Chateau 5G R16

Chateau 5G R16 (*D53G-5HacD2HnD-TC&RG520F-EU*)

Safety Warnings

Before you work on any equipment, be aware of the hazards involved with electrical circuitry, and be familiar with standard practices for preventing accidents.
Ultimate disposal of this product should be handled according to all national laws and regulations.
The Installation of the equipment must comply with local and national electrical codes.
This product is intended to be installed indoors. Keep this product away from water, fire, humidity or hot environments.
Use only the power supply and accessories approved by the manufacturer, and which can be found in the original packaging of this product.
Read the installation instructions before connecting the system to the power source.
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 plug from the power outlet.
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.

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 20 centimeters from your body, occupational user, or the general public.

Quickstart

Please follow these quick steps to set up your device:
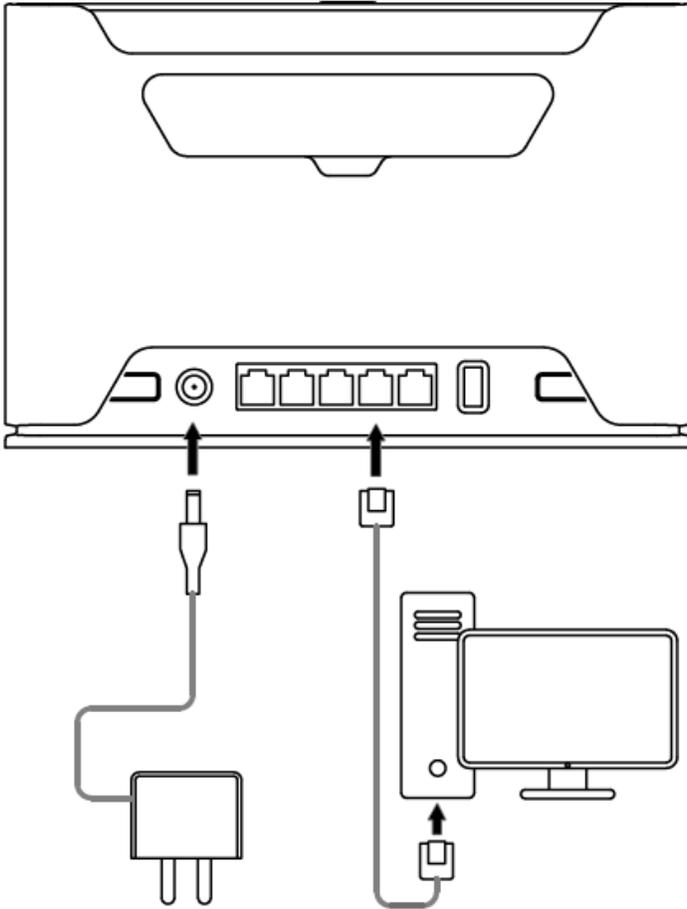
- Insert micro SIM card into the slot located under the device;
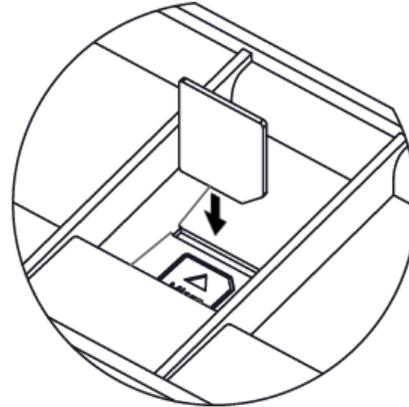
- Connect your computer to one of the Ethernet ports;
- Connect the power adapter to the DC jack;
- Once the device is powered on and PC connected to the device, open http://192.168.88.1 in your web browser to start the configuration (or, for some models, check user and wireless passwords on the sticker);
- User name: a*dmin* and there is no password by default you will be logged in automatically to the Quick Set screen;
- We recommend clicking the "Check for updates" button on the right side and updating your RouterOS software to the latest version to ensure the best performance and stability, Must have a valid SIM card inserted;
- For a manual update of the device, visit the products page at https://mikrotik.com/products to find your product. The required packages are accessible under the "Support&Downloads" menu;
- Upload downloaded packages to the *WinBox Files* menu and reboot the device. By upgrading your RouterOS software to the latest version, you can ensure optimal performance, stability, and security updates;
- To personalize your wireless network, SSID can be changed in the fields "Network Name";
- Choose your country on the left side of the screen in the field "Country", to apply country regulation settings;
- Set up your wireless network password in the field "WiFi Password" the password must be at least eight symbols;
- Set up your router password in the bottom field "Password" to the right and repeat it in the field "Confirm Password", it will be used to log in next time;
- Click on the "Apply Configuration" to save changes.

