ILITEK
Enrich visual experience

ILI9320

a-Si TFT LCD Single Chip Driver with 240RGBx320 Resolution and 262K color

Application Notes

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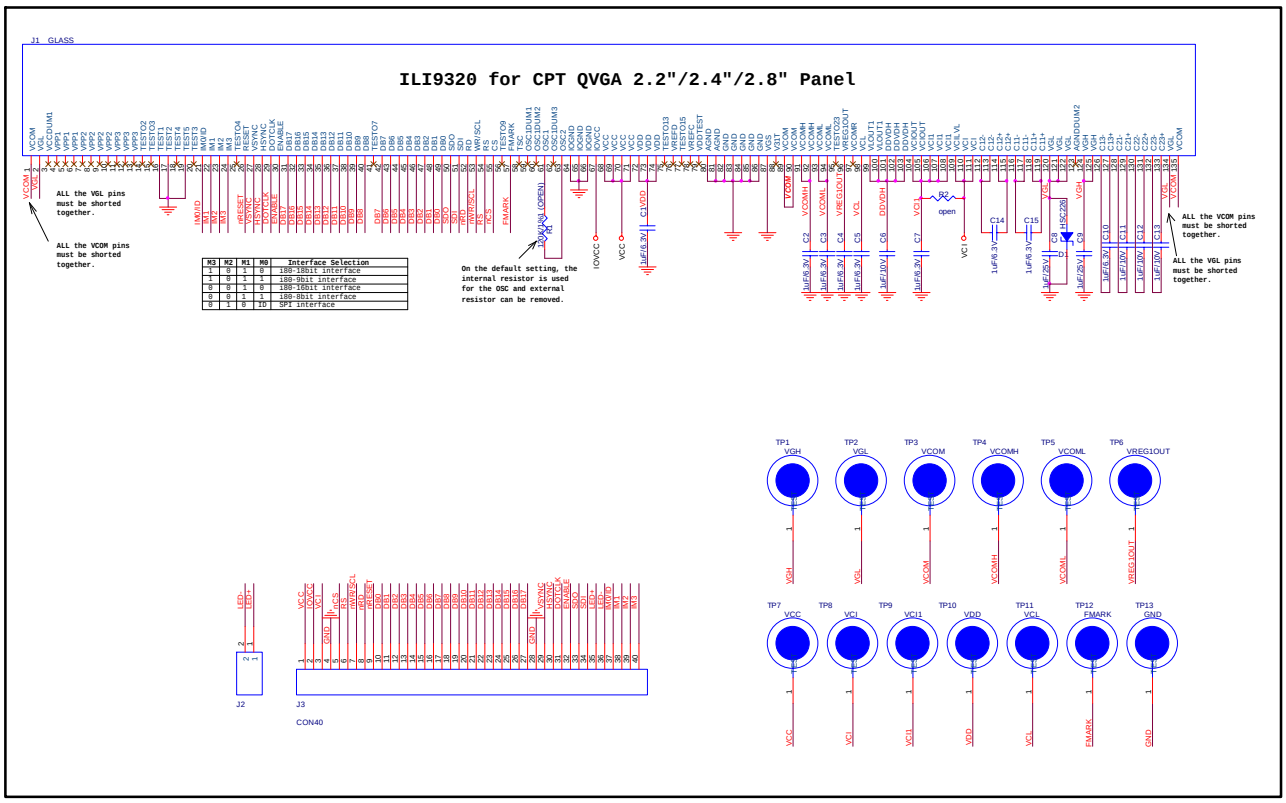
1. Application FPC Circuit

1.1. CPT 2.4” & 2.8” Panel



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```
void ILI9320_CPT24_Initial(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(50); // Delay 50 ms

  //************ Start Initial Sequence **********//


    LCD_CtrlWrite_ILI9320(0x00E5, 0x8000);      // Set the Vcore voltage and this setting is must.
    LCD_CtrlWrite_ILI9320(0x0000, 0x0001);      // Start internal OSC.
    LCD_CtrlWrite_ILI9320(0x0001, 0x0100);      // set SS and SM bit
    LCD_CtrlWrite_ILI9320(0x0002, 0x0700);      // set 1 line inversion
    LCD_CtrlWrite_ILI9320(0x0003, 0x1030);      // set GRAM write direction and BGR=1.
    LCD_CtrlWrite_ILI9320(0x0004, 0x0000);      // Resize register

    LCD_CtrlWrite_ILI9320(0x0008, 0x0202);      // set the back porch and front porch
    LCD_CtrlWrite_ILI9320(0x0009, 0x0000);      // set non-display area refresh cycle ISC[3:0]
    LCD_CtrlWrite_ILI9320(0x000A, 0x0000);      // FMARK function
    LCD_CtrlWrite_ILI9320(0x000C, 0x0000);      // RGB interface setting
    LCD_CtrlWrite_ILI9320(0x000D, 0x0000);      // Frame marker Position
    LCD_CtrlWrite_ILI9320(0x000F, 0x0000);      // RGB interface polarity

