


EN - English - Quick Guide:

 This device needs to be upgraded to RouterOS v6.47.3 or 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.

This "NetMetal ac²" series Quick Guide covers models: RBD23UGS-5HPacD2HnD-NM (NetMetal ac²)

This is Wireless Network Device. You can find the product model name on the case label (ID).

Please visit the user manual page on <https://mt.lv/um> for the full up to date user manual. Or scan the QR code with your mobile phone.

Technical specifications, brochures and more info about products at <https://mikrotik.com/products>

Configuration manual for software in your language with additional information can be found at <https://mt.lv/help>

MikroTik devices are for professional use. If you do not have qualifications please seek a consultant <https://mikrotik.com/consultants>

This Device accepts input of a 48V DC power adapter, which is provided in the original packaging of this device. This Device can be powered using a PoE injector (Provided in the packaging).



First steps:

- Open the upper cover and connect an external antenna.
- Open the bottom cover and connect the device to the power source.
- Open network connections on your PC, search for MikroTik wireless network, and connect to it.
- The configuration can be done through the wireless network using a WinBox configuration tool <https://mt.lv/winbox>.
- Download and open "Winbox", choose "Neighbors" to find the device.
- Click on the MAC address, user name: admin and there is no password, click Connect.
- Download the latest "ARM" packages to your PC <https://mikrotik.com/download>.
- Upload downloaded packages to the Winbox "Files" menu and reboot the device.
- In the "QuickSet, WISP AP" menu set up the following: Choose your country, to apply country regulation settings.
- Set the antenna gain, depending on the antenna used.
- Set up your wireless network password in the left field.
- Set up your router password in the bottom field.

Safety Information:

- Before you work on any MikroTik equipment, be aware of the hazards involved with electrical circuitry, and be familiar with standard practices for preventing accidents. The installer should be familiar with network structures, terms, and concepts.
- Use only the power supply and accessories approved by the manufacturer, and which can be found in the original packaging of this product.
- This equipment is to be installed by trained and qualified personnel, as per these installation instructions. The installer is responsible for making sure, that the Installation of the equipment is compliant with local and national electrical codes. Do not attempt to disassemble, repair, or modify the device.
- This product is intended to be mounted outdoors on a pole. Please read the mounting instructions carefully before beginning installation. Failure to use the correct hardware and configuration or to follow the correct procedures could result in a hazardous situation to people and damage to the system.
- We cannot guarantee that no accidents or damage will occur due to the improper use of the device. Please use this product with care and operate at your own risk!
- In the case of device failure, please disconnect it from power. The fastest way to do so is by unplugging the power adapter from the power outlet.
- This is a Class A product. In a domestic environment, this product might cause radio interference in which case the user might be required to take adequate measures!

Exposure to Radio Frequency Radiation: This MikroTik equipment complies with the FCC, IC, and European Union radiation exposure limits set forth for an uncontrolled environment. This MikroTik device should be installed and operated no closer than 45 centimeters from your body, occupational user, or the general public.

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

Federal Communication Commission Interference Statement

FCC ID: TV7D2352AC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial 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:

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.

Antenna Installation WARNING: It is the installer's responsibility to ensure that when using the authorized antennas in the USA (or where FCC rules apply); only those antennas certified with the product are to be used. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required for equipment with connectors to ensure compliance with health and safety issues.



Approved Antenna Table:

Antenna Model	Type	Antenna gain, dBi
2400-2483.5 MHz		
HGO-antenna-OUT	Dipole	3.6
ACOMNIRPSMA	Dipole	5
UNII-1 (5150-5250 MHz) and UNII-3 (5725-5850MHz)		
HGO-antenna-OUT	Dipole	6.68
MTAS-5G-19D120	Sector	19
MTAS-5G-30D3	Dish	30
UNII-2A (5250-5350 MHz) and UNII-2C (5470-5725MHz)		
HGO-antenna-OUT	Omnidirectional	6.68
MTAS-5G-19D120	Sector	19

*The same type of antenna and lower antenna gain than those listed above in the table may also be used in accordance with certification.

Innovation, Science and Economic Development Canada

IC: 7442A-D2352AC

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 A digital apparatus complies with Canadian ICES-003.

