ILITEK
I Love Innovation

ILI9806

a-Si TFT LCD Single Chip Driver with 480(RGB) x 864 Resolution , 16.7M-color with internal GRAM

Application Notes

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ILI TECHNOLOGY CORP.
8F, No.38, Taiyuan St., Jhubei City, Hsinchu County,
Taiwan 302, R.O.C.
Tel.886-3-5600099; Fax.886-3-5600585
http://www.ilitek.com

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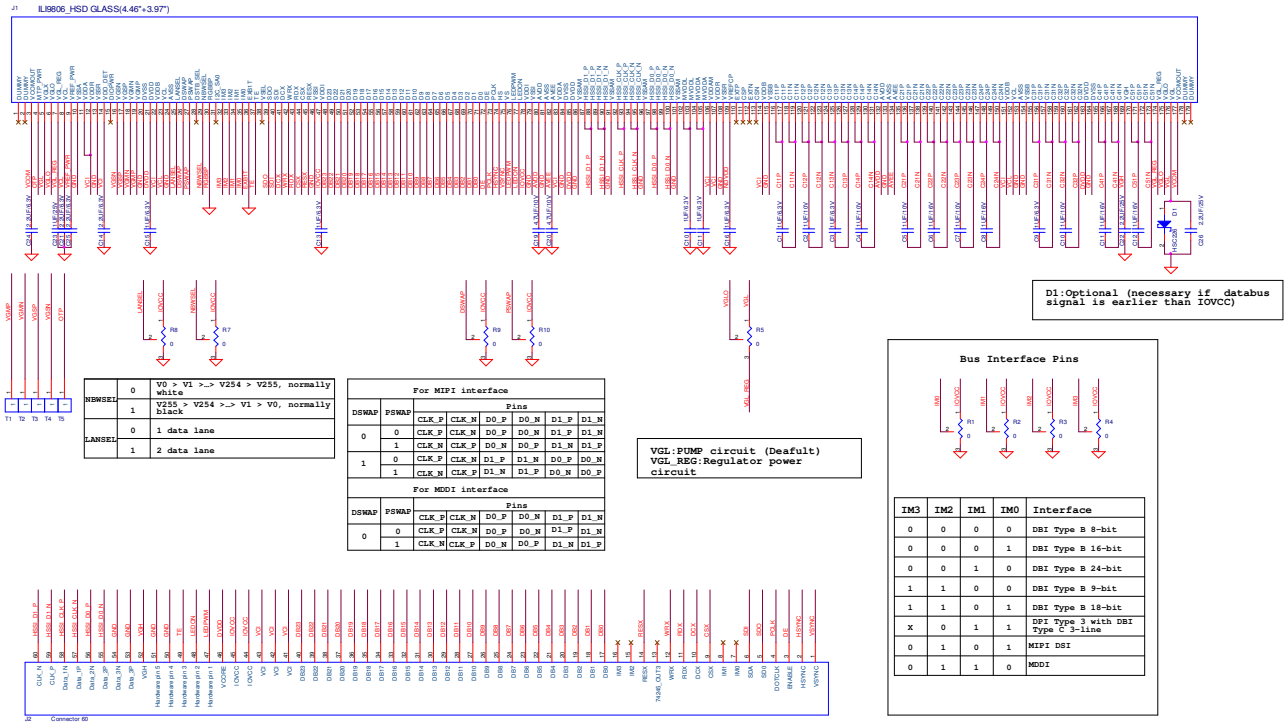
1. HSD Panel



NSWSEL	0	V0 > V1 >_> V254 > V255, normally white
	1	V255 > V254 >_> V1 > V0, normally black
LANSEL	0	1 data lane
	1	2 data lane

For MIPI interface						
DSWAP	PSWAP	Pins				
		CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P
1	0	CLK_P	CLK_N	D1_P	D1_N	D0_P	D0_N
	1	CLK_N	CLK_P	D1_N	D1_P	D0_N	D0_P

For MDDI interface						
DSWAP	PSWAP	Pins				
		CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P

IM3	IM2	IM1	IM0	Interface
0	0	0	0	DBI Type B 8-bit
0	0	0	1	DBI Type B 16-bit
0	0	1	0	DBI Type B 24-bit
1	1	0	0	DBI Type B 9-bit
1	1	0	1	DBI Type B 18-bit
X	0	1	1	DPI Type 3 with DBI Type C 3-line
0	1	0	1	MIPI DSI
0	1	1	0	MDDI

Note:

1. Please ensure the same naming pin is connected certainly(Ex.Pin3 VCOM must link to pin177 VCOM)

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1.1 HSD 3.97” (C0401D)Initial Code

```
 void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x39);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
```

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```
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x69);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x92);
LCD_ILI9806_INDEX(0x50);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x79);
LCD_ILI9806_INDEX(0x20);
```

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```
LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x06);      //P2
LCD_ILI9806_INDEX(0x0F);      //P3
LCD_ILI9806_INDEX(0x10);      //P4
LCD_ILI9806_INDEX(0x13);      //P5
LCD_ILI9806_INDEX(0x19);      //P6
LCD_ILI9806_INDEX(0x0C);      //P7
LCD_ILI9806_INDEX(0x0A);      //P8
LCD_ILI9806_INDEX(0x03);      //P9
LCD_ILI9806_INDEX(0x08);      //P10
LCD_ILI9806_INDEX(0x04);      //P11
LCD_ILI9806_INDEX(0x0D);      //P12
LCD_ILI9806_INDEX(0x12);      //P13
LCD_ILI9806_INDEX(0x2F);      //P14
LCD_ILI9806_INDEX(0x2C);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x02);      //P2
LCD_ILI9806_INDEX(0x0A);      //P3
LCD_ILI9806_INDEX(0x0F);      //P4
LCD_ILI9806_INDEX(0x11);      //P5
LCD_ILI9806_INDEX(0x17);      //P6
LCD_ILI9806_INDEX(0x08);      //P7
LCD_ILI9806_INDEX(0x09);      //P8
LCD_ILI9806_INDEX(0x03);      //P9
LCD_ILI9806_INDEX(0x09);      //P10
LCD_ILI9806_INDEX(0x06);      //P11
LCD_ILI9806_INDEX(0x0B);      //P12
LCD_ILI9806_INDEX(0x0A);      //P13
LCD_ILI9806_INDEX(0x2C);      //P14
LCD_ILI9806_INDEX(0x26);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0x11);          //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);          // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.2 HSD 4.02” (C0408)Initial Code

```
void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x03);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x6B);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x78);
LCD_ILI9806_INDEX(0x7B);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x04);    //P2
LCD_ILI9806_INDEX(0x0E);    //P3
LCD_ILI9806_INDEX(0x0D);    //P4
LCD_ILI9806_INDEX(0x10);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x0C);    //P10
LCD_ILI9806_INDEX(0x04);    //P11
LCD_ILI9806_INDEX(0x11);    //P12
LCD_ILI9806_INDEX(0x0D);    //P13
LCD_ILI9806_INDEX(0x2F);    //P14
LCD_ILI9806_INDEX(0x2A);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x0B);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x14);    //P6
LCD_ILI9806_INDEX(0x0A);    //P7
LCD_ILI9806_INDEX(0x09);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x2D);    //P14
LCD_ILI9806_INDEX(0x27);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.3 HSD 4.30” (C0402)Initial Code

```
void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x39);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x69);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x06);    //P2
LCD_ILI9806_INDEX(0x0F);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x13);    //P5
LCD_ILI9806_INDEX(0x19);    //P6
LCD_ILI9806_INDEX(0x0C);    //P7
LCD_ILI9806_INDEX(0x0A);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x04);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x12);    //P13
LCD_ILI9806_INDEX(0x2F);    //P14
LCD_ILI9806_INDEX(0x2C);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x02);    //P2
LCD_ILI9806_INDEX(0x0A);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x17);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x09);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x06);    //P11
LCD_ILI9806_INDEX(0x0B);    //P12
LCD_ILI9806_INDEX(0x0A);    //P13
LCD_ILI9806_INDEX(0x2C);    //P14
LCD_ILI9806_INDEX(0x26);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.4 HSD 4.46” (C0405)Initial Code

