

Volume

1

RBEI-ADISCOM

Manuel utilisateur



# ASC485BT

CONVERTISSEUR SERIE - BLUETOOTH

# Manuel utilisateur ASC485BT

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# 1. Introduction

## 1.1. Product Specification

### **Serial Interface**

Serial speeds 1200bps to 230400bps  
RS232: Rx Tx 0V  
RS485 : +RT / -RT

### **Bluetooth Interface**

Bluetooth v1.2  
Protocol: RFCOMM, L2CAP, SDP  
Profile: Serial Port Profile  
Class 1  
Level: 18dBm Level: Max. 4dBm

Default–Default Antenna 100m  
Default–Dipole Antenna 150m  
Dipole–Dipole Antenna 200m  
Patch–Dipole Antenna 400m  
Patch–Patch Antenna 1000m

**Configuration** ParaniWIN, ParaniWizard, Modem AT command set

**Firmware Update** ParaniUpdater

**Power** Supply voltage: 24V AC  
Supply current: minimum 40mA

### **Environmental**

Operating temperature: -30 ~ 55 °C  
Storage temperature: -20 ~ 70 °C  
Humidity : 90% (Non-condensing)

### **Physical properties**

Dimension: 80 mm L / 140 mm W / 70 mm H  
Weight: 260 g

## 2. Configuration

### 2.1. Operation Modes

In addition to the serial port configurations, the Parani-ESD requires also includes some settings for Bluetooth. For getting the most out of Parani-ESD, user should understand the following Bluetooth connection schemes.

A Bluetooth device can play a role as a master or slave. Master tries to connect itself to other

Bluetooth devices, and slave is waiting to be connected from other Bluetooth devices. A Bluetooth

connection is always made by a pair of master and slave devices. A slave can be in two modes,

Inquiry Scan or Page Scan mode. Inquiry Scan mode is waiting for a packet of inquiry from other

Bluetooth device and Page Scan mode is waiting for a packet of connection from other Bluetooth

device. Every Bluetooth device has its unique address, called BD (Bluetooth Device) address, which is

composed of 12 hexa-decimal numbers.

Parani-ESD has 4 operation modes as follows:

*Table 3-1 The Parani-ESD Operation Modes*

#### Mode Description

##### Mode0

In this mode, there is no response when power on or software reset, and Parani-ESD is just waiting for AT command input. Neither master nor slave is assigned to Parani-ESD in mode0.

User can change the configuration parameters of Parani-ESD in this mode.

Parani -ESD must be in Mode0, when it is directly controlled by AT commands.

The factory default is set to Mode0.

##### Mode1

Parani -ESD tries to connect the last connected Bluetooth device.

Parani -ESD in Mode1 is to be a master and tries to connect the last connected Bluetooth device. Parani-ESD always stores the BD address of the Bluetooth device to which Parani-ESD has connected last. When Parani-ESD is initially used or after hardware reset, there is no

BD address stored in Parani-ESD. In this case, Mode1 will not be able to work properly. The mode change to Mode1 can be made after Parani-ESD succeeds to connect to one other Bluetooth device. Once changed to Mode1, Parani-ESD will try to connect automatically the last connected Bluetooth device whenever the unit is powered on or software reset.

Parani -ESD in Mode1 cannot be discovered or connected by other Bluetooth devices.

**Mode2**

Parani -ESD is waits for a connection from the last connected Bluetooth device. Parani -ESD in Mode2 is to be a slave and waiting for the connection only from the last connected Bluetooth device. Just like Mode1, if there is no BD address stored in Parani-ESD, the mode change from other operation modes to Mode2 is not work properly. Once changed to Mode2, Parani-ESD will wait for the connection from the last connected Bluetooth device whenever the unit is powered on or software reset. Parani -ESD in Mode2 cannot be discovered or connected to Bluetooth devices other than the last connected device.

**Mode3**

Parani -ESD is waiting for the connection from any other Bluetooth devices. In Mode 3 the Parani -ESD is discoverable and can be connected to by other Bluetooth devices.

