

# **LTE3301-PLUS**

## **Generic Version**

Firmware Release Note

V1.00(ABQU.5)C0

Date: Dec. 2 2022

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Reviewer:

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## Revision History

Date	Release	Author	Description
2022/12/02	1.29	Chin-Fu Ku	V1.00(ABQU.5)C0 fw release
2022/11/14	1.28	Chin-Fu Ku	V1.00(ABQU.5)b3 fw release
2022/08/29	1.27	Chin-Fu Ku	V1.00(ABQU.5)b2 fw release
2022/04/07	1.26	Chin-Fu Ku	V1.00(ABQU.5)b1 fw release
2021/07/23	1.25	Chin-Fu Ku	V1.00(ABQU.4)C0 fw release
2021/07/19	1.24	Chin-Fu Ku	V1.00(ABQU.4)b3 fw release
2021/06/16	1.23	Chin-Fu Ku	V1.00(ABQU.3)C1 fw release
2021/06/07	1.22	Chin-Fu Ku	V1.00(ABQU.4)b2 fw release
2021/05/13	1.21	Chin-Fu Ku	V1.00(ABQU.4)b1 fw release
2021/01/20	1.20	Chin-Fu Ku	V1.00(ABQU.3)C0 fw release
2021/01/18	1.19	Chin-Fu Ku	V1.00(ABQU.3)b1 fw release
2020/09/18	1.18	Chin-Fu Ku	V1.00(ABQU.2)C0 fw release
2020/09/11	1.17	Chin-Fu Ku	V1.00(ABQU.2)b4 fw release
2020/08/28	1.16	Chin-Fu Ku	V1.00(ABQU.2)b3 fw release
2020/07/03	1.15	Chin-Fu Ku	V1.00(ABQU.2)b2 fw release
2020/05/25	1.14	Chin-Fu Ku	V1.00(ABQU.2)b1 fw release
2020/02/25	1.13	Chin-Fu Ku	V1.00(ABQU.2)b0 fw release
2019/12/06	1.12	Chin-Fu Ku	V1.00(ABQU.1)C0 fw release
2019/12/04	1.11	Chin-Fu Ku	V1.00(ABQU.1)b4 fw release
2019/11/29	1.10	Chin-Fu Ku	V1.00(ABQU.1)b3 fw release
2019/10/17	1.9	Chin-Fu Ku	V1.00(ABQU.1)b2 fw release
2019/10/02	1.8	Chin-Fu Ku	V1.00(ABQU.1)b1 fw release
2019/09/12	1.7	Chin-Fu Ku	V1.00(ABQU.1)b0 fw release
2019/06/28	1.6	Chin-Fu Ku	V1.00(ABQU.0)c0 fw release
2019/06/21	1.5	Chin-Fu Ku	V1.00(ABQU.0)b5 fw release

2019/06/19	1.4	Chin-Fu Ku	V1.00(ABQU.0)b4 fw release
2019/05/30	1.3	Chin-Fu Ku	V1.00(ABQU.0)b3 fw release
2019/04/19	1.2	Chin-Fu Ku	V1.00(ABQU.0)b2 fw release
2019/03/05	1.1	Chin-Fu Ku	V1.00(ABQU.0)b1 fw release
2019/02/27	1.0	Chin-Fu Ku	V1.00(ABQU.0)b0 fw release

## **ZyXEL LTE3301-PLUS Generic V1.00(ABQU.5)C0**

### **Release Note**

Date: Dec. 2, 2022

### **Supported Platforms:**

ZyXEL LTE3301-PLUS

### **Versions:**

Bootbase version: U-Boot 1.1.3 (Feb 27 2019 - 10:47:36)

Firmware version: V1.00(ABQU.5)C0

Kernel version: 3.10.14

WLAN code version: V4.4.2.1\_20170829

LTE Module FW version: EG06ELAR04A04M4G

### **Firmware image information:**

Image	Version	File name	MD5 sum
Uboot Image -1: Pre- programming	U-Boot 1.1.3 (Feb 27 2019 - 10:47:367)	uboot-3301- 20190227.bin	49cbf60ebdc4a2984fd56c476609eb5f

