Wireless USB Module User's Manual

Rev 1

Hak C. Sok

1   Introduction

This document describes the system operation of a Wireless USB Module, as well as driver installation and the use of control software.

2   System Operation

2.1 General Description

Wireless USB Module is a UWB module. It can be used in various UWB applications, such as 4-port HWA and WUSB docking station.

2.2 System Block Diagram (with a Carrier Board)

The following figure shows the system block diagram of a Wireless USB Module and a carrier board. It accepts +5V from a power adapter or +5V from USB device and converts it to various voltages required by the MAC-PHY chip.

Only one crystal is used in the system, which is 66MHz. The system is designed to support both BG1 and BG3 UWB bands as defined in the WiMedia standard.
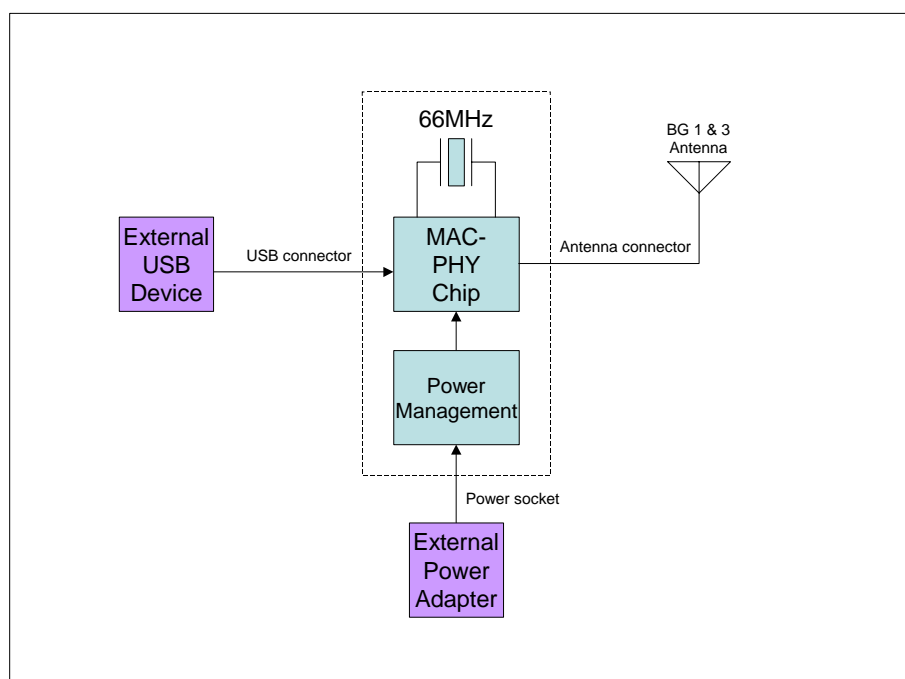
2.3 Connector Location
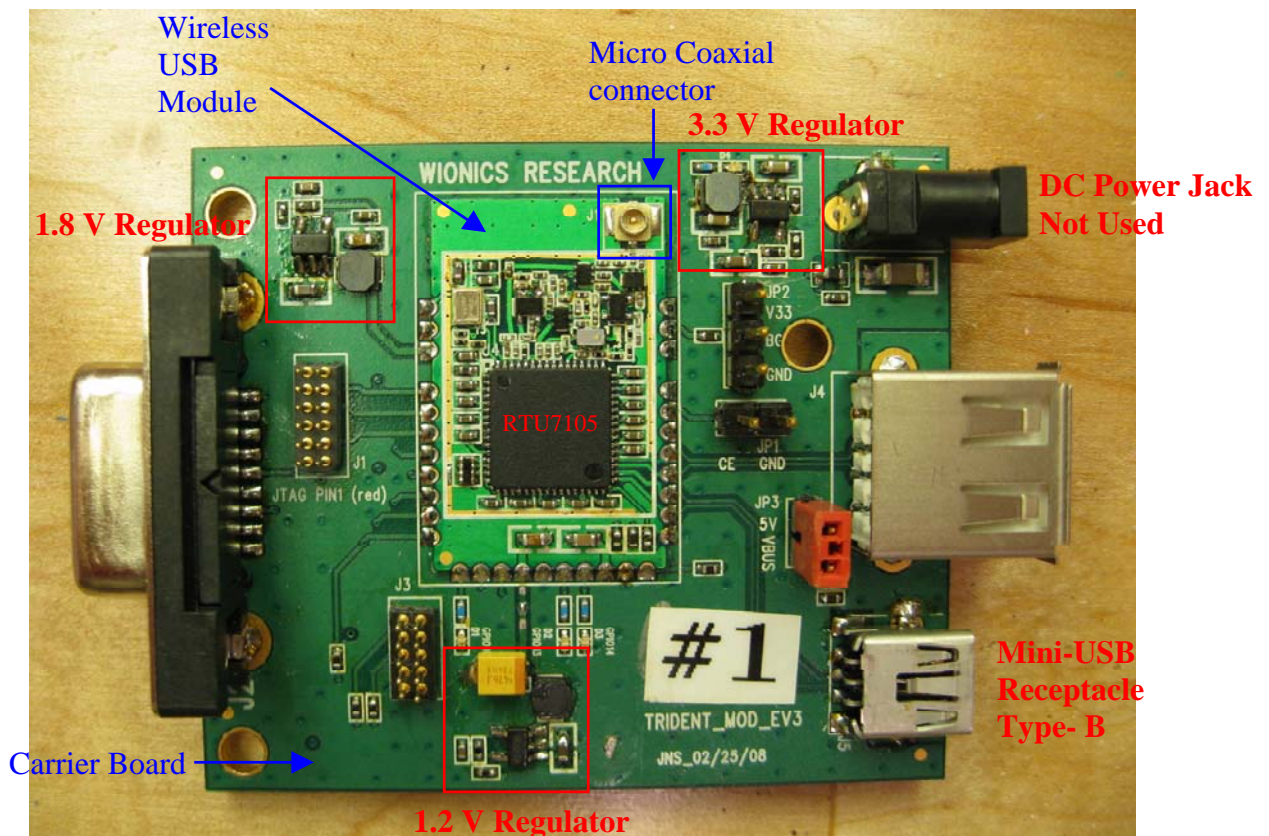
3   Driver Installation

