



MPC8360E-RDK Boots to Functional Test instead of U-Boot

Important Notice

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Abstract

Some MPC8360E-RDK Pilot development kits did not have memory updated in the final step of production, thereby causing those kits to boot to the functional test client instead of the U-Boot bootloader. This paper explains how to determine if this affects your kit and then provides instructions to move U-Boot to the proper bootable memory location.

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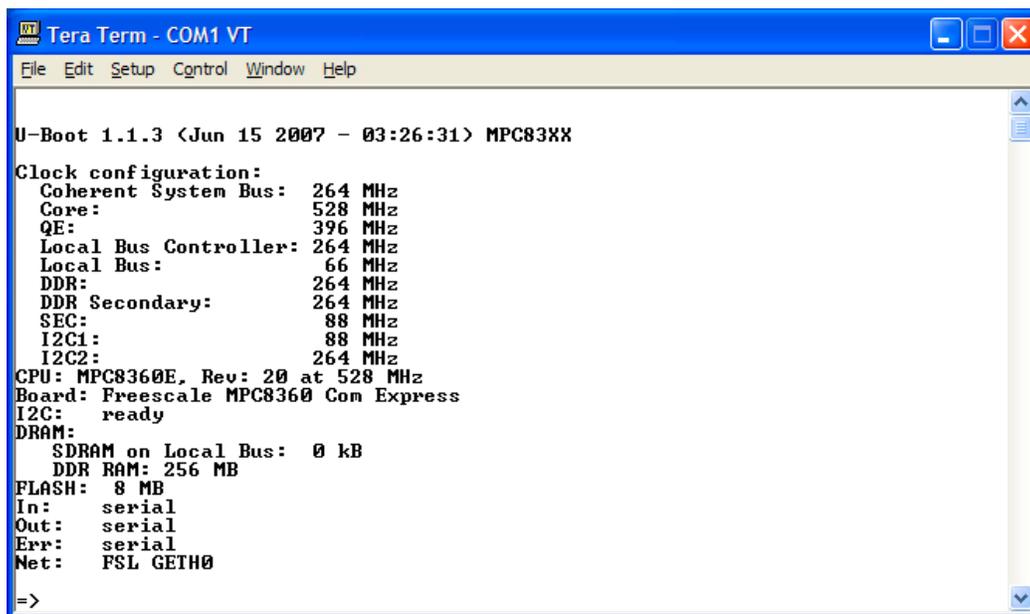
REVISION HISTORY

| REV | EDITOR | DESCRIPTION | APPROVAL | DATE |
|-----|--------------|-----------------|----------|----------|
| A | Jed Anderson | Initial release | JMC | 11/01/07 |

1 Introduction

Some MPC8360E-RDK Pilot development kits did not have their memory updated in the final step of production. Because of this, a functional test client is still loaded into the bootable memory location instead of the U-Boot bootloader.

If when you boot your MPC8360E-RDK and you see the following output, U-Boot was loaded to the proper location in memory and you do not need to proceed further with this Important Notice.



```
Tera Term - COM1 VT
File Edit Setup Control Window Help

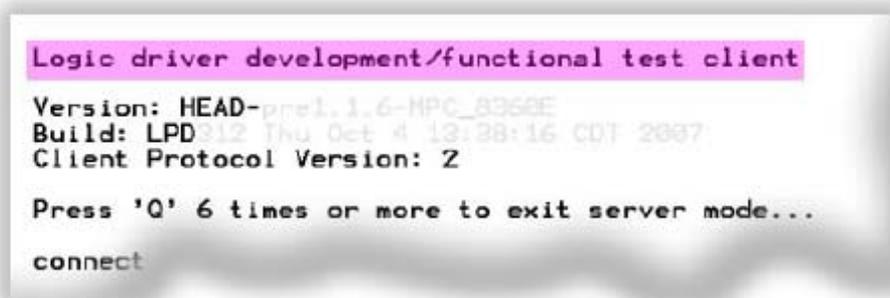
U-Boot 1.1.3 <Jun 15 2007 - 03:26:31> MPC83XX

Clock configuration:
Coherent System Bus: 264 MHz
Core: 528 MHz
QE: 396 MHz
Local Bus Controller: 264 MHz
Local Bus: 66 MHz
DDR: 264 MHz
DDR Secondary: 264 MHz
SEC: 88 MHz
I2C1: 88 MHz
I2C2: 264 MHz
CPU: MPC8360E, Rev: 20 at 528 MHz
Board: Freescale MPC8360 Com Express
I2C: ready
DRAM:
  SDRAM on Local Bus: 0 kB
  DDR RAM: 256 MB
FLASH: 8 MB
In: serial
Out: serial
Err: serial
Net: FSL GETH0

=>
```

Figure 1.1: U-Boot Splash Screen

If when you boot your MPC8360E-RDK you see the following output, the functional test client is still installed in bootable memory and you will need to follow the steps outlined in Section 2 to move U-Boot into the proper memory location.



```
Logic driver development/functional test client
Version: HEAD-ppt1.1.6-MPC_8360E
Build: LPD312 THU Oct 4 13:38:16 CDT 2007
Client Protocol Version: 2

Press 'Q' 6 times or more to exit server mode...

connect
```

Figure 1.2: Functional Test Client Splash Screen

2 Steps to Move U-Boot to Bootable Memory Location

To replace the functional test client code with the U-Boot bootloader, proceed through the following steps:

1. After power-on, press and hold the 'Q' key on the keyboard for about 2 seconds and then wait until the test client program displays the command prompt.
2. At the command prompt, type the following command:

```
memcpy 0x1a000000 0x0007950c 0x000332e8
```

and then press the <enter> key. This copies the U-Boot code from NOR flash to DDR SDRAM.
3. Next, type the following command:

```
nor 0x1a000000 0x00000000 0x000332e8
```

and then press the <enter> key. This burns the U-Boot code to NOR flash starting at address 0, thus overwriting the functional test client code.
4. Reboot the development kit and, when the kit powers on, you should see the U-Boot splash screen, as shown in Figure 1.1.