## 2.2. Serial Ports

The applicable settings for serial ports are as follows.

*Table 3-2 The Parani-ESD Serial Port Settings*

**Serial Port Settings Values**

**Baud rate** 1200, 2400, 4800, 9600, 19200, 38200, 57600, 115200, 230400

**Data bite** 8

**Parity** No parity, Even parity, Odd parity

**Stop bit** 1, 2

**Hardware Flow Control** Use, No Use

The values in box are the factory default settings.

## 2.3 Data Bit

Parani-ESD supports only 8 data bit. In the case of 7 data bit and even/odd parity, use ESD 8 data bit and none parity. But 7 data bit and none parity is not support.

## 2.4 Hardware Flow Control

Parani-ESD plugged into its host system transmits data from host to the other side Bluetooth device.

This data is saved temporarily in the internal buffer of Parani-ESD and sent repeatedly until the transmission is completed packet by packet. When the radio transmission condition is not good enough to send data promptly, it can cause a transmission delay. If the host sends more data when the buffer is full, buffer overflow will make Parani-ESD malfunction consequently. In order to prevent this buffer overflow, Parani-ESD works as follows. When using hardware flow control, Parani-ESD disables RTS so that it stops receiving any further data from the host when the buffer becomes full. RTS will be re-enabled again to begin receiving data from the host when the buffer has created more room for more data.

When hardware flow control is not being used, the Parani-ESD clears the buffer to secure room for the next data when the buffer becomes full. This can mean a loss of data may occur. As the transmission data becomes large, the possibility of data loss becomes greater. For large data transmissions, the use of hardware flow control is highly recommended.

## 2.5 Software and Utility

This configuration software and utility for firmware update is included with the product, which also can be downloaded from <http://www.sena.com>

*Table 3-3 Configuration Software*

**Software Purpose Operating System**

ParaniWIN Configuration MS Windows 98SE or Higher

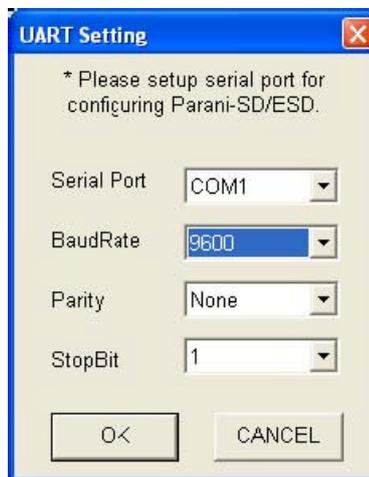
ParaniWizard Pairing Configuration MS Windows 98SE or Higher

ParaniUpdater Firmware Update MS Windows 98SE or Higher

## 2.6 ParaniWIN

ParaniWIN is a program that runs on Microsoft Windows for the configuration of Parani -ESD. Install

ParaniWIN on your computer. Plug a Parani-ESD into the serial port of the computer and turn on the power. Run ParaniWIN.



*Figure 3-1 Serial Port Setting*

Set each option properly and click [Confirm]. If the settings of the Parani -ESD are different from the ParaniWin, an error message will pop up. If the Parani -ESD is in the status of connection, warning message will pop up. Then the current connection can be cancelled by [Disconnect] button on the main window.