  //*************Power On sequence ****************//
    LCD_CtrlWrite_ILI9320(0x0010, 0x0000);      // SAP, BT[3:0], AP, DSTB, SLP, STB
    LCD_CtrlWrite_ILI9320(0x0011, 0x0007);      // DC1[2:0], DC0[2:0], VC[2:0]
    LCD_CtrlWrite_ILI9320(0x0012, 0x0000);      // VREG1OUT voltage
    LCD_CtrlWrite_ILI9320(0x0013, 0x0000);      // VDV[4:0] for VCOM amplitude
      delayms(200);                             // Dis-charge capacitor power voltage
    LCD_CtrlWrite_ILI9320(0x0010, 0x17B0);      // SAP, BT[3:0], AP, DSTB, SLP, STB
    LCD_CtrlWrite_ILI9320(0x0011, 0x0037);      // R11h=0x0031 at VCI=3.3V DC1[2:0], DC0[2:0], VC[2:0]
      delayms(50);                              // Delay 50ms
    LCD_CtrlWrite_ILI9320(0x0012, 0x013C);      // R12h=0x0138 at VCI=3.3V VREG1OUT voltage
      delayms(50);                              // Delay 50ms
    LCD_CtrlWrite_ILI9320(0x0013, 0x1C00);      // R13h=0x1800 at VCI=3.3V VDV[4:0] for VCOM amplitude
    LCD_CtrlWrite_ILI9320(0x0029, 0x000E);      // R29h=0x0008 at VCI=3.3V VCM[4:0] for VCOMH
      delayms(50);
    LCD_CtrlWrite_ILI9320(0x0020, 0x0000);      // GRAM horizontal Address
    LCD_CtrlWrite_ILI9320(0x0021, 0x0000);      // GRAM Vertical Address

  // ----------- Adjust the Gamma    Curve ----------//
    LCD_CtrlWrite_ILI9320(0x0030, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0031, 0x0505);
    LCD_CtrlWrite_ILI9320(0x0032, 0x0004);


    LCD_CtrlWrite_ILI9320(0x0035, 0x0006);
    LCD_CtrlWrite_ILI9320(0x0036, 0x0707);
    LCD_CtrlWrite_ILI9320(0x0037, 0x0105);
    LCD_CtrlWrite_ILI9320(0x0038, 0x0002);
    LCD_CtrlWrite_ILI9320(0x0039, 0x0707);

    LCD_CtrlWrite_ILI9320(0x003C, 0x0704);
    LCD_CtrlWrite_ILI9320(0x003D, 0x0807);
```

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```
  //------------------ Set GRAM area ---------------//
    LCD_CtrlWrite_ILI9320(0x0050, 0x0000);        // Horizontal GRAM Start Address
    LCD_CtrlWrite_ILI9320(0x0051, 0x00EF);        // Horizontal GRAM End Address
    LCD_CtrlWrite_ILI9320(0x0052, 0x0000);        // Vertical GRAM Start Address
    LCD_CtrlWrite_ILI9320(0x0053, 0x013F);        // Vertical GRAM Start Address

    LCD_CtrlWrite_ILI9320(0x0060, 0x2700);        // Gate Scan Line
    LCD_CtrlWrite_ILI9320(0x0061, 0x0001);        // NDL,VLE, REV
    LCD_CtrlWrite_ILI9320(0x006A, 0x0000);        // set scrolling line

  //-------------- Partial Display Control ---------//
    LCD_CtrlWrite_ILI9320(0x0080, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0081, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0082, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0083, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0084, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0085, 0x0000);

  //-------------- Panel Control --------------------//
    LCD_CtrlWrite_ILI9320(0x0090, 0x0010);
    LCD_CtrlWrite_ILI9320(0x0092, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0093, 0x0003);
    LCD_CtrlWrite_ILI9320(0x0095, 0x0110);
    LCD_CtrlWrite_ILI9320(0x0097, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0098, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0007, 0x0173);        // 262K color and display ON
}
```

void LCD_ExitSleep_ILI9320(void)

```
{
//*************Power On sequence ******************//
  LCD_CtrlWrite_ILI9320(0x0010, 0x0000);       // SAP, BT[3:0], AP, DSTB, SLP
  LCD_CtrlWrite_ILI9320(0x0011, 0x0000);       // DC1[2:0], DC0[2:0], VC[2:0]
  LCD_CtrlWrite_ILI9320(0x0012, 0x0000);       // VREG1OUT voltage
  LCD_CtrlWrite_ILI9320(0x0013, 0x0000);       // VDV[4:0] for VCOM amplitude
    delayms(200);                              // Dis-charge capacitor power voltage
  LCD_CtrlWrite_ILI9320(0x0010, 0x17B0);       // SAP, BT[3:0], AP, DSTB, SLP, STB
  LCD_CtrlWrite_ILI9320(0x0011, 0x0037);       // R11h=0x0031 at VCI=3.3V DC1[2:0], DC0[2:0], VC[2:0]
      delayms(50);                                 // Delay 50ms
  LCD_CtrlWrite_ILI9320(0x0012, 0x013C);       // R12h=0x0138 at VCI=3.3V VREG1OUT voltage
      delayms(50);                                 // Delay 50ms
  LCD_CtrlWrite_ILI9320(0x0013, 0x1C00);       // R13h=0x1800 at VCI=3.3V VDV[4:0] for VCOM amplitude
  LCD_CtrlWrite_ILI9320(0x0029, 0x000E);       // R29h=0x0008 at VCI=3.3V VCM[4:0] for VCOMH
    delayms(50);
  LCD_CtrlWrite_ILI9320(0x0007, 0x0173);       // 262K color and display ON
}
```

