MIKROTIK

# Chateau 5G ax

The future of mobile internet.




- **NOW WITH 2.5 GIGABIT ETHERNET!**
- **POWERFUL 1.8 GHZ QUAD-CORE CPU**
- **802.11AX + WAVE2**
- **STRONG DUAL-BAND, DUAL-CHAIN WIRELESS (3-6 DBI)**
- **4X GIGABIT ETHERNET PORTS**
- **THE FASTEST LTE/5G MODEM**
- **WPA3**

On the surface, the new Chateau is very similair to the previous models. We had a fantastic 5G and LTE18 launch with our partners at LMT – the leading mobile operator in Latvia. Our Chateau replaced the usual brands – and the client satisfaction skyrocketed. Most users appreciated better speed and stability, as well as the abundance of useful RouterOS features and general flexibility. And don't forget the elegant look that fits right in anywhere – from traditional homes and luxury residences to modern office and corporate environments.





The wireless interface supports 802.11ax and is backward compatible with older wireless standards. Older client devices that only support 802.11ac will still benefit from multiple additional 802.11ac Wave 2 features, such as MU-MIMO and explicit beamforming.

The next obvious step in the Chateau series was perfecting the wireless capabilities. With the Generation6 **802.11ax** wireless standard and **Wave 2** support, **Chateau 5G ax** can deliver **unprecedented speed**. If we compare it to the previous generation, we're looking at up to **40% higher speed in the 5 GHz** and up to **90% higher speed in the 2.4 GHz** spectrum! We've made massive improvements to the wireless radio and antennas. Chateau 5G ax supports **MIMO 4x4** on 5G and LTE. There are 6 built-in LTE/5G antennas. One pair of external antennas provides even better wireless network coverage in the largest homes, and the other - improved LTE/5G connectivity.

*With speeds like that, the ports also had to rise to the occasion. We kept four **Gigabit Ethernet** ports and added a **2.5 Gigabit Ethernet** port on top. And let's not forget the USB port which can be handy for storage purposes.*




The modern **quad-core CPU** running at **1.8 GHz** combined with a solid GB of RAM packs a hefty punch when it comes to heavy operations like **complex firewall rules, IPsec hardware encryption, using more threads** or experimenting with advanced RouterOS features. And with the addition of WPA3 advanced encryption support, you're safer than ever before.

## Mobile internet has never been faster

In a perfect setup and the ideal environment, the 5G modem can reach incredible speeds: up to 5 Gbps for downloads and up to 900 Mbps for uploads. But even without reaching the maximum capacity, you're still getting an ultra-fast connection that can surpass the best copper and fibre networks!

## The most advanced software on the market - RouterOS

We have been making our own software since 1996. And over the years, we've managed to create the **most powerful and flexible networking software on the market**. With each new version, our priority remained the same: to provide users with the freedom to explore different setups and always have the right tools for the job. Run a secure VPN from the office directly to your home, enable parental control, QoS (traffic prioritization for certain needs, such as streaming), complex firewall rules, IPsec hardware acceleration, VLAN, e-mail or SMS notifications.. You can even automate complex trigger notifications ("Your bandwidth has reached X for Y minutes!") and modify queues based on bandwidth usage. If you can imagine it – RouterOS can achieve it.

**There are no paywalls and no confusing subscriptions**. You're getting all the features - from consumer to enterprise-grade. For mobile operators and ISPs, this is groundbreaking. **Finally - a single product to satisfy the most diverse group of people**.

## Built with security in mind

Not only does RouterOS come with robust security options, we also focus on the production security. There is no outsourcing, every Chateau device is assembled at our EU contract manufacturers, and all the components come from reputable, trusted partners – such as Qualcomm. We cooperate with European law-makers and work hard to ensure full compliance with all the necessary safety policies. MikroTik is all about smooth, long-term cooperation without surprises.

## Jack of all trades... master of many!

Chateau is a remarkable choice for any mobile operator. It can be customized with a variety of labels or printed branding. And operators can use the TR-069 technology to create **custom remote client management options**, such as router configuration via the same web-page clients are using to pay the mobile bill.

Advanced users, seasoned sysadmins, and networking enthusiasts can take advantage of the astounding depth of RouterOS. And the non-tech households can skip all that, using a simple, straightforward web-page instead.

Now is the time for great networking without compromises. Secure remote work options and a blazing fast Internet connection are no longer a luxury. They are a necessity. And Chateau is the solution.



