

USB-WT41 Data Sheet



Figure 1 - USB-WT41 device

Overview

The USB-WT41 is a bluetooth evaluation kit to provide education on using the Bluetooth interface. When installed, the USB-WT41 adaptor will appear as a virtual Com port.

Parameters

Parameter	Value	Nominal
Baud rate	1200 to 3.0M	115200,8,n,1
Supply	5V (USB Powered)	-
Current (Idle)	5 to 25mA	16mA

Table 1 - Electrical Characteristics

Baud Rate

The baud rate may be set using the SET CONTROL BAUD command. The default baud rate is 115200,8n1.

Operation

Plug the USB-WT41 adaptor into a USB port. Allow windows to automatically install the driver, or download the driver from : <http://www.ftdichip.com/Drivers/VCP.htm>. When the driver has installed, open the Device Manager and determine which COM port number is used by the FT232R USB UART device. Run a terminal program such as the Blue Terminal program, select the COM port, and set the baud rate as 115200 with no hardware control. Type RESET or SET to check the module is working.



Bluetooth Commands

Press Enter after all commands.

Command	Description
RESET	Resets the module and shows power up message including iWrap version.
SET	Displays all current parameters
INQUIRY 5	Sends out an inquiry to discover all Bluetooth devices within range, and displays MAC addresses of all devices found
INQUIRY 5 NAME	Same as above, but also displays device name such as "Nokia 6230"
CALL <MAC:ADDR> 1101 RFCOMM	Connect to another Bluetooth device using the serial port profile

Table 2 - Bluetooth Commands

Examples

User entered text is shown as ***bold italics***.

RESET [ENTER]

WRAP THOR AI (4.0.0 build 317)
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READY.

SET [ENTER]

SET BT BDADDR 00:07:80:46:6a:9a
SET BT NAME WT41-A
SET BT CLASS 001f00
SET BT AUTH * 1234
SET BT IDENT BT:47 f000 4.0.0 Bluegiga iWRAP
SET BT LAP 9e8b33
SET BT PAGEMODE 4 2000 1
SET BT POWER 19 19 19
SET BT ROLE 0 f 7d00
SET BT SNIFF 0 20 1 8
SET BT MTU 667
SET CONTROL BAUD 115200,8n1
SET CONTROL CD 00 0
SET CONTROL ECHO 7
SET CONTROL ESCAPE 43 00 1
SET CONTROL GAIN 0 5
SET CONTROL MSC DTE 00 00 00 00 00 00



```
SET CONTROL PREAMP 1 1
SET CONTROL READY 00
SET PROFILE SPP Bluetooth Serial Port
SET
```

INQUIRY 5 NAME [ENTER]

```
INQUIRY_PARTIAL 00:07:80:81:4d:38 100540
INQUIRY 1
INQUIRY 00:07:80:81:4d:38 100540
NAME 00:07:80:81:4d:38 "CUBETAPE"
```

CALL 00:07:80:81:4d:38 1101 RFCOMM [ENTER]

```
CALL 0
CONNECT 0 RFCOMM 1
```

Connectors

One connector is provided to connect external devices to the USB-WT41 device. Programmable Digital I/O Lines PIO3-6 and Analog input AIO are available on the connector. PIO2 is available through a 220R resistor (R61) since this line may be used to power the 3.3V rail through a 1.8V zener diode (D61). If power is removed from the USB interface, the USB interface is held in reset, and an external device may power the USB-WT41 module and communicate via the TTL serial port.

