

LCM Porting Guide

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1. Introduction

LCM is the main display and input device. We often need to debug it in the development. This document will help you to port lcm driver on the MediaTek platform. LCM driver porting work is divided into two parts: Lk LCM configuration and kernel LCM configuration.

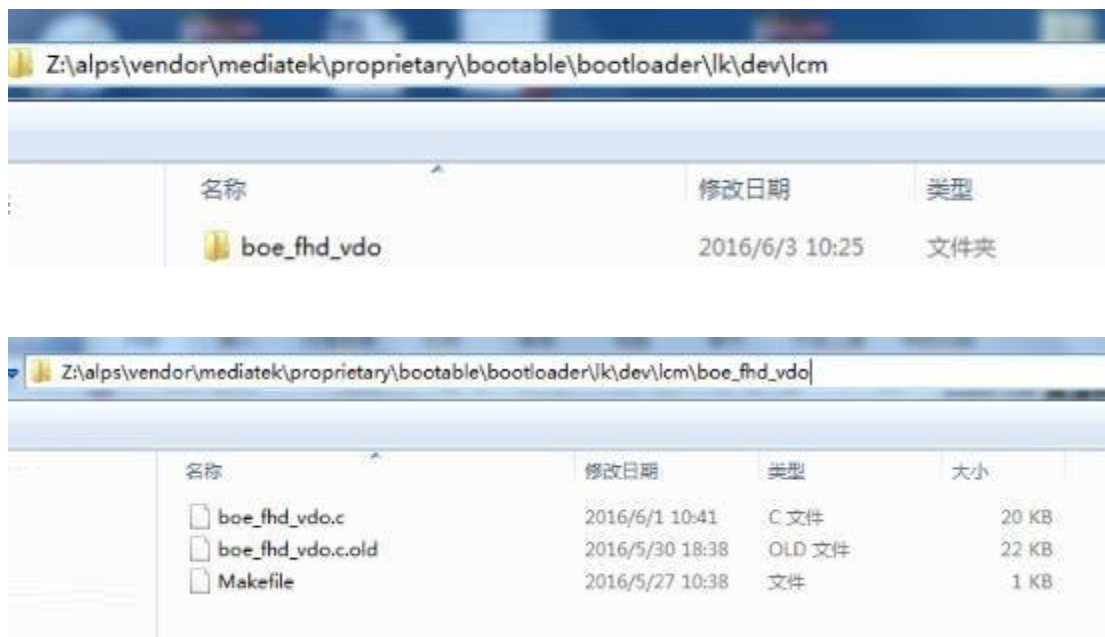
2. LK LCM Configuration

2.1. Add your <LCM driver>

–Add your <LCM driver> into the following path:

alps\vendor\mediatek\proprietary\bootable\bootloader\lk\dev\lcm

–Take <boe_fhd_vdo> for example:



2.2. Link your <LCM object>

–Add your <LCM config> in <project>.mk

alps\vendor\mediatek\proprietary\bootable\bootloader\lk\project\amt6797_64_open.mk

–Take <boe_fhd_vdo> for example:

CUSTOM_LK_LCM="boe_fhd_vdo"

Or

CUSTOM_LK_LCM="nt35695_fhd_dsi_cmd_truly_nt50358 boe_fhd_vdo"

2.3. Add your <LCM main structure> into lcm list

–Add your <lcm main structure> into lcm list in

alps\vendor\mediatek\proprietary\bootable\bootloader\lk\dev\lcm\mt65xx_lcm_list.c

–Take <boe_fhd_vdo> for example:

```
extern  LCM_DRIVER boe_fhd_vdo_lcm_drv;

LCM_DRIVER *lcm_driver_list[] = {
.....
#ifdef(BOE_FHD_VDO)
    &boe_fhd_vdo_lcm_drv,
#endif
.....
};
```

2.4. Switch logo if LCM resolution is different.

–Modify define marco of BOOT_LOGO in

alps\vendor\mediatek\proprietary\bootable\bootloader\lk\project\amt6797_64_open.mk

–Take <boe_fhd_vdo> for example:

```
BOOT_LOGO := fhd
```

2.5. Rebuild lk

–Rebuild lk and re-download lk.bin.