3.1.Setup the USB connection between the PC and Wireless USB Module.

3.2.Power up Wireless USB Module by inserting the connection between the mini-USB receptacle and the PC. The mini-USB supplies the +5Vdc to the three regulators on the carrier board, which then convert it to various voltages required by the MAC-PHY chip.

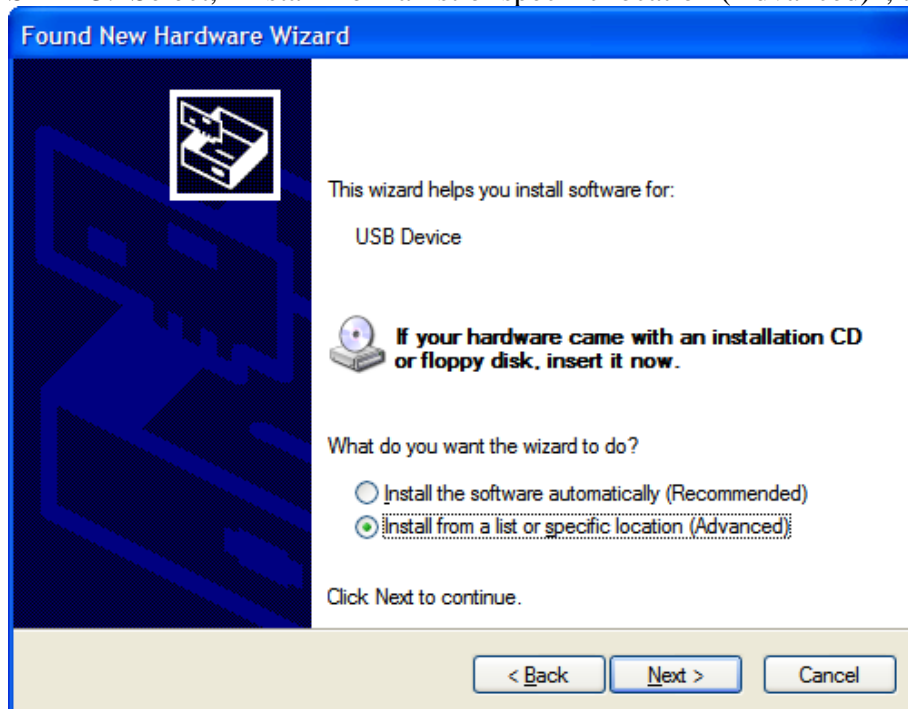3.3.Follow the steps below for the driver installation process.

