4 CCStudio v4/5 Setup

In the CCSv4/5 Target Configuration General Setup window (see figure 3 below) simply select the **Texas Instruments XDS100v2 USB Emulator** connection and then check your device or board in the list. Save this setting and launch the TI Debugger.
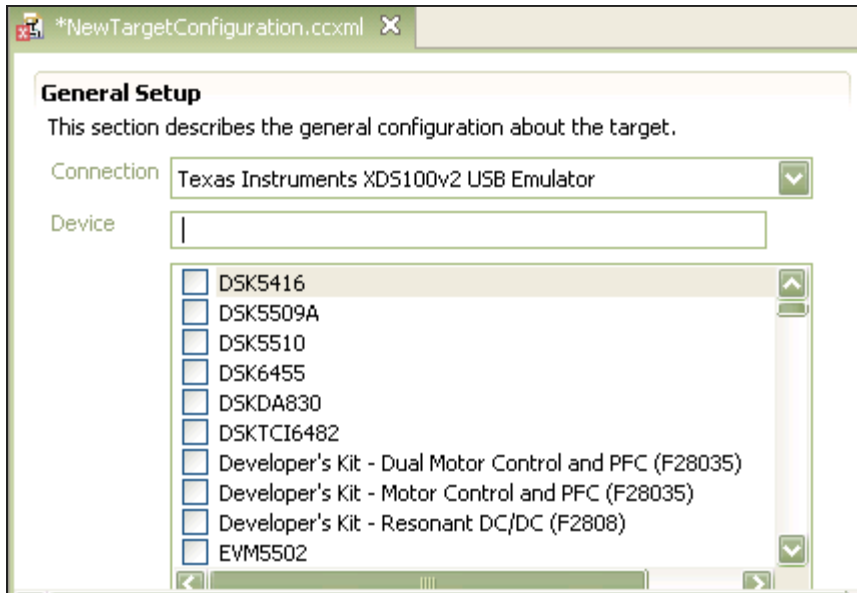

FIGURE 3 - XDS100v2 Target Setup and Selection

Follow these links for more details on XDS100v2 setup using CCStudio v5:

- http://processors.wiki.ti.com/index.php/CCSv5.
- http://processors.wiki.ti.com/index.php/Target_Configuration_-_Custom_Configurations.

Additional XDS100v2 Information

Follow this link for more details and support on the XDS100 product:

- http://processors.wiki.ti.com/index.php/XDS100.

Blackhawk™ USB100v2-ARM JTAG Emulator (USB100v2-ARM)

XDS100v2 JTAG Emulators Require:

Windows: **Code Composer Studio v4 or later**[†]

Linux: **Code Composer Studio v5 or later**[†]

Install CCS v4 or v5 before connecting XDS100v2 hardware!

You will also need:

- PC or Notebook computer with at least one free USB v1.1 or v2.0 port.
- Linux or Windows® 2000/XP/Vista/7 Operating Systems (32 or 64-bit versions).

Inventory of Items Included

1. Blackhawk **USB100v2-ARM** Emulator.
2. 20-pin JTAG Cable (0.100" spacing)
3. 10-pin JTAG Cable (0.050" spacing)
4. USB 2.0 Compliant Cable.
5. Warranty and Product Registration Information.
6. Quick Start Guide.

Other Items Required

1. Target Board System — a self-powered board with a TI DSP and compatible JTAG header connection conforming to IEEE 1149.1 Standard.
2. Copy of Code Composer Studio v4[†] or later.

IMPORTANT ENVIRONMENTAL CONSIDERATIONS

This equipment is designed to be operated under the following environmental conditions:

Temperature between 0°C – 55°C. Relative Humidity of 20% - 70% non-condensing.

Operation of the unit outside of the above range may affect structual and mechanical integrity and cause permanent damage.

Caution is necessasry to minimize ESD (Electro-static Discharge) which can damage electronic components. Use in a controlled environment where ESD materials and practices are employed is highly recommended.

[†] CCStudio v5 is available for download from the TI web site for use with XDS100 products **free-of-charge**. Please visit this TI Wiki page for more info: http://processors.wiki.ti.com/index.php/CCSv5.

1 Emulation Driver Installation

Code Composer Studio v4/5 Must be Installed FIRST

XDS100v2 Drivers are installed as part of CCS v4/5 or CCS v4/5 update. By default, the drivers are installed to the following folder:

```
C:\Program Files\Texas Instruments\ccsv4\common\uscif\ftdi
C:\ti\ccsv5\ccs_base\common\uscif\ftdi
```

For more information on CCS v5, refer to the TI documentation and help resources and the following link:

http://processors.wiki.ti.com/index.php/CCSv5

2 Hardware Installation

W A R N I N G
Be careful when connecting the ribbon cables. Pin 1 on the interface cable should match Pin 1 on the USB100v2-ARM and DSP system connectors.

Do not force connector into position. Forcing them may damage the connector or the interconnected boards and systems.

1. **Install Code Composer v4/5 software FIRST.** DO NOT ATTACH EMULATOR HARDWARE UNTIL CCSv4 IS INSTALLED.

