

# **Bluetooth USB Adapter**

## **Parani-UD100**

### **User Guide**

**Revision 0.1**

**2008-11-25**

## User Guide for the Parani-UD100

Revision 1.0.1  
Firmware version 1.0.X  
Printed in Korea

### Copyright

Copyright 2008, Sena Technologies, Inc. All rights reserved.  
Sena Technologies reserves the right to make changes and improvements to its product without providing notice.

### Trademark

Parani™ is a trademark of Sena Technologies, Inc.  
Windows® is a registered trademark of Microsoft Corporation.  
Ethernet® is a registered trademark of XEROX Corporation.

### Notice to Users

When a system failure may cause serious consequences, protecting life and property against such consequences with a backup system or safety device is essential. The user agrees that protection against consequences resulting from system failure is the user's responsibility.

This device is not approved for life-support or medical systems.

Changes or modifications to this device not explicitly approved by Sena Technologies will void the user's authority to operate this device.

### Precautions and Safety

Do not drop or subject the device to impact. Damage to your products may result from improper use.

Keep away from harsh environments including humid, dusty, and smoky areas. Damage to your products may result from improper use.

Do not use excessive force on the buttons or attempt to disassemble the device. Damage to your products may result from improper use.

Do not place heavy objects on the product. Damage to your products may result from improper use.

### Revision History

Revision	Date	Name	Description
V0.1	2008-11-25	Marc Woo	Initial Writing

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# 1. Introduction

## 1.1. Overview

Thank you for purchasing Parani-UD100. Parani-UD100 is a Bluetooth-USB adapter with replaceable external antenna. Parani-UD100 supports Bluetooth 2.0+EDR class 1 with working distance up to 100 meters. In addition, working distance can be further extended using optional dipole or patch antennas. Parani-UD100 supports USB 2.0 for the computer interface and can be used with Windows using Bluetooth stack driver included in the CD or MAC OS X using MAC OS X Bluetooth stack driver.

## 1.2. Package Check List

- Parani-UD100
- Stub Antenna
- Quick Start Guide
- CD-ROM including Windows Bluetooth driver and User Guide

## 1.3. Product Specification

Standards	Bluetooth 2.0+EDR Class 1 USB 2.0
Frequency Range	2.4 ~ 2.4835GHz
Transmit Output Power	+19dBm (+6dBm EDR) E.I.R.P
Receive Sensitivity	Basic 1Mbps: -88 dBm EDR 2Mbps: -87dBm EDR 3Mbps: -82dBm
Antenna Connector	RP-SMA
Antenna Gain	Default Stub Antenna 1 dBi Optional Dipole Antenna 3 dBi Optional Dipole Antenna 5 dBi
Working Distance	Up to 100M <i>* working distance can vary depending on install environment</i>
Size	72(L) x 22(W) x 10(H) mm
Operating Temperature	-20 ~ +70°C
Storage Temperature	-40 ~ +85°C
Regulatory Approvals	FCC, CE, TELEC, KCC, Bluetooth SIG
Warranty	1 year limited warranty

## 2. Installing the Bluetooth Software

This chapter describes how to install and set up the Bluetooth software on your computer when you plug the Parani-UD100 to your computer for the first time.

Before connecting the Parani-UD100, you must install the Bluetooth software.

You should uninstall any kind of Bluetooth driver or utility, Such as Widcomm BTW or Toshiba.

- a. Insert the installation software CD.
- b. Click on “Install Bluetooth Utility / Driver”
- c. The InstallShield wizard is started. Click the Next button.

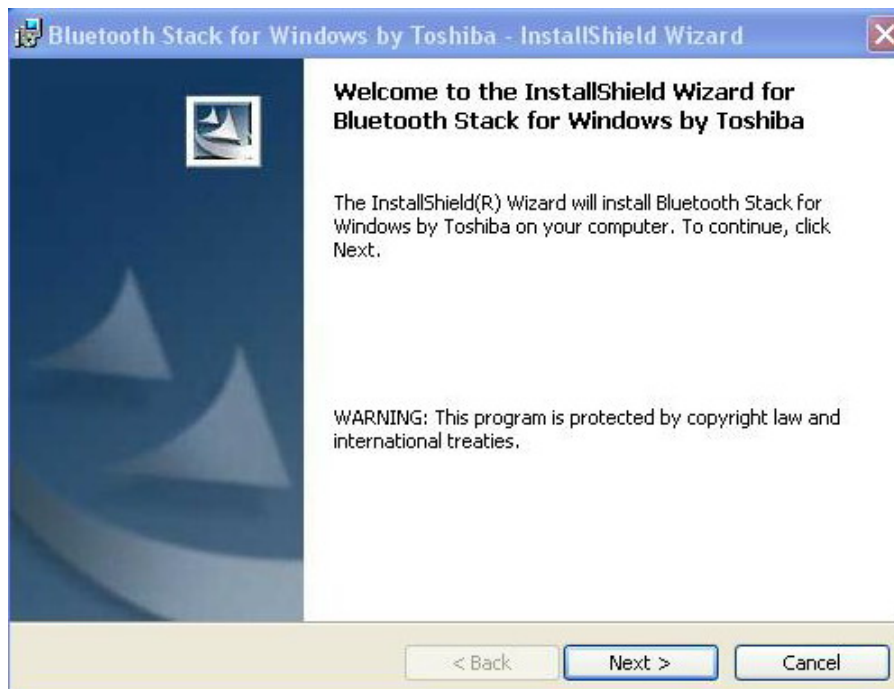


Figure 2.1: InstallShield wizard

- d. Read the License and click the “I accept the terms in the license agreement” radio button. Then click the Next button.