STEP 1. After plugged in the mini-USB connector, Windows will prompt to install driver for the Found New Hardware Wizard.
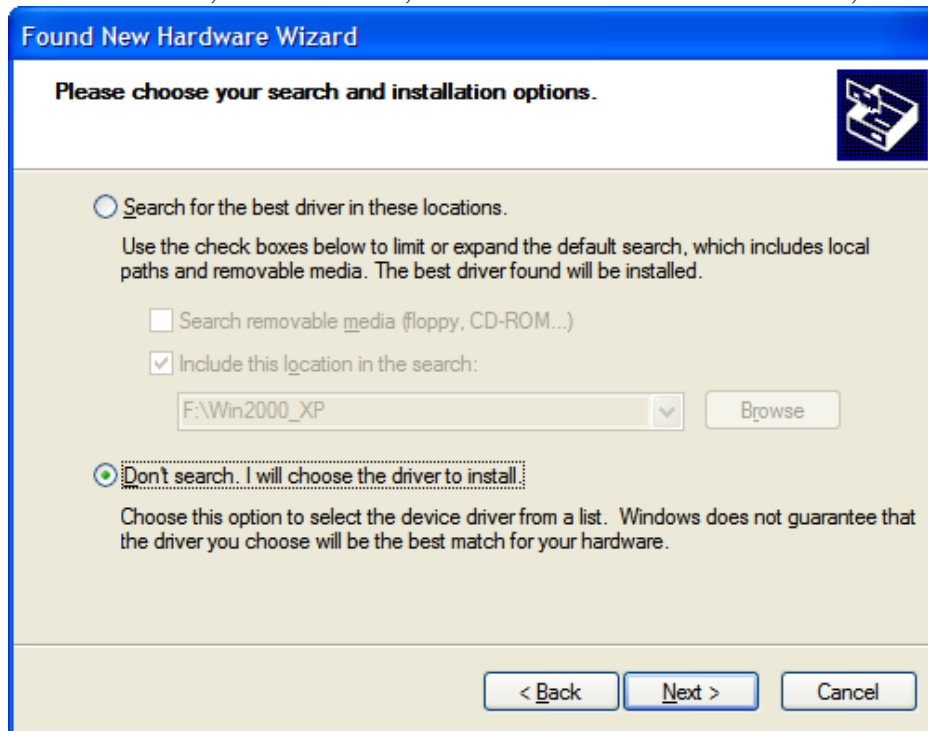

3

STEP 2. Select, "No, not this time", then "Next".

Found New Hardware Wizard

Welcome to the Found New Hardware Wizard

Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy

Can Windows connect to Windows Update to search for software?

○ Yes, this time only
○ Yes, now and every time I connect a device
⦿ No, not this time

Click Next to continue.

< Back   Next >   Cancel

STEP 3. Select, "Install from a list or specific location (Advanced)", then "Next".

Found New Hardware Wizard

This wizard helps you install software for:

USB Device

If your hardware came with an installation CD or floppy disk, insert it now.

What do you want the wizard to do?

○ Install the software automatically (Recommended)
⦿ Install from a list or specific location (Advanced)

Click Next to continue.

< Back   Next >   Cancel

STEP 4. Select, "Don't search, I will choose the driver to install", then "Next".

STEP 5. Select, "Next".

