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HDA800

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HDA800 Evaluation Kit
Quick Start Guide

1 Introduction

 This guide will help you to configure the HDA800 Evaluation Kit to run a demonstration of its capabilities. It describes how to configure the required WiFi, IP and serial port parameters for the demonstration.
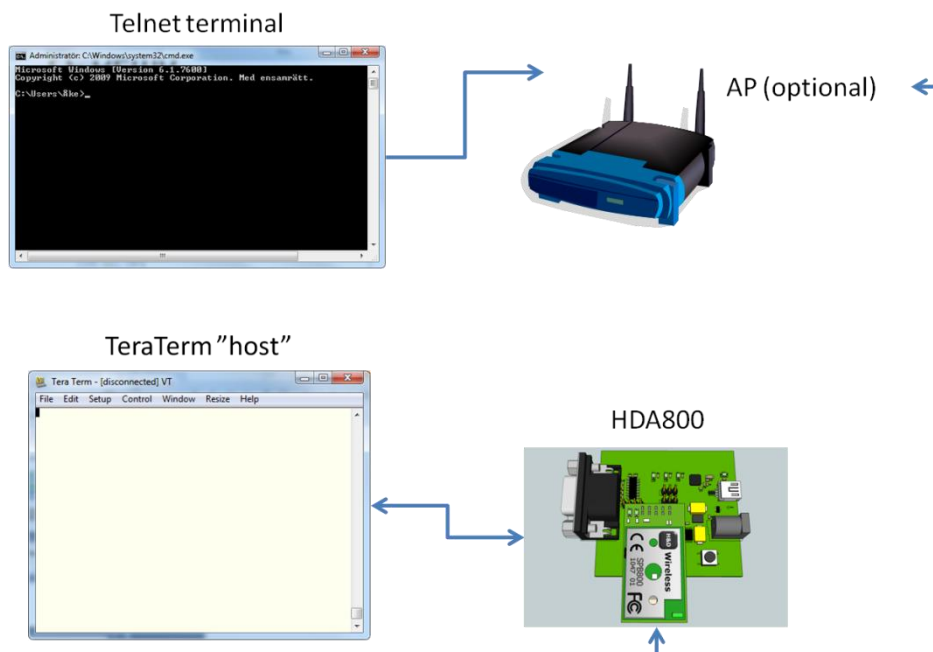
2   Requirements

Things you need to have:
- The HDA800 RS-232 to WiFi 802.11b+g adapter
- A PC with a RS-232 serial port or a USB to RS-232 adapter connected to the same network.
- An USB cable to power the HDA800.
- An AP (optional)

Things you need to know:
- The SSID of the WiFi Network to connect to.
- To set a static IP address you need to know:
  - IP address, network mask and default gateway

3 Demonstration Example

In this example a TCP socket is created on the SPB800 and the serial port terminal (TeraTerm) emulates the host to communicate with the "host" a telnet connection is opened in a command window

Telnet terminal

AP (optional)

TeraTerm "host"

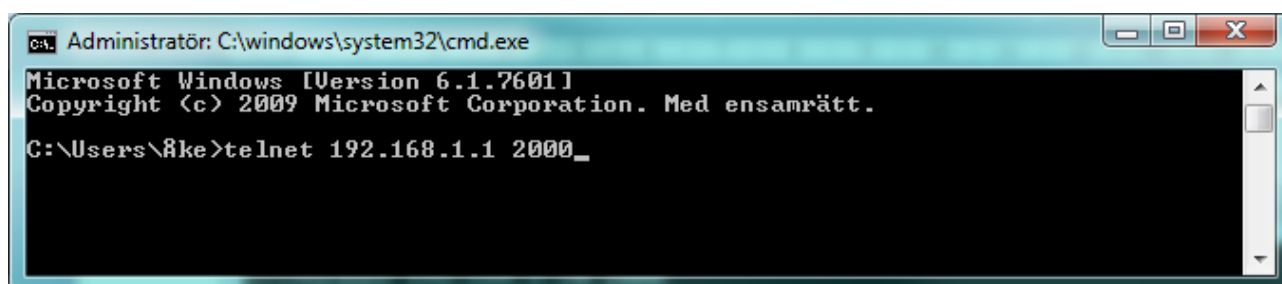HDA800

3.1 How to do it

3.1.1 Using Soft AP

Soft AP is only available from hardware revision R4A of the SPB800-B/D and SPB800-E rev R1A built as a single PCB.
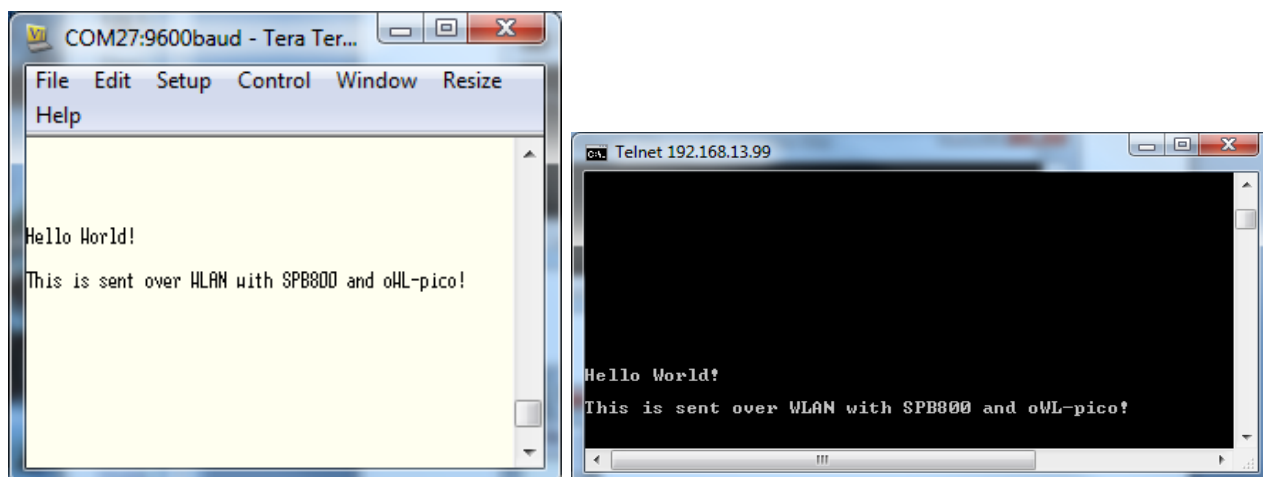
Out of the box SPB800 is configured in Soft AP mode with the ssid set to hdconfig-xx-xx-xx where xx-xx-xx are the last six digits of the MAC address and need no configuration to run the demo.

