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
```