Wireless USB Module_User'sManual_Rev1.doc
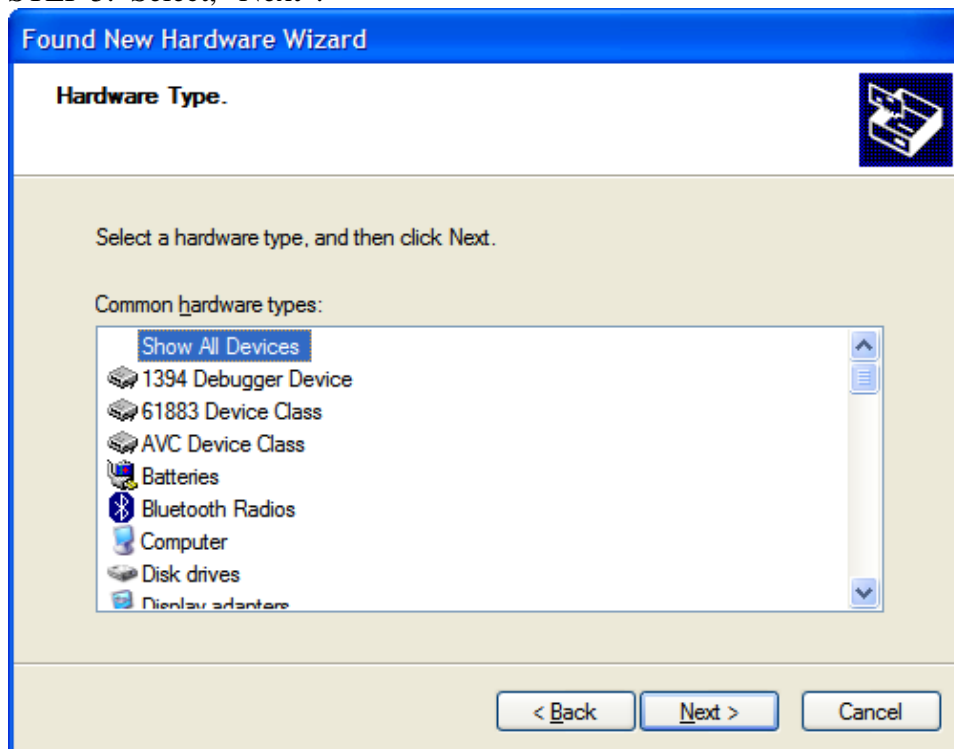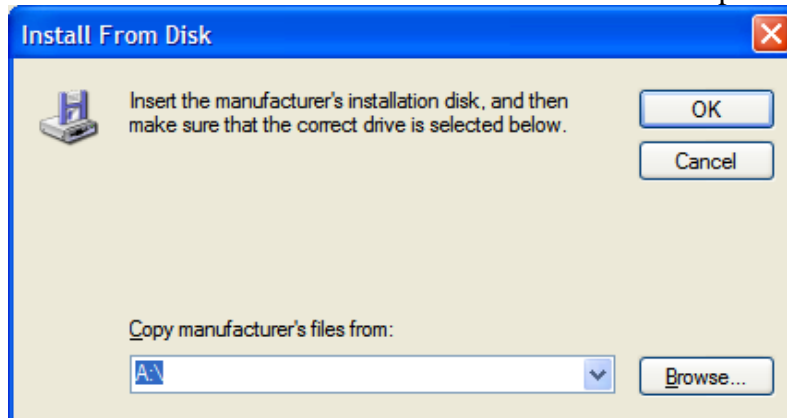