Connecting with a mobile app

Use your smartphone to access your router through WiFi.

- Insert the SIM card and power on the device.
- Scan QR code with your smartphone and choose your preferred OS.

- Connect to the wireless network. SSID starts with MikroTik and has the last digits of the device's MAC address.
- Open application.
- By default, the IP address and user name will be already entered.
- Click Connect to establish a connection to your device through a wireless network.
- Choose Quick setup and the application will guide you through all basic configuration settings in a couple of easy steps.
- An advanced menu is available to fully configure all necessary settings.

Specifications

- Product code D53G-5HacD2HnD-TC&RG520F-EU
- CPU Quad-Core IPQ-4019 716 MHz
- CPU architecture ARM 32bit
- CPU core count 4
- Size of RAM 256 MB
- RAM type DDR3L
- Storage 128 MB, NAND
- Number of 1G Ethernet ports 5
- USB 1 USB 2.0 port type A
- Switch chip model IPQ-4019
- Wireless 2.4 GHz 802.11a/b/g/n dual-chain, 5 GHz 802.11a/n/ac dual-chain
- Wireless antenna max gain 2.4 GHz - 3 dBi, 5 GHz - 5,5 dBi
- Antenna beam width 360°
- LTE category 20 (2.0 Gbps Downlink, 200 Mbps Uplink)
- TAC 86945405
- MIMO DL 2x2
- MIMO UL 1x1
- LTE FDD bands: 5 (850MHz) / 20 (800MHz) / 28 (700MHz) / 3 (1800MHz) / 1 (2100MHz) / 7 (2600MHz) / 8 (900 MHz) / 32 (1500 MHz)
- LTE TDD bands: 40 (2300MHz) / 41 (2500MHz) / 42 (3500MHz) / 43 (3700MHz) / 38 (2600MHz)
- 3G Category R8 (42.2Mbps Downlink, 5.76Mbps Uplink)
- 3G Bands 5 (850MHz) / 8 (900MHz) / 1 (2100MHz)
- Dimensions 240 x 156 x 44 mm
- Operating system RouterOS v7, License level 4
- IP 20
- Operating temperature -40°C to +70°C

Expansion slots and ports
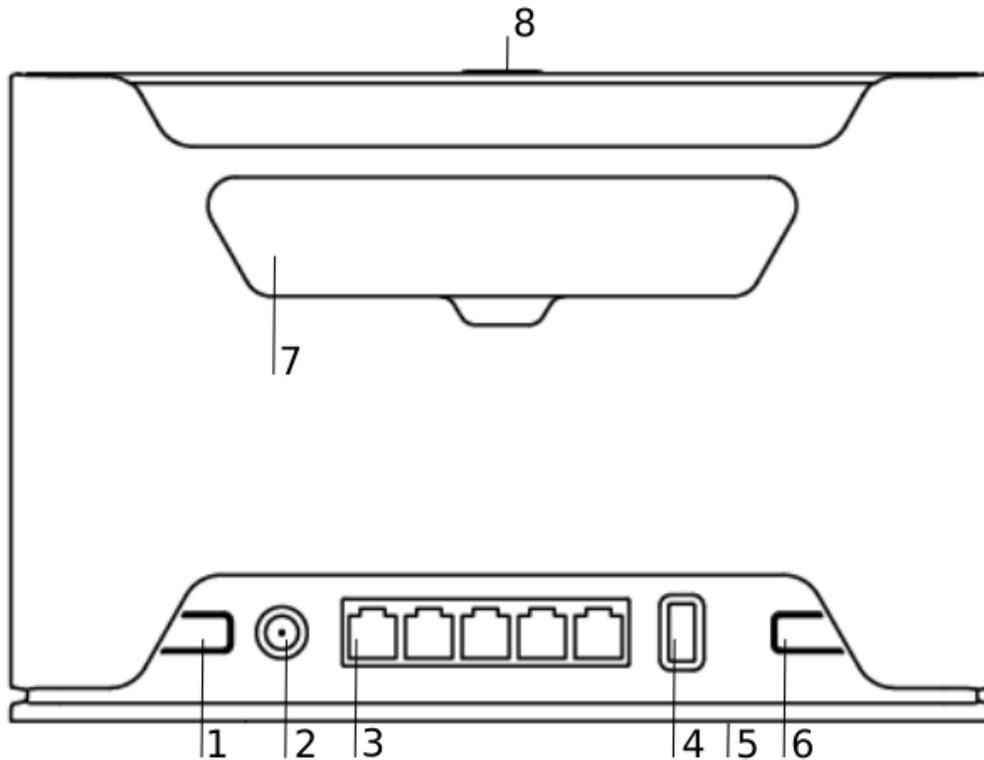
1. Reset button.
2. Powering DC jack 2.0 mm.
3. Five Gigabit ports, supporting automatic cross/straight cable correction (Auto MDI/X). Either straight or crossover cable can be used for connecting to other network devices.
4. USB type-A.
5. SIM slot for Micro sim card.
6. Mode button.
7. Cover for external SMA antenna connector is not provided for models with antennas.
8. WPS Sync button.