CONFIGURATION

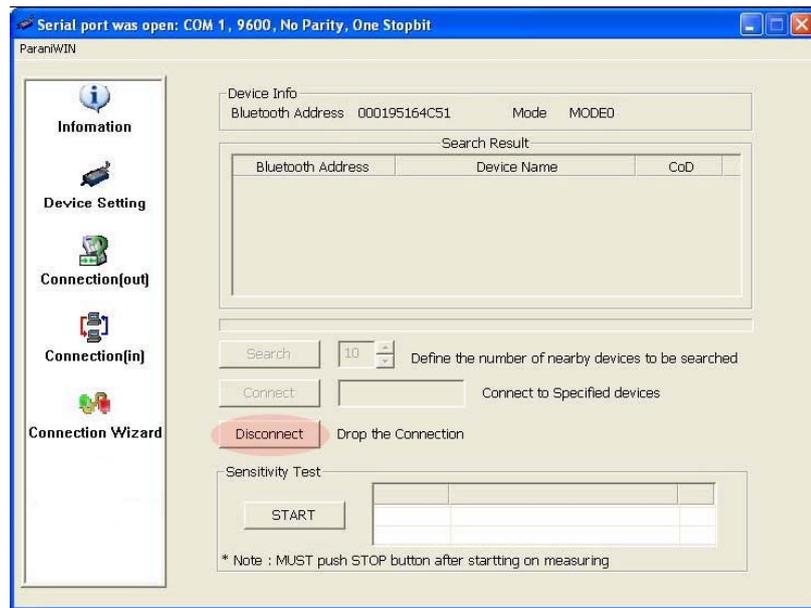


Figure 3-2 Main Window

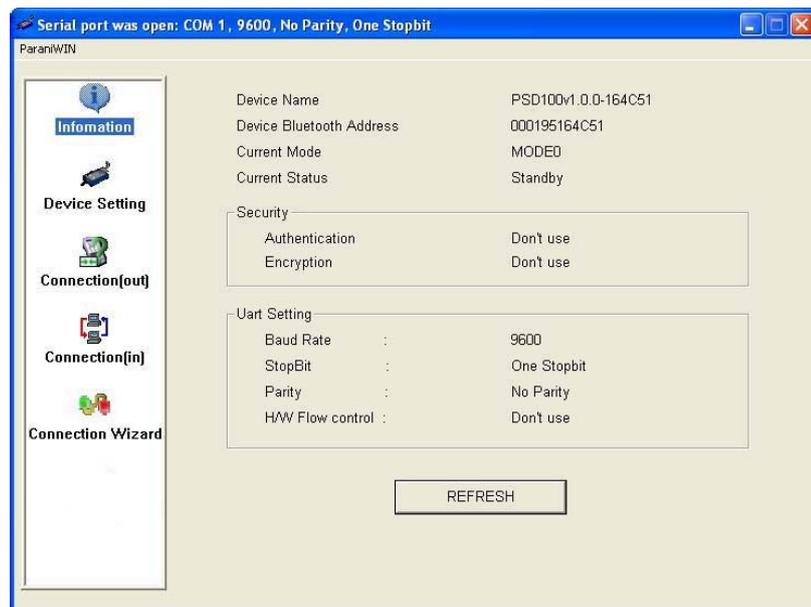


Figure 3-3 Information Window

Serial port settings can be changed by <Start Configuration> and <ParaniWIN Configuration> of ParaniWIN in the menu bar at upper left corner of the window without re-running the ParaniWIN program.



Figure 3-4 Menu Bar at Upper Left corner of ParaniWIN

When the ParaniWin software is able to access the Parani-ESD properly, the icons in the left side window come will become available for use. In device configuration window, hardware reset can be executed or operation mode and RS232 can be configured as well. Security option also can be configured in this window.

