

# RobustOS Firmware Release Notes

## NOTES

- This release notes mainly describe all-new features, fixes, and other changes implemented in the RobustOS LTS (Long Term Support) version. Firmware upgrade information about all LTS versions will accumulate in this release note so that you can check the history here.
  - This release note applies to all routers using **RobustOS 5.x** version.
  - The firmware name prefix corresponds to the supported product models:
    - ❖ m120x : M1200, M1201
    - ❖ r1500 : R1500
    - ❖ r151x : R1510, R1510Lite, R1511, R1511P, R1511PL
    - ❖ r1520 : R1520
    - ❖ r201x : R2010, R2011
    - ❖ r2000 : R2000, R2000Lite, R2000Dual, R2000Ent
    - ❖ r3000 : R3000, R3000Lite, R3000Q
    - ❖ r3000lg : R3000LG
    - ❖ r2110 : R2110
    - ❖ r5020 : R5020
    - ❖ r3010 : R3010
  - Firmware from V3.x.x upgrade to **RobustOS5.x** requirements:
    - ❖ R5020 must upgrade the intermediate version firmware (V3.1.8 or later) before upgrading the RobustOS 5.0 firmware.
    - ❖ R3000LG must upgrade the intermediate version firmware (V3.1.9 or later) before upgrading the RobustOS 5.0 firmware.
    - ❖ R3010 must upgrade the intermediate version firmware (V3.1.3 or later) before upgrading the RobustOS 5.0 firmware.
    - ❖ Other devices can directly upgrade to the RobustOS 5.0
- Note:**
- ❖ If the R2000 series device shows insufficient memory when upgrading the firmware, we recommend closing the APP and some services (such as WiFi) and upgrading the firmware.
  - ❖ Please be aware that if you downgrade the firmware from V5.x.x to V3.x.x, the router will reset the user management feature parameter to default, and you also need to clean the browser cache.
  - ❖ Please check the compatible module information of the firmware version before upgrading.

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## VERSION V5.0.9

Release Date: March 22, 2023

Previous Version: 5.0.8

## NEW FEATURES

1. Added support for importing custom APN lists.
2. Added support for R2000 series deep recovery function.

## ENHANCEMENTS

N/A

## BUGS FIXED

1. Fixed issue of ML620 module send and receive text messages.

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

N/A

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## VERSION V5.0.8

Release Date: December 28, 2022

Previous Version: 5.0.7

## NEW FEATURES

1. Quectel module DFOTA feature supports offline mode.

## ENHANCEMENTS

N/A

## BUGS FIXED

1. Fixed issue of password recovery error when restoring the default configuration.

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

N/A

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## VERSION V5.0.7

Release Date: December 27, 2022

Previous Version: 5.0.6

## NEW FEATURES

N/A

## ENHANCEMENTS

N/A

## BUGS FIXED

1. Fixed issue that RTS/CTS of the R3000 Quad RS232 serial port doesn't work.
2. Fixed issue that DI3 and DI4 of R3000 4DI device doesn't work.

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

This firmware is only for R3000 Series/R3000 LG/R3010.

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## **VERSION V5.0.6**

Release Date: December 06, 2022

Previous Version: 5.0.4

## **NEW FEATURES**

N/A

## **ENHANCEMENTS**

N/A

## **BUGS FIXED**

1. Fixed issue that R3000Q RS485 Serial Port was unavailable

## **KNOWN BUGS & LIMITATIONS**

N/A

## **COMPATIBLE MODULES**

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## **OTHERS**

This firmware is only for R3000 Series/R3000 LG/R3010.

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## VERSION V5.0.5

Release Date: December 05, 2022

Previous Version: 5.0.4

## NEW FEATURES

1. Added DFOTA feature for Quectel module.

## ENHANCEMENTS

N/A

## BUGS FIXED

1. Fixed issue that network type does not display after the firmware of the RM500Q module is upgraded.

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

This firmware is only for R5020.

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## VERSION V5.0.4

Release Date: November 08, 2022

Previous Version: 5.0.3

## NEW FEATURES

N/A

## ENHANCEMENTS

1. Optimized firmware rollback strategy for R3000 series to V3.x.

## BUGS FIXED

1. Fixed issue that GPS feature of some R3000 devices was abnormal.
2. Fixed issue that R3000 series RTC feature was abnormal.
3. Fixed issue that R2110 USB feature was abnormal.

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

N/A

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## **VERSION V5.0.3**

Release Date: November 01, 2022

Previous Version: 5.0.2

## **NEW FEATURES**

N/A

## **ENHANCEMENTS**

N/A

## **BUGS FIXED**

1. Fixed issue that partition mounting may fail after upgrading from RobustOS 3.x to RobustOS 5 on R3000 series, R3000-LG, R3010, and R3020 devices.

## **KNOWN BUGS & LIMITATIONS**

N/A

## **COMPATIBLE MODULES**

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## **OTHERS**

N/A

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## VERSION V5.0.2

Release Date: September 13, 2022

Previous Version: 5.0.1

## NEW FEATURES

N/A

## ENHANCEMENTS

1. Optimized the number of serial socket connections, and increase the maximum number of connections to 8.
2. Optimized the injection inspection mechanism of the URL item of the DDNS function.

