

CANvu 350

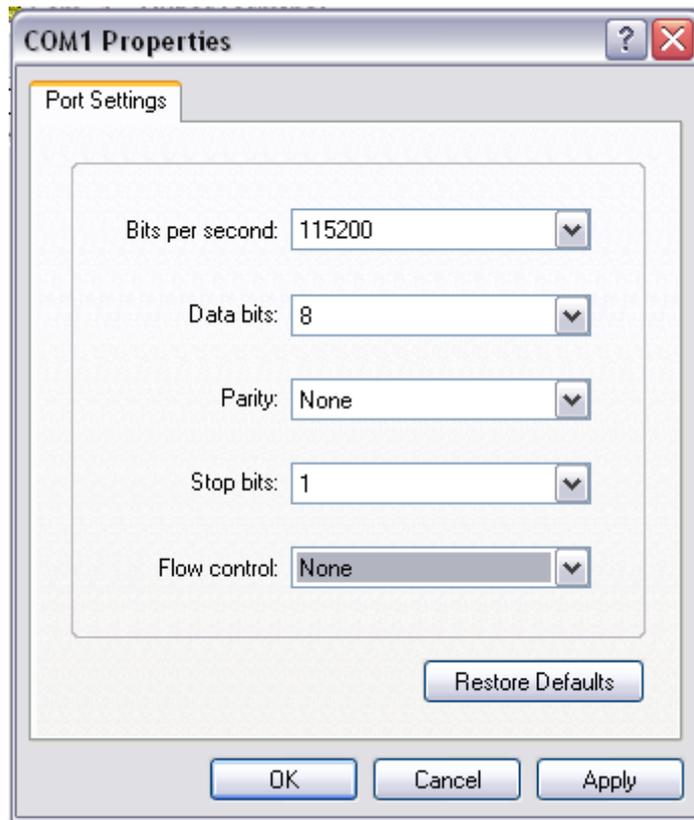
SDK

1. Hardware specification

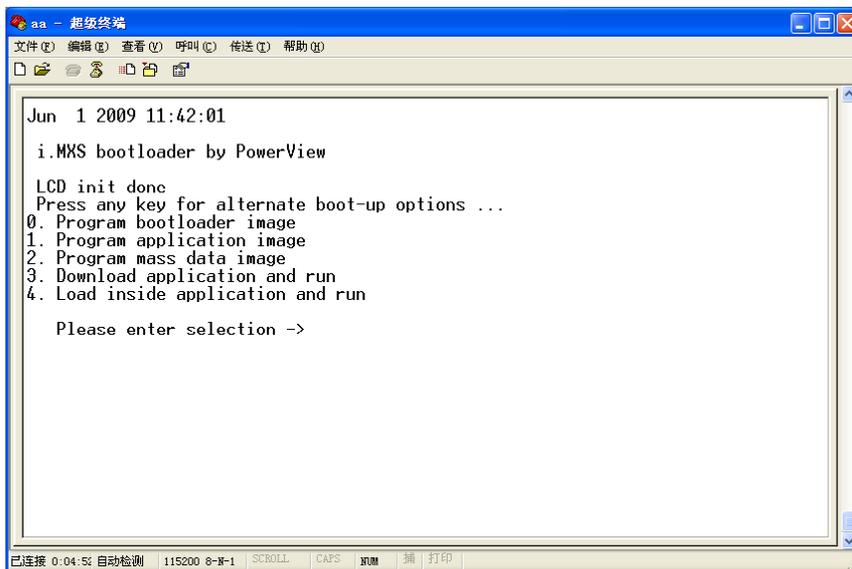
Item	Description
CPU	MC9328MXS, ARM920T core
FLASH	16MB
SDRAM	64MB
DISPLAY	QVGA TFT
USB	USB slave
RS232	1 port
RS485	1 port
CAN2.0B	1 port
Buzzer	1
Keypad	5 keypad
Power	10-36VDC with protection

2. To Load Binary to CANvu 350 - you will need both RS232 and USB connections

- i. Connect board to PC by RS232
- ii. Open HyperTerminal (or Tera-Term) with settings 115200,8,none,1,none

