ZSTAR3PG
Rev 1, 11/2009

ZSTAR3 - Multiple Wireless Triple-Axis Reference Design Demo

Quick Install Guide

GETTING STARTED

The ZSTAR3 system accommodates multiple accelerometer boards, connected through an RF ZigBee® 2.4 GHz communication to a single USB node connected to a PC. The accelerometer boards measure acceleration in 3-axes using either a pin compatible digital or, optionally, an analog sensor. The sensor sensitivity is defined by the selected accelerometer. The USB node is part of the ZSTAR3 design, equipped with dedicated software supporting multiple nodes. For more detailed instructions, please refer to the ZSTAR3 (DRM103) reference design manual on the product CD or on the Freescale web site.

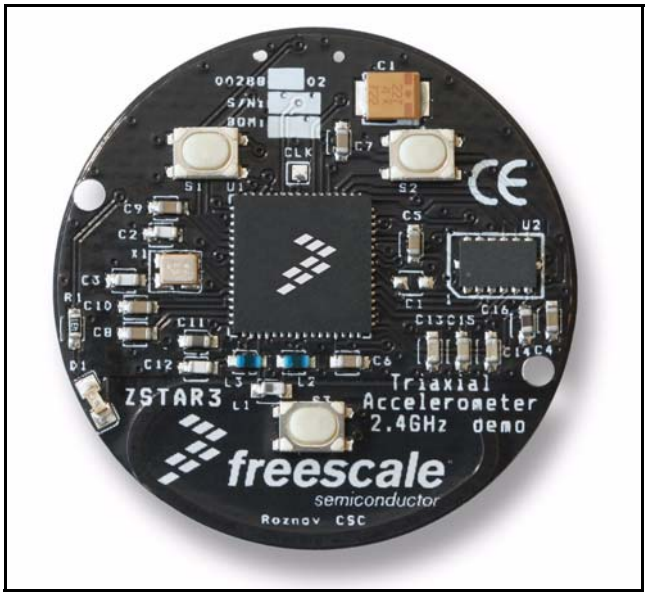

Figure 1. ZSTAR3 Demo Board

Step 1: Install The ZSTAR3 USB Stick Hardware

- Plug the ZSTAR3 USB stick to a free USB port on computer.
- Check the current active application that is running in USB stick. To start all functions of the USB stick, it has to be switched to the Virtual Serial Link application (default application from manufacturer). The Virtual Serial Link application should be recognized by the device manager or by the LED3 - if it is not periodically blinking. The application could also be switched by the button on the board.

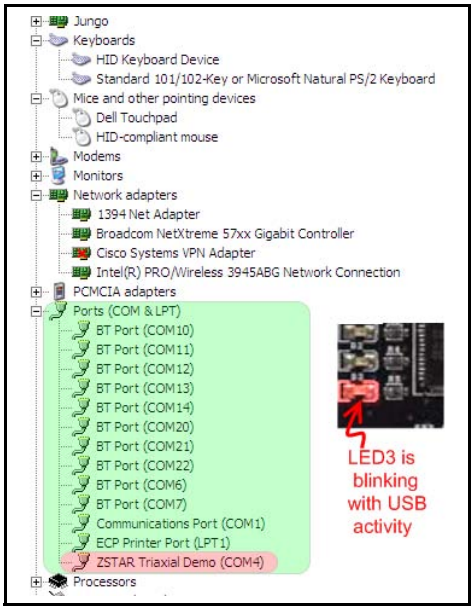

Figure 2. CDC Application Signs (device manager, LED indication)

Step 2: Install The ZSTAR3 USB Stick Software Drivers

- Install drivers for the ZSTAR3 demo. Drivers are included on the project CD or on the Freescale web site.

Note: The ZSTAR3 demo is designed and tested on the Windows XP system, thus Freescale does not guarantee that this demo will run on other systems.