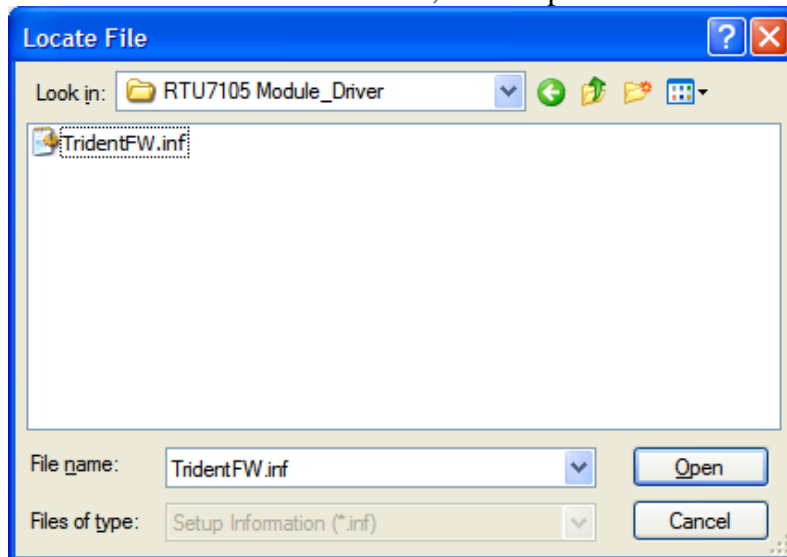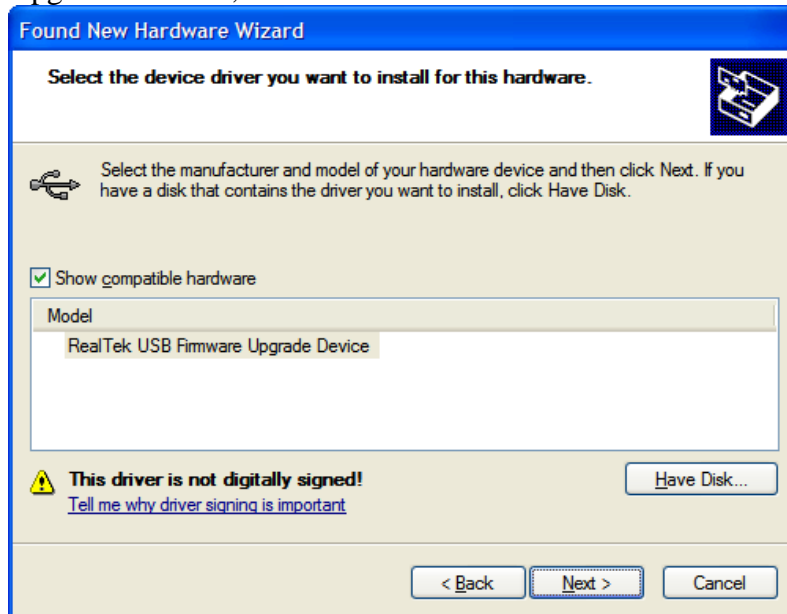
STEP 6. Select, "Have Disk".
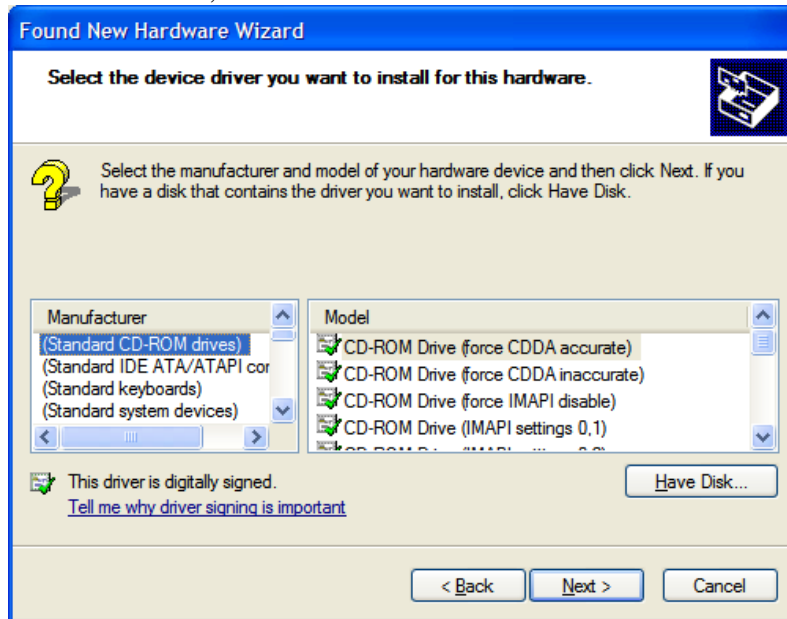
