Wireless USB Module User's Manual

Rev 1

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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.
- 3.3.Follow the steps below for the driver installation process. TEP 1 After plugged in the mini USB connector. Windows will prompt to

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



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Found New Hardware Wizard			
Wind new nationate with the found in the			
< <u>B</u> ack <u>N</u> ext > Cancel			

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

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



STEP 4.	Select.	"Don	t search.	I wi	ll choose	e the	driver to	install".	. then	"Next".
	~~~~~~,								,	

Found New Hardware Wizard
Please choose your search and installation options.
○ <u>S</u> earch for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
✓ Include this location in the search:
F:\Win2000_XP Browse
Ont search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< <u>B</u> ack <u>N</u> ext > Cancel

### STEP 5. Select, "Next".

Found New Hardware Wizard			
Hardware Type.			
Select a hardware type, and then click Ne Common <u>h</u> ardware types:	ođ.		
Show Al Devices Show Al Debugger Device Solution of the second			
	< <u>Back</u> <u>N</u> ext > Cancel		

STEP 6.	Select,	"Have	Disk".
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Found New Hardware Wizard			
Select the device driver you want to install for this hardware.			
Select the manufacturer an have a disk that contains the	d model of your hardware device and then click Next. If you ne driver you want to install, click Have Disk.		
Manufacturer (Standard CD-ROM drives) (Standard IDE ATA/ATAPI cor (Standard keyboards) (Standard system devices) This driver is digitally signed. Tell me why driver signing is imp	Model		
	< <u>B</u> ack <u>N</u> ext > Cancel		

STEP 7. Select "Browse" to search for the driver in a specific folder.



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

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

Found New Hardware Wizard			
Select the device driver you want to install for this hardware.			
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.  Show compatible hardware			
Model			
RealTek USB Firmware Upgrade Device			
This driver is not digitally signed! <u>Have Disk      Tell me why driver signing is important</u>			
< <u>B</u> ack Next > Cancel			

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

Hardwa	re Installation
<u>.</u>	The software you are installing for this hardware: RealTek USB Firmware Upgrade Device has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway

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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.

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### 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.

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