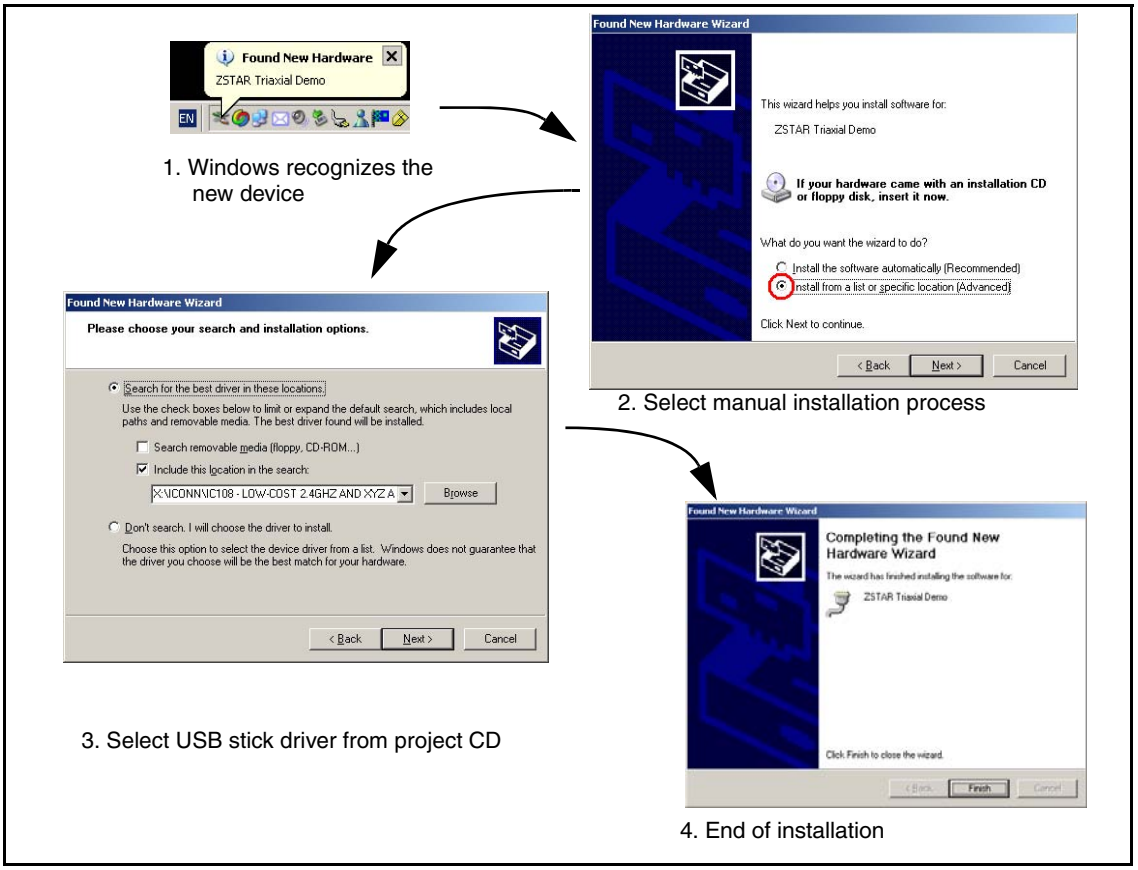

Figure 3. Installation Steps

Step 3: Connect Sensor Board to USB Stick

- Plug the battery (type CR2032 3V) into the battery holder on sensor board.

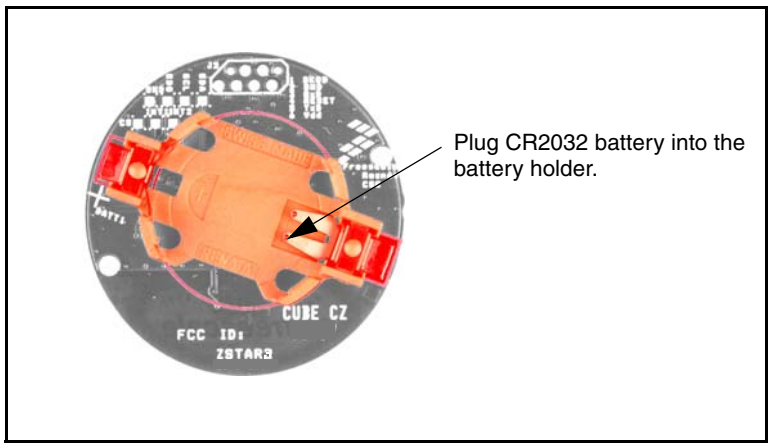

Figure 4. Battery Holder Location

- If the sensor board is only periodically blinking (frequency 6.5 Hz) for 8 seconds and then it goes to sleep mode, NetNum has to be erased in the flash memory. The NetNum can be erased by pushing all of the buttons on board together within wake-up sequence. The Sensor Board is connected when LED on board is blinking very fast (frequency 30 Hz).