## Specifications

| | |
|---|---|
| Product code | S53UG+M-5HaxD2HaxD-TC&RG502Q-EA |
| CPU | Quad-Core IPQ-6010 1.8 GHz |
| CPU architecture | ARM 64bit |
| Size of RAM | 1 GB |
| RAM type | DDR3L |
| Storage | 128 MB, NAND |
| Number of 1G Ethernet ports | 4 |
| Number of 2.5G Ethernet ports | 1 |
| Micro SIM slots | 1 |
| USB | 1 USB 2.0 type A |
| Number of M.2 slots | 1 |
| Antenna connector | 2x SMA female for LTE |
| Switch chip model | IPQ-6010 |
| Wireless interface model | QCN-5022 (2.4 GHz), QCN-5052 (5 GHz) |
| Wireless | 2.4 GHz 802.11ax dual-chain, 5 GHz 802.11ax dual-chain |
| LTE category | 20 (2.0 Gbps Downlink, 200 Mbps Uplink) |
| LTE modem | R11mL-RG502Q-EA |
| TAC | 86073604 |
| 5G SA Category | 4.2 Gbps Downlink, 900 Mbps Uplink |
| 5G NSA Category | 5.0 Gbps Downlink, 650 Mbps Uplink |
| 3G Category | R8 (42.2Mbps Downlink, 5.76Mbps Uplink) |
| MIMO DL | 4x4 (5G SA), 4x4 (5G NSA), 4x4 (LTE) |
| MIMO UL | 2x2 (5G SA), 1x1 (5G NSA), 1x1 (LTE) |
| 5G SA FDD bands | 1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 7 (2600MHz) / 8 (900 MHz) / 20 (800 MHz) / 28 (700 MHz) |
| 5G SA TDD bands | 38 (2600MHz) / 40 (2300MHz) / 41 (2500MHz) / 77 (3700 MHz) / 78 (3500 MHz) / 79 (4700 MHz) |
| 5G NSA FDD bands | 1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 7 (2600MHz) / 8 (900 MHz) / 20 (800 MHz) / 28 (700 MHz) |
| 5G NSA TDD bands | 38 (2600MHz) / 40 (2300MHz) / 41 (2500MHz) / 77 (3700 MHz) / 78 (3500 MHz) / 79 (4700 MHz) |
| LTE FDD bands | 1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 7 (2600MHz) / 8 (900 MHz) / 18 (800 MHz) / 19 (800 MHz) / 20 (800 MHz) / 26 (850MHz) / 28 (700 MHz) / 32 (1500 MHz) |
| LTE TDD bands | 34 (2000 MHz) / 38 (2600MHz) / 39 (1900MHz) / 40 (2300MHz) / 41 (2500MHz) / 42 (3500MHz) / 43 (3700MHz) |
| 3G bands | 1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 6 (850 MHz) / 8 (900MHz) / 19 (800 MHz) |
| Dimensions | 240 x 156 x 44 mm |
| Operating system | RouterOS v7, License level 4 |
| Operating temperature | -40°C to +70°C |

⚠ Unlike the LTE/5G antennas, the dual-band wireless network antennas CANNOT BE REMOVED! ⚠

Do not power without the antennas!

## Powering

| | |
|---|---|
| Number of DC inputs | 1 |
| DC jack input Voltage | 12-28 V |
| Power adapter nominal voltage | 24 V |
| Power adapter nominal current | 1.2 A |
| Max power consumption without attachments | 16 W |
| Max power consumption | 19 W |

## Wireless specifications

| Rate (2.4 GHz) | Tx (dBm) | Rx (dBm) |
|---|---|---|
| 1MBit/s | 20 | -100 |
| 11MBit/s | 20 | -94 |
| 6MBit/s | 21 | -96 |
| 54MBit/s | 18 | -80 |
| MCS0 | 21 | -96 |
| MCS7 | 17 | -75 |
| MCS9 | 16 | -70 |
| MCS11 | 14 | -67 |

| Rate (5 GHz) | Tx (dBm) | Rx (dBm) |
|---|---|---|
| 6MBit/s | 21 | -96 |
| 54MBit/s | 18 | -80 |
| MCS0 | 21 | -96 |
| MCS7 | 17 | -75 |
| MCS9 | 16 | -70 |
| MCS11 | 14 | -67 |

## Included parts



24 V 1.2 A
power adapter



UTP Flat
Cable (1.5m)