Lcd.c (g:\work\pj\lc1860-android6.0-sourcefile\bootloader\uboot-2015.04\common) 17686 2020/10/29

Lcd logo显示流程:

lcd\_init

--->lcd\_clear();

--->lcd\_enable();

--->comipfb\_show\_logo(comipfb\_fbi);//显示logo

--->comipfb\_read\_image(layer);

--->comipfb\_open(layer, 0);

--->comipfb\_enable\_layer(layer);

--->lcdc\_layer\_enable(layer, 1);

--->lcdc\_lay\_dma\_enable(fbi, no, 1); //DMA使能

lcdc\_lay\_enable(fbi, no, 1);

--->comip\_backlight\_init();

Mipi 发送:

static unsigned char te\_cmds[][10] = {

/\*\*\*\*TE command\*\*\*/

        {0x00, DCS\_CMD, SW\_PACK2, 0x02, 0x35, 0x00},

};

static void comipfb\_if\_mipi\_te\_trigger(struct comipfb\_info \*fbi)

{

    struct comipfb\_dev\_cmds te\_pkt;

    te\_pkt.cmds = (unsigned char \*)te\_cmds;

    te\_pkt.n\_pack = 1;

    comipfb\_if\_mipi\_dev\_cmds(fbi, &te\_pkt);

}

kernel阶段 resume初始化lcd参数

Comip\_lcdc.c (g:\work\pj\lc1860-android6.0-sourcefile\linux-3.10.y\drivers\comip\video\comipfb) 25566 2020/10/29

lcdc\_init

-->fbi->cif->init(fbi);

---->comipfb\_if\_mipi\_init

---->comipfb\_if\_mipi\_dev\_cmds(fbi, &fbi->cdev->cmds\_init);cmds\_init为初始化参数

kernel背光控制:

Comipfb\_if.c (g:\work\pj\lc1860-android6.0-sourcefile\linux-3.10.y\drivers\comip\video\comipfb) 12308 2020/10/29

static void comipfb\_if\_mipi\_bl\_change(struct comipfb\_info \*fbi, int val)

{

unsigned int bit;

struct comipfb\_dev\_cmds \*lcd\_backlight\_cmd;

if (fbi == NULL) {

printk(KERN\_ERR "%s ,fbi is NULL",\_\_func\_\_);

return ;

}

bit = fbi->cdev->backlight\_info.brightness\_bit;

lcd\_backlight\_cmd = &(fbi->cdev->backlight\_info.bl\_cmd);

lcd\_backlight\_cmd->cmds[bit] = (unsigned char)val;

comipfb\_if\_mipi\_dev\_cmds(fbi, lcd\_backlight\_cmd);

}

Kernel 上电和复位操作:

Comip\_dsi\_panel.c (g:\work\pj\lc1860-android6.0-sourcefile\linux-3.10.y\drivers\comip\video\comipfb) 23656 2020/10/29

static int dsi\_panel\_reset(struct comipfb\_info \*fbi)

{

int i;

struct comipfb\_dev \*panel\_dev = fbi->cdev;

int gpio\_rst = fbi->pdata->gpio\_rst;

if (!gpio\_is\_valid(gpio\_rst)) {

pr\_err("no reset pin found\n");

return -ENXIO;

}

for (i = 0; i < panel\_dev->rst\_seq\_len; ++i) {

gpio\_set\_value(gpio\_rst,

panel\_dev->rst\_seq[i]);

if (panel\_dev->rst\_seq[++i])

usleep\_range(panel\_dev->rst\_seq[i] \* 1000, panel\_dev->rst\_seq[i] \* 1000);

}

return 0;

}

dsi\_panel\_power\_on

---->gpio\_direction\_output(gpio\_rst, 0);

--->pmic\_voltage\_set(PMIC\_POWER\_LCD\_IO, 0, PMIC\_POWER\_VOLTAGE\_ENABLE);

mdelay(10);

pmic\_voltage\_set(PMIC\_POWER\_LCD\_CORE, 0, PMIC\_POWER\_VOLTAGE\_ENABLE);

--->ret = regulator\_enable(fbi->lcdio);

--->ret = regulator\_enable(fbi->lcdcore);

--->dsi\_panel\_reset(fbi);

Uboot阶段rst的设置和控制:

Comipfb.c (g:\work\pj\lc1860-android6.0-sourcefile\bootloader\uboot-2015.04\drivers\video\comipfb) 12041 2020/10/29

#define LCD\_RESET\_PIN (154)

#define LCD\_BACKLIGHT\_PIN (153)

static struct comipfb\_platform\_data comip\_lcd\_info = {

.lcdcaxi\_clk = 312000000,

.lcdc\_support\_interface = COMIPFB\_MIPI\_IF,

.phy\_ref\_freq = 26000, /\* KHz \*/

.gpio\_rst = LCD\_RESET\_PIN,

.gpio\_im = -1,

.flags = COMIPFB\_SLEEP\_POWEROFF,

};