Figure 2.2: License Agreement

- e. Click the Install button to begin the installation.

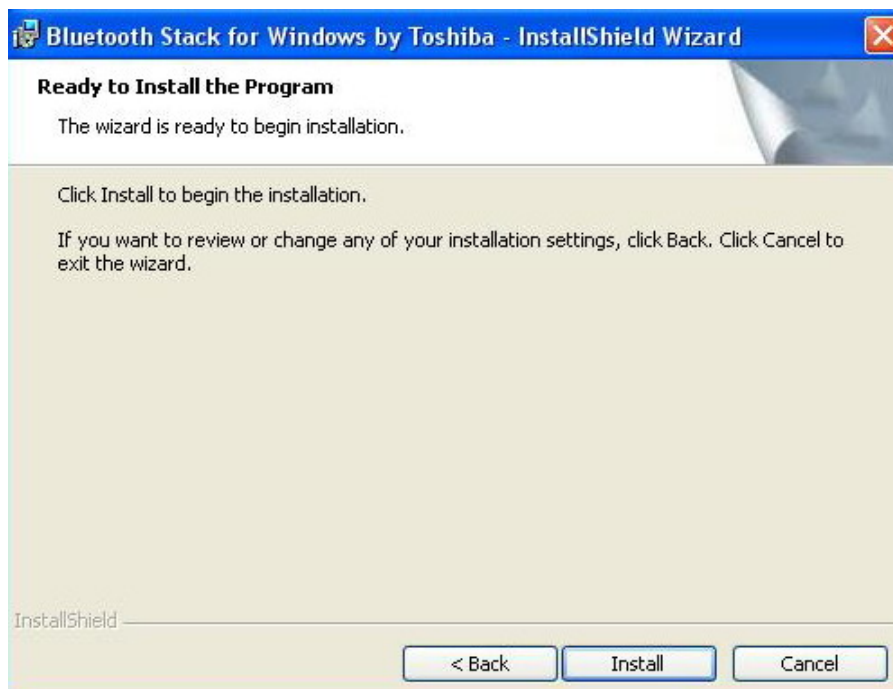


Figure 2.3: Ready to install

- f. During installation, you should plug in the Parani-UD100 to USB port. After plugging in it, click the OK button.

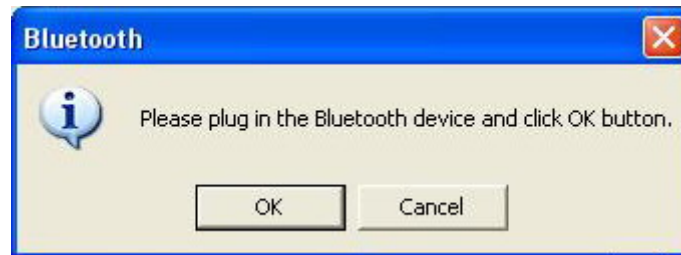


Figure 2.4: Plug in the Bluetooth device

- g. Installation is completed. Click the Finish button.



Figure 2.5: InstallShield wizard complete

- h. Click the Yes button to restart your PC.

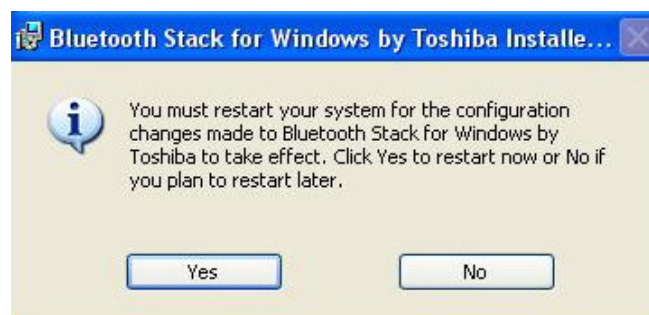


Figure 2.6: restart your PC

## **3. Approval Information**

### **3.1 FCC**

#### **3.1.1 FCC Compliance Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation

#### **Information to User**

This equipment has been tested and found to comply with the limits for a Class B digital device, Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio Frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **3.1.2. RF Exposure**

Statement The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.