## BUGS FIXED

1. Fixed issue of app startup after device reboot when IP Passthrough is enabled.

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

N/A

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## **VERSION V5.0.1**

Release Date: September 13, 2022

Previous Version: 5.0.0

## **NEW FEATURES**

N/A

## **ENHANCEMENTS**

1. Optimized R5020 configuration, set "SFE Fast" option to off by default.

## **BUGS FIXED**

N/A

## **KNOWN BUGS & LIMITATIONS**

N/A

## **COMPATIBLE MODULES**

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## **OTHERS**

N/A

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## VERSION V5.0.0

Release Date: August 10, 2022

Previous Version: N/A

## NEW FEATURES

1. Firewall IPset feature
2. GRE VPN TAP feature
3. SmartRoamingV2

## ENHANCEMENTS

1. Added support for the EC200A module
2. WireGuard support import and export configuration feature
3. Added support for selecting "Wireless mode" for R3000 WiFi devices: 11b, 11g, 11n, 11b/g/n
4. Added support for the single and double quotes for SMS testing
5. Added MTU parameter configuration and status display of WWAN interface
6. Added firewall interface rules label to prevent accidental deletion of firewall rules of other applications
7. Added APP deletion prompt
8. Added support for NTP time synchronization from LAN
9. Added NMEA sentences forwarding to server
10. Added firewall status display NAT table-related rules
11. Added Modem status to the home page
12. Added support for disabling WiFi group key update for R3000, R2000, and 151X series devices
13. Added support for millisecond level settings in the PING detection
14. Modified the "WWAN ->Data Allowance" parameter range to 0 - 2147483646
15. Modified "Link Manager-> Backup\_Link" default parameter to None
16. Optimized the operation method of restoring default configurations and restoring factory configurations
17. Optimized the running status of the language APP
18. Optimized MAC address allocation rules: WIFI MAC address is generated based on LAN0 MAC
19. Added year information to Syslog
20. Removed the E2C Broker in the firmware and integrated it into the northbound APP
21. Updated the WiFi driver of R3000 series devices
22. Updated Copyright's Year Information
23. Updated R3000 series device kernel version to 5.10.50
24. Updated dnsmasq to version 2.86
25. Updated gmp to version 6.2.1
26. Updated sqlite to version 3.37.2

27. Updated contrack-tools to version 1.4.6
28. Updated libnetfilter\_contrack to version 1.0.8
29. Updated libnetfilter\_queue to version 1.0.5
30. Updated inadyn to version 2.9.1
31. Updated json-c to version 0.15
32. Updated klish to version 1.7.1
33. Updated iptables to version 1.8.7
34. Updated lzo to version 2.10
35. Updated msmtplib to version 1.8.19
36. Updated ntp to version 4.2.8p15
37. Updated openssh to version 8.8p1
38. Updated libpcap to version 1.10.1
39. Updated ipset to version 7.15
40. Updated libxml2 to version 2.9.11
41. Updated rp-pppoe to version 3.15
42. Updated zlib to version 1.2.11
43. Updated wireguard-tools to version 1.0.20210914
44. Updated mosquitto to version 2.0.14
45. Updated coova-chilli to version 1.6
46. Updated nopoll to version 0.4.1.b265
47. Updated openhrp to version 0.14.1
48. Updated libpg-error to version 1.43
49. Updated libgcrypt to version 1.8.8
50. Updated mutt to version 2.1.5
51. Updated paho.mqtt.c to version 1.3.9
52. Updated wireless-regdb to version master-2021-08-28
53. Updated openldap to version 2.4.59
54. Updated scep to version 0.9.1
55. Updated ncurses to version 6.1
56. Updated mtd-utils to version 2.1.1
57. Updated can-utils to version 2021.08.0
58. Updated wpa\_supplicant to version 2.9
59. Updated net-snmp to version 5.9.1
60. Updated c-ares to version 1\_18\_1
61. Updated hostapd to version 2.9
62. Updated libiconv to version 1.16
63. Updated pam\_tacplus to version 1.6.1
64. Updated arptables to version 0.0.4
65. Updated dosfstools to version 4.2
66. Updated dropbear to version 2020.81
67. Updated e2fsprogs to version 1.46.5
68. Updated expat to version 2.4.2
69. Updated xl2tpd to version 1.3.17
70. Updated openvpn to version 2.5.5

## BUGS FIXED

1. Fixed CVE-2022-33329 command injections vulnerabilities of WEB Server
2. Fixed CVE-2022-33328 command injections vulnerabilities of WEB Server
3. Fixed CVE-2022-33327 command injections vulnerabilities of WEB Server
4. Fixed CVE-2022-33326 command injections vulnerabilities of WEB Server
5. Fixed CVE-2022-33325 command injections vulnerabilities of WEB Server
6. Fixed CVE-2022-33314 command injections vulnerabilities of WEB Server
7. Fixed CVE-2022-33313 command injections vulnerabilities of WEB Server
8. Fixed CVE-2022-33312 command injections vulnerabilities of WEB Server
9. Fixed CVE-2022-32585 command execution vulnerability of WEB Server
10. Fixed CVE-2022-28127 data removal vulnerability of WEB Server
11. Fixed plain text password storage
12. Fix the problem of low probability startup failure of R3000LG

## KNOWN BUGS & LIMITATIONS

N/A

## COMPATIBLE MODULES

EC25, EG25-G, EC200S, EC200T, E2000A, EC200N, ME3630, EP06, BG95, BG96, RM500Q, RM500U

## OTHERS

N/A