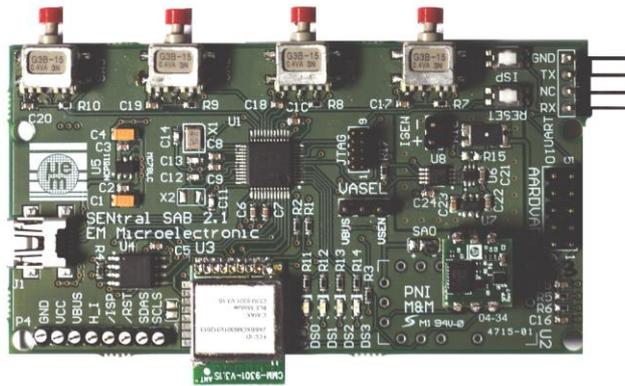




EM7180DVK QUICK START GUIDE

USB Memory Stick



SAB2 Board

Serial Port to USB Converter



Your EM7180DVK Development Kit contains:

- | **SAB2** Board featuring EM7180SFP sensor fusion platform module, Cortex M3 ARM processor, EM9301 BLE Module,...
- | **Serial converter** (UART to USB) to read out some data and its USB cable
- | **USB Cable** to perform different firmware updates and PC communication
- | **USB memory stick** containing the Host Application Kit Installation setup

Your Host Application Toolkit installer installs:

HOST APPLICATION TOOLKIT

- HAT API
- HAT API DOCUMENTATION
- APPLICATION BINARIES
- APPLICATION PROJECT SOURCE FILE
- SAB2 USER MANUAL

EM MONITOR

- EM MONITOR GUI SOFTWARE
- EM COMMAND SHELL
- EM MONITOR USER GUIDE

This quick start document guides you through the set-up of your development hardware kit, software and demo.

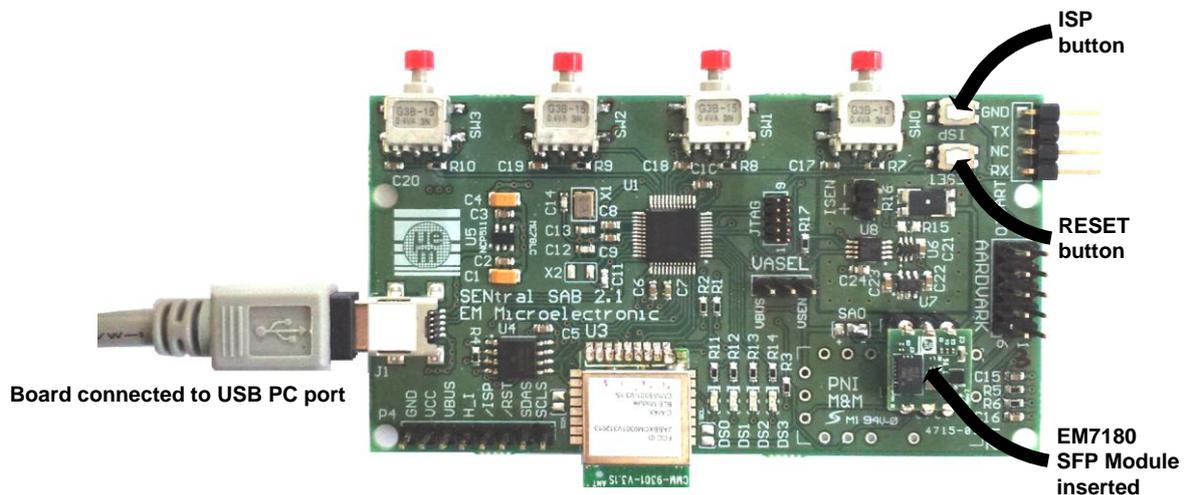
1 INSTALL THE HOST APPLICATION TOOLKIT SOFTWARE TOOL FROM THE USB STICK

- | Connect the **USB memory stick** to your PC
- | Open an **explorer** window
- | Click on the relevant **USB stick drive** (Host Application Toolkit *.msi)
- | **Double click** on this **setup executable file**

This setup will guide you through the installation process

2 BOARD SETUP

Before using the SAB2, firmware may need to be installed or updated.



- | Once connected to the PC through the USB port, a board which has not yet been programmed will show up as a typical Mass Storage Device labelled **CRP DISABLED** in the **explorer** window.
- | Simply delete any files on this device, and copy over the firmware file. In order to utilize the provided utilities (detailed following), load the firmware **I2CHID.bin** from {Installation path}\EM718x Host Application Toolkit\sab folder onto the board. Once copied press the **RESET** button on the board

Notes:

*If the board has already been programmed, then it will not enumerate as CRP DISABLED. In this case, press the **ISP** and **RESET** buttons, releasing the **RESET** button before the **ISP** button.*

For more details refer to the SAB2 User Manual

3 SOFTWARE APPLICATION

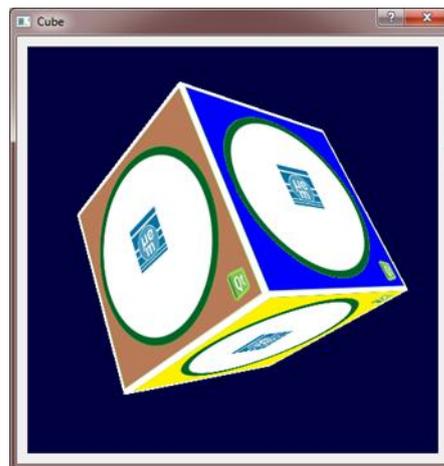
Several software applications are included for evaluating the EM7810SFP module. These applications require that the SAB2 have the **I2CHID.bin** firmware installed.

3.1 EM MONITOR

- | EM Monitor is a graphical application capable of displaying and plotting sensor data, recording data to file. Use the Start Menu **shortcut** EM Monitor x.y.z located under {Start Menu / EM Microelectronic / EM718x Host Application ToolKit} to launch the software.
- | Press the button **Connect** to see the different plots.



- | Press the button **Cube** to see the cube 3D-view



For more information, see the EM Monitor User Guide.



3.2 EM COMMAND SHELL

EM Command Shell is a modified Windows command line environment designed to make running the EM718x command line utilities easier.

The **em718xcli** is a command line utility for interacting with the EM7180SFP module.

- | To run the em718xcli, simply start the EM Command Shell
- | Then execute **em718xcli**. Usage and option information can be found by adding the -h or --help flag.

4 FIRMWARE

Several firmware images are provided for different functions and demos.

- | The firmware binary files can be found under {Installation path}\EM718x Host Application Toolkit\sab folder
- | The firmware source files and project files can be found under under {Installation path}\EM718x Host Application Toolkit\src\sab folder

For more details refer to the SAB2 User Manual (SAB2 Firmware application paragraph).

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