

尺寸	产品型号	分类	驱动IC	全刷时间(秒)	局刷时间(秒)	工作电流mA	睡眠电流uA	备注
1.54"	GDEW0154T8	老型号	UC8151C	4	0.6	2.2	5	驱动程序需要更新，更新内容见程序说明
	GDEW0154T8D	新型号	UC8151D	3.8	0.6	2.2	5	
	GDEW0154I9F	老型号	UC8151C	4	0.6	2.2	5	
	GDEW0154I9FD	新型号	UC8151D	3.8	0.6	2.2	5	
2.13"	GDEW0213T5	老型号	UC8151C	3.8	0.6	2	5	
	GDEW0213T5D	新型号	UC8151D	3.6	0.6	1.8	5	
	GDEW0213I5F	老型号	UC8151C	3.8	0.6	2	5	
	GDEW0213I5FD	新型号	UC8151D	3.6	0.6	1.8	5	
2.9"	GDEW029T5	老型号	UC8151C	3.6	0.6	2.2	5	
	GDEW029T5D	新型号	UC8151D	3.4	0.6	2	5	
	GDEW029I6F	老型号	UC8151C	3.6	0.6	2.2	5	
	GDEW029I6FD	新型号	UC8151D	3.4	0.6	2	5	

## 程序说明（以1.54寸为例）

### 1 复位函数 EPD\_W21\_Init()

#### UC8151C

```
void EPD_W21_Init(void)
{
    EPD_W21_RST_0;    // Module reset
    delay_xms(10);    //At least 10ms delay
    EPD_W21_RST_1;
    delay_xms(10);    //At least 10ms delay
}
```

#### UC8151D （需要复位三次）

```
void EPD_W21_Init(void)
{
    EPD_W21_RST_0;    // Module reset
    delay_xms(10);    //At least 10ms delay
    EPD_W21_RST_1;
    delay_xms(10);    //At least 10ms delay

    EPD_W21_RST_0;    // Module reset
    delay_xms(10);    //At least 10ms delay
    EPD_W21_RST_1;
    delay_xms(10);    //At least 10ms delay

    EPD_W21_RST_0;    // Module reset
    delay_xms(10);    //At least 10ms delay
    EPD_W21_RST_1;
    delay_xms(10);    //At least 10ms delay
}
```

### 2 基本初始化函数 EPD\_init()

#### UC8151C

```
//UC8151C
void EPD_init(void)
{
    EPD_W21_Init(); //Electronic paper IC reset

    EPD_W21_WriteCMD(0x06);    //boost soft start
    EPD_W21_WriteDATA (0x17);    //A
    EPD_W21_WriteDATA (0x17);    //B
    EPD_W21_WriteDATA (0x17);    //C

    EPD_W21_WriteCMD(0x04);    //Power on
    lcd_chkstatus();           //waiting for the elec

    EPD_W21_WriteCMD(0x00);    //panel setting
    EPD_W21_WriteDATA (0x1f);    //LUT from OTP
    EPD_W21_WriteDATA (0x0d);    //VCOM to 0V fast

    EPD_W21_WriteCMD(0x61);    //resolution setti
    EPD_W21_WriteDATA (0x98);    //152
    EPD_W21_WriteDATA (0x00);    //152
    EPD_W21_WriteDATA (0x98);

    EPD_W21_WriteCMD(0x50);    //VCOM AND DATA IN
    EPD_W21_WriteDATA (0x97);    //WBmode:VBDF 17|D'
```

#### UC8151D

```
//UC8151D
void EPD_init(void)
{
    EPD_W21_Init(); //Electronic paper IC reset

    EPD_W21_WriteCMD(0x04);
    lcd_chkstatus(); //waiting for the electronic pa

    EPD_W21_WriteCMD(0x00);    //panel setting
    EPD_W21_WriteDATA (0x1f);    //LUT from OTP, KW-

    EPD_W21_WriteCMD(0x50);    //VCOM AND DATA INT
    EPD_W21_WriteDATA (0x97);    //WBmode:VBDF 17|D7
}
```

### 3 局部刷新初始化函数 EPD\_display\_init()

#### UC8151C

```
void EPD_display_init(void)
{
    HRES=0x98;          //152
    VRES_byte1=0x00;    //152
    VRES_byte2=0x98;
    EPD_W21_Init();
    EPD_W21_WriteCMD(0x01);    //POWER SETTING
    EPD_W21_WriteDATA (0x03);
    EPD_W21_WriteDATA (0x00);
    EPD_W21_WriteDATA (0x2b);
    EPD_W21_WriteDATA (0x2b);
    EPD_W21_WriteDATA (0x03);

    EPD_W21_WriteCMD(0x06);    //boost soft st
    EPD_W21_WriteDATA (0x17); //A
    EPD_W21_WriteDATA (0x17); //B
    EPD_W21_WriteDATA (0x17); //C

    EPD_W21_WriteCMD(0x04);
    lcd_chkstatus();

    EPD_W21_WriteCMD(0x00);    //panel setting
    EPD_W21_WriteDATA(0xbf);   //LUT from OTP, 128
    EPD_W21_WriteDATA(0x0d);   //VCOM to 0V fast

    EPD_W21_WriteCMD(0x30);    //PLL setting
    EPD_W21_WriteDATA (0x3c); // 3a 100HZ 29 15

    EPD_W21_WriteCMD(0x61);    //resolution settin
    EPD_W21_WriteDATA (HRES);
    EPD_W21_WriteDATA (VRES_byte1);
    EPD_W21_WriteDATA (VRES_byte2);

    EPD_W21_WriteCMD(0x82);    //vcom_DC setting
    EPD_W21_WriteDATA (0x12);

    EPD_W21_WriteCMD(0x50);    //VCOM AND DATA INT
    EPD_W21_WriteDATA(0x97);   //WBmode:VBDF 17|D7
}
```

#### UC8151D (去掉0x0d)

```
//UC8151D
void EPD_init_LUT(void)
{
    EPD_W21_Init();
    EPD_W21_WriteCMD(0x01);    //POWER SETTING
    EPD_W21_WriteDATA (0x03);
    EPD_W21_WriteDATA (0x00);
    EPD_W21_WriteDATA (0x2b);
    EPD_W21_WriteDATA (0x2b);
    EPD_W21_WriteDATA (0x03);

    EPD_W21_WriteCMD(0x06);    //boost soft
    EPD_W21_WriteDATA (0x17); //A
    EPD_W21_WriteDATA (0x17); //B
    EPD_W21_WriteDATA (0x17); //C

    EPD_W21_WriteCMD(0x04);
    lcd_chkstatus();

    EPD_W21_WriteCMD(0x00);    //panel setting
    EPD_W21_WriteDATA(0xbf);   //LUT from OTP,

    EPD_W21_WriteCMD(0x30);
    EPD_W21_WriteDATA (0x3C);    // 3A 100HZ

    EPD_W21_WriteCMD(0x61);    //resolution set
    EPD_W21_WriteDATA (0x98);   //152
    EPD_W21_WriteDATA (0x00);   //152
    EPD_W21_WriteDATA (0x98);

    EPD_W21_WriteCMD(0x82);    //vcom_DC settin
    EPD_W21_WriteDATA (0x12);

    EPD_W21_WriteCMD(0x50);    //VCOM AND DATA
    EPD_W21_WriteDATA(0x97);   //WBmode:VBDF 17
}
```

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