

**Product:** RTL8712(8188\_8191\_8192SU) USB Software  
Package - Linux Driver  
**Version:** V2.6.6.0.20120403

### **Description:**

Realtek provides the solution for WLAN in hardware and software. The software package could be adopted in Realtek demoboard in the Linux platform.

### **Software Version:**

WLAN USB Linux Driver rtl8712\_8188\_8191\_8192SU\_usb\_linux\_v2.6.6.0.20120403

### **Firmware Version:**

Firmware is embedded in the WLAN USB driver. The firmware version of this release is 120403.

### **Hardware Supported:**

Realtek RTL8712 USB demo board:

- RTL8712 – SoC, including a CPU, one 802.11b/g/n MAC/Baseband/RF controller with PA for the USB interface.

### **Hardware Limitation:**

- Couldn't support SoftAP mode.
- Couldn't support WiFi-Direct.

### **Platform Supported:**

- LINUX (kernel 2.6.18 ~ 2.6.38 and kernel 3.0.2)
- Android 1.6 ~ 2.3, 4.0

### **Software Package Feature:**

- IEEE 802.11 b/g/n WiFi compliant
- 802.1x, WEP, WPA TKIP and WPA2 AES/Mixed mode for PSK and TLS (Radius)
- Wireless Auto-channel selection
- IEEE 802.11b/g/n client mode
  - Support Ad-hoc and infrastructure mode with roaming capability
  - Support wireless security for WEP, WPA TKIP and WPA2 AES PSK
  - Support site survey scan and manual connect
  - Support WPA/WPA2 TLS client

### **Release History:**

V1.0.0001 – 2009/01/21	1. First Released
------------------------	-------------------

	<ol style="list-style-type: none"> <li>only supports USB interface</li> <li>add features about 802.11n draft 2.0</li> <li>RX-AMSDU (4K, 8K)</li> <li>currently only supports 20MHz BW</li> </ol>
V2.0.0001 – 2009/4/27	<ol style="list-style-type: none"> <li>WiFi 11n-Certificated</li> <li>Supported 20/40 MHz BW Switching</li> <li>Supported Fedora 10</li> </ol>
V2.6.0001 – 2009/9/30	<ol style="list-style-type: none"> <li>Add Rx_BH</li> <li>Add Tx_BH</li> <li>Fixed system hung up issue when cancel rx timer.</li> </ol>
V2.6.0005 – 2009/10/13	<ol style="list-style-type: none"> <li>put usb rx aggregation to the rx_bh</li> <li>support Rx TCP_CSUM_OFFLOAD</li> <li>fixed ping issue on DMP Platform with D-LINK DIR655 AP</li> <li>To report encryption_cap. When wpa_supplicant &amp; Network Management require</li> </ol>
V2.6.0005 – 2009/11/12	<ol style="list-style-type: none"> <li>fixed ad-hoc issue when using Network Manager</li> <li>update fw to fixed long run testing issue</li> </ol>
V2.6.0005.p1 – 2009/11/12	<ol style="list-style-type: none"> <li>Fixed the power saving issue.</li> </ol>
V2.6.0005.p2 – 2009/11/12	<ol style="list-style-type: none"> <li>support high power mode</li> </ol>
V2.6.0005.p3 – 2009/11/12	<ol style="list-style-type: none"> <li>Added a script to clean the r8192s_usb driver for avoiding the conflict that 8712u and r8192s_usb drivers are running at the same time.</li> <li>Updated the thread_enter function for some SDIO bugs.</li> </ol>
V2.6.0005.p4 – 2009/11/12	<ol style="list-style-type: none"> <li>Added two VID/PIDs into supporting list.</li> </ol>
V2.6.0005.20100105	<ol style="list-style-type: none"> <li>Added two VID/PIDs into supporting list.</li> </ol>
V2.6.0005.20100106	<ol style="list-style-type: none"> <li>Fixed the compiling error under kernel 2.6.18. ( Fedora 6 )</li> </ol>
V2.6.0005.20100121	<ol style="list-style-type: none"> <li>Added one VID/PID into supporting list.</li> </ol>
V2.6.0005.20100126	<ol style="list-style-type: none"> <li>Added one VID/PID into supporting list.</li> </ol>
V2.6.0006.20100202	<ol style="list-style-type: none"> <li>Updated VID/PID table</li> <li>Refine the Tx/H2C mechanism on USB single or multiple 64/512 bytes case.</li> <li>Added the Software LED control</li> <li>Fixed the ESSID bug under 2.6.19.2</li> <li>Fixed the ad-hoc bug when switching the security</li> <li>Improved the interoperability and dynamic algorithm</li> </ol>
V2.6.0006.20100226	<ol style="list-style-type: none"> <li>Fixed the crash issue on mstar platform.</li> <li>Correct the signal strength.</li> <li>Support the video mode.</li> <li>Improved the interoperability and dynamic algorithm.</li> <li>Fixed the adhoc master problem.</li> </ol>
V2.6.0006.20100409	<ol style="list-style-type: none"> <li>Fixed the big endian issue for software WEP/TKIP encryption/decryption.</li> <li>Fixed the crash issue when users unplug the usb dongle or remove the driver from system.</li> <li>Improve the AMSDU throughput.</li> <li>Added the error handling in site survey function.</li> <li>Corrected the LED behavior.</li> <li>Improve interoperability.</li> </ol>
V2.6.0006.20100430	<ol style="list-style-type: none"> <li>Added the version.h file in the include folder.</li> <li>Added more PID/VID into supporting list.</li> <li>Fixed the big endian issue in WPA-PSK TKIP mode with</li> </ol>