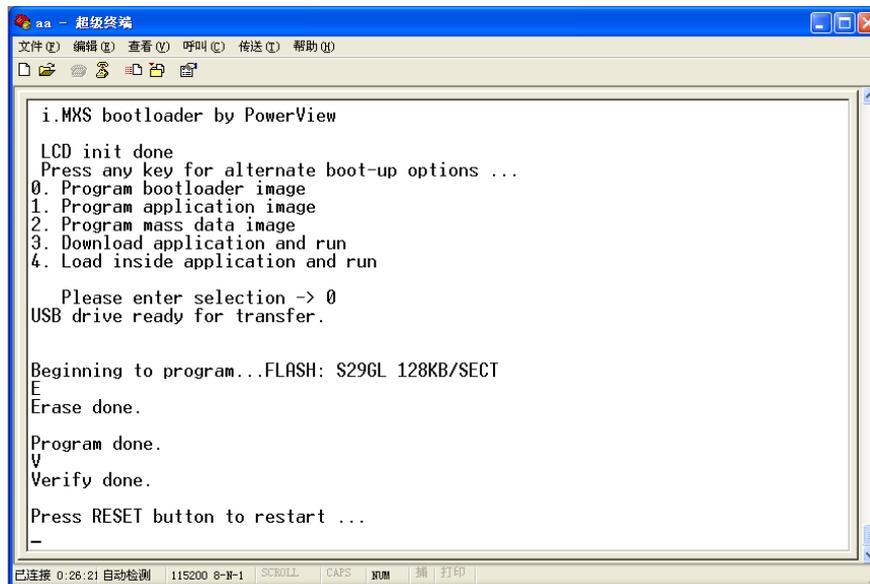


- iii. Press keypad 2 and keypad 3 together and Power-on the CANvu350.
- iv. Select option 1 to update application (don't use other options!)



- v. In HyperTerminal the message "USB drive ready for transfer." will appear. Plug the USB cable direct to your PC. Operation via USB hub will not work so only connect direct to PC.
- vi. Wait until the removable disk appears on your PC, copy the relevant binary file to the removable disk and then right-click on the removable disk and select "eject".

- vii. In HyperTerminal screen you should see “Beginning to program...”, and this will be complete when you see “Press RESET button to restart ...” . Now turn off the power to the CANvu350 and then turn on again to boot the new application.



```
i.MXS bootloader by PowerView
LCD init done
Press any key for alternate boot-up options ...
0. Program bootloader image
1. Program application image
2. Program mass data image
3. Download application and run
4. Load inside application and run

Please enter selection -> 0
USB drive ready for transfer.

Beginning to program...FLASH: S29GL 128KB/SECT
E
Erase done.

Program done.
V
Verify done.

Press RESET button to restart ...
-
```

3. Application development environment - PC

- i. You will need a recent version of Visual Studio Express C++ or the full Visual Studio 2008 tool chain. You will also need a recent Windows SDK which includes MFC.
- ii. Open the VS solution CANvu 350 Simulator.sln in the example/demo1 folder.
- iii. The SDK Basic Demo configuration should build and then you can run in debug to test
- iv. You can now modify the project and see the results!
- v. Note if you add modules to the project you will need to keep the Codeblocks project in alignment so you can both build for the PC and for the CANvu350 hardware.
- vi. If you get an error message similar to "Cannot find file "afxres.h" then there is a work around for this by editing the file CANvu350.rc as follows:

Replace

#include "afxres.h"

with these two lines

#include "windows.h"

#define IDC_STATIC 1

4. Application development environment - ARM

- i. Install Codesourcery Lite

This can be download here:

<http://www.codesourcery.com/sgpp/lite/arm/portal/package4466/public/arm-none-eabi/arm-2>

[009q1-161-arm-none-eabi.exe](#)

This is the free version. You can use the professional version also.

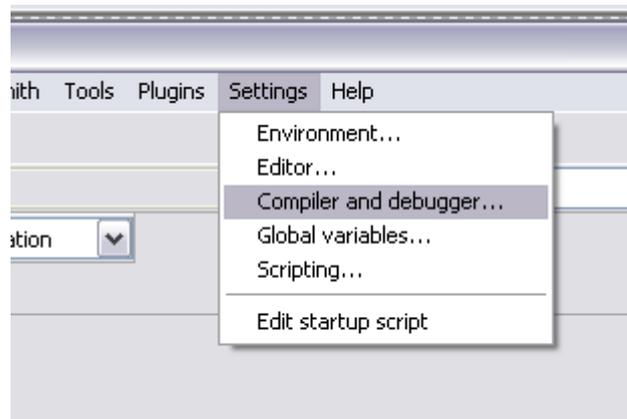
ii. Install CodeBlocks 8.02. CodeBlocks 8.02 can be downloaded from here:

<http://downloads.sourceforge.net/codeblocks/codeblocks-8.02-setup.exe>

if these links are invalid, go to these websites to find the right one. Codesourcery homepage is <http://www.codesourcery.com> and codeblocks homepage is www.codeblocks.org (nightly build is in forums.codeblocks.org).

iii. CANtronik have already supplied Codeblocks projects which are set for the default install paths for the Compiler and also for the demo projects.

To configure CodeBlocks, you have to go to Settings\Compiler and debugger...



You have to choose “GNU ARM GCC Compiler” and in “Toolchain executables” you have to change the “Compiler’s installation directory” and all the “Program Files”. See the following print screen:

