Indy® RS500 Development Kit

Quick Start Guide

Introduction

This document describes how to start reading UHF RFID tags with the Indy® RS500 Development Kit.
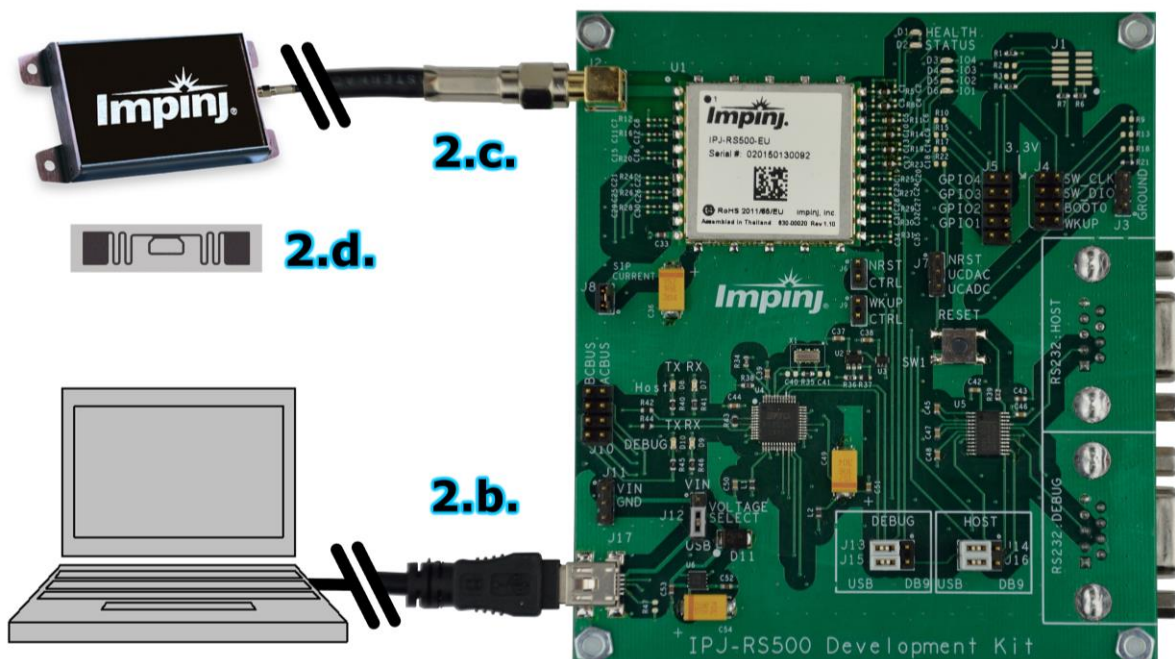
Kit Contents

- RS500 Development Board
- Kit Quick Start Guide
- USB drive containing software tools and documentation (in dev board ESD bag)
- Impinj Mini-Guardrail Antenna
- Laird Far Field Antenna

- SMA RF Cable
- Mini-USB Cable
- DE-9 M-F Cable
- UHF RFID Tag Samples
- RS500 SiP Samples (3)

