

Connecting serial communications and power

- An ANSI terminal or a PC running a terminal emulator is required to communicate with your Embedded PC. The serial parameters are 9600 baud, 8 data, and no parity. If you are running Linux, the minicom program works well, Windows users can run the Hyperterm application.
- Connect the DB9 ribbon cable to the COM2 header on the EPC. The 10 pin female connector should be oriented so that the red lead on the ribbon cable is toward pin 1 (pin 1 is closest to the “COM2” label and has a square pad) .
- Then connect the DB9 male connector to a null modem cable. Connect the other end of the null modem cable to a serial port on the host. Technologic Systems offers a null modem cable with both 25 pin and 9 pin connectors at each end as part number CB7-06.
- Connect a regulated 5VDC, (500mA minimum) power source using the included 2 screw terminal strip/connector. Please note the polarity printed on the board.

Startup sequence

- Apply 5VDC power. The board mounted LED will blink twice, followed immediately by the display of the standard PC POST messages, memory test, and configuration data on your terminal. (Assumes JP2 is installed).
- After the power on self test the system boots DOS from ROM and executes the ‘autoexec.bat’ file.
- The autoexec runs ‘command.com’ and displays the ‘A:\’ prompt. At this point the system is still running the ‘autoexec.bat’ file, the call to ‘command.com’ is just a shell. Type “exit” to leave the command shell so the ‘autoexec.bat’ file will terminate. Now you may edit the autoexec file using ‘ed.exe’ if you wish.

Notes:

To free up disk space on the A: drive you can delete the entire A:\DOS directory. The DOS directory is not required to run DOS on the single board computer, ROM-DOS is loaded from a read only portion of flash and is therefore non-volatile. You should retain the ‘command.com’ program in the root directory if possible, as this makes the command interface much more usable. The DOS directory is available on the floppy disk, if you need to restore any of the DOS programs. You can also delete any of the files in the A:\util directory that you don’t require. Make sure to delete any references to files you delete from the ‘autoexec.bat’ file so the system doesn’t hang. Also don’t delete console.exe, dsz.exe, or dl.bat if you want to use zmodem download, all three are required.

DOS utilities	All source code for the utility programs is available on the floppy disk you received, or on the Technologic Systems web site (www.embeddedx86.com)
command.com	Run this from the command prompt for a more DOS like environment, type 'exit' to leave.
A:\Util \	
console.exe	Allows control of console redirection (screen and keyboard) baud rate and COM port.
dsz.exe	Z modem transfer program, see A:\util\dsz.zip on the floppy.
dl.bat	Batch file for Z modem download from host computer using COM2.
ul.bat	Batch file for Z modem upload to host computer using COM2.
ed.exe	Simple line editor, see the document A:\doc\ed.man on the floppy.
sbc-test.exe	Comprehensive test program, some tests require special test hardware to pass.
epclcd.exe	LCD port test program.
lcd-test.exe	LCD BIOS function test program.
flashup.exe	Flash drive utility to create/restore complete flash disk images, see A:\doc\flashup.pdf
int.com	Software interrupt utility, see A:\doc\int.doc on the floppy disk.
int3.com	Calls BIOS debugger, type '?' at the debugger command prompt for help.
led_off.com	Turns off board mounted LED.
led_red.com	Turns on board mounted LED.
led_redx.com	Toggles board mounted LED.
reset.com	Turns on the CPU's watchdog timer, which causes a hard reset of the system.