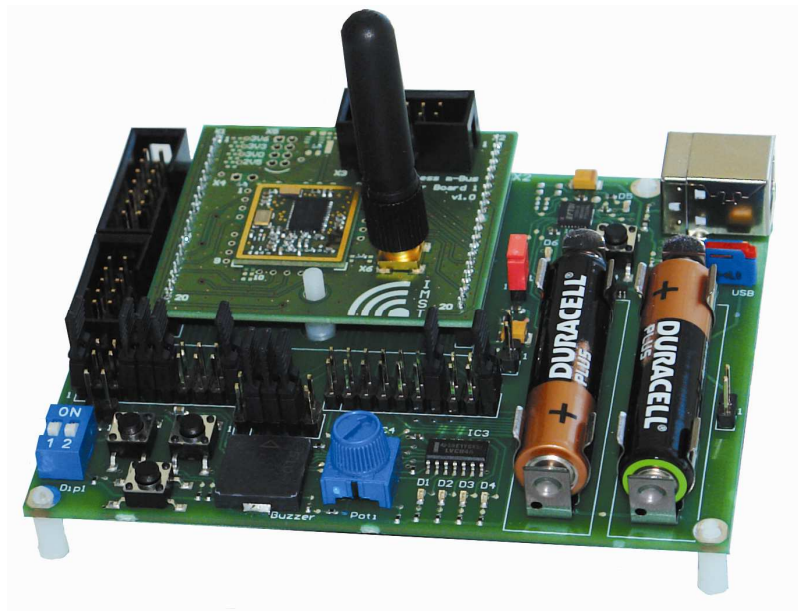


Wireless M-Bus Starter-Kit

Quick Start Guide



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1 Introduction

The Wireless M-Bus Starter Kit is a plug & play solution to explore features and capabilities of the iM871A Wireless M-Bus radio module. This document describes how to get Starter-Kit running.

1.1 Content of this Kit

Hardware:

- 2x WiMOD Demo Board
- 2x module specific adapter board with soldered radio module
- 2x external antenna
- 2x male A/B USB cable
- 4x AAA type battery
- Installation CD containing software and documentation

Software and Documentation:

To run the Starter Kit, a PC with Windows XP (or newer) and at least one USB port are necessary.

Nr	File	Comment
1	iM871A_StarterKit_QuickStartGuide.pdf	This document
2	\documentation\DemoBoard_UserGuide.pdf	User Guide for the WiMOD Demo Board
3	\documentation\iM871A_Datasheet.pdf	iM871A hardware datasheet
4	\documentation\iM871A_WMBus_UserManual.pdf	Wireless M-Bus User Manual for iM871A
5	\documentation\WMBus_HCI_Spec.pdf	HCI specification
6	\documentation\WMBus_HCIDLL_Spec.pdf	DLL specification
7	\documentation\WMBus_StudioManual.pdf	WMBus Studio Documentation
8	\drivers\CDM20814_Setup.exe	USB PC driver
9	\firmware\iM871A_WMBus_FW.hex	Binary firmware file
10	\tools\WMBus_Studio.exe	Installation file for the WMBus Studio PC software

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2 Getting Started

2.1 Software Setup

The included WMBus Studio can be used for configuration of the preprogrammed radio modules and allows a simple radio link evaluation as well as WMBus packet sniffing.

Setup of the PC

First copy the complete content of the enclosed installation CD to a local folder on your PC. Then install the hardware driver for the USB chip on your PC. Either take it from the local folder (<local folder>\drivers\CDM20814_Setup.exe) or get it from the USB chip manufacturer's web site.¹

WMBus Studio

Start installing the WMBus Studio by double clicking the executable "setup.exe". The Installation Wizard is started and the WMBus Studio tool will be installed on the PC.



Figure 1: Wireless M-Bus Studio Installation Wizard

Now the required software is ready to be used. For a detailed description of the included applications and its features please refer to the Wireless M-Bus Studio Documentation.

¹ <http://www.fidichip.com/Drivers/VCP.htm>.

² If the WiMOD Studio does not start it might be possible that the Windows OS on the host PC needs the [Microsoft Visual C++ 2008 Redistributable Package \(x86\)](#). Download this package from the Microsoft link above.

