Technical Information **BULLETIN** EPD E86 Family

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Products: 186CC Customer Development Platform
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PARADIGM C++ LITE AMD DEMO: INSTALLING PDREMOTE/ROM DEBUGGER ON 186CC CUSTOMER DEVELOPMENT PLATFORM

Reference the following procedure for uploading the PDREM.HEX file to the 186CC CDP target hardware. The 186CC CDP project directory includes the PDREM.HEX file, which is specifically customized for the 186CC CDP. If using the Paradigm C++ Lite wizard, the software generates the PDREM.HEX file customized for the target hardware.

⇨ Connect COM 1 on the PC to the high-speed UART, and set switch 2 (labeled SW2) to C2 (high-speed UART).

⇨ Following the Quick Start instructions provided with the CDP, power up the 186CC CDP with SW9 configured with #5 enabled (enabling the high-speed UART).

⇨ Download and install Paradigm C++ Lite.

⇨ Open in your program file folder:
Paradigm\Pdremote.Rom\Real\Targets\Am186CC-CDP.

⇨ You will find 3 files: Pdrem.hex, Pdrem IDE, and a Readme.

*** If you do not find these files then search the Paradigm directory for 'Pdrem.hex'.

⇨ Create a folder in your hard drive directory and title it "Demo". Copy the Pdrem.hex file into the new "Demo" folder (for example: C:\Demo\Pdrem.hex). This will satisfy the DOS naming convention requirements for loading the hex file later.

⇨ Open Paradigm C++ Lite and go to the Tools menu:
Tool => PDREMOTE/ROM Loader

⇨ Select the PC serial port and baud rate for communicating with the target board. You can use any value up to 115KB, but if you cannot connect to the target at the highest baud rate then try a lower one, such as 38400. The default is Port = COM1, BAUD = 15200, File = PDREM.HEX.

⇨ Using the Paradigm Debugger Window (PDREMOTE/ROM Loader), hit reset on the CDP and type 'a' to auto-baud. You should see:
"Welcome to AMD's EMon186! (? <Enter> for help)"

⇨ Type 'XA' to clear the contents of Flash. This will display:

```
Erasing flash sector at 80000
Erasing flash sector at 90000...
Erasing flash sector at A0000...
Erasing flash sector at B0000...
Erasing flash sector at C0000...
Erasing flash sector at D0000...
Erasing flash sector at E0000...  Protected! (not erased by XA)
Erasing flash sector at F0000....
```

- ⇨ Hit the 'F8' key to select a file and type the new location of Pdrem.hex (for example, type "C:\Demo\Pdrem.hex"). Now the "File = " line should read "File = C:\demo\Pdrem.hex". You must do this step to direct the debugger to the new location of the file.

- ⇨ Hit the 'F6' key. The debugger should display:

```
:02000002F0000C
Transferring hex file (Press Esc to abort)......
.................................................
....
Device programmed successfully
Note -- the flash operation used (overwrote) the
RAM.
cc86mon:
```

- ⇨ When the download is complete, reset the target board. After three seconds, the LED located at CR7 on the CDP should flash rapidly, indicating that PDREMOTE/ROM is now running and is ready to begin an auto-baud sequence. You can send a NUL character using the F2 key and each time the LEDs will blink slower, signifying different baud rates.

- ⇨ PDREMOTE/ROM is now ready to connect with the Paradigm C++ debugger so you may now load any of the example programs.

LOADING AN EXAMPLE PROGRAM USING PDREMOTE/ROM

- ⇨ To load the 'Seconds.hex' example from the E86MON disk included with your CDP kit, copy the 'Seconds.hex' file into your new 'Demo' folder on your hard drive (C:\Demo\Seconds.hex).

- ⇨ Reset the CDP. Do NOT hit 'a' to autobaud! When you autobaud, the CDP jumps to the E86MON program and does not run Pdrem.hex. The LED located at CR7 on the CDP should flash rapidly.

- ⇨ Hit the 'F8' key to load the 'Seconds.hex' file and type the location of the Seconds.hex program, which is in your 'Demo' folder (for example, type "C:\Demo\Seconds.hex"). The "File = " line should now read "File = C:\demo\seconds.hex".

- ⇨ Hit the 'F6' key to load the program. If successful, the debugger window will show the number of characters transmitted to the CDP and the LED at CR7 will blink steadily.

*** There are two README files that contain tips for starting a debugging session. Please reference the first README file at: Paradigm\Readme. The second README file is located at: Paradigm\examples\AMD Targets\Real\AM186CC-CDP\LedDemo\Readme.