Uboot Image-2: Zyxel uboot update		100ABQU5C0.bin	9229d7ec7c16ced1d89cfe9bdb61e1ac
<b>FW Image</b>	<b>V1.00 (ABQU.5) C0</b>	<b>100ABQU5C0.bin</b>	<b>e40194dde7485fab63a0b6863987de65</b>



## Notes:

There are two Bootbase files :

[uboot-3301-20190227.bin](#) is used for manufacturing PROGRAMMER to program on the NAND flash

[100ABQU5C0.bm](#) is for zyxel bootloader update usage, **This file with zyxel header and must not directly program to flash. Wrong action will cause the failure of boot.**

## Default Settings in Firmware

- Refer to the \*.rom in the fw release package.
- Refer to the \*.config and \*.predef for human readable default configuration.
- \*.config define the default value of writable parameters, \*.predef define the default value of read only parameters.
- Please use the website <http://jsoneditoronline.org/> to open the \*.config and \*.predef files.

## **Modifications in V1.00(ABQU.5)C0**

Change to FCS version based on 1.00(ABQU.5)b3

## **Modifications in V1.00(ABQU.5)b3**

### **[Configuration Modification]**

N/A

### **[Feature Enhancement]**

1. Systeminfo page show APN information.

### **[Issue Fix]**

1. Zyxel SI-1433 Post authentication buffer overflow.
2. [Vulnerabilities] Unsafe for SAMBA:
  - a. SAMBA shares Unsafe Symbolic Link folder
  - b. Unsafe User-Controlled Configuration Data
3. Traffic still can work even roaming disable in roaming environment.

## **Modifications in V1.00(ABQU.5)b2**

### **[Configuration Modification]**

N/A

### **[Feature Enhancement]**

1. Update the open source tool: OpenSSL from v1.1.1b to v1.1.1n.

### **[Issue Fix]**

1. The MGMT/Trust Domain setting can't be recovered after restoring the backup configuration.
2. Traffic still can ping 8.8.8.8 even if roaming disable in roaming environment.
3. Command Injection High Risk Security issue:
  - a. Double quotation mark will execute the shell command via pass phrase by system function in the end.
  - b. Rooting device via shell command injection.

## **Modifications in V1.00(ABQU.5)b1**

### **[Configuration Modification]**

N/A

### **[Feature Enhancement]**

1. Support Speed Test.
2. Support Neighbour Cells.
3. Update Italian language string.

### **[Issue Fix]**

1. Fix the USB power control issue.
2. Fix that USB no unmount cause some wrong case.
3. [Vulnerability] clear text storage of sensitive information issue.
4. [Vulnerability] Infinite loop in BN\_mod\_sqrt() of OpenSSL when parsing certificates
5. Fix the potential ping large packet issue.
6. CM loop in RS\_UPDATE state when module reset itself unexpectedly.

## **Modifications in V1.00(ABQU.4)C0**

Change to FCS version based on 1.00(ABQU.4)b3

## **Modifications in V1.00(ABQU.4)b3**

### **[Configuration Modification]**

N/A

### **[Feature Enhancement]**

1. To avoid the system password security issue. (MRD) (d599c682)
2. Support the Amazon AWS server online firmware upgrade. (61780573)

### **[Issue Fix]**

1. To bug fix the invalid character in syslog when user login timeout. (5218d2ba)
2. IP mismatch issue in some environment. (3aa050d9)
3. The WLAN scheduler scheduler is not working properly. (beba4c6a)
4. The WiFi Frag Defrag issue. (926da9c1)

## **Modifications in V1.00(ABQU.3)C1**

Change to FCS version based on 1.00(ABQU.4)b2

## **Modifications in V1.00(ABQU.4)b2**

### **[Configuration Modification]**

1. The WEB admin and supervisor default login password is stored in the MRD by random generate.

(MRD password index 1 and index 2)

2. The WiFi default password is stored in the MRD by random generate.

(MRD password index 1)

3. The root default password is stored in the MRD by random generate. (MRD password index 2)

#### **[Feature Enhancement]**

N/A

#### **[Issue Fix]**

N/A

## **Modifications in V1.00(ABQU.4)b1**

#### **[Configuration Modification]**

N/A

#### **[Feature Enhancement]**

N/A

#### **[Issue Fix]**

1. Fix the WAN fail over and fall back issue.
2. Fix the WEB GUI main page active WAN display issue.
3. Correct the typo in CardPage for the signal level: -118-->-115.
4. The WiFi guest AP issue in WLAN scheduler.