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

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

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.

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

Antenna Installation WARNING: It is the installer's responsibility to ensure that when using the authorized antennas in Canada (or where IC rules apply); only those antennas certified with the product are to be used. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required for equipment with connectors to ensure compliance with health and safety issues.

Approved Antenna Table:

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ACOMNIRPSMA	Dipole	5
UNII-1 (5150-5250 MHz) and UNII-3 (5725-5850MHz)		
HGO-antenna-OUT	Dipole	6.68
MTAS-5G-19D120	Sector	19
MTAS-5G-30D3	Dish	30
UNII-2 (5250-5350 MHz) and UNII-2-Extended (5470-5600 MHz, 5650-5725 MHz)		
HGO-antenna-OUT	Omnidirectional	6.68
MTAS-5G-19D120	Sector	19

*The same type of antenna and lower antenna gain than those listed above in the table may also be used in accordance with certification.


CE Declaration of Conformity

BG	С настоящото Mikrotikls 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 Mikrotikls 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 Mikrotikls 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 Mikrotikls 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 Mikrotikls 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, Mikrotikls 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, Mikrotikls 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 Mikrotikls 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	Mikrotikls 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, Mikrotikls 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	Mikrotikls SIA ovime izjavljuje da je radijska oprema tipa RouterBOARD u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o skladnosti dostupan je na sljedećoj internetskoj adresi: https://mikrotik.com/products
HU	Mikrotikls 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, Mikrotikls 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 Mikrotikls SIA því yfir að RouterBOARD er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU. Fullur texti ESB samræmisfyrirlysingar er að finna á eftirfarandi veffangi: https://mikrotik.com/products
LT	Aš, Mikrotikls 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 Mikrotikls 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, Mikrotikls 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 ġej: https://mikrotik.com/products
NL	Hierbij verklaar ik, Mikrotikls 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	Mikrotikls 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	Mikrotikls 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) Mikrotikls 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, Mikrotikls 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	Mikrotikls 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	Mikrotikls 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	5150-5250 MHz / 23 dBm
Frequenza operativa / massima potenza di uscita	
Frecuencia de funcionamiento / potencia de salida máxima	5250-5350 MHz / 20 dBm
Рабочая частота / максимальная выходная мощность	
	5470-5725 MHz / 27 dBm

 This MikroTik device meets Maximum transmit power limits per ETSI regulations. For more detailed information see Declaration of Conformity above / Dieses MikroTik-Gerät erfüllt die maximalen Sendeleistung Grenzwerte gemäß ETSI-Vorschriften. Weitere Informationen finden Sie oben in der Konformitätserklärung / Cet appareil MikroTik respecte les limites de puissance de transmission maximale conformément aux réglementations ETSI. Pour plus d'informations, voir la déclaration de conformité ci-dessus / Questo dispositivo MikroTik è conforme ai limiti di potenza massima di trasmissione in conformità con le normative ETSI. Per ulteriori informazioni, consultare la dichiarazione di conformità sopra / Este dispositivo MikroTik cumple con los valores límite de potencia máxima de transmisión de acuerdo con la normativa ETSI. Para obtener información más detallada, consulte la Declaración de conformidad anterior / Это устройство MikroTik соответствует предельным значениям максимальной мощности передачи в соответствии с правилами ETSI. Для получения более подробной информации см. Декларацию соответствия выше.



The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range. / Die WLAN-Funktion dieses Geräts ist nur für die Verwendung in Innenräumen im Frequenzbereich 5150 bis 5350 MHz beschränkt. / La fonction WLAN de cet appareil est limitée à une utilisation en intérieur uniquement lorsqu'il fonctionne dans la gamme de fréquences 5150 à 5350 MHz. / La funzione WLAN per questo dispositivo è limitata all'uso interno solo quando si opera nella gamma di frequenza da 5150 a 5350 MHz. / La función WLAN para este dispositivo está restringida al uso en interiores solo cuando se opera en el rango de frecuencia de 5150 a 5350 MHz. / Функция WLAN для этого устройства ограничена использованием внутри помещения только при работе в диапазоне частот от 5150 до 5350 МГц.