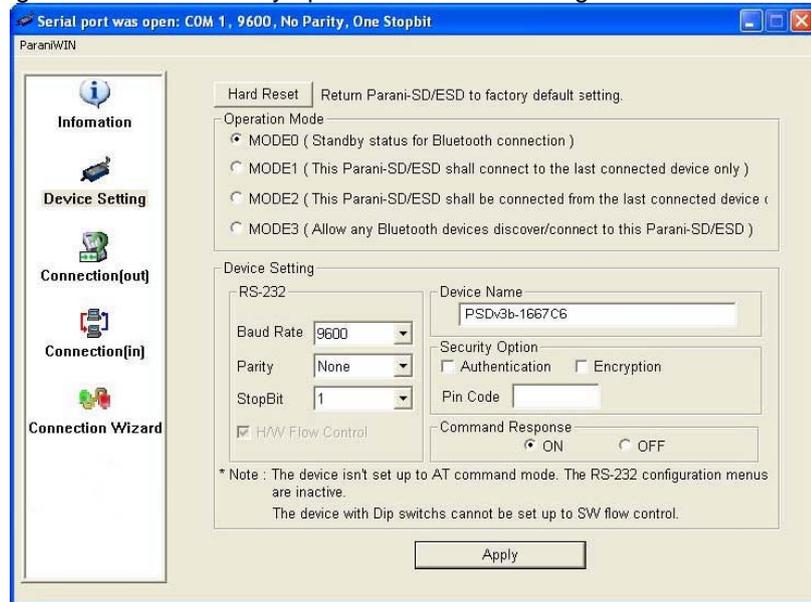


Figure 3-5 Device Setting Window

Parani-ESD supports two security options, Authentication and Encryption. If you check the Authentication option, you must also enter the Pin Code value. If the authentication is activated, the connection, only between the Master and Slave device that share the same Pin Code, is established. Parani-ESD supports two security options, Authentication and Encryption. If you enable the Authentication option, you must also enter a Pin Code value. If the authentication is enabled, the connection, between the Master and Slave device must share the same Pin Code. In case that Parani - ESD connects to another Bluetooth device, that requires authentication, you must know the other device's Pin Code. In general, most Bluetooth devices have a pincode of 1234 or 0000. If you check Encryption option, the Parani-ESD will encrypt packets and sent to the device. The Encryption options works well in case that only one of the devices between Master and Slave use the Encryption option. Parani-ESD has 4 response messages, 'OK', 'ERROR', 'CONNECT', and 'DISCONNECT'. In some cases, these responses can affect the host system unexpectedly. To prevent this, user can set the Command response to ON or OFF. Click [Apply] button to apply any changes made to the Parani-ESD. Connection(out) icon will show the following window to search and connect other Bluetooth devices.

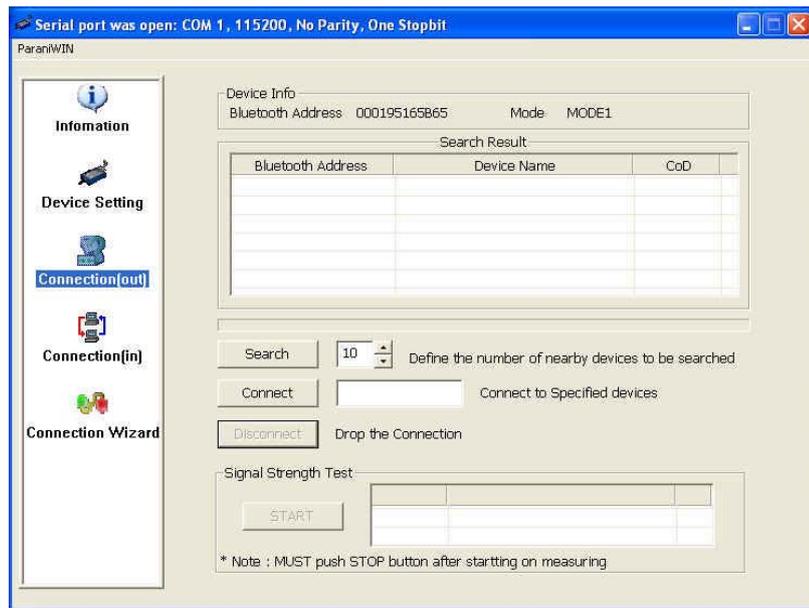


Figure 3-6 Connection(out) Window

Click [Search] button to search nearby Bluetooth devices. Once several Bluetooth devices has been found, select one of the devices and click the [Connect] button. The selected Bluetooth device must be discoverable and connectable. Click [Disconnect] button to cancel the connection. After the connection has been established, you will be able to test signal strength by pushing the START button.