void LCD_EnterSleep_ILI9320(void)

```
{
  LCD_CtrlWrite_ILI9320(0x0007, 0x0000);       // display OFF
  //************* Power OFF sequence **************//
  LCD_CtrlWrite_ILI9320(0x0010, 0x0000);         // SAP, BT[3:0], APE, AP, DSTB, SLP
  LCD_CtrlWrite_ILI9320(0x0011, 0x0000);         // DC1[2:0], DC0[2:0], VC[2:0]
  LCD_CtrlWrite_ILI9320(0x0012, 0x0000);         // VREG1OUT voltage
  LCD_CtrlWrite_ILI9320(0x0013, 0x0000);         // VDV[4:0] for VCOM amplitude
    delayms(200);                                // Dis-charge capacitor power voltage
  LCD_CtrlWrite_ILI9320(0x0010, 0x0002);         // SAP, BT[3:0], APE, AP, DSTB, SLP
}
```

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void ILI9320_CPT28_Initial(void)

```
{
  // VCI=2.8V
  //************* Reset LCD Driver ****************//
    LCD_nRESET = 1;
      delayms(1);   // Delay 1ms
    LCD_nRESET = 0;
      delayms(10); // Delay 10ms
    LCD_nRESET = 1;
      delayms(50); // Delay 50 ms

  //************* Start Initial Sequence **********//

    LCD_CtrlWrite_ILI9320(0x00E5, 0x8000);      // Set the internal vcore voltage
    LCD_CtrlWrite_ILI9320(0x0000, 0x0001);      // Start internal OSC.
    LCD_CtrlWrite_ILI9320(0x0001, 0x0100);      // set SS and SM bit
    LCD_CtrlWrite_ILI9320(0x0002, 0x0700);      // set 1 line inversion
    LCD_CtrlWrite_ILI9320(0x0003, 0x1030);      // set GRAM write direction and BGR=1.
    LCD_CtrlWrite_ILI9320(0x0004, 0x0000);      // Resize register

    LCD_CtrlWrite_ILI9320(0x0008, 0x0202);      // set the back porch and front porch
    LCD_CtrlWrite_ILI9320(0x0009, 0x0000);      // set non-display area refresh cycle ISC[3:0]
    LCD_CtrlWrite_ILI9320(0x000A, 0x0000);      // FMARK function
    LCD_CtrlWrite_ILI9320(0x000C, 0x0000);            // RGB interface setting
    LCD_CtrlWrite_ILI9320(0x000D, 0x0000);      // Frame marker Position
    LCD_CtrlWrite_ILI9320(0x000F, 0x0000);            // RGB interface polarity

  //*************Power On sequence ****************//
    LCD_CtrlWrite_ILI9320(0x0010, 0x0000);      // SAP, BT[3:0], AP, DSTB, SLP, STB
    LCD_CtrlWrite_ILI9320(0x0011, 0x0007);      // DC1[2:0], DC0[2:0], VC[2:0]
    LCD_CtrlWrite_ILI9320(0x0012, 0x0000);      // VREG1OUT voltage
    LCD_CtrlWrite_ILI9320(0x0013, 0x0000);      // VDV[4:0] for VCOM amplitude
      delayms(200);                             // Dis-charge capacitor power voltage

    LCD_CtrlWrite_ILI9320(0x0010, 0x17B0);      // SAP, BT[3:0], AP, DSTB, SLP, STB
    LCD_CtrlWrite_ILI9320(0x0011, 0x0037);      // DC1[2:0], DC0[2:0], VC[2:0]
      delayms(50);                              // Delay 50ms
    LCD_CtrlWrite_ILI9320(0x0012, 0x013A);      // VREG1OUT voltage
      delayms(50);                              // Delay 50ms
    LCD_CtrlWrite_ILI9320(0x0013, 0x1600);      // VDV[4:0] for VCOM amplitude
    LCD_CtrlWrite_ILI9320(0x0029, 0x000C);      // VCM[4:0] for VCOMH
      delayms(50);

    LCD_CtrlWrite_ILI9320(0x0020, 0x0000);      // GRAM horizontal Address
    LCD_CtrlWrite_ILI9320(0x0021, 0x0000);      // GRAM Vertical Address

  // ----------- Adjust the Gamma   Curve ----------//
    LCD_CtrlWrite_ILI9320(0x0030, 0x0504);
    LCD_CtrlWrite_ILI9320(0x0031, 0x0703);
    LCD_CtrlWrite_ILI9320(0x0032, 0x0702);
    LCD_CtrlWrite_ILI9320(0x0035, 0x0101);
    LCD_CtrlWrite_ILI9320(0x0036, 0x0A1F);
    LCD_CtrlWrite_ILI9320(0x0037, 0x0504);
    LCD_CtrlWrite_ILI9320(0x0038, 0x0003);
    LCD_CtrlWrite_ILI9320(0x0039, 0x0706);
    LCD_CtrlWrite_ILI9320(0x003C, 0x0707);
    LCD_CtrlWrite_ILI9320(0x003D, 0x091F);

  //------------------ Set GRAM area ---------------//
```