```
void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x04);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x6E);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x67);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x04);    //P2
LCD_ILI9806_INDEX(0x0F);    //P3
LCD_ILI9806_INDEX(0x0E);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x19);    //P6
LCD_ILI9806_INDEX(0x0A);    //P7
LCD_ILI9806_INDEX(0x0A);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x0B);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x35);    //P14
LCD_ILI9806_INDEX(0x32);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x04);    //P2
LCD_ILI9806_INDEX(0x09);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x15);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x06);    //P8
LCD_ILI9806_INDEX(0x04);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x2A);    //P14
LCD_ILI9806_INDEX(0x25);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.5 HSD 4.63” (C0404)Initial Code

```
void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x03);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x66);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x78);
LCD_ILI9806_INDEX(0x7B);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x02);    //P2
LCD_ILI9806_INDEX(0x0C);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x1C);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x03);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x31);    //P14
LCD_ILI9806_INDEX(0x2C);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x02);    //P2
LCD_ILI9806_INDEX(0x08);    //P3
LCD_ILI9806_INDEX(0x0E);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x17);    //P6
LCD_ILI9806_INDEX(0x0C);    //P7
LCD_ILI9806_INDEX(0x0A);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x06);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x2E);    //P14
LCD_ILI9806_INDEX(0x2A);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.6 HSD 5.0” (C0500) Initial Code

```
void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x04);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x62);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x78);
LCD_ILI9806_INDEX(0x7B);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x03);    //P2
LCD_ILI9806_INDEX(0x0C);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x1A);    //P6
LCD_ILI9806_INDEX(0x0B);    //P7
LCD_ILI9806_INDEX(0x0A);    //P8
LCD_ILI9806_INDEX(0x01);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x0E);    //P13
LCD_ILI9806_INDEX(0x2F);    //P14
LCD_ILI9806_INDEX(0x2C);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x01);    //P2
LCD_ILI9806_INDEX(0x08);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x18);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x04);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x08);    //P13
LCD_ILI9806_INDEX(0x32);    //P14
LCD_ILI9806_INDEX(0x2D);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.7 HSD 5.0”(C0504) Initial Code

```
void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x03);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);                    // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);                    // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);                    // VCOM Control
LCD_ILI9806_INDEX(0x57);

LCD_ILI9806_CMD(0xED);                    // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);                    // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x0A);

LCD_ILI9806_CMD(0xFC);                    // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);                    // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);              // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);              // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);              // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);              // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);              //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);                    // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x78);
LCD_ILI9806_INDEX(0x7B);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x06);    //P2
LCD_ILI9806_INDEX(0x13);    //P3
LCD_ILI9806_INDEX(0x11);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x18);    //P6
LCD_ILI9806_INDEX(0x0B);    //P7
LCD_ILI9806_INDEX(0x0A);    //P8
LCD_ILI9806_INDEX(0x02);    //P9
LCD_ILI9806_INDEX(0x06);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0E);    //P13
LCD_ILI9806_INDEX(0x2E);    //P14
LCD_ILI9806_INDEX(0x29);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x06);    //P2
LCD_ILI9806_INDEX(0x0E);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x09);    //P13
LCD_ILI9806_INDEX(0x2B);    //P14
LCD_ILI9806_INDEX(0x26);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);                    //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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1.8 HSD 5.3”(C0501) Initial Code

