

ARM926EJ-S S3C2450

Mango24R2 Openocd JTAG

Connect and U-boot 실행

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

<http://cafe.naver.com/embeddedcrazyboys>

Crazy Embedded Laboratory

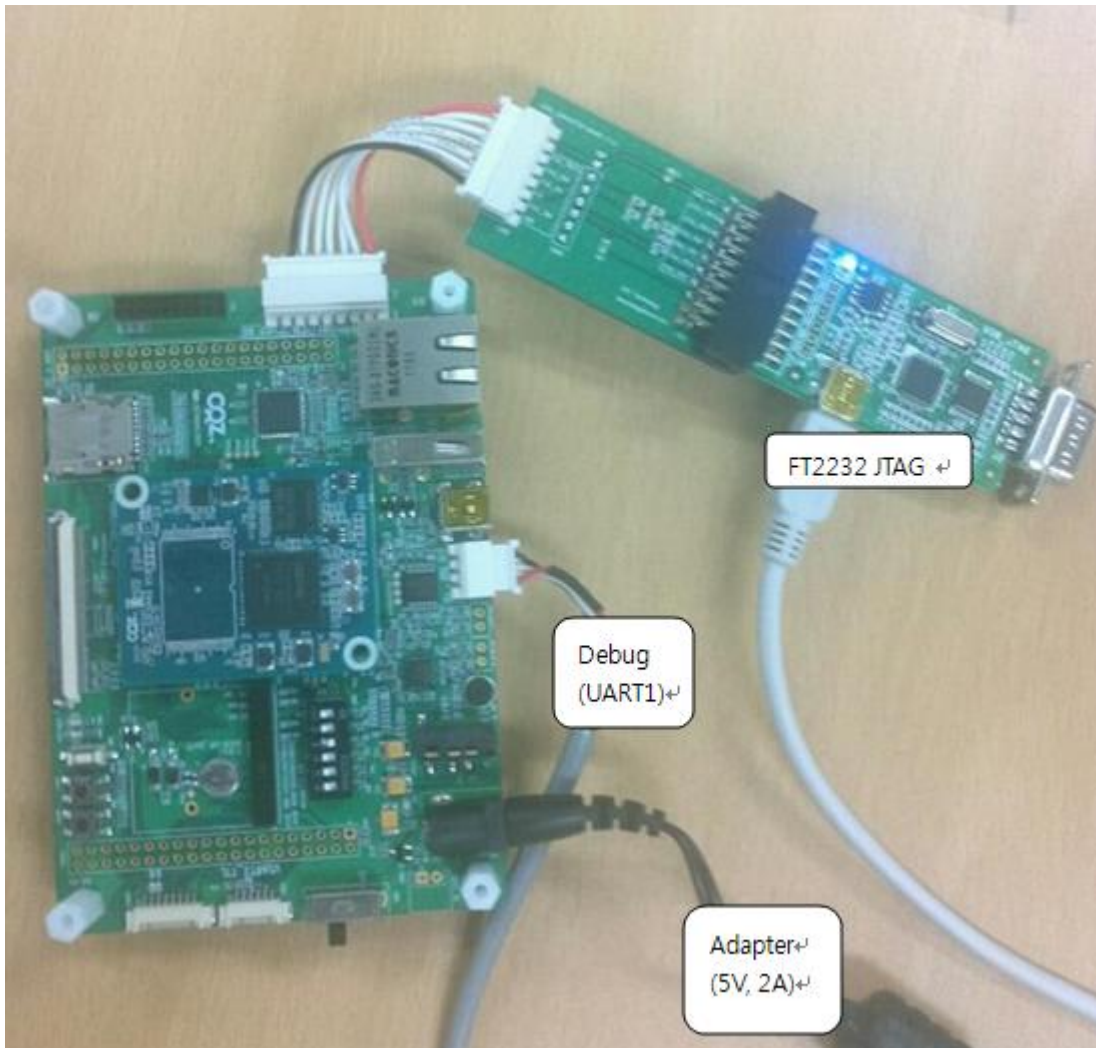