	Linksys WRH54G AP. 4. Improve the interoperability for high performance APs. 5. Fixed the AP Tx fragment issue.
V2.6.0006.20100507	1. Supported using the mac address which users specify.
V2.6.0006.20100511	1. Supported the kernel 2.6.32. 2. Improved the throughput on specific platforms.
V2.6.0006.20100601	1. Fixed some WPS IOT issue with Corega AP and Netgear AP. 2. Improved the throughput on specific platforms. 3. Fixed potential redefinition error with kernel 2.6.18. 4. Fixed the bug which it is hard to get IP from Netgear AP. 5. Driver will show up the driver version information when it is inserted into the system. 6. Improved the keep alive function with Netgear WNR2000 AP.
V2.6.6.0.20100617	1. Rename the version rule to v6.0 2. Fixed the IOT connection issue with Netgear 3700 3. Fixed the potential crash issue when connecting to the Linksys 350N.
V2.6.6.0.20100623	1. Driver will use the bg mode to connect to the WEP mode AP.
V2.6.6.0.20100625	1. Updated the mechanism to compute the link quality. 2. Use the percentage format for signal strength and link quality display.
V2.6.6.0.20100823	1. Fixed the connection problem when the adhoc SSID is the same as the existing AP's SSID. 2. The firmware will send the de-authentication to AP if the WiFi dongle thinks the AP had disappeared. 3. The firmware will send more NULL data packet to check the current network (AP) is alive or not.
V2.6.6.0.20100930	1. Fixed the BitRate information when using the iwconfig. 2. Added the Realtek GPL license.
V2.6.6.0.20101111	1. Added Android support 2. Updated VID/PID table
V2.6.6.0.20101224	1. Update firmware to 516 2. Use stack instead of heap for usbctrl_vendorreq's buffer use 3. Modify Makefile and add Kconfig to Support builtin & module build under kernel tree 4. Fix the Android private wifi ioctl SCAN-ACTIVE, SCAN-PASSIVE 5. Fix the connect/disconnect looping problem on Android.
V2.6.6.0.20110401	1. Updated the wpa_cli_with_wpa_suppllicant_20110401.doc 2. Updated the optimize parameter of Makfile of wpa_suppllicant 3. Reduce the Rx buffer size to avoid the long run WiFi issue on mstar platform. 4. Fixed the compile error on kernel 2.6.37. 5. Added the WPS cancel function. 6. Added the channel plan.
V2.6.6.0.20110908	1. Passed the WiFi 11n logo. 2. Driver will inform the wpa_suppllicant when complete the scanning.
V2.6.6.0.20120403	1. Support NL80211 interface 2. Add android_reference_code_ICS to support Android 4.x