

S3C6410 Mango64R2 How to write on Openocd

<http://www.mangoboard.com/>

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Document History

Revision	Date	Change note

목차

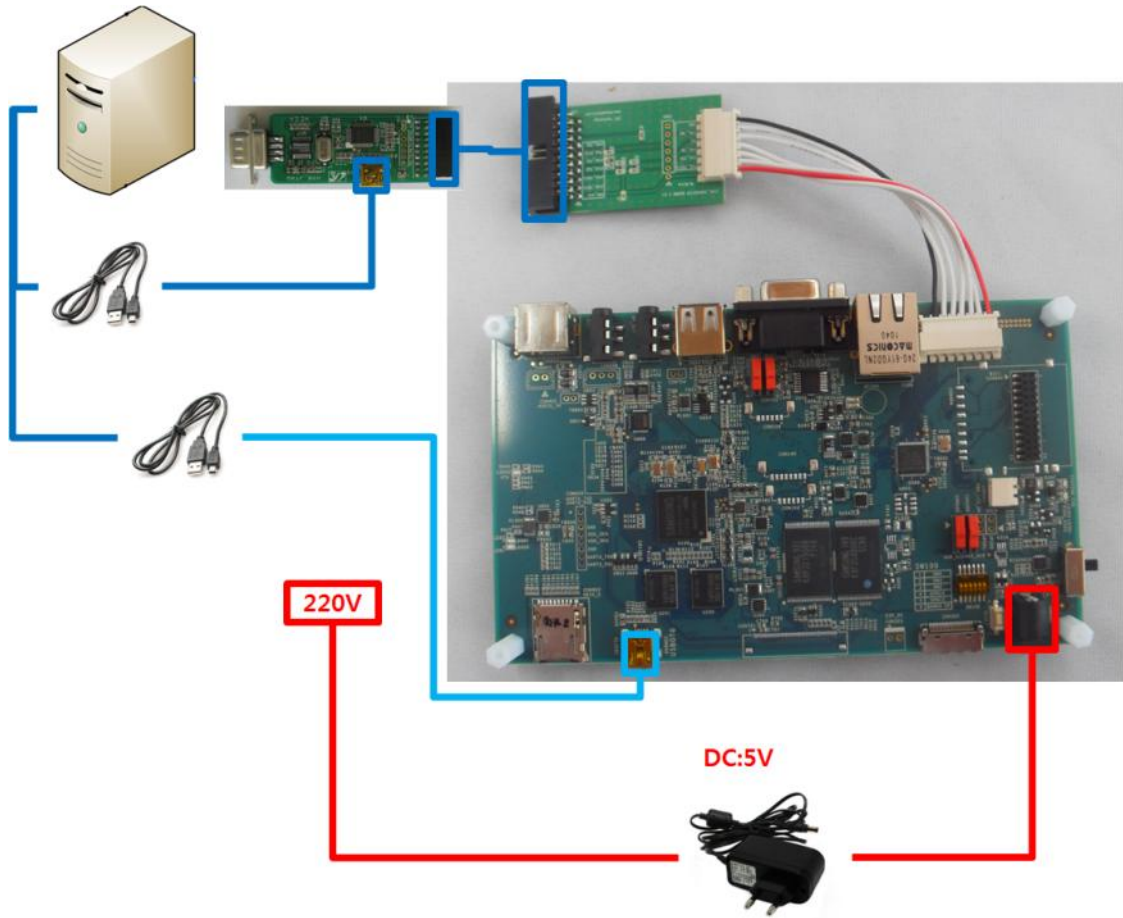
1.	S3C6410 Mango-R6410 Transfer image to target.....	4
1.1.	NOR Download.....	오류! 책갈피가 정의되어 있지 않습니다.
1.1.1.	NOR Falsh image Download and Reference.....	오류! 책갈피가 정의되어 있지 않습니다.
1.1.2.	NOR Flash Write.....	4

1. S3C6410 Mango64R2 Openocd Nor Flash Write 방법

Mango64_Openocd_Cygwin_120817.zip



1.1.1. NOR Flash Write



USB OTG 및 FT232 USB JTAG 연결 NOR Boot Mode 설정 후 DC 전원인가
 Openocd .exe 파일이 있는 위치에서 Dos Command 창 실행
 openocd.exe -f mango64nor.cfg 입력

```
D:\Mango64-OpenOCD-Cygwin-091210>openocd.exe -f mango64nor.cfg
```

```
Open On-Chip Debugger 1.0 (2009-04-30-01:48) svn:1547
```

```
BUGS? Read http://svn.berlios.de/svnroot/repos/openocd/trunk/BUGS
```

```
$URL: svn://svn.berlios.de/openocd/trunk/src/openocd.c $
```

```
jtag_speed: 5
```

```
Info : JTAG tap: s3c6410.unknown tap/device found: 0x2b900f0f (Manufacturer: 0x787, Part: 0xb900, Version: 0x2)
```

```
Info : JTAG Tap/device matched
Info : JTAG tap: s3c6410.cpu tap/device found: 0x07b76f0f (Manufacturer: 0x787, Part:
0x7b76, Version: 0x0)
Info : JTAG Tap/device matched
Info : found ARM1176
Warn : no telnet port specified, using default port 4444
Warn : no gdb port specified, using default port 3333
Warn : no tcl port specified, using default port 6666
```

다른 Dos Command 창 실행 후
telnet localhost 4444 입력

```
D:\Mango64-OpenOCD-Cygwin-091210>telnet localhost 4444
```

telnet localhost 창 확인



script mango64-nor.tcl입력

mango64-nor.tcl 내용

```
flash banks
halt
flash info 0
flash erase_address 0 0x10000
flash write_bank 0 6410nor.bin 0x0
verify_image 6410nor.bin 0x0 bin
```

```
Open On-Chip Debugger
> script mango64-nor.tcl
Debug entry: JTAG HALT
target state: halted
```

target halted due to debug-request

cpsr: 0x600001d7 pc: 0x00000010

Flash Manufacturer/Device: 0x00ec 0x257e

#0: cfi at 0x00000000, size 0x00400000, buswidth 2, chipwidth 2

0: 0x00000000 (0x2000 8kB) protection state unknown

1: 0x00002000 (0x2000 8kB) protection state unknown

.....

68: 0x003d0000 (0x10000 64kB) protection state unknown

69: 0x003e0000 (0x10000 64kB) protection state unknown

70: 0x003f0000 (0x2000 8kB) protection state unknown

71: 0x003f2000 (0x2000 8kB) protection state unknown

72: 0x003f4000 (0x2000 8kB) protection state unknown

73: 0x003f6000 (0x2000 8kB) protection state unknown

74: 0x003f8000 (0x2000 8kB) protection state unknown

75: 0x003fa000 (0x2000 8kB) protection state unknown

76: 0x003fc000 (0x2000 8kB) protection state unknown

77: 0x003fe000 (0x2000 8kB) protection state unknown

cfi information:

mfr: 0x00ec, id:0x257e

qry: 'QRY', pri_id: 0x0002, pri_addr: 0x0040, alt_id: 0x0000, alt_addr: 0x0000

Vcc min: 2.7, Vcc max: 3.6, Vpp min: 0.0, Vpp max: 0.0

typ. word write timeout: 8, typ. buf write timeout: 1, typ. block erase timeout:

512, typ. chip erase timeout: 1

max. word write timeout: 128, max. buf write timeout: 1, max. block erase timeou

t: 8192, max. chip erase timeout: 1

size: 0x400000, interface desc: 1, max buffer write size: 1

Spansion primary algorithm extend information:

pri: 'PRI', version: 0.0

Silicon Rev.: 0x0, Address Sensitive unlock: 0x0

Erase Suspend: 0x2, Sector Protect: 0x1

VppMin: 08.5, VppMax: 09.5

```
erased address 0x00000000 length 65536 in 2.000000s
not enough working area available(requested 32768, free 8096)
not enough working area available(requested 16384, free 8096)
not enough working area available(requested 8192, free 8096)
Debug entry: breakpoint
target state: halted
target halted due to breakpoint
cpsr: 0x600001d3 pc: 0x0c00005c
....
Debug entry: breakpoint
target state: halted
target halted due to breakpoint
cpsr: 0x600001d3 pc: 0x0c00005c
wrote 51436 byte from file 6410nor.bin to flash bank 0 at offset 0x00000000 in
3.922000s (12.807361 kb/s)
BUG: keep_alive() was not invoked in the 1000ms timelimit. GDB alive packet not
sent! (4282)
checksum mismatch - attempting binary compare
BUG: keep_alive() was not invoked in the 1000ms timelimit. GDB alive packet not
sent! (25734)
verified 51436 bytes in 25.719000s
```

Write완료 후 Reset


```
DNW v0.60C - For WinCE [COM3,115200bps] [USB:OK] [ADDR:0x50030000]
Serial Port  USB Port  Configuration  Help
Reset by XnRESET[RSTSTAT:0x1]
UCO=1.064GHz

+-----+
| S3C6410 USB OTG Downloader v0.2 (2008.07.04) +
| System ID : Revision [ 0], Pass [ 1]      +
+-----+
ARMCLK: 532.00MHz  HCLKx2: 266.00MHz  HCLK: 133.00MHz  PCLK: 66.50MHz
VIC mode / Sync Mode

USB host is not connected yet.
Waiting for USB host connection.
OTGDEV_Init0tg: OK

!!! USB host is connected !!!
- Bulk In EP : 1
- Bulk Out EP : 2
- Speed : High
- Op Mode : DMA mode

Download & Run is selected|

Select a file to download in DNW
If you want to quit, press any key
```

DNW 확인 결과