

a-Si TFT LCD Single Chip Driver with 480RGBx864 Resolution and 16.7M-color

Application Notes

Version: Preliminary V0.4

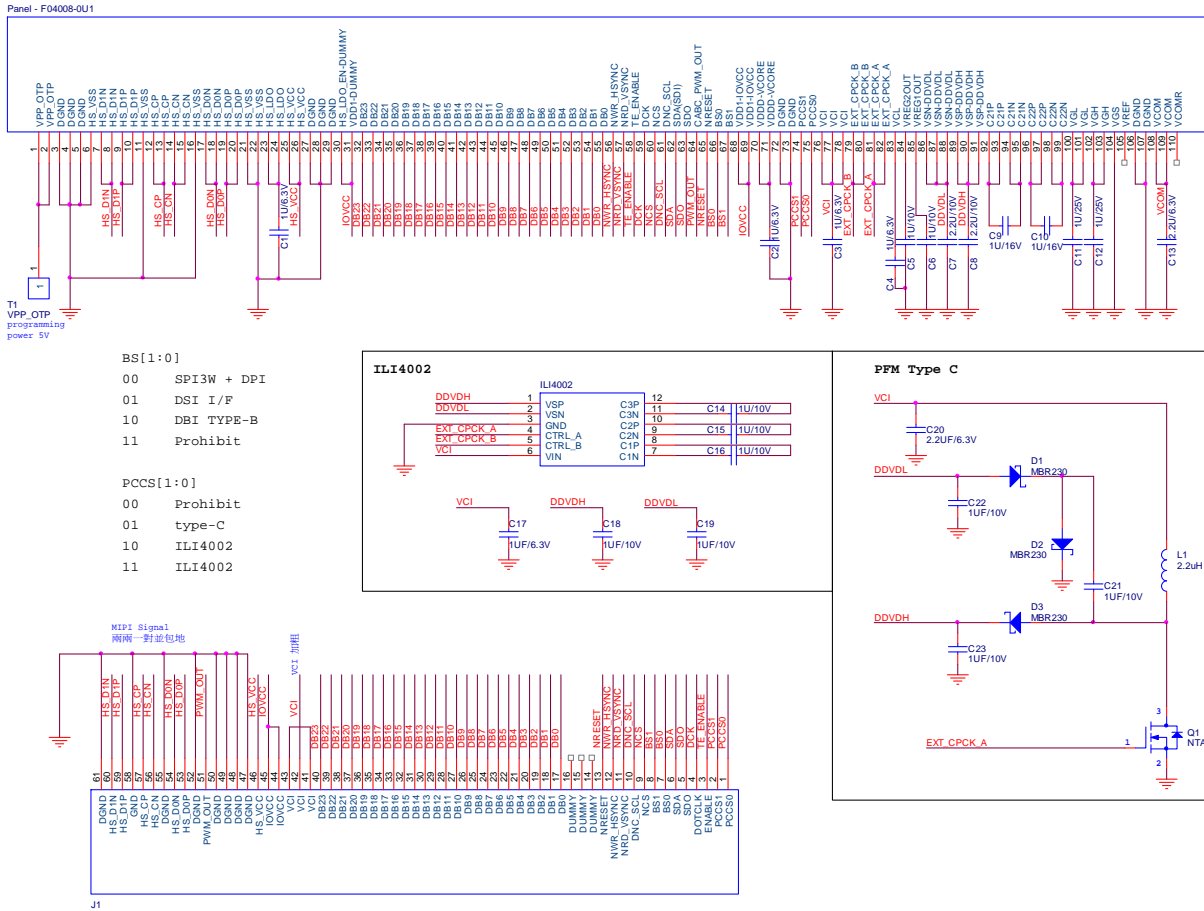
Date: March. 30th, 2012