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```
    LCD_CtrlWrite_ILI9320(0x0050, 0x0000);        // Horizontal GRAM Start Address
    LCD_CtrlWrite_ILI9320(0x0051, 0x00EF);        // Horizontal GRAM End Address
    LCD_CtrlWrite_ILI9320(0x0052, 0x0000);        // Vertical GRAM Start Address
    LCD_CtrlWrite_ILI9320(0x0053, 0x013F);        // Vertical GRAM Start Address

    LCD_CtrlWrite_ILI9320(0x0060, 0x2700);        // Gate Scan Line
    LCD_CtrlWrite_ILI9320(0x0061, 0x0001);        // NDL,VLE, REV
    LCD_CtrlWrite_ILI9320(0x006A, 0x0000);        // set scrolling line

  //---------- Partial Display Control ---------//
    LCD_CtrlWrite_ILI9320(0x0080, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0081, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0082, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0083, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0084, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0085, 0x0000);

  //---------- Panel Control ----------//
    LCD_CtrlWrite_ILI9320(0x0090, 0x0010);
    LCD_CtrlWrite_ILI9320(0x0092, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0093, 0x0003);
    LCD_CtrlWrite_ILI9320(0x0095, 0x0110);
    LCD_CtrlWrite_ILI9320(0x0097, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0098, 0x0000);

    LCD_CtrlWrite_ILI9320(0x0007, 0x0173);        // 262K color and display ON
}
```

void LCD_ExitSleep_ILI9320(void)

```
{
//*************Power On sequence ******************//
  LCD_CtrlWrite_ILI9320(0x0010, 0x0000);       // SAP, BT[3:0], AP, DSTB, SLP
  LCD_CtrlWrite_ILI9320(0x0011, 0x0000);       // DC1[2:0], DC0[2:0], VC[2:0]
  LCD_CtrlWrite_ILI9320(0x0012, 0x0000);       // VREG1OUT voltage
  LCD_CtrlWrite_ILI9320(0x0013, 0x0000);       // VDV[4:0] for VCOM amplitude
    delayms(200);                              // Dis-charge capacitor power voltage
  LCD_CtrlWrite_ILI9320(0x0010, 0x17B0);       // SAP, BT[3:0], AP, DSTB, SLP, STB
  LCD_CtrlWrite_ILI9320(0x0011, 0x0037);       // DC1[2:0], DC0[2:0], VC[2:0]
      delayms(50);                             // Delay 50ms
  LCD_CtrlWrite_ILI9320(0x0012, 0x013A);       // VREG1OUT voltage
      delayms(50);                             // Delay 50ms
  LCD_CtrlWrite_ILI9320(0x0013, 0x1600);       //VDV[4:0] for VCOM amplitude
  LCD_CtrlWrite_ILI9320(0x0029, 0x000C);       //VCM[4:0] for VCOMH
    delayms(50);
  LCD_CtrlWrite_ILI9320(0x0007, 0x0173);       // 262K color and display ON
}
```

void LCD_EnterSleep_ILI9320(void)

