

Si446x DEVELOPMENT KIT QUICK-START GUIDE

1. Kit Contents

There are two development kits available for the EZRadioPRO[®] product line: one for 915 MHz and one for 868 MHz. The contents of the kits are listed in Table 1.

Table 1. EZRadioPRO Development Kit (Si4463-915-DK or Si4461-868-DK)

| Content | Quantity |
|--|----------|
| EZRadioPRO Wireless Test Card (4463-TCE20C915 or 4461-TSQ14D868) | 2 |
| UDP Motherboard (UP-BACKPLANE-01) | 2 |
| UDP MCU card (UPMP-F960-EMIF) | 2 |
| UPPI Pico Board for the MCU Card (UPPI-F960) | 2 |
| SPI Graphic LCD I/O Card (UPIO-GLCD-SPI) | 2 |
| 915/868 MHz Antenna with SMA (ANTENNA-SMA-916) | 2 |
| 1/2AA Battery (BATTERY-LI-HALFAA) | 2 |
| CD for the Si446x EZRadioPRO Wireless IC (CD446x) | 1 |
| CD for the KEIL C51 Development Tool (CDKEIL) | 1 |
| AA Battery Holder (MSC-DABP-X4) | 2 |
| AA Battery | 8 |
| USB Debug Adapter (EC3) | 1 |
| USB Cable (S-USB2.06-01) | 3 |

