Quick Start Guide for ETSI Adaptivity and Carrier Sensing Test
ver. 1.0.1

Contents

Release History

1.0.0	2014/09/26	1.	Add documentation for ADAPTIVITY_VERSION 7.0, 7.1, 7.2
1.0.1	2018/09/28	2.	Add periodic idle time declaration.

1. **Introduction**

   Realtek Wi-Fi solutions support both ETSI Adaptivity test and Carrier Sense test. This document describes ways to configure Wi-Fi driver for the corresponding test and simple debug methods.

   ※ The test item "periodic idle time" can be skipped by a declaration document from chip vendor. Please get the document from chip vendor for Certification Lab reference **Before** starting test.

   ※ According to the test requirement, the Wi-Fi performance will drop at interfering environment. Please enable this function only when you really need it.

2. **Driver configuration**

   There are 2 configuration arguments in Makefile to control:
   - **CONFIG_RTW_ADAPTIVITY_EN**
     - **disable**

       Disable adaptivity function
     - **enable**

       Enable adaptivity function

   - **CONFIG_RTW_ADAPTIVITY_MODE**
     - **normal**

       For ETSI adaptivity test
     - **carrier_sense**

       For carrier sense test

3. **Driver configuration – disable (default setting)**

   To disable Realtek adaptivity function (also the default setting of these 2 configuration arguments):

   ```
   CONFIG_RTW_ADAPTIVITY_EN = disable
   CONFIG_RTW_ADAPTIVITY_MODE = normal
   ```

   Check the configuration arguments through driver's proc interface at runtime:

```
# cat /proc/net/rtl8723bs/wlan0/odm/adaptivity
ADAPTIVITY_VERSION 7.2
RTW_ADAPTIVITY_EN_DISABLE
RTW_ADAPTIVITY_MODE_NORMAL
RTW_ADAPTIVITY_DML_DISABLE
TH_L2H_ini TH_EDCCA_HL_diff IGI_Base ForceEDCCA AdapEn_RSSI IGI_LowerBound
0xf5        7                0x32      0          20          0
```

4. Driver configuration – enable for ETSI Adaptivity test

If your product needs to fit the requirement of ETSI Adaptivity test:

```
CONFIG_RTW_ADAPTIVITY_EN = enable
CONFIG_RTW_ADAPTIVITY_MODE = normal
```

Check the configuration arguments through driver's proc interface at runtime:

```
# cat /proc/net/rtl8723bs/wlan0/odm/adaptivity
ADAPTIVITY_VERSION 7.1
RTW_ADAPTIVITY_EN_ENABLE
RTW_ADAPTIVITY_MODE_NORMAL
RTW_ADAPTIVITY_DML_DISABLE
TH_L2H_ini TH_EDCCA_HL_diff IGI_Base ForceEDCCA AdapEn_RSSI IGI_LowerBound
0xf5        7                0x32      0          20          0
```

5. Driver configuration – enable for Carrier Sense test

If your product needs to fit the requirement of Carrier Sense test:

```
CONFIG_RTW_ADAPTIVITY_EN = enable
CONFIG_RTW_ADAPTIVITY_MODE = carrier_sense
```

Check the configuration arguments through driver's proc interface at runtime:

```
# cat /proc/net/rtl8723bs/wlan0/odm/adaptivity
ADAPTIVITY_VERSION 7.1
RTW_ADAPTIVITY_EN_ENABLE
RTW_ADAPTIVITY_MODE_CARRIER_SENSE
RTW_ADAPTIVITY_DML_DISABLE
TH_L2H_ini TH_EDCCA_HL_diff IGI_Base ForceEDCCA AdapEn_RSSI IGI_LowerBound
0xf5        7                0x32      0          20          0
```