```
{
  LCD_CtrlWrite_ILI9320(0x0007, 0x0000);       // display OFF
  //************* Power OFF sequence **************//
  LCD_CtrlWrite_ILI9320(0x0010, 0x0000);       // SAP, BT[3:0], APE, AP, DSTB, SLP
  LCD_CtrlWrite_ILI9320(0x0011, 0x0000);       // DC1[2:0], DC0[2:0], VC[2:0]
  LCD_CtrlWrite_ILI9320(0x0012, 0x0000);       // VREG1OUT voltage
  LCD_CtrlWrite_ILI9320(0x0013, 0x0000);       // VDV[4:0] for VCOM amplitude
    delayms(200);                              // Dis-charge capacitor power voltage
  LCD_CtrlWrite_ILI9320(0x0010, 0x0002);       // SAP, BT[3:0], APE, AP, DSTB, SLP
}
```

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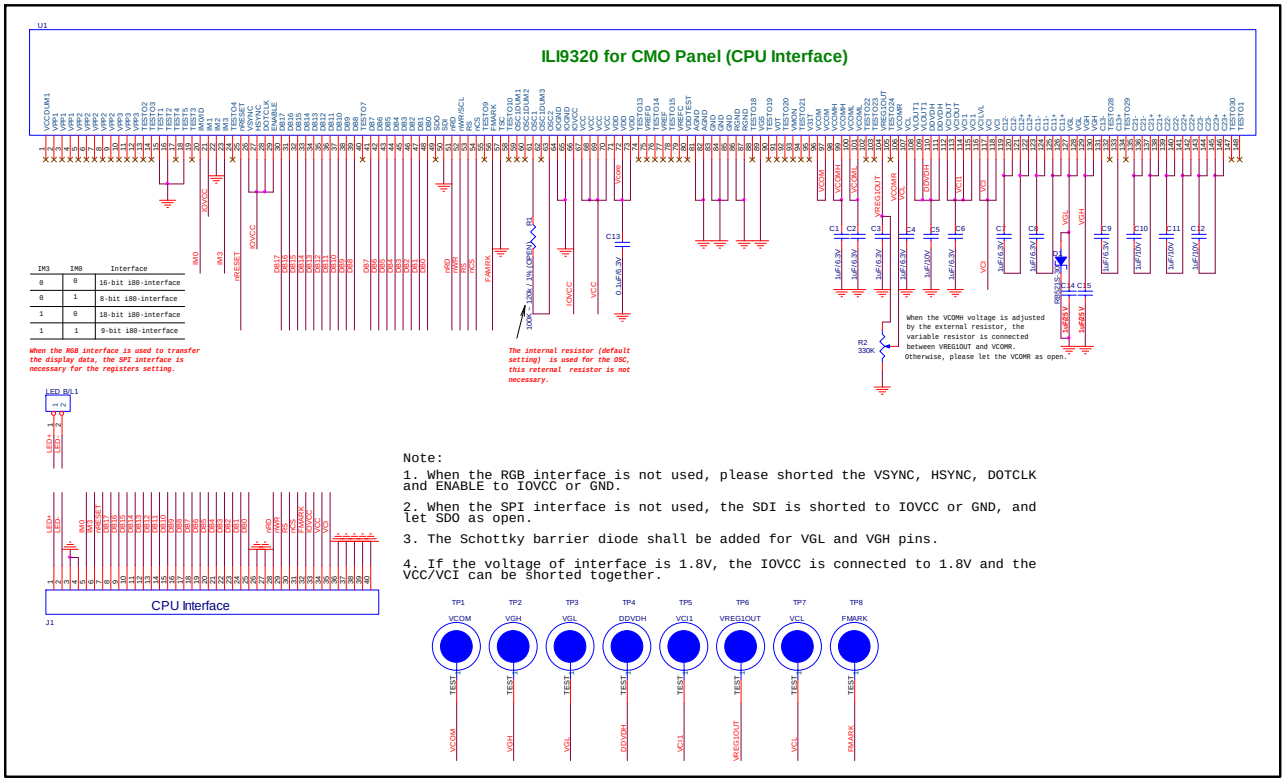
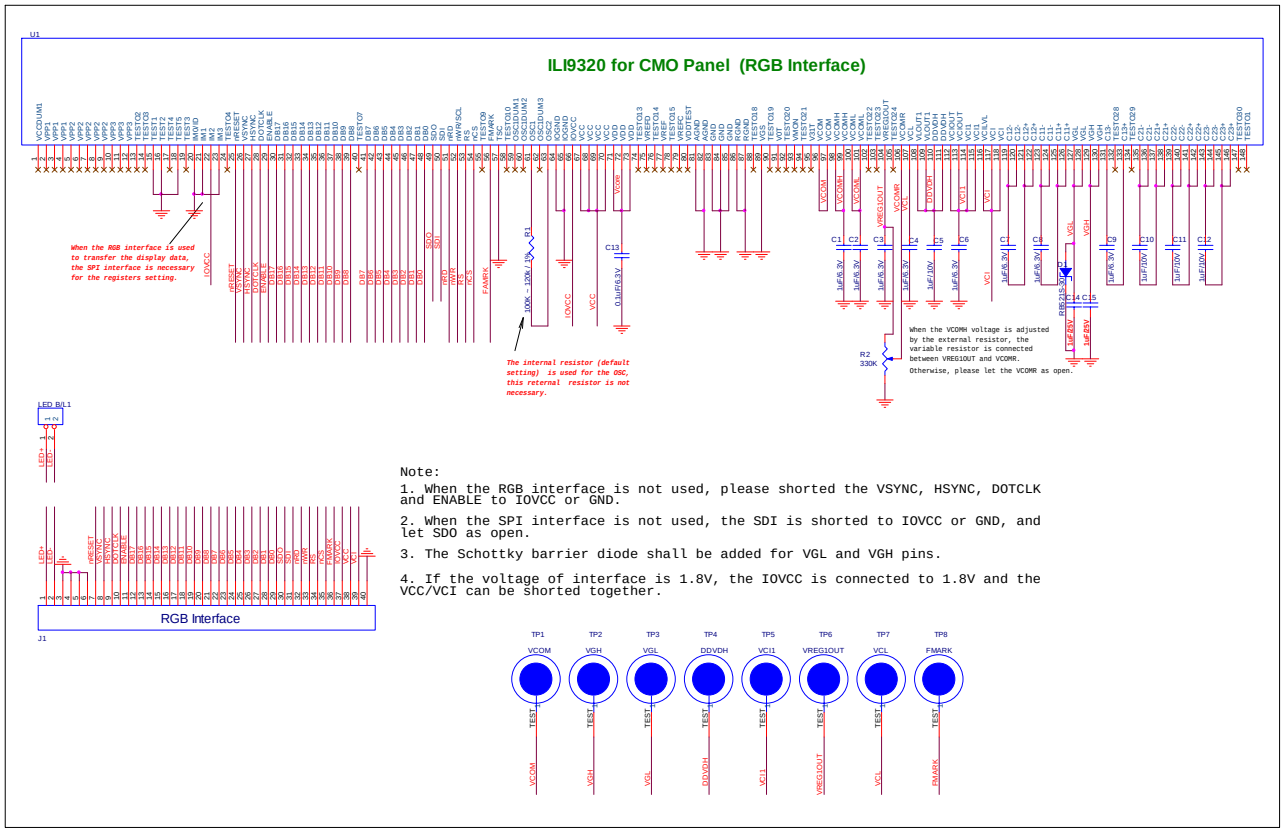
1.2. CMO 2.2” & CMO 2.4” Panel





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```
void ILI9320_CMO22_Initial(void)
{
  // VCI=2.8V
  //************ Reset LCD Driver ****************//
    LCD_nRESET = 1;
      delayms(1);   // Delay 1ms
    LCD_nRESET = 0;
      delayms(10); // Delay 10ms              // This delay is necessary
    LCD_nRESET = 1;
      delayms(50); // Delay 50 ms

  //************ Start Initial Sequence **********//

    LCD_CtrlWrite_ILI9320(0x00E5, 0x8000);      // Set the Vcore voltage and this setting is must.
    LCD_CtrlWrite_ILI9320(0x0000, 0x0001);      // Start internal OSC.
    LCD_CtrlWrite_ILI9320(0x0001, 0x0100);      // set SS and SM bit
    LCD_CtrlWrite_ILI9320(0x0002, 0x0700);      // set 1 line inversion
    LCD_CtrlWrite_ILI9320(0x0003, 0x0030);      // set GRAM write direction and BGR=0.
    LCD_CtrlWrite_ILI9320(0x0004, 0x0000);      // Resize register

    LCD_CtrlWrite_ILI9320(0x0008, 0x0202);      // set the back porch and front porch
    LCD_CtrlWrite_ILI9320(0x0009, 0x0000);      // set non-display area refresh cycle ISC[3:0]
    LCD_CtrlWrite_ILI9320(0x000A, 0x0000);      // FMARK function
    LCD_CtrlWrite_ILI9320(0x000C, 0x0000);       // RGB interface setting
