2. Hyperterminal is a serial communications application that is distributed with Windows. On the PC, navigate to "Start -> Programs -> Accessories -> Communications -> Hyperterminal" to start Hyperterminal. Create a new session, and connect using the COM port from step 1. The other settings are: 57600, 8, None, 1, None.

3. Press and release switch SW3 on the M1AFS board to reset the software and see the display of analog measurements on the Hyperterminal window.
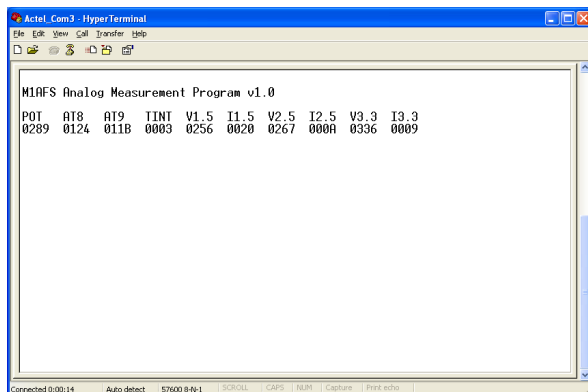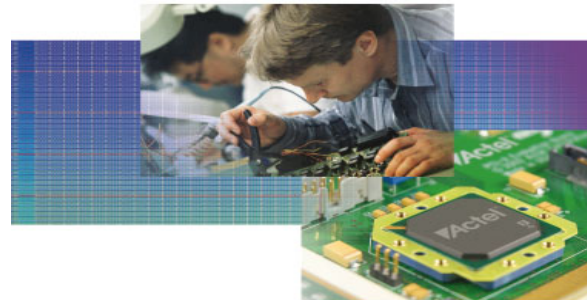

For additional information, please refer to the
Cortex-M1 Enabled Fusion Development Kit User's Guide

For support please contact SoC Solutions at
support@socsolutions.com

For product updates, please register this product at
http://www.socsolutions.com/ProdRegistration.aspx

Cortex-M1 Enabled Fusion Development Kit

M1AFS-DEV-KIT-SCS

Actel®

SoC Solutions™

Quick Start Guide

M1AFS with Cortex-M1 processor

1Mbyte SRAM

16Mbyte Flash

USB Connector (FlashPro3 Programmer)

USB / Serial Connector

LEDs

Switches
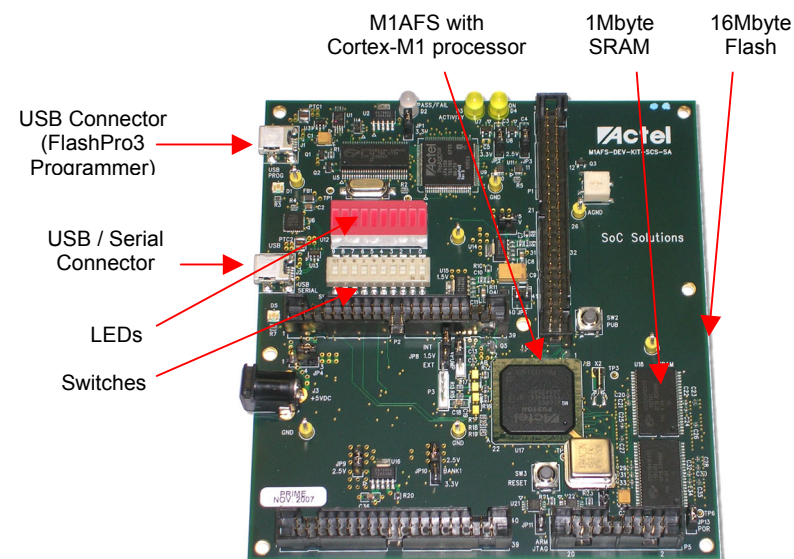
In the box…
- M1AFS Development Board
- Install CD
- Libero IDE (CD/DVD)
- 2 USB Cables
- 1 External 5-Volt Power Supply

Version 1.1 March 2008

Step 1a. Installing the Libero IDE and CoreConsole - SoftConsole tools

Follow the instructions provided with the Libero v8.x CD for installing Libero IDE, CoreConsole, and SoftConsole tools provided in the Libero IDE DVD case.

Step 1b. Check the Actel website for the latest tools.

Since the Cortex-M1 processor is new, it is important to download the latest Libero, CoreConsole and SoftConsole tools from the Actel Website.

Go to the following link and follow the Actel download instructions.
http://www.actel.com/download/default.aspx

For futher information on how to use the Libero, CoreConsole and SoftConsole tools, please refer to the documentation supplied in the Libero IDE DVD case, on the DVD/CDs or go to the Actel website.

Step 2. Installing the Cortex-M1 Enabled Fusion Development Kit using the Install CD

The Install CD contains the following:
- M1AFS Board Schematics, Layout, Datasheets
- Sample Design Project
- M1AFS Dev. Kit User Guide
- M1AFS Dev. Kit Quick Start Guide
- Available IP

Simply place the Install CD in the CD Drive on your PC of Laptop. The CD should automatically start an auto-run session. At this point, follow the instructions (prompts) on the "Install" dialog box.

The "Install" application will properly place all the documentation, sample project files and the USB Serial Port drivers in the C:\Actel_ M1AFS folder (default) or the user selected folder.

Step 3. Powering up the board

Before powering up the M1AFS board for the first time, please make sure the switches and jumpers are in the following, factory set, positions:

SW1:   All switches (0-9) are in the ON position.
Jumpers: **JP1, JP2, JP3, JP4(1-4), JP5, JP7(2-3), JP8(2-3), JP9, JP10(1-2), JP13** are installed.
               All others are not installed.

Apply power to the board by connecting one end of the 5-Volt power supply to the J3 connector on the M1AFS board and the other end to a power outlet.

Next, plug in one end of a USB cable to the PC and the other to the J1 USB (PROG) connector on the M1AFS board.

Note: If prompted for FlashPro3 USB drivers, see the Libero 8.x documentation for instructions on installing the drivers.

Next, plug in the second USB cable, between the PC and the J2 USB (SERIAL) connector on the M1AFS board. You should see the LED near the J2 connector illuminate.

Note: The PC will detect that new hardware is installed. The "add new hardware wizard" will take care of the USB driver installation. The wizard may ask for a location for the drivers. The drivers are located in the "C:\Actel_M1AFS\Sample Design\USB_Drivers" folder.

Step 4. Running the "Sample Design"

The M1AFS board is shipped with an example analog measurement program loaded in the onboard flash memory. After the board is powered in Step 3, you should observe the LEDs illuminate in a pattern that reflects a voltage measurement across a potentiometer at R6. Change the measured voltage across R6 by rotating the dial on the potentiometer at R6 with a screwdriver, and watch the LED pattern change.

To further explore the capability of the development kit, and to see more analog measurements, use the following procedure:

1. Find the PC COM port that corresponds to the RS-232 USB chip connected to J2.

    On the PC, click the Start button and open up the "Device Manager" by navigating to "Start -> Control Panel -> System". Then click the "Hardware" tab, then the "Device Manager" button.

    Expand the "Ports (COM & LPT)" tree in the view and note the COM port (highlighted in the figure).