2. Attach the proper JTAG target cable. Make sure the target board is **not powered** and that you only connect **one cable**.

   - If your target uses a 20-pin (2x10) header, attach the supplied 20-pin cable to the emulator's 20-pin header (see figures 1 and 2).

   - If your target uses a 10-pin (2x5) header, attach the supplied 10-pin cable to the emulator's 10-pin header before connecting to your target (see figures 1 and 2).

3. Attach the USB cable to an available USB port on the PC.

4. Then attach the other end of the USB cable (mini-B connector) to the USB Mini-B connector of the `USB100v2-ARM` Emulator (see Figure 1).

5. For Windows, follow the Plug and Play installation in section 3 for the Windows device driver. Otherwise, skip to section 4 to setup and start Code Composer Studio.
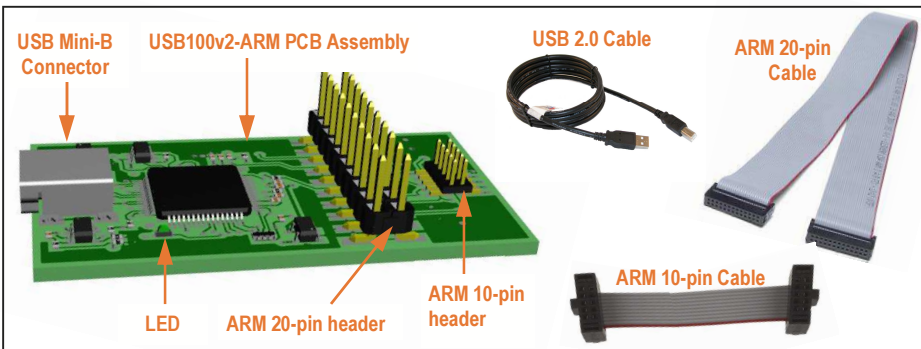
FIGURE 1 - USB100v2-ARM JTAG Emulator PCB and Cables

USB PnP Installation 3

Windows 2000/XP/Vista/7 (32 and 64-bit)

1. **Install Code Composer Studio v4/5 FIRST**. DO NOT ATTACH EMULATOR HARDWARE UNTIL CCSv4 IS INSTALLED.

2. Complete step 1 above, then if not already connected, connect the USB cable to the computer and to the `USB100v2-ARM` emulator.

3. If prompted, follow the Windows "Found New Hardware" wizard prompts.

4. You can select the "automatic" option for locating drivers.

5. When completed, Windows Device Manager will show the device under the Universal Serial Bus controllers as TI XDS100 Channel A and TI XDS100 Channel B.

6. Now follow the Code Composer Studio Setup - Section 4

Linux (32 and 64-bit)

Linux does not require the same installation as Windows. To check if your USB devices has enumerated, use the command: `lsusb`. And look for output similar to this:

Bus 001 Device 002: ID 0403:a6d0 Future Technology Devices International, Ltd

1. Go to section 4 - Code Composer Studio Setup

XDS100v2-ARM - PROPER RIBBON CABLE ORIENTATION
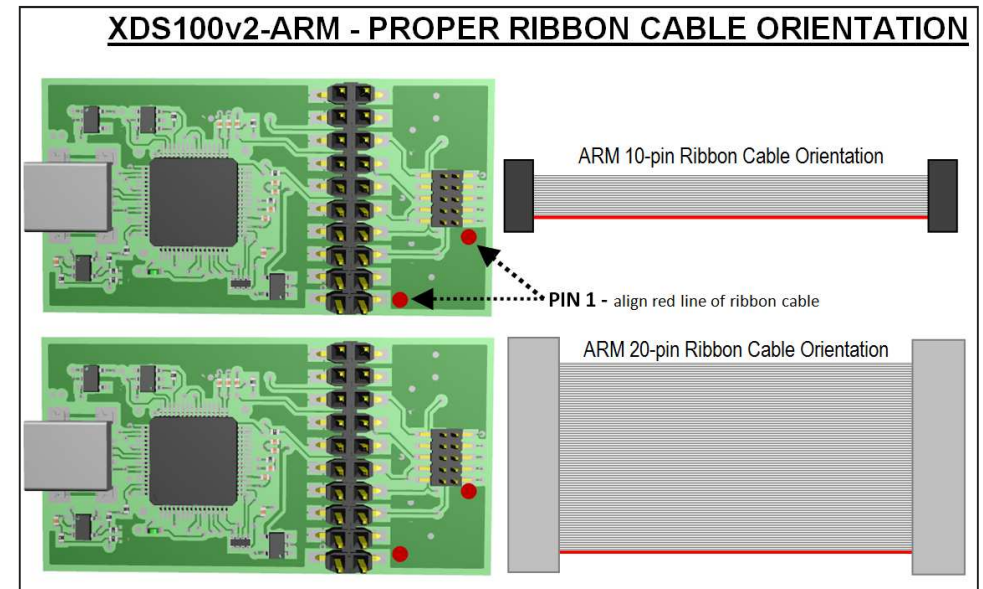
FIGURE 2 - Proper JTAG Cable Connections and Orientation