Document History

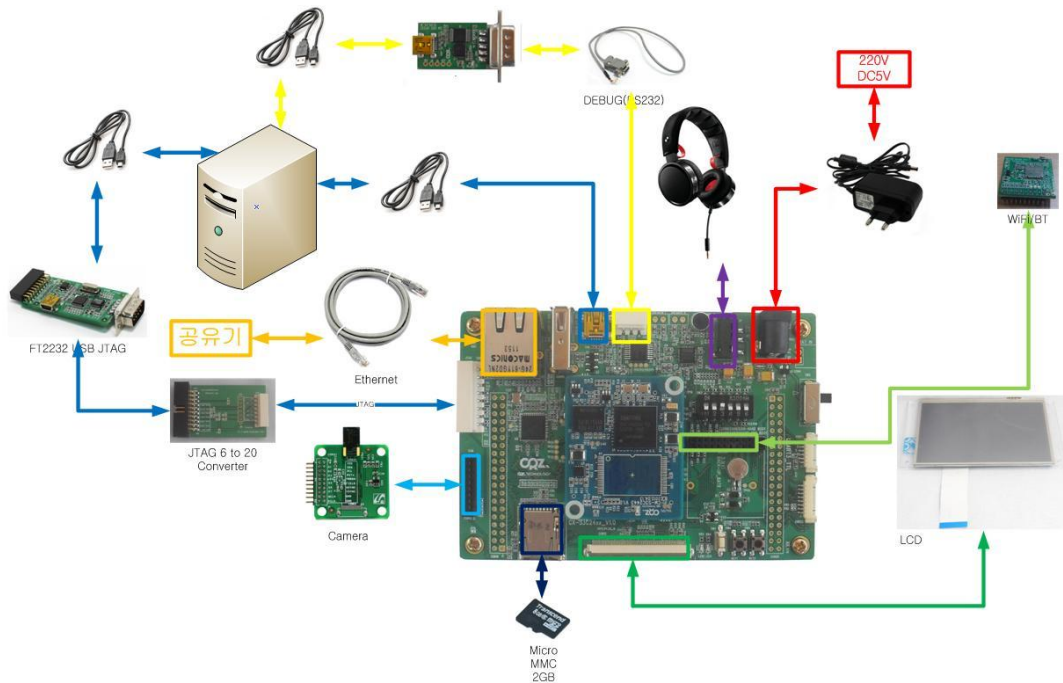
Revision	Date	

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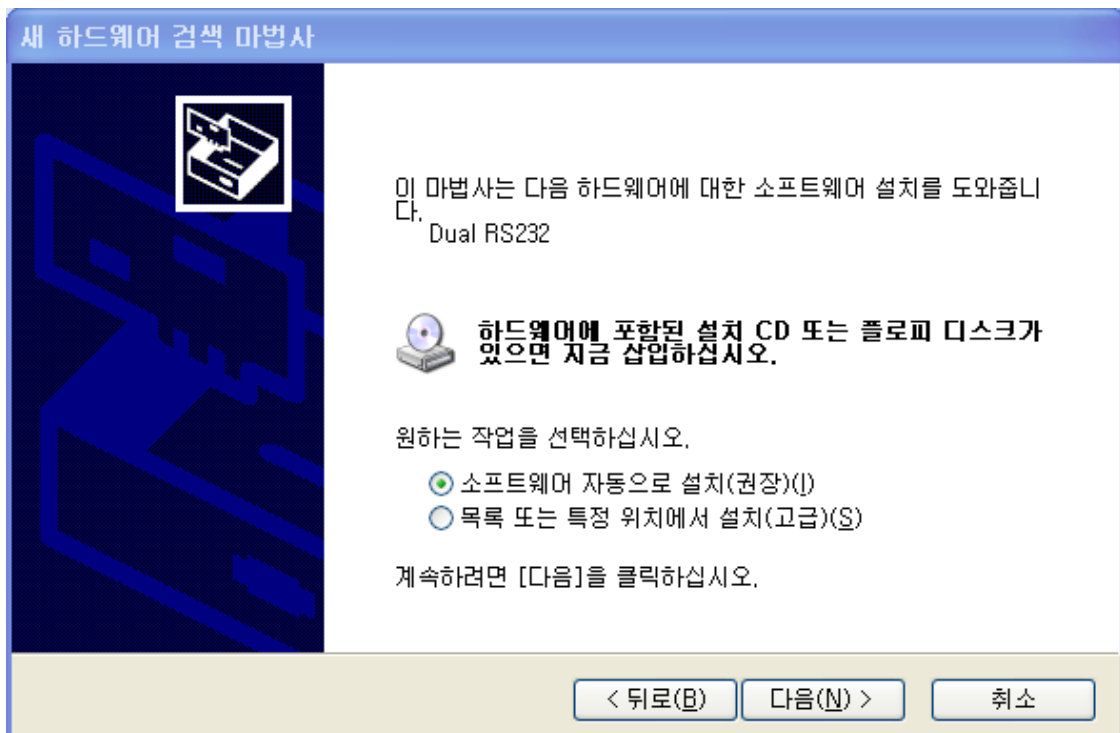
1. Openocd JTAG Connect and U-boot 실행