    LCD_CtrlWrite_ILI9320(0x000D, 0x0000);      // Frame marker Position
    LCD_CtrlWrite_ILI9320(0x000F, 0x0000);       // RGB interface polarity

  //*************Power On sequence ****************//
    LCD_CtrlWrite_ILI9320(0x0010, 0x0000);       // SAP, BT[3:0], AP, DSTB, SLP, STB
    LCD_CtrlWrite_ILI9320(0x0011, 0x0007);       // DC1[2:0], DC0[2:0], VC[2:0]
    LCD_CtrlWrite_ILI9320(0x0012, 0x0000);       // VREG1OUT voltage
    LCD_CtrlWrite_ILI9320(0x0013, 0x0000);       // VDV[4:0] for VCOM amplitude
      delayms(200);                              // Dis-charge capacitor power voltage
    LCD_CtrlWrite_ILI9320(0x0010, 0x17B0);       // SAP, BT[3:0], AP, DSTB, SLP, STB
    LCD_CtrlWrite_ILI9320(0x0011, 0x0037);       // DC1[2:0], DC0[2:0], VC[2:0]
      delayms(50);                               // Delay 50ms
    LCD_CtrlWrite_ILI9320(0x0012, 0x013E);       // VREG1OUT voltage
      delayms(50);                               // Delay 50ms
    LCD_CtrlWrite_ILI9320(0x0013, 0x1F00);       // VDV[4:0] for VCOM amplitude
    LCD_CtrlWrite_ILI9320(0x0029, 0x0013);       // VCM[4:0] for VCOMH
      delayms(50);
    LCD_CtrlWrite_ILI9320(0x0020, 0x0000);       // GRAM horizontal Address
    LCD_CtrlWrite_ILI9320(0x0021, 0x0000);       // GRAM Vertical Address

  // ----------- Adjust the Gamma    Curve ----------//
    LCD_CtrlWrite_ILI9320(0x0030, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0031, 0x0404);
    LCD_CtrlWrite_ILI9320(0x0032, 0x0404);

    LCD_CtrlWrite_ILI9320(0x0035, 0x0004);
    LCD_CtrlWrite_ILI9320(0x0036, 0x0404);
    LCD_CtrlWrite_ILI9320(0x0037, 0x0404);
    LCD_CtrlWrite_ILI9320(0x0038, 0x0404);
    LCD_CtrlWrite_ILI9320(0x0039, 0x0707);
    LCD_CtrlWrite_ILI9320(0x003C, 0x0500);
    LCD_CtrlWrite_ILI9320(0x003D, 0x0607);

  //------------------ Set GRAM area ---------------//
    LCD_CtrlWrite_ILI9320(0x0050, 0x0000);       // Horizontal GRAM Start Address
```