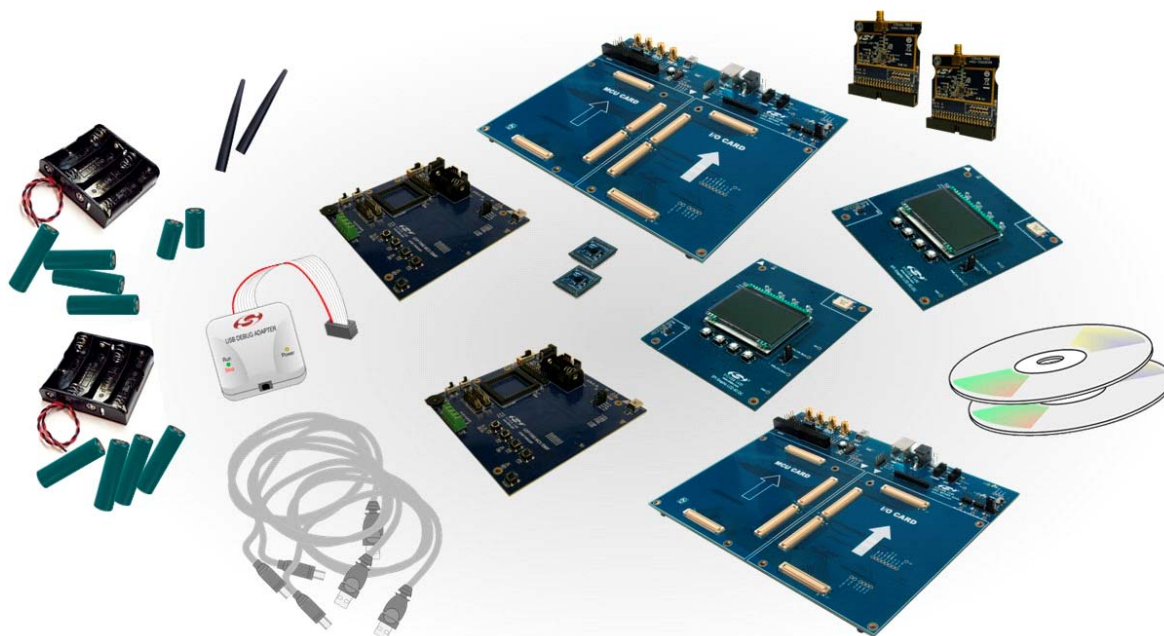


Figure 1. EZRadioPRO Development Kit

2. Hardware Setup

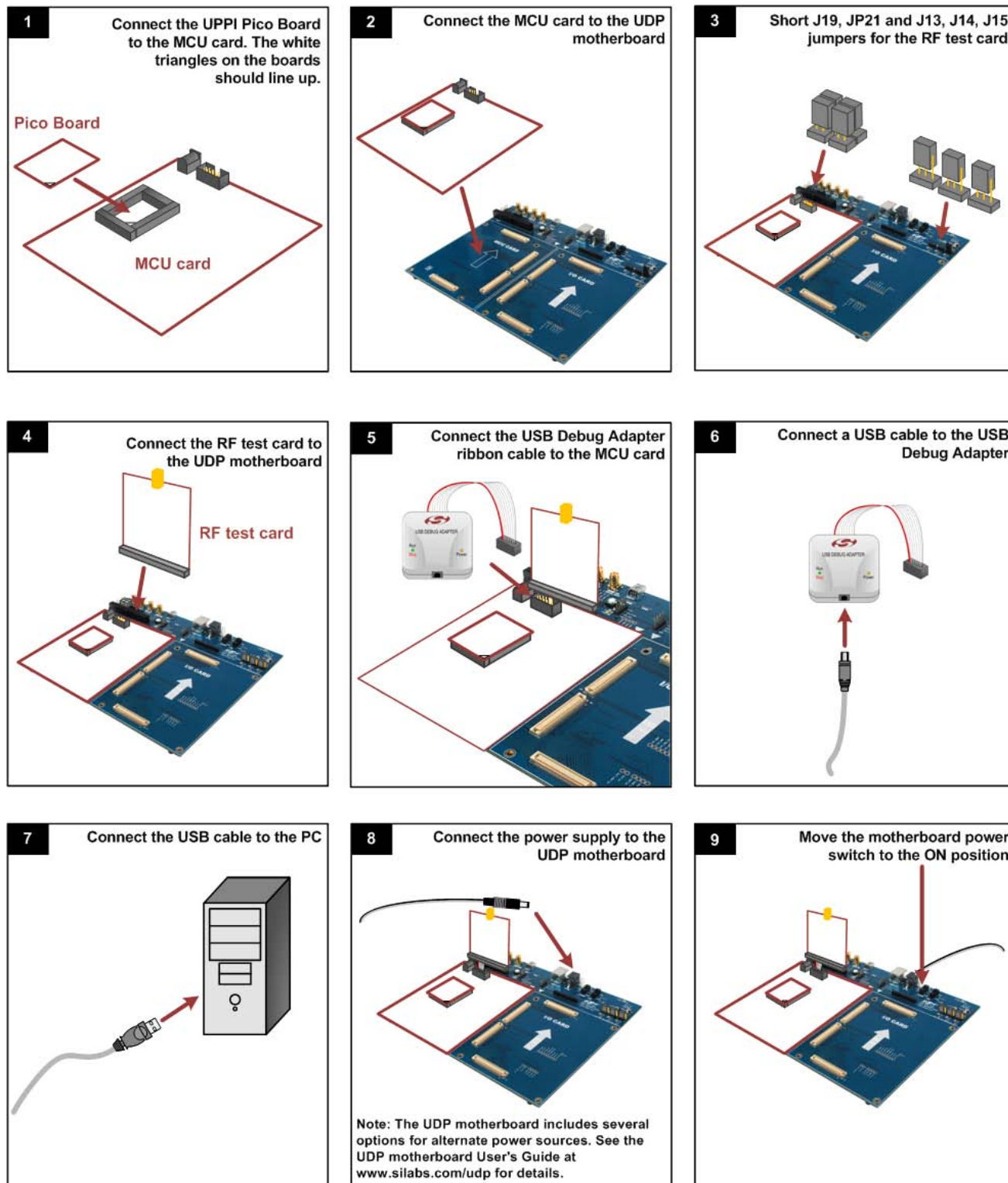
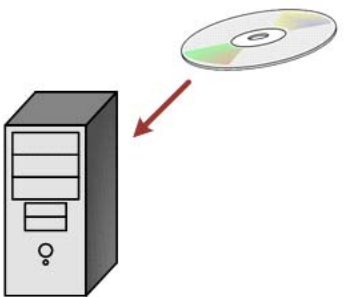



Figure 2. Hardware Setup Steps

3. Software Installation

1 Insert the UDP Development Kit CD in the PC's CD-ROM Drive

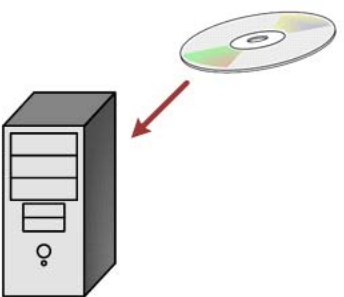


2 Select "Install Development Tools" from the instruction window and follow the on-screen instructions




Note: If autorun does not launch the instruction window, run "SETUP.EXE" directly from the CD.

3 Insert the EZRadioPRO NG Development Kit CD in the PC's CD-ROM Drive



4 Browse for "WDS3-Setup.exe" and run it. Follow the on-screen instructions.



Note: If you are having any problem during the installation, refer to "WDS user guide for Si4x6x and Metron" (AN4xx).