- Integrated Wireless module operating at 2.4 GHz, 802.11b/g/n protocol. Antenna gain 3 (dBi).
- Integrated Wireless module operating at 5 GHz, 802.11a/n/ac protocol. Antenna gain 5.5 (dBi).

Mounting

The device is designed to be used indoors, by placing it on the desktop.

> ⓘ We recommend using Cat5 shielded cable. When using and installing this device please pay attention to the Maximum Permissible Exposure (MPE) safety distance with a minimum of 20 cm between the radiator and your body.

Powering

The device accepts power from an adapter:

- Direct-input power jack (5.5 mm outside and 2 mm inside, female, pin positive plug) 12-28 V DC.

The power consumption under maximum load can reach 15 W, with attachments of 25 W.

Configuration

We recommend checking for updates frequently to receive the latest updates for your RouterOS software to ensure the best performance and stability. 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 an 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 for reinstallation, see section Buttons and Jumpers.

Mode button

The mode button is located on the back of the unit, on the right side.
The Default configuration for the Mode button is dark mode - to turn off all LEDs. The button can be configured in RouterOS to run any user-specified scripts.

Sync button

The sync button is located on the top of the unit. WPS Sync button, if configured on the wireless interface, can be used to connect new clients.

- Press and hold the WPS button for 1 – 5 seconds to enable WPS for wireless interfaces.

Front LED status

1. Wireless network activity.
2. Ethernet port activity.
3. System LED.
4. Signal strength.

> (i) Cellular connection technology based on the System LED color:
> Red: GSM
> Yellow: 3G
> Blue: LTE
> Green: 5G NSA
> Violet: 5G SA
>
> When LTE is not connected to the network, the system LED will blink red to indicate that there is some issue with the LTE connection. If the LTE interface is intentionally disabled (not being used), the system LED will glow blue.

SIM slot usage

SIM card slot is designed to use with Micro SIM cards.
Nano SIM cards have different thicknesses, usage with an adapter is not recommended.

Reset button

The reset button has three functions:

- Hold this button during boot time until the 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.

> ⓘ Netinstall
>
>   When performing Netinstall, make sure to use the latest v7 version of both ROS files and the Netinstall software.

Accessories

The package includes the following accessories that come with the device:

- ADAPT1_ EU/US Switching Power Supply 24V, 1.2A.
- CAB3_ CAT5E UTP Flat Cable, 8P8C, AWG32, 1.5m.

Removing back cover to access PCB

In case there is a need to access PCB, the back cover can be removed.

- Remove center screw;

- Use a small screwdriver to pry open backplate in marked spots;

- Continue to pry it open by going up;

- At the end lift off the whole backplate.

Operating system support

The device supports RouterOS software version v7. The specific factory-installed version number 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.

> ⓘ *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.*