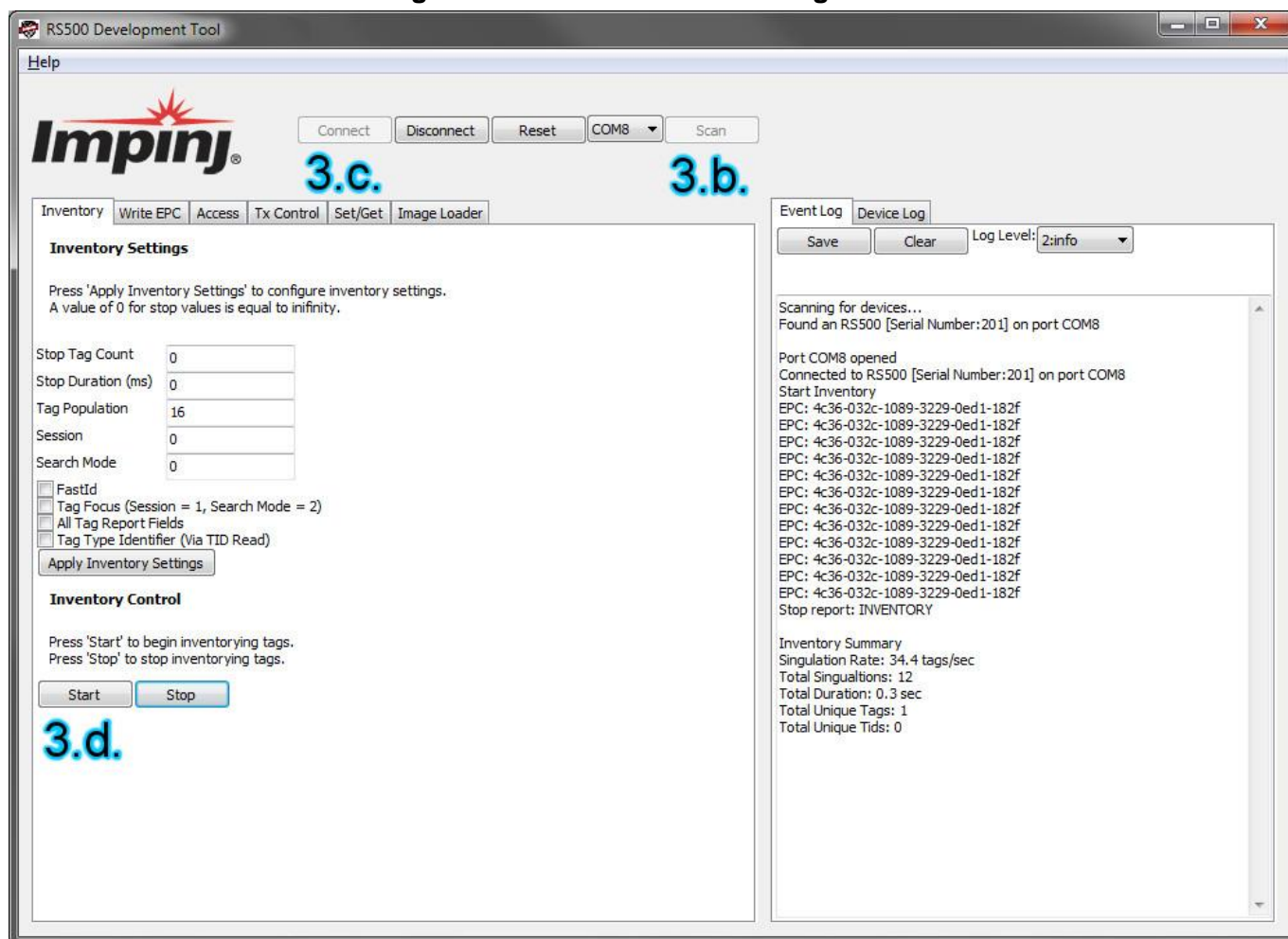## Getting Started with the RS500 Development Kit

1. Install the RS500 Development Tool software on your PC.
   a. Copy the `RS500 Development Tool.exe` file from the USB drive or support.impinj.com.
2. Configure the RS500 development kit hardware as shown in Figure 1.
   a. If you have reconfigured the jumpers since opening the kit, restore the default configuration as described in the "Kit Default Configuration" section of the RS500 Hardware User's Guide.
   b. Connect the kit PCB to your PC using the Mini-USB cable.
      i. At this point, the "Health" LED, D1 at the top of the PCB, should start blinking.
   c. Connect the kit PCB to the Mini-Guardrail antenna using the SMA RF Cable.
   d. Place one of the UHF RFID tags on top of the antenna.

Figure 1 – RS500 Development Kit Hardware Configuration

3. Start performing tag reads as shown in Figure 2.
   a. Open the RS500 Development Tool software by double-clicking on the "`RS500 Development Tool.exe`" file.
   b. Press the "Scan" button to detect the COM port corresponding to the development board.
   c. Press the "Connect" button to connect to the development board.
   d. Under the "Inventory" tab, start an inventory by pressing the "Start" button.
      i. At this point, the "Event Log" on the right hand side of the GUI will show the stream of EPCs of the tags that are read by the Indy RS500 via the mini-guardrail antenna.
   e. Try moving tags relative to the read field of the antenna, and observe the change in the reads displayed in the Event Log.

Figure 2 – RS500 Tool GUI Configuration

4. Check out the more detailed documentation associated with the part and kit, including the RS500 Datasheet, RS500 Hardware User Guide, and RS500 IRI Toolkit User Guide, all available at support.impinj.com.

These products may be covered by one or more U.S. patents. See www.impinj.com/patents for details.