

# Kernel driver lp855x

Backlight driver for LP855x ICs

Supported chips:

Texas Instruments LP8550, LP8551, LP8552, LP8553, LP8555, LP8556 and LP8557

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## Description

- Brightness control  
Brightness can be controlled by the pwm input or the i2c command. The lp855x driver supports both cases.
- Device attributes
  1. `bl_ctl_mode`  
Backlight control mode.  
Value: pwm based or register based
  2. `chip_id`  
The lp855x chip id.  
Value: lp8550/lp8551/lp8552/lp8553/lp8555/lp8556/lp8557

## Platform data for lp855x

For supporting platform specific data, the lp855x platform data can be used.

- `name`:  
Backlight driver name. If it is not defined, default name is set.
- `device_control`:  
Value of DEVICE CONTROL register.
- `initial_brightness`:  
Initial value of backlight brightness.
- `period_ns`:  
Platform specific PWM period value. unit is nano. Only valid when brightness is pwm input mode.
- `size_program`:  
Total size of lp855x\_rom\_data.
- `rom_data`:  
List of new eeprom/eprom registers.

## Examples

1. lp8552 platform data: i2c register mode with new eeprom data:

```
#define EEPROM_A5_ADDR      0xA5
#define EEPROM_A5_VAL      0x4f    /* EN_VSYNC=0 */

static struct lp855x_rom_data lp8552_eeprom_arr[] = {
    {EEPROM_A5_ADDR, EEPROM_A5_VAL},
};

static struct lp855x_platform_data lp8552_pdata = {
    .name = "lcd-bl",
    .device_control = I2C_CONFIG(LP8552),
    .initial_brightness = INITIAL_BRT,
    .size_program = ARRAY_SIZE(lp8552_eeprom_arr),
    .rom_data = lp8552_eeprom_arr,
};
```

2. lp8556 platform data: pwm input mode with default rom data:

```
static struct lp855x_platform_data lp8556_pdata = {
    .device_control = PWM_CONFIG(LP8556),
    .initial_brightness = INITIAL_BRT,
    .period_ns = 1000000,
```



};