#### **3.1.3. Caution**

Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

### **3.2. CE**

#### **3.2.1. EC-R&TTE Directive**

EN 50385 / EN 60950 / EN 301 489-1/-17 / EN 300 328



## **Appendix A. Mechanical Drawing**

TBD

## **Appendix B. Warranty**

### **D.1. GENERAL WARRANTY POLICY**

Sena Technologies, Inc. (hereinafter referred to as SENA) warrants that the Product shall conform to and perform in accordance with published technical specifications and the accompanying written materials, and shall be free of defects in materials and workmanship, for the period of time herein indicated, such warranty period commencing upon receipt of the Product.

This warranty is limited to the repair and/or replacement, at SENA's discretion, of defective or non-conforming Product, and SENA shall not be responsible for the failure of the Product to perform specified functions, or any other non-conformance caused by or attributable to: (a) any misapplication or misuse of the Product; (b) failure of Customer to adhere to any of SENA's specifications or instructions; (c) neglect of, abuse of, or accident to, the Product; or (d) any associated or complementary equipment or software not furnished by SENA.

Limited warranty service may be obtained by delivering the Product to SENA or to the international distributor it was purchased through and providing proof of purchase or receipt date. Customer agrees to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to SENA, and to use the original shipping container or equivalent.

### **D.2. LIMITATION OF LIABILITY**

EXCEPT AS EXPRESSLY PROVIDED HEREIN, SENA MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, WITH RESPECT TO ANY EQUIPMENT, PARTS OR SERVICES PROVIDED PURSUANT TO THIS AGREEMENT, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NEITHER SENA NOR ITS DEALER SHALL BE LIABLE FOR ANY OTHER DAMAGES, INCLUDING BUT NOT LIMITED TO DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION IN CONTRACT OR TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), SUCH AS, BUT NOT LIMITED TO, LOSS OF ANTICIPATED PROFITS OR BENEFITS RESULTING FROM, OR ARISING OUT OF, OR IN CONNECTION WITH THE USE OF FURNISHING OF EQUIPMENT, PARTS OR SERVICES HEREUNDER OR THE PERFORMANCE, USE OR INABILITY TO USE THE SAME, EVEN IF SENA OR ITS DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL SENA OR ITS DEALERS TOTAL LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT.

### **D.3. HARDWARE PRODUCT WARRANTY DETAILS**

**WARRANTY PERIOD:** SENA warranties embedded hardware Product for a period of one (1) year, and external hardware Product for a period of three (3) or five (5) years according to the Product type.

**WARRANTY PROCEDURE:** Upon return of the hardware Product SENA will, at its option, repair or replace Product at no additional charge, freight prepaid, except as set forth below. Repair parts and replacement Product will be furnished on an exchange basis and will be either reconditioned or new. All replaced Product and parts become the property of SENA. If SENA determines that the Product is not under warranty, it will, at the Customers option, repair the Product using current SENA standard rates for parts and labor, and return the Product at no charge in or out of warranty.

**WARRANTY EXCLUSIONS:** Damages caused by

- Accidents, falls, objects striking the SENA product,
- Operating the Product in environments that exceed SENA's temperature and humidity specifications,
- Power fluctuations, high voltage discharges,
- Improper grounding, incorrect cabling,
- Misuse, negligence by the customer or any other third party,
- Failure to install or operate the product (s) in accordance to their SENA User Manual,
- Failure caused by improper or inadequate maintenance by the customer or any other third party,
- Floods, lightning, earthquakes,
- Water spills,

- Replacement of parts due to normal wear and tear,
- Hardware has been altered in any way,
- Product that has been exposed to repair attempts by a third party without SENA's written consent,
- Hardware hosting modified SENA Software, or non-SENA Software, unless modifications have been approved by SENA.
- Battery component capacity degradation due to usage, aging, and with some chemistry, lack of maintenance.

#### **D.4. SOFTWARE PRODUCT WARRANTY DETAILS**

WARRANTY PERIOD: SENA warrants software Product for a period of one (1) year.

WARRANTY COVERAGE: SENA warranty will be limited to providing a software bug fix or a software patch, at a reasonable time after the user notifies SENA of software non-conformance.

#### **D.5. THIRD-PARTY SOFTWARE PRODUCT WARRANTY DETAILS**

The warranty policy of the third-party software is conformed to the policy of the corresponding vendor

## Appendix C. Contact Information

If you have any questions regarding the product, please contact your local dealer/distributor or contact us directly as contact information below:

### Contact Technical Support

Web [http://www.sena.com/support/contact\\_support/](http://www.sena.com/support/contact_support/)  
Email [support@sena.com](mailto:support@sena.com)  
Phone Toll Free (US/Canada): 1-8668-US-SENA (1-866-887-7362)  
America/EU/Africa/Asia: +1 (408) 573-7425

### Contact Sales

Web [http://www.sena.com/where\\_to\\_buy/contact\\_sales/](http://www.sena.com/where_to_buy/contact_sales/)  
Email [sales@sena.com](mailto:sales@sena.com)  
Phone Toll Free (US/Canada): 1-8668-US-SENA (1-866-887-7362)  
America: +1 (408) 573-7425  
EU/Africa: +33 (0) 1 53 53 16 29  
Asia/Pacific: +82 (2) 529-7024