- Power up the SPB800 and let the dots pass in the terminal window.

- Scan for WLAN networks and connect the PC to hdconfig-xx-xx-xx. The two LEDs on the SPB800 should light up when a client connect.

- Open a command window by clicking START -> Run and then type cmd in the new window and hit return.

- In the command window type:
    telnet 192.168.1.1 2000

- This will open a TCP socket on port 2000 to start communicating with the TeraTerm terminal via the SPB800.

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- Now text that you type in the telnet window will be sent to the TeraTerm terminal and the opposite as well. Please note that the TeraTerm won't echo what you type in its own window.

3.1.2 With the SPB800 as station (client)

- Connect the HDA800 to a PC with TeraTerm or any other serial port terminal. (115200, 8-bit, none, 1-bit, none)

- Hit "Enter" when you see the dots in the terminal window.

- First we need to set the parameter /wl/mode to set the SPB800 in station mode

      $ db set /wl/mode sta

- Then we continue with entering the SSID (if you are connecting to a secured network you need to enter key_type and key as well.

      $ db set /wl/ssid my-ssid

- We enter the IP address we have selected for the HDA800. Make sure that is does not collide with any other static set address or the address range managed by the networks DHCP server.
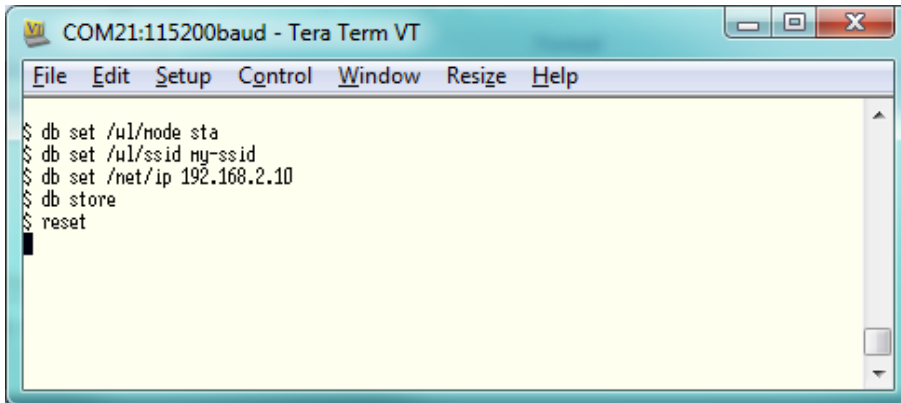
      $ db set /net/ip 192.168.2.10

- Type "db get" to list all parameters and check their values, satisfied with the result we enter the parameters into the flash with "db store"
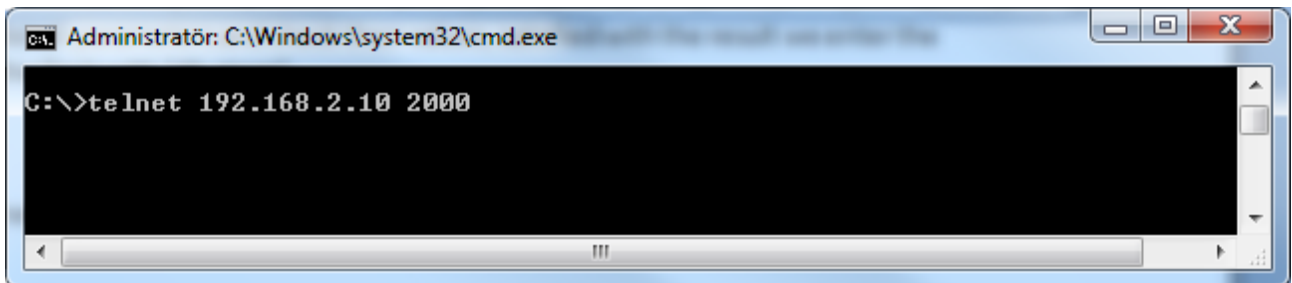
      $ db store

- To start with the new parameters we do reset.

      $ reset

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- When changing between AP and station mode the SPB800 light up LED1 during reset. After the device has restarted and connected to the network it will light up the two LEDs on the SPB800E, LED 1 indicating association to the WLAN and LED 2 IP address acquired.

- Open a command window by clicking START -> Run and then type cmd in the new window and hit return.

- In the command window type:
      telnet 192.168.2.10 2000

- This will open a TCP socket on port 2000 to start communicating with the TeraTerm terminal via the SPB800.

- Now text that you type in the telnet window will be sent to the TeraTerm terminal and the opposite as well. Please note that the TeraTerm won't echo what you type in its own window.