Realtek WLAN Driver Option Setting Guide

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Introduction

Some features of Realtek WLAN Linux driver could be configured. Please follow the directions to configure driver before compiling.

The most used files to configure diver are “Makefile” and “autoconf.h”. The “autoconf.h” file here is “include/autocon.h” for single release package, or “autoconf_[chip]_[interface]_linux.h” (ex. autoconf_rtl8723a_sdio_linux.h”) for compound release package.

Configurable Options

1. API interface

Realtek WLAN Linux driver support two API interface, wireless extension(wext) and nl80211(cfg80211). Modify “autoconf.h” to select which API interface is supported.

Enable nl80211(cfg80211) API interface support

Open “CONFIG_IOCTL_CFG80211” define in “autoconf.h”.

#define CONFIG_IOCTL_CFG80211 1

In SDIO case

```
42 /*↓
43  * Functions Config↓
44  */↓
45 #define CONFIG_80211N_HT 1↓
46 #define CONFIG_RECV_REORDERING_CTRL 1↓
47 #define CONFIG_IOCTL_CFG80211 1 // enable this will disable wext ioctl support↓
48 ↓
49 #define CONFIG_AP_MODE  1↓
50 #define CONFIG_NATIVEAP_MLME    1↓
```

Figure 1. Support nl80211(cfg80211) in SDIO case

In USB case

```
41 /*↓
42  * Functions Config↓
43  */↓
44 #define CONFIG_80211N_HT        1↓
45 #define CONFIG_RECV_REORDERING_CTRL     1↓
46 ↓
47 ↓
48 #define SUPPORT_HW_RFOFF_DETECTED       1↓
49 ↓
50 #define CONFIG_AP_MODE  1↓
51 #define CONFIG_NATIVEAP_MLME    1↓
52 ↓
53 ↓
54 //#define CONFIG_P2P    1↓
55 ↓
56 #define CONFIG_IOCTL_CFG80211 1 // enable this will disable wext ioctl support↓
57 ↓
```

Figure 2. Support nl80211(cfg80211) in USB case

Enable Wireless Extension(wext) API interface support

Remove “CONFIG_IOCTL_CFG80211” define in “autoconf.h”.

//#define CONFIG_IOCTL_CFG80211 1

In SDIO case

```
/*
 * Functions Config
 */
#define CONFIG_80211N_HT 1
#define CONFIG_RECV_REORDERING_CTRL 1
//#define CONFIG_IOCTL_CFG80211 1       // enable this will disable wext ioctl support
#define CONFIG_AP_MODE  1
#define CONFIG_NATIVEAP_MLME    1
```

Figure 3. Support wext in SDIO case

In USB case

```
/*
 * Functions Config
 */
#define CONFIG_80211N_HT        1
#define CONFIG_RECV_REORDERING_CTRL     1


#define SUPPORT_HW_RFOFF_DETECTED       1

#define CONFIG_AP_MODE  1
#define CONFIG_NATIVEAP_MLME    1


//#define CONFIG_P2P    1

//#define CONFIG_IOCTL_CFG80211 1       // enable this will disable wext ioctl support

```

Figure 4. Support wext in USB case

2. Power Saving

Enable or Disable Power Saving mechanism by changing variable "CONFIG_POWER_SAVING" in "Makefile". "CONFIG_POWER_SAVING = y" is enable, otherwise "CONFIG_POWER_SAVING = n" is disable.

```
31 CONFIG_MP_INCLUDED = n
32 CONFIG_POWER_SAVING = y
33 CONFIG_USB_AUTOSUSPEND = n
34 CONFIG_HW_PWRP_DETECTION = n
35 CONFIG_WIFI_TEST = n
36 CONFIG_BT_COEXIST = n
37 CONFIG_RTL8192CU_REDEFINE_1X1 = n
38 CONFIG_INTEL_WIDI = n
```

Figure 5. Support Power Saving

3. BT Coexistence

8723A support BT Coexistence mechanism, and this feature could be configured by "CONFIG_BT_COEXIST" in "Makefile".
"CONFIG_BT_COEXIST = y" means BT Coexistence mechanism is enable, otherwise "CONFIG_BT_COEXIST = n" is not support.

```
31 CONFIG_MP_INCLUDED = n
32 CONFIG_POWER_SAVING = y
33 CONFIG_USB_AUTOSUSPEND = n
34 CONFIG_HW_PWRP_DETECTION = n
35 CONFIG_WIFI_TEST = n
36 CONFIG_BT_COEXIST = y
37 CONFIG_RTL8192CU_REDEFINE_1X1 = n
38 CONFIG_INTEL_WIDI = n
```

Figure 6. Support BT Coexistence