STEP 7. Select "Browse" to search for the driver in a specific folder.
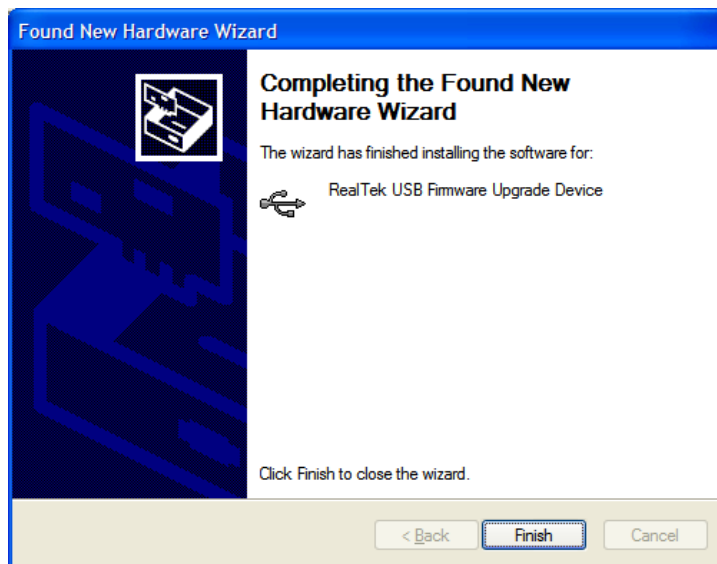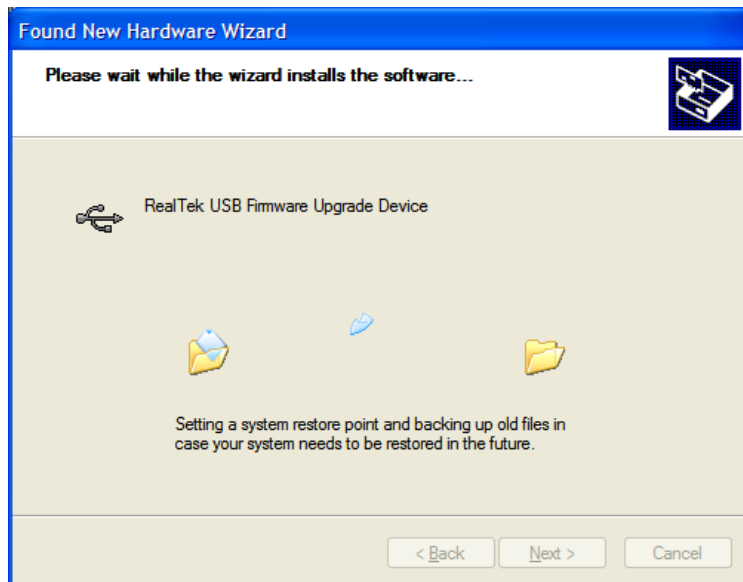