Figure 3. Software Installation Steps

4. Operation

4.1. Lab Measurements

The WDS (Wireless Development Suite) supports the EZRadioPRO products. Along with the HW tools, a variety of controlled lab measurements can be performed with it. For more information, refer to "AN632: WDS User Guide for Si446x and Metron".

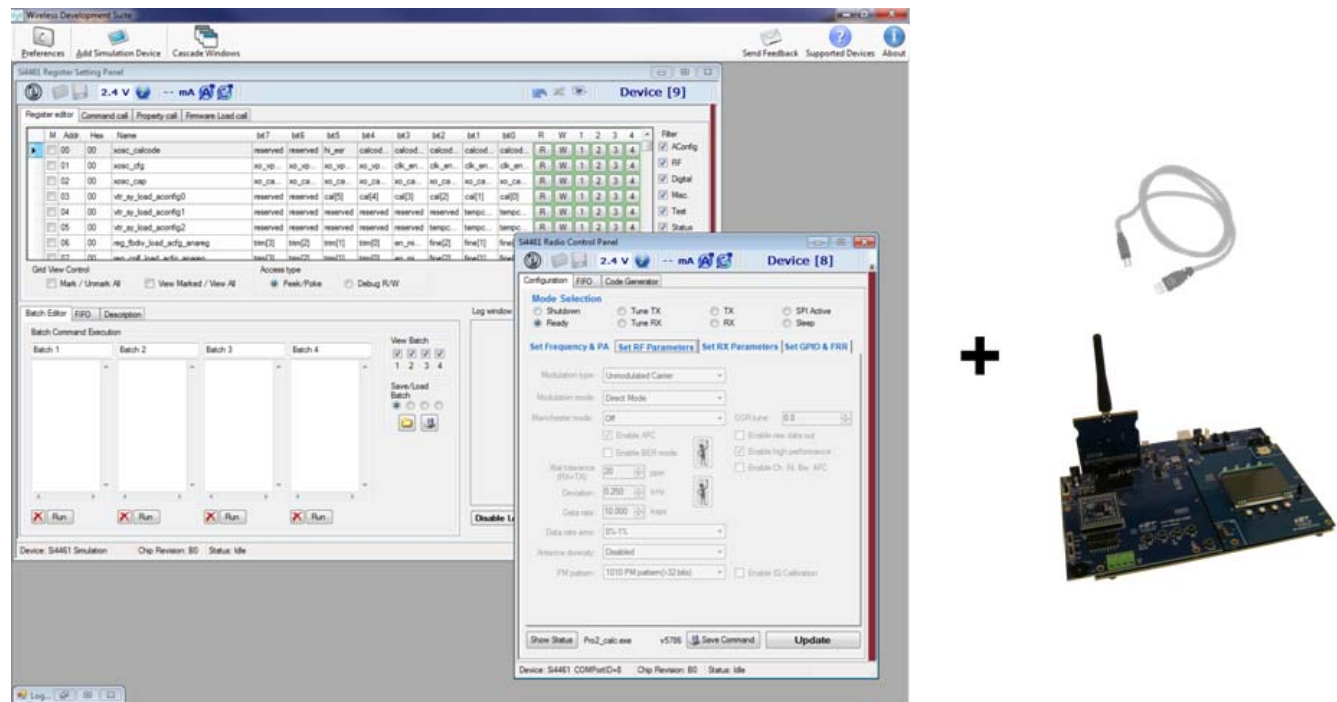


Figure 4. Lab Measurements with WDS

4.2. Software Development

For software development, the Silicon labs IDE can be used. There are sample codes available that show how to use the EZRadioPRO products. The sample codes and details of controlling the radio IC are described in "AN633: Si446x Programming Guide and Sample Codes".