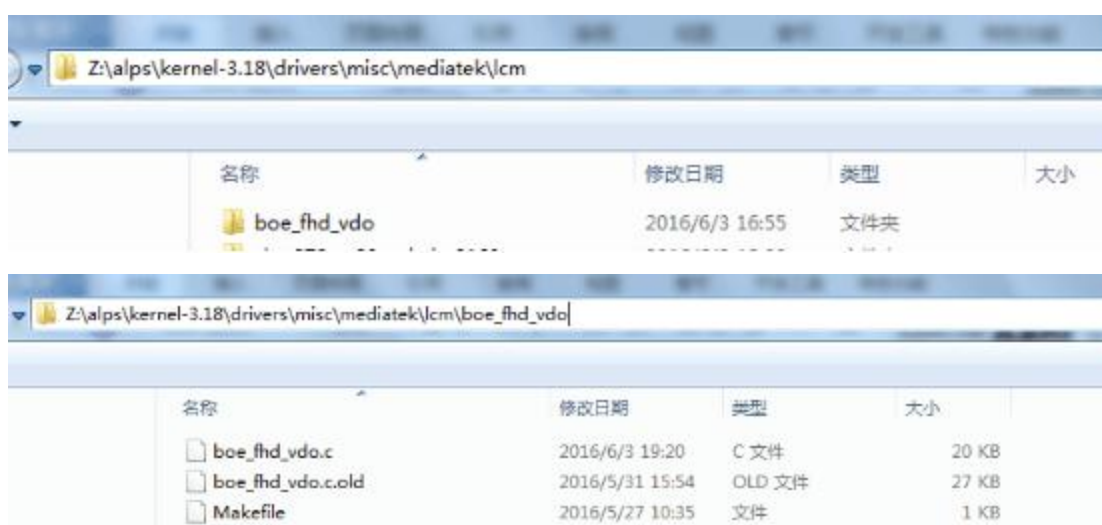
3. Kernel LCM configuration

3.1. Add your <LCM driver>

–Add your <LCM driver> into the following path:

`alps\kernel-3.18\drivers\misc\mediatek\lcm\`

–Take <boe_fhd_vdo> for example:



3.2. Link your <LCM object>

–Link your compiled <LCM object> in

`alps\kernel-3.18\drivers\misc\mediatek\lcm\<lcm>\Makefile`

–Take < boe_fhd_vdo> for example:

```
obj-y += boe_fhd_vdo.o
ccflags-$(CONFIG_MTK_LCM) += -I$(srctree)/drivers/misc/mediatek/lcm/inc
```

3.3. Add your <LCM main structure> into lcm list

–Add your <LCM main structure> into lcm list in

alps\kernel-3.18\drivers\misc\mediatek\lcm\mt65xx_lcm_list.c

–Take <boe_fhd_vdo> for example:

```
LCM_DRIVER *lcm_driver_list[] = {
.....
#ifdef BOE_FHD_VDO
    &boe_fhd_vdo_lcm_drv,
#endif
.....
};
```

–alps\kernel-3.10\drivers\misc\mediatek\lcm\inc\mt65xx_lcm_list.h

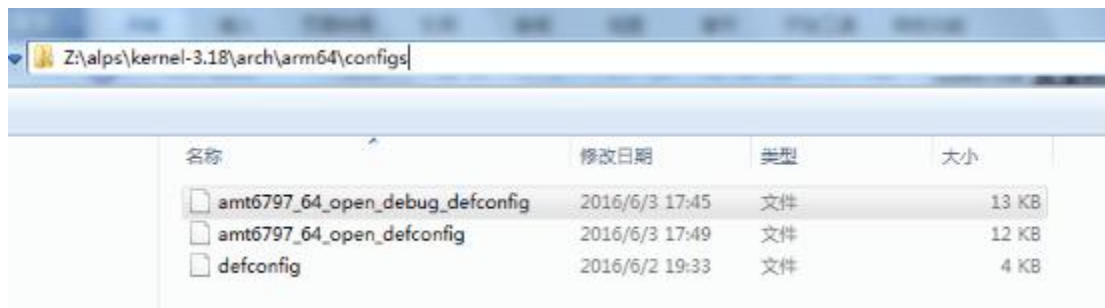
```
extern LCM_DRIVER boe_fhd_vdo_lcm_drv;
```

3.4. Add your <LCM config> in <project>_debug_defconfig

–Add your <LCM config> in <project>_debug_defconfig

alps\kernel-3.18\arch\arm64\configs\amt6797_64_open_debug_defconfig

–Take <boe_fhd_vdo> for example:



```
CONFIG_CUSTOM_KERNEL_LCM="boe_fhd_vdo"
```

Or

```
CONFIG_CUSTOM_KERNEL_LCM="nt35695_fhd_dsi_cmd_truly_nt50358"
```

```
boe_fhd_vdo"
```

```
CONFIG_MTK_HEIGHT="1920"
```

```
CONFIG_MTK_WIDTH="1080"
```

3.5. Rebuild kernel and bootimage

–Return to alps folder in console.

–Rebuild kernel and bootimage, and re-download boot.img