5. Special operator environment caused IP mismatch and traffic failure.
6. Trust CA subject is blank after import a Certificates.
7. [SECURITY] To upgrade opensource dnsmasq package with the patches of CVE-2020-25681~25687 security vulnerabilities.  
Update the open source tool: dnsmasq from v2.67 to v2.78.  
Update the open source tool: openssl from v1.0.1c to v1.1.1b

## **Modifications in V1.00(ABQU.3)C0**

Change to FCS version based on 1.00(ABQU.3)b1

## **Modifications in V1.00(ABQU.3)b1**

### **[Configuration Modification]**

N/A

### **[Feature Enhancement]**

N/A

### **[Issue Fix]**

1. Some special characters in the username and password may cause system crash.
2. FTP unsafe symbolic link.

## **Modifications in V1.00(ABQU.2)C0**

Change to FCS version based on 1.00(ABQU.2)b4

## **Modifications in V1.00(ABQU.2)b4**

### **[Configuration Modification]**

N/A

### **[Feature Enhancement]**

N/A

### **[Issue Fix]**

1. The User Name of User Account can be set to 1 Character, but cannot be login successfully.  
(This issue is reported in LTE5398-M904 #85)
2. Device will reboot automatically if WiFi SSID setting with command Injection and turn on the WPS function.  
(This issue is reported in LTE5398-M904 #89)
3. Fix the cannot get the DNSv6 address issue in V1.00(ABQU.2)b3.

## **Modifications in V1.00(ABQU.2)b3**

### **[Configuration Modification]**

1. Disable the Multiple-APN mode. The current APN mode is single APN mode.
2. Enable the Auto APN Multi Search feature.

### **[Feature Enhancement]**

1. Add the Russia country code setting in the WEB GUI Wireless page.

### [Issue Fix]

1. Issue #24: When user enable or disable "WMM Automatic Power Save Delivery", there will be few seconds that Wi-Fi client drop internet connection.  
**Software Response: The WEB GUI have implement the circle waiting animation during the WiFi is drop.**
2. Issue #64: After device receive one SMS message and it's wording size is over the range(GSM default alphabet 140, Unicode alphabet 70 ), that device cannot receive any incomming message. And also cannot send message.
3. Issue #65: User delete Unicode Alphabet message and disable SMS then enable SMS function, the SMS message will duplicate the first message by itself.
4. Issue #66: Device received Unicode Alphabet message in Chinese, then disable and enable SMS function, the second message stream change from qqqqqq to 007100710071.....
5. Fix the Ethernet WAN VLAN tag issue.

## Modifications in V1.00(ABQU.2)b2

### [Configuration Modification]

Change the version number from 1.00(ABQU.2)b1 to 1.00(ABQU.2)b2

### [Feature Enhancement]

1. Add Ethernet WAN VLAN tag feature.



### [Issue Fix]

1. Issue #24: When user enable or disable "WMM Automatic Power Save Delivery", there will be few seconds that Wi-Fi client drop internet connection.
2. Issue #28: After switch "WMM Automatic Power Save Delivery" several times, client cannot find Wi-Fi SSID. And the current Wi-Fi channel shows strange value.
3. Issue #32: ACS send "connection Request" to device fail.
4. Issue #33: Use curl tool to check Vulnerability of command injection...
5. The LTE CPE device will redirect the URL to https://192.168.1.1
6. Issue #37: When user operate the Nslookup, system should remind user to key in...
7. Issue #59: WiFi QR-code generate wrong pattern of 2.4G and 5G, when WiFi password is NOPQRXYZ[\]^\_`abcdefBCDEFGHIJKL.
8. Issue #61: User enable Syslog Setting, select "Local file and Remote" and also check all "Active Log". When compare web GUI logs and WAN side Wireshark logs, the WAN side Wireshark logs doesn't provide sufficient syslog information for remote user. E.g. when user select the Category with "WAN-DHCP", the web logs provides many information for user to reference, but the WAN side user doesn't have the information.
9. Issue #62: DHCP lease time is too long to wait with IP Passthrough Mode.
10. Issue #67: When Ethernet WAN fail over to Cellular WAN (Ethernet WAN backend disconnect), the WAN information still show Ethernet WAN IP on system info page.
11. Issue #68: The Parental Control function fail after Block→Allow→Block operation. It cannot limit user to visit Blocked website.