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```
    LCD_CtrlWrite_ILI9320(0x0051, 0x00EF);      // Horizontal GRAM End Address
    LCD_CtrlWrite_ILI9320(0x0052, 0x0000);      // Vertical GRAM Start Address
    LCD_CtrlWrite_ILI9320(0x0053, 0x013F);      // Vertical GRAM Start Address

    LCD_CtrlWrite_ILI9320(0x0060, 0x2700);      // Gate Scan Line
    LCD_CtrlWrite_ILI9320(0x0061, 0x0001);      // NDL,VLE, REV
    LCD_CtrlWrite_ILI9320(0x006A, 0x0000);      // set scrolling line

  //---------- Partial Display Control ---------//
    LCD_CtrlWrite_ILI9320(0x0080, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0081, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0082, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0083, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0084, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0085, 0x0000);

  //---------- Panel Control ----------//
    LCD_CtrlWrite_ILI9320(0x0090, 0x0010);
    LCD_CtrlWrite_ILI9320(0x0092, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0093, 0x0003);
    LCD_CtrlWrite_ILI9320(0x0095, 0x0110);
    LCD_CtrlWrite_ILI9320(0x0097, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0098, 0x0000);
    LCD_CtrlWrite_ILI9320(0x0007, 0x0173);      // 262K color and display ON
}
```

void LCD_ExitSleep_ILI9320(void)

```
{
//*************Power On sequence ******************//
  LCD_CtrlWrite_ILI9320(0x0010, 0x0000);          // SAP, BT[3:0], AP, DSTB, SLP, STB
  LCD_CtrlWrite_ILI9320(0x0011, 0x0000);          // DC1[2:0], DC0[2:0], VC[2:0]
  LCD_CtrlWrite_ILI9320(0x0012, 0x0000);          // VREG1OUT voltage
  LCD_CtrlWrite_ILI9320(0x0013, 0x0000);          // VDV[4:0] for VCOM amplitude
    delayms(200);                                 // Dis-charge capacitor power voltage
  LCD_CtrlWrite_ILI9320(0x0010, 0x17B0);          // SAP, BT[3:0], AP, DSTB, SLP, STB
  LCD_CtrlWrite_ILI9320(0x0011, 0x0037);          // DC1[2:0], DC0[2:0], VC[2:0]
      delayms(50);                                // Delay 50ms
  LCD_CtrlWrite_ILI9320(0x0012, 0x013E);          // VREG1OUT voltage
      delayms(50);                                // Delay 50ms
  LCD_CtrlWrite_ILI9320(0x0013, 0x1F00);          // VDV[4:0] for VCOM amplitude
  LCD_CtrlWrite_ILI9320(0x0029, 0x0013);          // VCM[4:0] for VCOMH
    delayms(50);
  LCD_CtrlWrite_ILI9320(0x0007, 0x0173);          // 262K color and display ON

}
```

void LCD_EnterSleep_ILI9320(void)