2.2 Hardware Setup

Setup of the Demo Boards

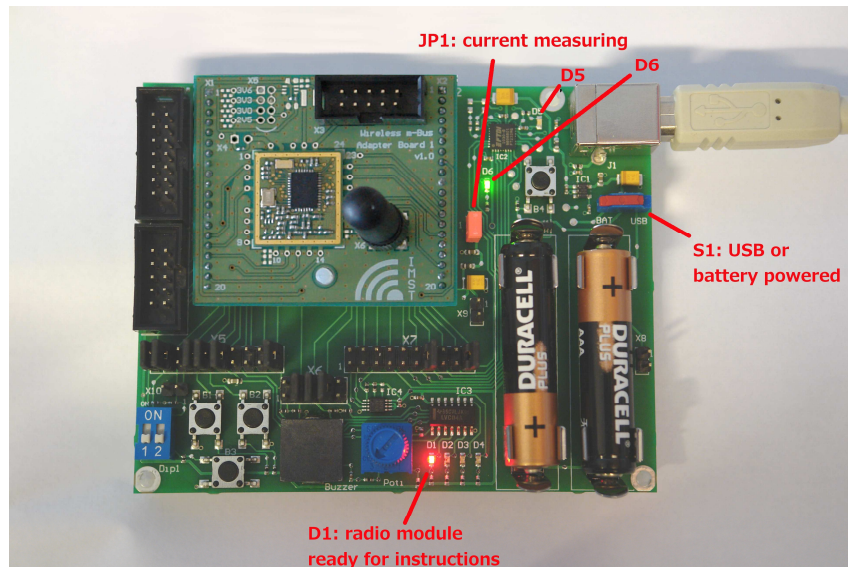


Figure 2: Wireless M-Bus module iM871A and Demo Board

- Plug the adapter boards with the soldered radio module on the Demo Boards.
- Mount the antennas on the boards.
- Make sure that the supply voltage jumpers JP1 are set on both boards
- Verify that the jumper configuration is equal to the default jumper setup:

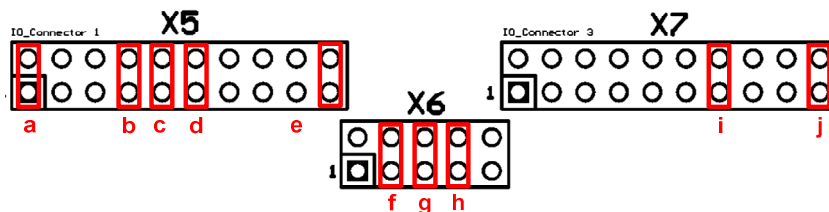


Figure 2-3: Default jumper set-up

Connect the Demo Board with an USB cable to your PC and switch S1 into position “USB”. If successful, the power LED (D6) and the USB LED (D5) are turned on. After the Demo Board is detected by your PC as a new hardware please follow the given instructions to install the new virtual COM port.

The red LED (D1) indicates that the radio module is awake and ready to receive instructions from the Wireless M-Bus Studio.

3 Wireless M-Bus Studio

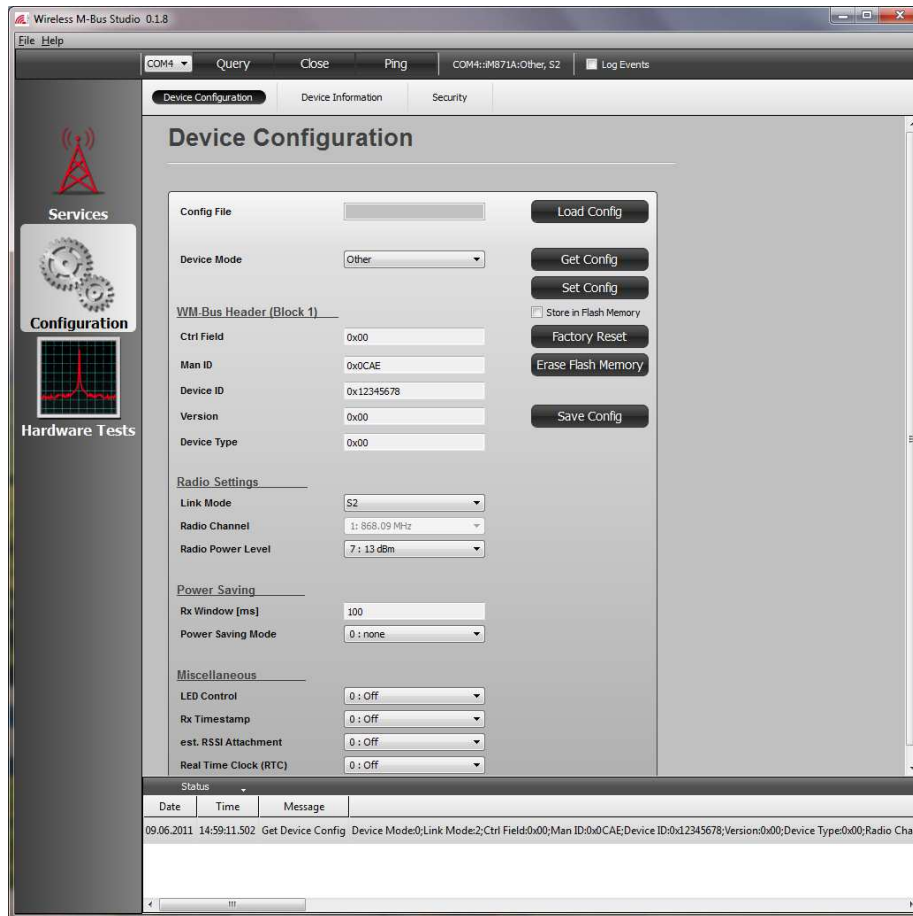


Figure 3-1: Wireless M-Bus Studio

1. Open the WMBus Studio tool to configure the radio module
2. Press *Query* button to get an updated list of COM ports
3. Select the used COM port from the COM port list
4. Press *Open* to connect to the Demo Board
5. Repeat step 1-4 for the second board (a new instance of the WMBus Studio is needed)
6. Be sure to choose a reasonable parameter combination to establish a Wireless M-Bus communication: Device Mode, Link Mode, Channel, if applicable (=> Get Config)
7. For a visual feedback the LED control can be enabled at both devices
8. Open the *Message Generator* (*Services* => *Message Generator*) at the local device to initiate sending example packets to the peer device

4 Important Notice

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