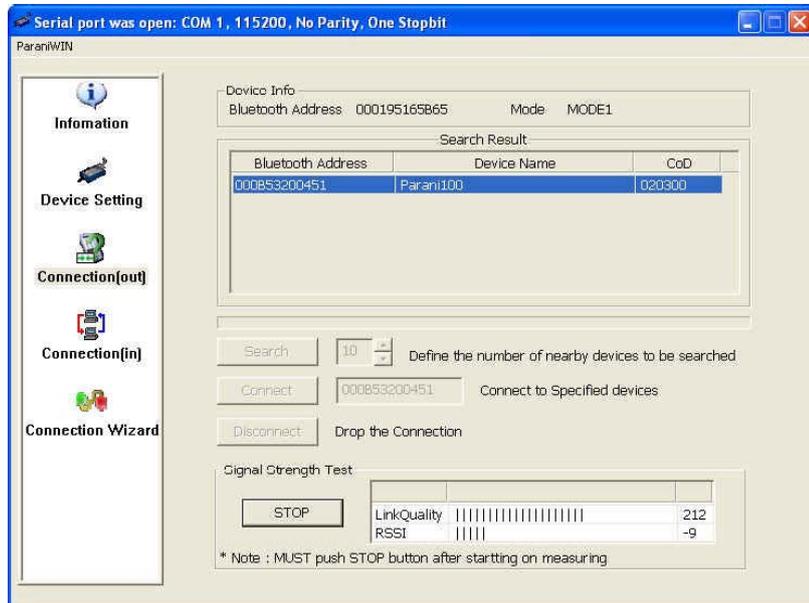


Figure 3-8 Connection(in) Window

If the ConnectionWizard icon is clicked, an easy to use pairing menu will appear:

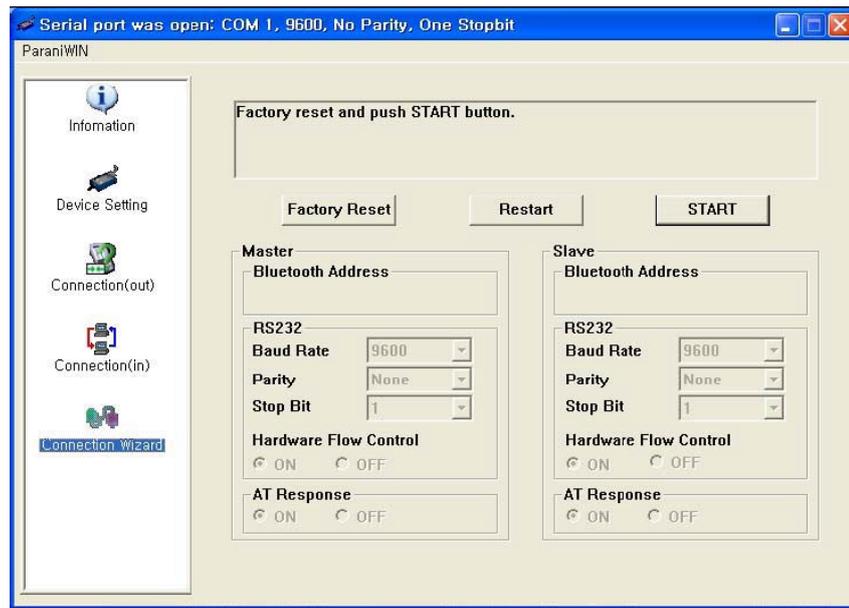


Figure 3-9 Connection Wizard Window

In this example we will refer to the two Parani-ESDs as ESD1 and ESD2 respectively. To use this menu, please do the following:

**Step 1.** Connect ESD1 and then push the START button.

**Step 2.** Disconnect ESD1, connect ESD2 and then push the Next button after setting up Slave configuration.

**Step 3.** Disconnect ESD2, once again connect the ESD1 and then push the Finish button. The pairing configuration should be completed. Make sure that each ESD's connect LED is on. At this point, when both ESD's are restarted the connection will be established automatically.

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# Service après vente

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6 rue des Gardes  
91370 Verrière le Buisson  
☎ : 01 69 30 10 84

✉ : [mail@adiscom.com](mailto:mail@adiscom.com)

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