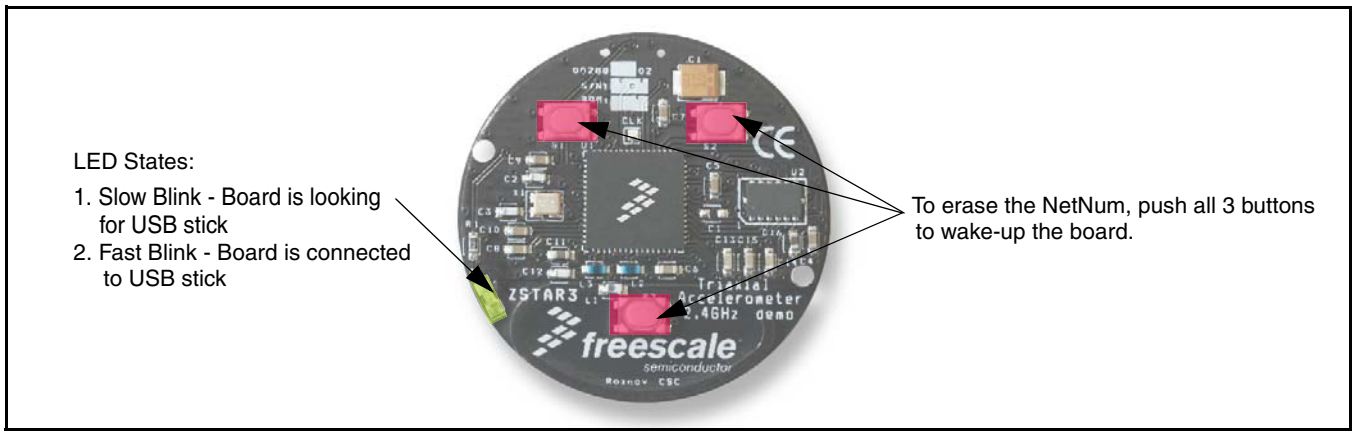

Figure 5. LED and Button Locations for Erasing NetNum

Step 4: Installation of ZSTAR3 GUI

- Install GUI software package from the project CD or from the Freescale web site

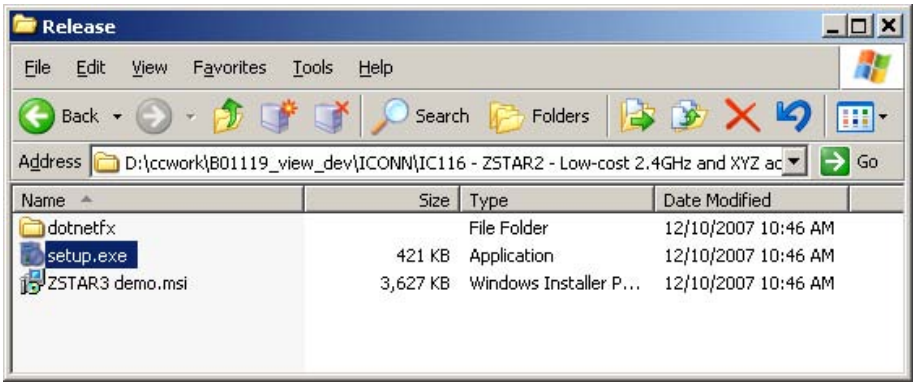

Figure 6.

- After installation, run this software and open communication port assigned to the ZSTAR3 USB stick.

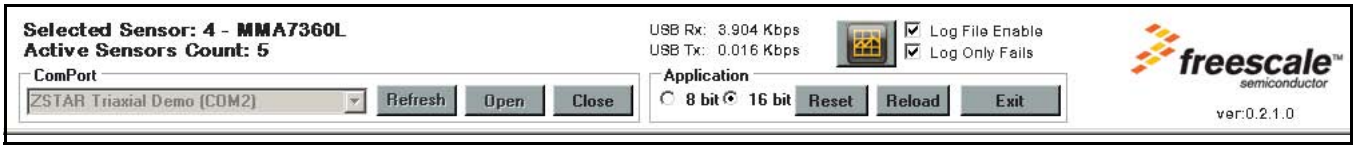

Figure 7.

Note: If the USB stick is connected during the GUI startup, then the GUI should recognize and open the ZSTAR3 communication port automatically.

Step 5: Optional Step - Add Next Sensor Board to ZSTAR3 Communication

- Keep all previous connected sensor boards running, and then wake-up the new sensor board by pushing all the buttons. This way, up to 16 sensor boards can be added to one USB stick.

Note: For easier installation for adding new sensor boards, it is recommended to run the ZSTAR3 GUI during this verification operation.

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