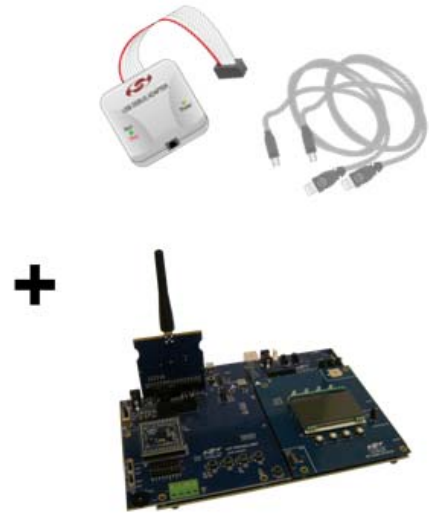
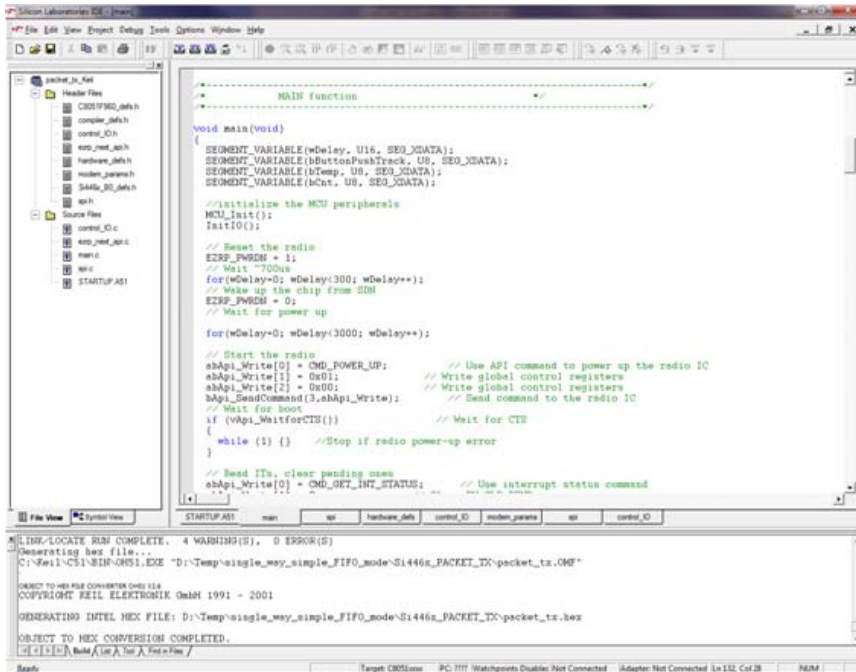


Figure 5. Software Development with the IDE

4.3. Range Test

In order to conduct range tests, the Radio evaluation demo (PER demo) is provided. It can be downloaded either from WDS or from the IDE. “AN655: Radio Evaluation Demo for the EZRadioPRO” describes the radio evaluation demonstration in detail.

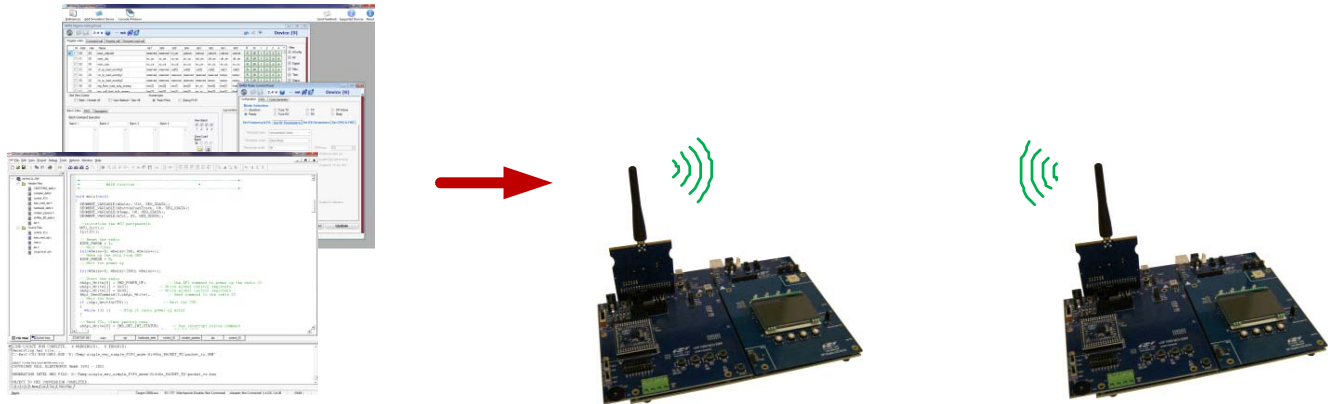


Figure 6. Radio Evaluation Demo (PER Demo)

If you are experiencing difficulty installing and/or using the development kit, use the following support resources:

- EZRadioPRO programming, WDS, Antenna, matching design (www.silabs.com/products/wireless).
- UDP Motherboard, MCU card, Pico Board, and I/O card User's Guides (www.silabs.com/udp).
- “AN104: Integrating Keil 8051 Tools Into the Silicon Labs IDE” contains instructions for obtaining the 4 k limited version of the Keil toolset.
- Latest versions of Application Notes can be found at:
www.silabs.com/products/wireless
www.silabs.com/products/microcontroller/applications.asp
- EZRadioPRO, MCU Knowledgebase (available at www.silabs.com/support)
- Contact an Applications Engineer using the online information request form (available at www.silabs.com/support).

NOTES:

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