전체 연결도 참조



FT2232 USB JTAG 보드와 연결하면 드라이버를 설치하라고 팝업창이 뜹니다.



Driver Download : http://www.ftdichip.com/Drivers/CDM/CDM20814_WHQL_Certified.zip

http://infocenter.arm.com/help/topic/com.arm.doc.ddi0198e/DDI0198E_arm926ejs_r0p5_trm.pdf

에서

A.6 Miscellaneous signals

TAPID[31:0] Input This is the **ARM926EJ-S device identification (ID)** code test data register, accessible from the scan chains. It must be tied to **0x07926F0F** for an ARM926EJ-S processor when the device is instantiated.

부팅 모드를 SD BOOT 모드로 해서 동작을 합니다.

BOOT MODE : 3 ON , 나머지 OFF

<http://cafe.naver.com/embeddedcrazyboys/19417>

Download

DOS Command 창 실행

```
$ openocd -f m24r2_s3c2450.cfg
```

실행 결과

```
d:\CRZ_망고보드\Mango2450\Source\m24r2_jtag\m24r2-OpenOCD_S3C2450>openocd.exe -f m24r2.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: 100
```

```
6000 kHz
```

```
Info : JTAG tap: s3c2450.cpu tap/device found: 0x07926f0f (Manufacturer: 0x787,
```

```
Part: 0x7926, Version: 0x0)
```

```
Info : JTAG Tap/device matched
```

```
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 창을 띄웁니다.

```
$ telnet localhost 4444
```

스크립트 실행

```
> script m24r2_s3c2450.tcl
```

실행 결과

```
> script m24r2_s3c2450.tcl
JTAG tap: s3c2450.cpu tap/device found: 0x07926f0f (Manufacturer: 0x787, Part: 0
x7926, Version: 0x0)
JTAG Tap/device matched
BUG: debug re-entry from system speed access shouldn't be handled here
target state: halted
target halted in ARM state due to debug-request, current mode: Supervisor
cpsr: 0x400000d3 pc: 0x00001348
MMU: disabled, D-Cache: disabled, I-Cache: enabled
cpsr (/32): 0x000000D3
cpsr (/32): 0x000000D3
0x53000000: 00000000
0x4c000024: 0000001d
0x4c000010: 8042c061
0x48000000: 0004920d
0x48000004: 44000040
0x48000010: 000000ff
r0 (/32): 0x400000D3
r0 (/32): 0x00000000
0x48000004: 00000042
0x48000010: 00000313
0x48000010: 00000313
0x48000004: 00000043
0x48000004: 00000040
0x30000000: 00001234
```



```
0x30000000: 12345678
206592 byte written at address 0x33e00000
downloaded 206592 byte in 7.439000s
BUG: keep_alive() was not invoked in the 1000ms timelimit. GDB alive packet not
sent! (7609)
```

디버깅 창에서 u-boot 실행 결과

```
U-Boot 1.3.4 (Jun 13 2012 - 18:13:12) for MANGO2450

CPU:   S3C2416@534MHz
       Fclk = 534MHz, Hclk = 133MHz, Pclk = 66MHz
Board: MANGO2450 Mobile DDR
DRAM:  64 MB
Flash: 1 MB
NAND:  256 MB
*** Warning - bad CRC or NAND, using default environment

In:    serial
Out:   serial
Err:   serial
ETH test 1
ETH test 2
Hit any key to stop autoboot:  0
```