranty of any kind, expressed or implied, including, but not limited to, the implied warranty of merchantability and fitness for a particular purpose. The manufacturer has made every effort to ensure the accuracy of the contents of this document, however, it is possible that it may contain technical inaccuracies, typographical or other errors. No liability is assumed for any inaccuracy found in this publication, nor for direct or indirect, incidental, consequential or other damages that may result from such an inaccuracy, including, but not limited to, loss of data or profits. Please report any inaccuracies found to [support@mikrotik.com](mailto:support@mikrotik.com)



## Federal Communication Commission Interference Statement (FCC ID: TV7RBOMNITIK5HND)

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.**

20cm minimum distance has to be maintained between the antenna and the occupational user and 20 cm to general public. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

### **Industry Canada (IC:7442A-OMNTK5HND)**

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.

### **LE-LAN device restriction:**

**The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;**

**Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.**

**les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux**

**Les utilisateurs devraient aussi être avisés, d'une part, que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) des bandes de 5 250 à 5 350 MHz et de 5 650 à 5 850 MHz et, d'autre part, que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs de RL-EL**

# CE Declaration of Conformity



Full Declaration of Conformity (DoC) may be obtained by visiting this web page:

<http://routerboard.com/doc/>

|                 |   |
|-----------------|---|
| [EN] English    | Hereby, MIKROTĪKLS SIA declares that this ROUTERBOARD is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.  |
| [BG] Bulgarian  | С настоящето, MIKROTĪKLS SIA декларира, че ROUTERBOARD е в съответствие със съществените изисквания и другитеприложими разпоредби на Директива 1999/5/EC.   |
| [CZ] Czech      | MIKROTĪKLS SIA tímto prohlašuje, že ROUTERBOARD splňuje základní požadavky a všechna příslušná ustanovení Směrnice 1999/5/ES.   |
| [DK] Danish     | Undertegnede MIKROTĪKLS SIA erklærer herved, at følgende udstyr ROUTERBOARD overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.  |
| [DE] German     | Hiermit erkläre MIKROTĪKLS SIA dass sich das Gerät ROUTERBOARD in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet. |
| [EE] Estonian   | Käesolevaga kinnitab MIKROTĪKLS SIA seadme ROUTERBOARD vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.                          |
| [GR] Greek      | ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Ο ΚΑΤΑΣΚΕΥΑΣΤΗΣ ΜΙΚΡΟΤΙΚΛΣ SIA ΔΗΛΩΝΕΙ ΟΤΙ ROUTERBOARD ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ                           |
| [ES] Spanish    | Por la presente, MIKROTĪKLS SIA declara que este ROUTERBOARD cumple con los requisitos esenciales y otras exigencias relevantes de la Directiva 1999/5/EC.  |
| [IT] Italian    | Con la presente MIKROTĪKLS SIA dichiara che questo ROUTERBOARD è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.                        |
| [LV] Latvian    | Ar šo MIKROTĪKLS SIA deklarē, ka ROUTERBOARD atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.   |
| [LT] Lithuanian | Šiuo MIKROTĪKLS SIA deklaruoja, kad šis ROUTERBOARD atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas  |
| [HU] Hungarian  | A MIKROTĪKLS SIA ezzenel kijelenti, hogy a ROUTERBOARD típusú beren-dezés teljesíti az alapvető követelményeket és más 1999/5/EK irányelvből meghatározott vonatkozó rendelkezéseket.               |
| [NL] Dutch      | Hierbij verklaart MIKROTĪKLS SIA dat het toestel I ROUTERBOARD in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.                             |
| [PL] Polish     | Niniejszym MIKROTĪKLS SIA deklaruje że ROUTERBOARD jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 1999/5/EC.  |
| [PT] Portuguese | Eu, MIKROTĪKLS SIA declaro que o ROUTERBOARD cumpre os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.  |
| [RO] Romanian   | Prin prezenta, MIKROTĪKLS SIA declară că aparatul ROUTERBOARD este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 1999/5/CE..                                |
| [SK] Slovak     | MIKROTĪKLS SIA týmto vyhlasuje, že ROUTERBOARD spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.   |
| [SI] Slovenian  | MIKROTĪKLS SIA izjavlja, da je ta ROUTERBOARD v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 1999/5/ES.   |
| [FI] Finnish    | MIKROTĪKLS SIA vakuuttaa täten että ROUTERBOARD tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.                             |
| [SE] Swedish    | Denna utrustning är i överensstämmelse med de väsentliga kraven och andra relevanta bestämmelser i direktiv 1999/5/EC.  |
| [NO] Norwegian  | MIKROTĪKLS SIA Erklærer herved at ROUTERBOARD er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/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://wiki.mikrotik.com>

**BG. Инструкция:** Свържете адаптера на захранване, за да включите устройството. Отворете 192.168.88.1 в уеб браузър, за да настроите продукта. Повече информация в <http://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**EE. Kasutusjuhend:** Ühendage toiteadapter seadme sisselülitamiseks. Avatud 192.168.88.1 in veebilehitseja seadistada toodet. Rohkem teavet <http://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**LV. Lietošanas instrukcija:** Pievienojiet Strāvas adapteri, lai ieslēgtu ierīci. Atvērt 192.168.88.1 ar interneta pārlūku, lai konfigurētu produktu. Plašāka informācija <http://wiki.mikrotik.com>

**LT. Naudojimosi instrukcija:** Prijunkite maitinimo adapterį jįjunkite įrenginį. Į interneto naršyklę 192.168.88.1 Atidarykite galite konfigūruoti gaminį. Daugiau informacijos rasite <http://wiki.mikrotik.com>

**HU. Használati utasítás:** Csatlakoztassa a hálózati adaptert a kiegészítő bekapcsolásához. Megnyitása 192.168.88.1 egy webböngészőben beállítani a terméket. Több információ <http://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**PL. Instrukcja obsługi:** Podłącz adapter zasilania, aby włączyć urządzenie. Otwórz 192.168.88.1 w przeglądarce internetowej, aby skonfigurować urządzenie. Więcej informacji w <http://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**RO. Instrucțiunile 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://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**SI. Navodila:** Priključite napajalnik za vklop naprave. Odprite 192.168.88.1 v spletnem brskalniku nastaviti izdelek. Več informacij v <http://wiki.mikrotik.com>

**FI. Käyttöohje:** Kytke virtalähde päälle laitteen. Avaa 192.168.88.1 in selaimen määrittää tuotteen. Lisää tietoa <http://wiki.mikrotik.com>

**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://wiki.mikrotik.com>

**NO. Bruksanvisningen:** Koble strømadapteren for å slå på enheten. Åpne 192.168.88.1 i en nettleser for å konfigurere produktet. Mer informasjon på <http://wiki.mikrotik.com>

**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://wiki.mikrotik.com>