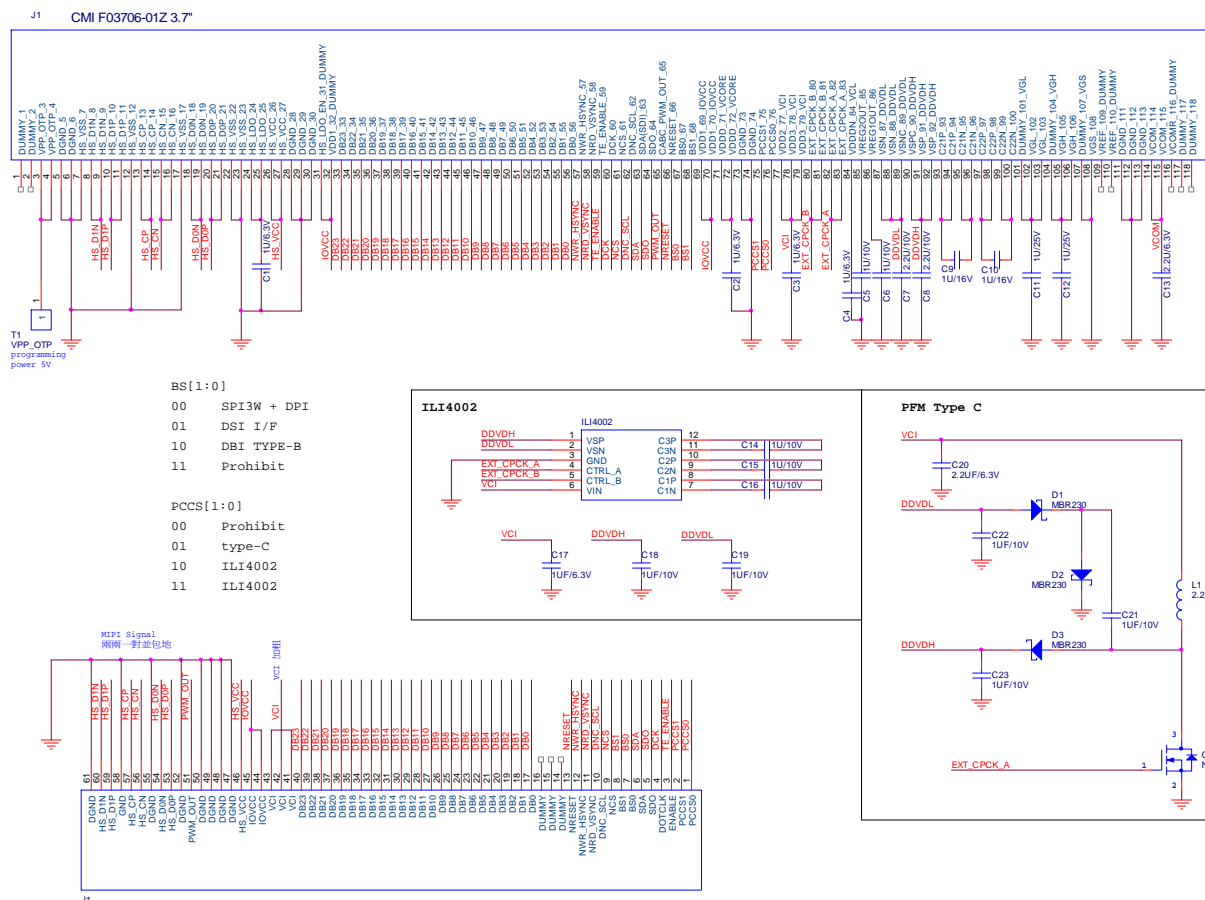
ILI TECHNOLOGY CORP.

8F, No.38, Taiyuan St., Jhubei City, Hsinchu County 302,
Taiwan, R.O.C
Tel.886-3-5600099; Fax.886-3-5600055
<http://www.ilitek.com>

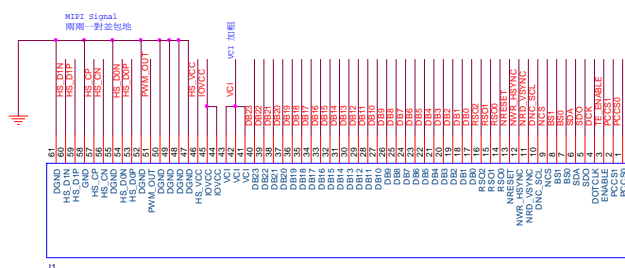
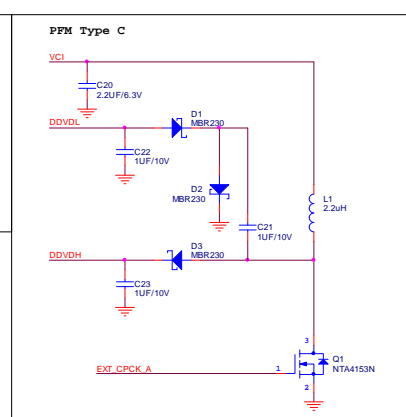
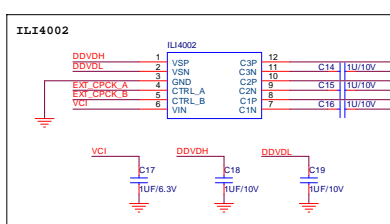
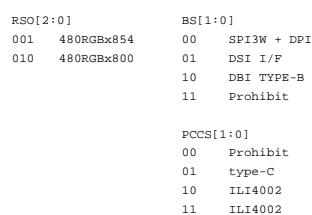
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1. CMI 3.97 “ Panel





J1 GPN3041L1ACD GPN3046L1ACD
GPF043WGCT3A GPF050WGCT3A



4.2 IVO3.97" Initial Code

```

Void ILI9805_IVO3.97_2.8V_Initial_Code(void)
{
  // VCI=2.8V
  //***** Reset LCD Driver *****//
  LCD_nRESET = 1;
  Delayms(1); // Delay 1ms
  LCD_nRESET = 0;
  Delayms(10); // Delay 10ms // This delay time is necessary
  LCD_nRESET = 1;
  Delayms(120); // Delay 120 ms
  //***** Start Initial Sequence *****//
  LCD_ILI9805_CMD(0XFF);          //EXTC command Password
    LCD_ILI9805_INDEX(0xFF);
    LCD_ILI9805_INDEX(0x98);
    LCD_ILI9805_INDEX(0x05);
  LCD_ILI9805_CMD(0XFD);          //PFM type C
    LCD_ILI9805_INDEX(0x0F);
    LCD_ILI9805_INDEX(0x1F);
    LCD_ILI9805_INDEX(0x44);
    LCD_ILI9805_INDEX(0x11);
  LCD_ILI9805_CMD(0XF8);          //PFM type C
    LCD_ILI9805_INDEX(0x28);
    LCD_ILI9805_INDEX(0x04);
    LCD_ILI9805_INDEX(0x04);
    LCD_ILI9805_INDEX(0x28);
    LCD_ILI9805_INDEX(0x03);
    LCD_ILI9805_INDEX(0x03);
    LCD_ILI9805_INDEX(0x25);
    LCD_ILI9805_INDEX(0x02);
    LCD_ILI9805_INDEX(0x02);
    LCD_ILI9805_INDEX(0x20);
    LCD_ILI9805_INDEX(0x02);
    LCD_ILI9805_INDEX(0x02);
    LCD_ILI9805_INDEX(0x15);
    LCD_ILI9805_INDEX(0x02);
    LCD_ILI9805_INDEX(0x02);
  LCD_ILI9805_CMD(0XB8);          //EPF & DBI - 8/9/16/18/24 bits select
    LCD_ILI9805_INDEX(0x74);

