

ZBT Z8102AX-M2-T

AX3000 Wi-Fi 6 router with one Quectel RM500U-EA | Setup and diagnostics

01 / Prepare the location

Choose an indoor position with ventilation and access to power. Place the antennas clear of large metal objects, and compare nearby locations using measured signal quality. Use the supplied, revision-matched power adapter.

02 / Make the first connection

Connect a computer to a Gigabit LAN port. Access the administration address and credentials supplied with the delivered router. Set a strong administrator password, configure the time zone and save the initial configuration. Keep a wired connection available during changes.

03 / Configure the cellular WAN

Install the operator SIM in the position associated with the included RM500U-EA modem. Configure APN and PIN as required. Confirm registration and the selected WAN interface, then test IP connectivity and DNS. Record the operator, bands and modem firmware.

04 / Set up the local network

Configure 2.4 GHz and 5 GHz Wi-Fi names and secure credentials. Use channels and transmit settings appropriate for your region. Connect fixed workstations by Gigabit Ethernet and verify addressing, Internet access and the devices used in your installation.

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05 / Test the whole path

Test wired LAN first, then Wi-Fi at the actual work locations. Record latency, throughput and radio conditions at comparable times. The AX3000 class describes aggregate Wi-Fi radio rates; usable throughput follows the cellular link, Gigabit ports and local client capabilities.

06 / Expand with a plan

The manufacturer describes two M.2 positions with USB 3.0, two Nano-SIM positions and eSIM provisions. This offer includes one RM500U-EA. Match a further modem to the exact hardware revision, power budget, software, SIM routing and RF connectors. Check the complete antenna plan before fitting additional parts.

07 / Update and recover

The router uses an OpenWrt-based platform. Record the delivered board revision, flash layout and firmware build. Upstream OpenWrt has a ZBT-Z8102AX v2 target; use its exact profile and installation procedure only when they match the delivered hardware. Back up configuration and prepare a documented recovery method first.

Hardware and reference

MediaTek MT7981B dual-core Cortex-A53 up to 1.3 GHz; MT7976CN; 1 GB DDR4; 128 MB SPI NAND; one Gigabit WAN and four Gigabit LAN ports. Reference checked: ZBT manufacturer Z8102AX-M2-T page (12-antenna platform), 9 October 2026. Optional storage and second modem configurations are selected separately.