12. Issue #70: When user enable guest WiFi SSID 1~3 of 2.4G and 5G, then disable General WiFi SSID of 2.4G and 5G in "Wireless Page". The four different SSID were disabled. But at main page, the GUI switch buttons are still turn on at the "Guest WiFi Settings" of main page.
13. Issue #72: User can't disable IPPT mode if FIX mode didn't specify the MAC address.
14. Issue #73: The WiFi 5G SSID setting as "St1~!@#\$\$%^&\*()-\_+[]\{}|,./'<?a", the broadcast SSID will display incorrectly as "St1~!@#\$\$%^&\*()-\_+[]\{}|,./'<?a". The rest SSID ",./'<?a" is disappeared. This situation doesn't happen on WiFi 2.4G SSID.

## **Modifications in V1.00(ABQU.2)b1**

### **[Configuration Modification]**

Change the version number from 1.00(ABQU.2)b0 to 1.00(ABQU.2)b1

### **[FEATURE ENHANCEMENT]**

N/A

### **[BUG FIX]**

1. Issue #29: When Ethernet Wan only, the GUI show wrong wording.(1000/FULL)
2. Issue #38: "SMS Inbox Enable" issue.
3. Issue #39: Under dual APN and EtherWAN condition, when EtherWAN drop, major WAN become Dual APN and major WAN is APN1. After EtherWAN back, major WAN is still APN1.
4. Issue #50: Multiple remote management issue under the setting of Multi-WAN (Cellular-APN1 and Cellular-APN2, enable backup EtherWAN )

5. QR-code generated incorrectly

## **Modifications in V1.00(ABQU.2)b0**

### **[Configuration Modification]**

1. Change the version number from 1.00(ABQU.1)C0 to 1.00(ABQU.2)b0
2. Add multiple APN setting.
3. Add SMS setting.

### **[FEATURE ENHACEMENT]**

1. Add multiple APN feature.
2. Add SMS feature.

### **[BUG FIX]**

1. Fix the Ticket #200200305 LTE3301-PLUS / Dynamic DNS problem.
2. WebGUI display wired connected device under IP Passthrough mode.
3. WEB GUI can show SCC information.
4. USB LED display.
5. Command injection in Wifi SSID parameter setting.
6. QR-code generated incorrectly

## **Modifications in V1.00(ABQU.1)C0**

### **[Configuration Modification]**

Change the version number from 1.00(ABQU.1)b4 to 1.00(ABQU.1)C0

**[FEATURE ENHACEMENT]**

N/A

**[BUG FIX]**

N/A

## **Modifications in V1.00(ABQU.1)b4**

**[Configuration Modification]**

N/A

**[FEATURE ENHACEMENT]**

N/A

**[BUG FIX]**

1. #35: HW WPS is C8fail. User presses WPS button for the pressing for than 2 times, it will trigger the device reset event. SW WPS function is okay.
2. #36: HW reset button is fail. User presses reset button over 5s, system can't be reset.

## **Modifications in V1.00(ABQU.1)b3**

**[Configuration Modification]**

Change the version number from 1.00(ABQU.1)b2 to 1.00(ABQU.1)b3

**[FEATURE ENHACEMENT]**

1. Add multi-language support for:

en: "English"  
tr: "Turkish",  
pt: "Portugu&#234s",  
it: "Italiano",  
cz: "Čeština",  
nl: "Netherlands",  
ru: "Russian",

2. Add WAN fail over and fail back control by WEB GUI.  
This function will active when Ethernet WAN is enabled.
3. Add Multi-SSID function for WiFi.

