Test Plan for Serial Console

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1 Outline

This document is for the Serial Console driver in Linux kernel of MVF TOWER BOARD (XTWR-VF600) with VF6XX SoC, and describes test plan for each API/feature of such unit.

Serial Console indicates the portion specialized for the following functions in UART.

- Kernel message at boot
- Command input/output on serial terminal

2 Test Environment

Toolchain: The latest Linaro toolchain
Bootloader: u-boot 2011.12
Kernel: Freescale i.MX Linux 3.0.15 kernel
Rootfs: rootfs on NFS

3 Target Module of the Test

Serial Console Input/Output

4 Test Plan

Verify kernel boot output and shell command input/output.

5 Conditions

Flow control, modem control and such will be tested at a time of release as UART driver.

Baud rate will be tested at 115200 (to be the same as u-boot). Change of baud rate will be tested at a time of release as UART driver.

Specify "console=ttymvf1,115200n8" in kernel command line.

Test plan for Serial Console

Datails

No.	Head	Item	Procedure	Points to be checked	Judge	Note
1	Kernel Message	Kernel Output	Boot kernel from u-boot.	Kernel boot message appears properly without character corruption.	OK	
2	Comamnd Prompt	Login	Type "root" in login prompt on serial terminal.	Login prompt appears on serial console.	OK	
3			Continue from the test above. Press Enter on serial terminal.	Login properly.	OK	
4		Command Execute	Enter the following command in command prompt of serial tierminal. # ls /	/ directory list of rootfs on NFS appears properly without character corruption.	OK	
5			Enter the following command in command prompt of serial tierminal. # echo "Hello world" > /dev/ttymvf1	"Hello world" appears on serial terminal.	OK	
6			Enter other commands (such as below) in command prompt. # cat /proc/interrupts # ls -lR / etc..	Each output of executed commands appears properly.	NG	When executing the following command, console output gets disordered. # ls -lR / However, output recovers once terminal is reconnected. Leave this issue as a restriction for release 1 and fix at the release 2 for implementation of UART driver.