

## Test Plan for Base Port



# Test Plan for Base Port

## 1 Outline

This document is for the Base Port (including MSL) in Linux kernel of MVF TOWER BOARD (XTWR-VF600) with VF6XX SoC, and describes test plan for each API and feature of such unit.

## 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

Platform Core  
MSL  
Posix Timer  
Clock

### **NOTE:**

Memory map of peripheral devices must be able to access to relevant driver register.

Tests of driver-dependent codes are included in the test of each driver (IOMUX, GPIO, DMA and such).

## 4 Test Plan

Carry out both basic test using busybox/memtool and test by LTP.

## 5 Test Tools

busybox  
memtool  
ltp

### **NOTE:**

memtool command is ported from the imx-test-12.03.00 package of sample BSP (L3.0.15\_12.03.00\_SS\_source.tar.gz).

LTP is Timesys LinuxLink ltp-20100430.

Refer to the following page for details of LTP.

<http://ltp.sourceforge.net/>

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### Details

No.	Head	Item	Procedure	Points to be checked	Judge	Note
1	Clock/posix timer	Clock, posix timer	Execute following command on the target's console. # date; sleep 60; date	Sleep command terminates after specified periods. (time with a stopwatch) Verify time course of sleep by comparing date command output between before and after sleep command.		
2	Memory	Read/write	Execute memtool command on the target's console. e.g.) # ./memtool -32 0x82000000 1 # ./memtool -32 0x82000000=0xAABBCCDD # ./memtool -32 0x82000000 1	Arbitrary memory address (that is free of untoward effects) can be read and written.		
3	L2 Cache	L2 Cache	Boot kernel (with CONFIG_CACHE_L2X0 option enabled) on the target.	Kernel works properly.		
4	LTP	Basic functions of the kernel	Execute following commands on the target's console. # cd /usr/local/ltp # ./runltp	Implemented functions pass relevant tests in LTP.		