## **Modifications in V1.00(ABQU.1)b2**

### **[Configuration Modification]**

Change the version number from 1.00(ABQU.1)b1 to 1.00(ABQU.1)b2

### **[FEATURE ENHACEMENT]**

N/A

### **[BUG FIX]**

The WAN fail over can not work when the ethernet WAN internet connection is back.

## **Modifications in V1.00(ABQU.1)b1**

### **[Configuration Modification]**

Change the version number from 1.00(ABQU.1)b0 to 1.00(ABQU.1)b1.

**[FEATURE ENHACEMENT]**

The WAN fail over check mechanism changed from pinging the default DNS server to pinging specific sites in internet.

**[BUG FIX]**

N/A

## **Modifications in V1.00(ABQU.1)b0**

**[Configuration Modification]**

Change the version number from 1.00(ABQU.0)c0 to 1.00(ABQU.1)b0.

**[FEATURE ENHACEMENT]**

1. Add WAN fail over between Cellular WAN and Ethernet WAN by check the connectivity.

**[BUG FIX]**

N/A

## **Modifications in V1.00(ABQU.0)c0**

**[Configuration Modification]**

Only change the version number from 1.00(ABQU.0)b5 to

1.00(ABQU.0)c0.

**[FEATURE ENHACEMENT]**

N/A

**[BUG FIX]**

N/A

## **Modifications in V1.00(ABQU.0)b5**

**[Configuration Modification]**

N/A

**[FEATURE ENHACEMENT]**

1. Enhance the CPU usage for WLAN driver.

**[BUG FIX]**

2. The Power LED is continuous blinking after the device is boot up.

## **Modifications in V1.00(ABQU.0)b4**

**[Configuration Modification]**

1. Enable URL filter.
2. Enable WLAN Station Status.

### **[FEATURE ENHACEMENT]**

N/A

### **[BUG FIX]**

1. LTE3301-PLUS #20[LED][Major]:  
System Info GUI Cellular Bar show 4 bars at main page, when user access System Info GUI Cellular Bar show 3 bars.
2. LTE3301-PLUS #22[LED][Major]:  
When Wi-Fi 2.4G and 5G or 2.4G only or 5G only, LED indicator doesn't fast blinking when TX/RX.
3. LTE3301-PLUS #15[WiFi][Major]:  
HW WPS for 2.4G and 5G function fail.
4. LTE3301-PLUS [LED][Major]:  
The LTE/4G/3G Signal Strength LED show incorrect color according to RSRP/RSRI  
RSRP for 4G signal strength.

## **Modifications in V1.00(ABQU.0)b3**

### **[Configuration Modification]**

1. Enable WLAN scheduler.

### **[FEATURE ENHACEMENT]**

N/A

### **[BUG FIX]**

1. LTE3301-PLUS #6[LED][Major]:



When LTE WAN Data Transmitting/Receiving the "internet" LED doesn't blinking, but "LTE" LED is always blinking.

2. LTE3301-PLUS #7[LED][Major]:

After enable IP Passthrough, the LTE LED indicator is turn off.

3. LTE3301-PLUS #10[GUI][Major]:

When LTE signal  $\leq -120\text{dBm}$ , the "Cellular WAN" GUI show full bar.

4. LTE3301-PLUS #11[GUI][Major]:

When emulator DL power is  $-70\text{dBm}$ , the main page "Cellular Info" signal strength show "-84", after user access "Cellular Info page" RSRP become "-108".

5. LTE3301-PLUS #12[GUI][Major]:

After FW upgrade V1.00(ABQU.0)b2 to V1.00(ABQU.0)b2, GUI doesn't navigate to login page.

6. LTE3301-PLUS #13[LED][Major]:

When Ethernet WAN only, the Internet and LTE LED is disappear. And Signal LED blinking with red color.

7. LTE3301-PLUS #15[WiFi][Major]:

HW WPS for 2.4G and 5G function fail.

8. LTE3301-PLUS #16[WiFi][Major]:

SW WPS Method 2 PIN malfunction.

9. LTE3301-PLUS #17[WiFi][Major]:

SWWPS Method 3 malfunction.

10. LTE3301-PLUS #18[USB file sharing][Major]:

Client cannot upload file to USB device.