```
{
  LCD_CtrlWrite_ILI9320(0x0007, 0x0000);        // display OFF
  //************* Power OFF sequence **************//
  LCD_CtrlWrite_ILI9320(0x0010, 0x0000);          // SAP, BT[3:0], APE, AP, DSTB, SLP
  LCD_CtrlWrite_ILI9320(0x0011, 0x0000);          // DC1[2:0], DC0[2:0], VC[2:0]
  LCD_CtrlWrite_ILI9320(0x0012, 0x0000);          // VREG1OUT voltage
  LCD_CtrlWrite_ILI9320(0x0013, 0x0000);          // VDV[4:0] for VCOM amplitude
    delayms(200);                                 // Dis-charge capacitor power voltage
  LCD_CtrlWrite_ILI9320(0x0010, 0x0002);          // SAP, BT[3:0], APE, AP, DSTB, SLP
}
```

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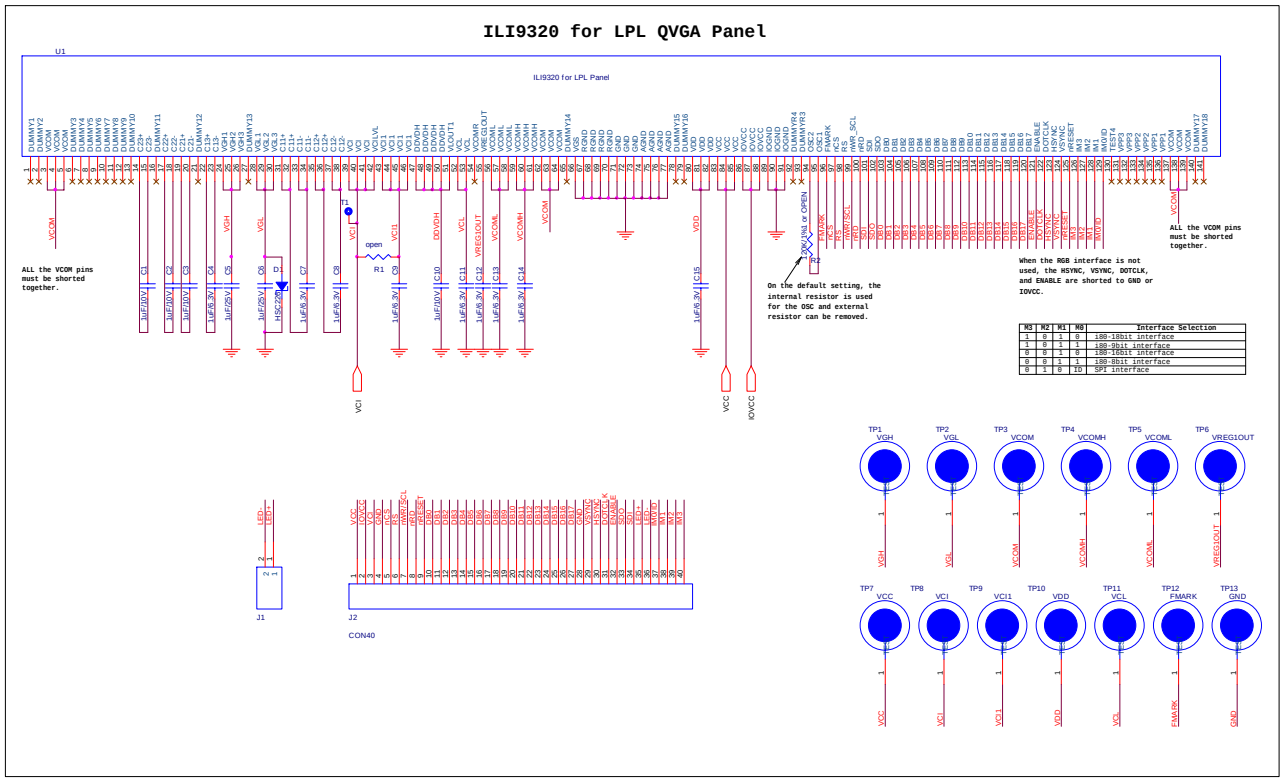
1.3. LPL2.2” & LPL 2.4” Panel



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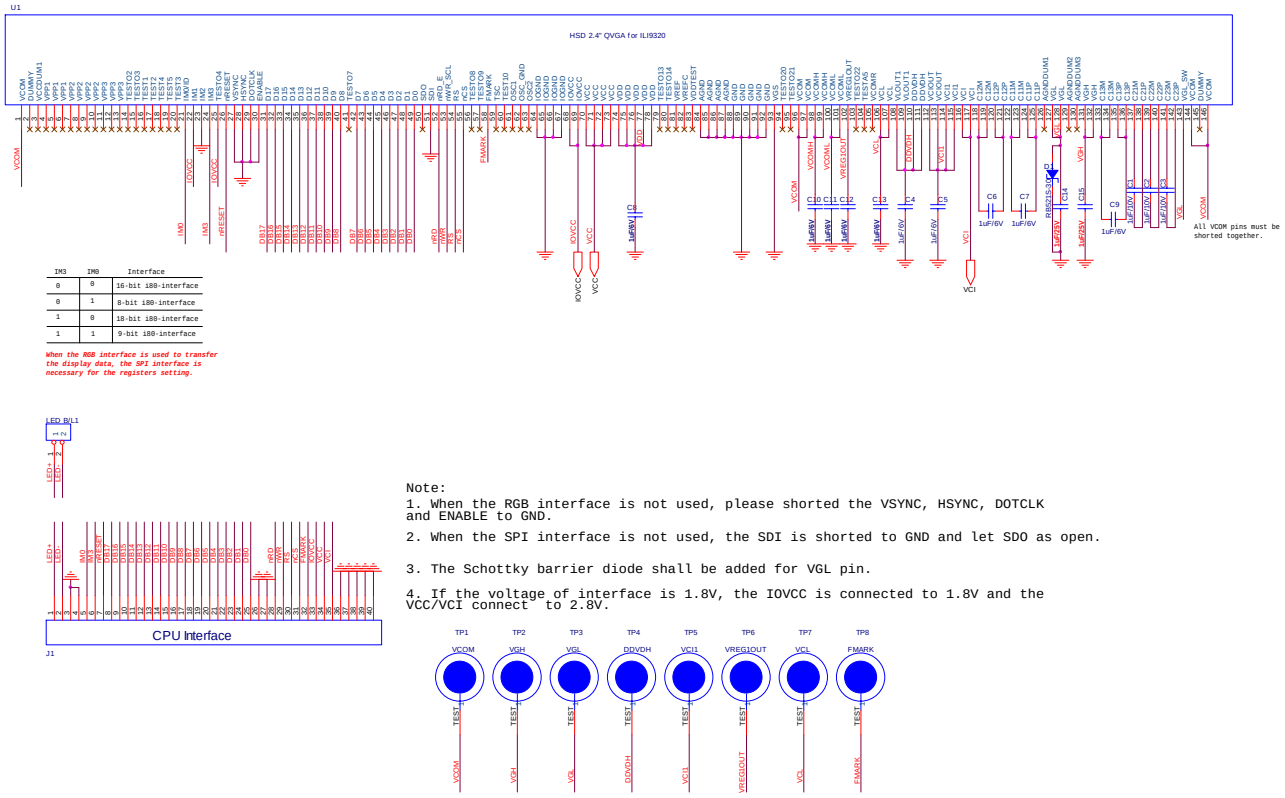
1.4. Hannstar 2.4” Panel



Note:

1. When the RGB interface is not used, please shorted the VSYNC, HSYNC, DOTCLK and ENABLE to GND.
2. When the SPI interface is not used, the SDI is shorted to GND and let SDO as open.
3. The Schottky barrier diode shall be added for VGL pin.
4. If the voltage of interface is 1.8V, the IOVCC is connected to 1.8V and the VCC/VCI connect to 2.8V.

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2. Revision History

Revision History

Version No.	Date	Page	Description
V0.1	2006/11/22		New
V0.2	2006/11/28		Add the Hannstar FPC circuit
V0.4	2007/01/02		Add CPT 2.8” initial code
V0.5	2007/1/5		Modify the Hannstar FPC circuit

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