```

```

LCD_ILI9805_CMD(0XF1);      //Gate Modulation
    LCD_ILI9805_INDEX(0x00);
LCD_ILI9805_CMD(0XF2);      //CR/EQ/PC
    LCD_ILI9805_INDEX(0x00);
    LCD_ILI9805_INDEX(0x58);
    LCD_ILI9805_INDEX(0x41);
LCD_ILI9805_CMD(0XFE);
    LCD_ILI9805_INDEX(0x19);
    Delayms ( 500 ) ;
LCD_ILI9805_CMD(0XEB);
    LCD_ILI9805_INDEX(0x08);
    LCD_ILI9805_INDEX(0x0F);
LCD_ILI9805_CMD(0XE0);      //P-Gamma
    LCD_ILI9805_INDEX(0x00);
    LCD_ILI9805_INDEX(0x1B);
    LCD_ILI9805_INDEX(0x20);
    LCD_ILI9805_INDEX(0x0D);
    LCD_ILI9805_INDEX(0x10);
    LCD_ILI9805_INDEX(0x1C);
    LCD_ILI9805_INDEX(0x7B);
    LCD_ILI9805_INDEX(0x0C);
    LCD_ILI9805_INDEX(0x00);
    LCD_ILI9805_INDEX(0x03);
    LCD_ILI9805_INDEX(0x03);
    LCD_ILI9805_INDEX(0x05);
    LCD_ILI9805_INDEX(0x0B);
    LCD_ILI9805_INDEX(0X3F);
    LCD_ILI9805_INDEX(0x3E);
    LCD_ILI9805_INDEX(0x00);
LCD_ILI9805_CMD(0XE1);      //N-Gamma
    LCD_ILI9805_INDEX(0x00);
    LCD_ILI9805_INDEX(0x25);
    LCD_ILI9805_INDEX(0x31);
    LCD_ILI9805_INDEX(0x14);
    LCD_ILI9805_INDEX(0x13);
    LCD_ILI9805_INDEX(0x18);
    LCD_ILI9805_INDEX(0x7C);
    LCD_ILI9805_INDEX(0x0A);
    LCD_ILI9805_INDEX(0x00);

```



```

    LCD_ILI9805_INDEX(0x03);
    LCD_ILI9805_INDEX(0x01);
    LCD_ILI9805_INDEX(0x10);
    LCD_ILI9805_INDEX(0x06);
    LCD_ILI9805_INDEX(0x13);
    LCD_ILI9805_INDEX(0x0F);
    LCD_ILI9805_INDEX(0x00);
LCD_ILI9805_CMD(0XC1);      //Power Control 1
    LCD_ILI9805_INDEX(0x13);  //VGH & VGL
    LCD_ILI9805_INDEX(0x30);  //EXT Pumping CLK & Vreg1out
    LCD_ILI9805_INDEX(0x10);  //Vreg2out
    LCD_ILI9805_INDEX(0x26);  //VCI1 & VCL
LCD_ILI9805_CMD(0xC7);
    LCD_ILI9805_INDEX(0xDC);  //VCOM
LCD_ILI9805_CMD(0xB1);      //Frame Rate Control
    LCD_ILI9805_INDEX(0x00);
    LCD_ILI9805_INDEX(0x12);
    LCD_ILI9805_INDEX(0x14);
LCD_ILI9805_CMD(0xB4);      //2 Dot Inversion
    LCD_ILI9805_INDEX(0x02);
LCD_ILI9805_CMD(0x36);      //Memory Access
    LCD_ILI9805_INDEX(0x0A);
LCD_ILI9805_CMD(0x3A);
    LCD_ILI9805_INDEX(0x77);  //16 & 18 & 24 bits
//LCD_ILI9805_CMD(0X20);    //Display Inv-Off
LCD_ILI9805_CMD(0X21);      //Display Inv-On
LCD_ILI9805_CMD(0xB0);      //RGB I/F Polarity
    LCD_ILI9805_INDEX(0x00);
LCD_ILI9805_CMD(0xB6);      //CPU/RGB I/F Select
    LCD_ILI9805_INDEX(0x01);
LCD_ILI9805_CMD(0xC2);
    LCD_ILI9805_INDEX(0x11);
LCD_ILI9805_CMD(0x11);      //Sleep Out
    Delaysms (120) ;
LCD_ILI9805_CMD(0x29);      //Display On
    Delaysms (20) ;
LCD_ILI9805_CMD(0x2C);      //Memory Write
}

```

Void ILI9805_EnterSleep_Code(void)

```
{  
LCD_ILI9805_CMD(0x10); // Internal oscillator will be stopped  
Delayms(120);  
}
```

Void ILI9805_ExitSleep_Code(void)

```
{  
LCD_ILI9805_CMD(0x11); // Sleep Out  
Delayms(120);  
}
```