STEP 8. Select "TridentFW.inf", then "Open".

STEP 9. After selecting "TridentFW.inf" it shows the driver name call "RealTek USB Firmware Upgrade Device", then "Next".

STEP 10. Please ignore all the warning messages generated by Windows and keep installing the driver by selecting the button, "Continue Anyway".

3.4. Once the previous driver has been installed, Windows will prompt to install another driver for "Generic Cable Association Device for WUSB". Please cancel the installation of this driver. It is not required for the control software.

4 The Control Software

4.1 Startup procedure of the control software – Wireless USB Module

1. Setup the USB connection between the PC and Wireless USB Module.
2. Power up Wireless USB Module by connecting mini-USB receptacle to PC.
3. Complete the USB driver installation process.
4. Activate Wireless USB Module by double-clicking the "TridentTest.exe" icon. The following window called "RTU7105 Test Utility" should pop up showing the proper execution of Wireless USB Module.

Wireless USB Module_User'sManual_Rev1.doc
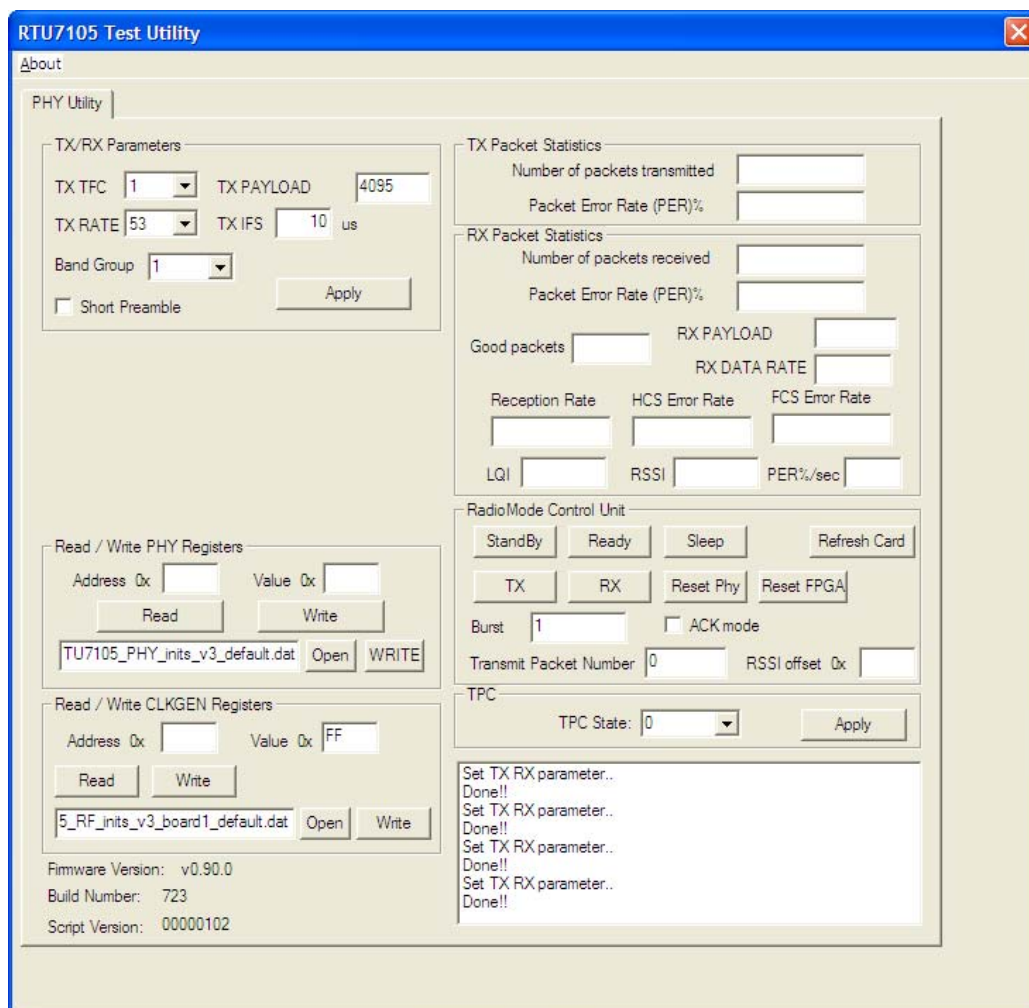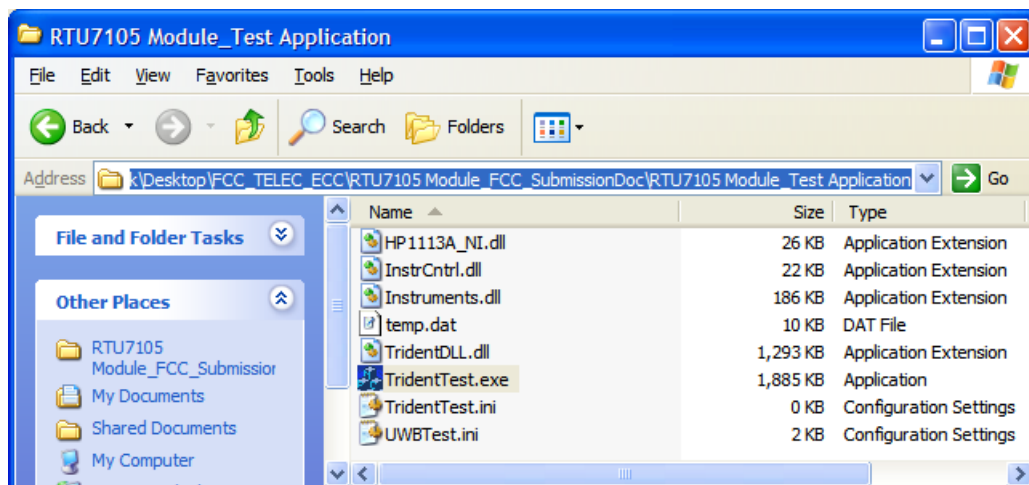
4.2 Control procedure for BG1 or BG3

1. Set "TX PAYLOAD" to 4095.
2. Set "TX IFS" to 10.
3. Select proper options for "TX TFC" (Valid: 1~10) and "TX RATE".
4. Click "TX/RX Parameters" field's "Apply" button to activate the above settings.
5. Select "Band Group 1"/ "Band Group 3" option, depending on which BG is being tested, and proper EUT number (according to the marking on the EUT) in the "Band Group" field.
6. Click "TX" button once to start the transmission.

9