```
 void ILI9806_Initial_HSD(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // VCOM Control
LCD_ILI9806_INDEX(0x4C);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x50);
LCD_ILI9806_INDEX(0x2A);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x77);
LCD_ILI9806_INDEX(0x72);
LCD_ILI9806_INDEX(0x20);
```

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```
LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x04);      //P2
LCD_ILI9806_INDEX(0x0E);      //P3
LCD_ILI9806_INDEX(0x0F);      //P4
LCD_ILI9806_INDEX(0x11);      //P5
LCD_ILI9806_INDEX(0x19);      //P6
LCD_ILI9806_INDEX(0x09);      //P7
LCD_ILI9806_INDEX(0x09);      //P8
LCD_ILI9806_INDEX(0x02);      //P9
LCD_ILI9806_INDEX(0x08);      //P10
LCD_ILI9806_INDEX(0x05);      //P11
LCD_ILI9806_INDEX(0x0D);      //P12
LCD_ILI9806_INDEX(0x0C);      //P13
LCD_ILI9806_INDEX(0x30);      //P14
LCD_ILI9806_INDEX(0x29);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x03);      //P2
LCD_ILI9806_INDEX(0x0A);      //P3
LCD_ILI9806_INDEX(0x0F);      //P4
LCD_ILI9806_INDEX(0x11);      //P5
LCD_ILI9806_INDEX(0x16);      //P6
LCD_ILI9806_INDEX(0x0A);      //P7
LCD_ILI9806_INDEX(0x08);      //P8
LCD_ILI9806_INDEX(0x04);      //P9
LCD_ILI9806_INDEX(0x08);      //P10
LCD_ILI9806_INDEX(0x06);      //P11
LCD_ILI9806_INDEX(0x0E);      //P12
LCD_ILI9806_INDEX(0x0C);      //P13
LCD_ILI9806_INDEX(0x2C);      //P14
LCD_ILI9806_INDEX(0x27);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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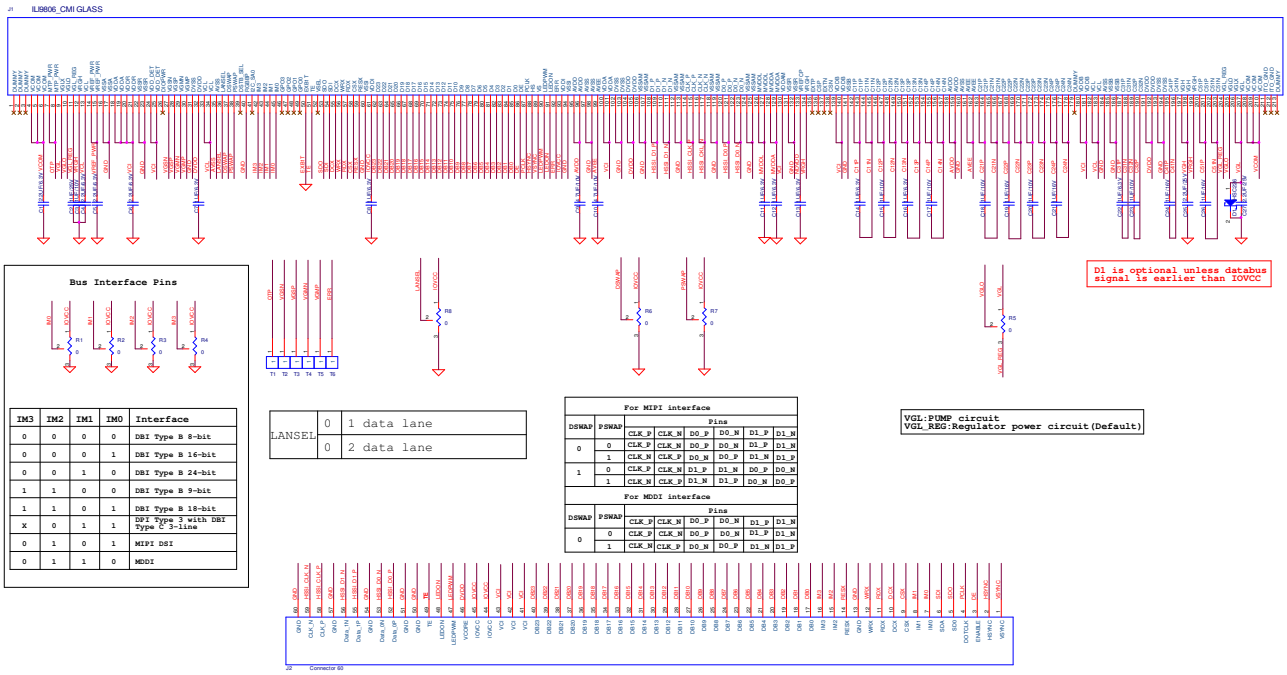
2. INNOLUX Panel



IM3	IM2	IM1	IM0	Interface
0	0	0	0	DBI Type B 8-bit
0	0	0	1	DBI Type B 16-bit
0	0	1	0	DBI Type B 24-bit
1	1	0	0	DBI Type B 9-bit
1	1	0	1	DBI Type B 18-bit
X	0	1	1	DBI Type 3 with DBI Type C 3-line
0	1	0	1	MIPI DSI
0	1	1	0	MDDI

LANSEL	0	1 data lane
	0	2 data lane

Note:

1. Please make sure the same named pin is connected by FPC. (Ex.Pin3~5 VCOM must be linked to Pin208~210 VCOM)

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2.1 INNOLUX 3.97” (F04012)Initial Code

```
void ILI9806_Initial_CMI(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x71);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x04);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x28);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x71);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x0A);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          // CR/EQ/PC
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);                  //Gamma
LCD_ILI9806_INDEX(0x00);        //P1
LCD_ILI9806_INDEX(0x03);        //P2
LCD_ILI9806_INDEX(0x06);        //P3
LCD_ILI9806_INDEX(0x0B);        //P4
LCD_ILI9806_INDEX(0x0F);        //P5
LCD_ILI9806_INDEX(0x18);        //P6
LCD_ILI9806_INDEX(0x0A);        //P7
LCD_ILI9806_INDEX(0x0A);        //P8
LCD_ILI9806_INDEX(0x03);        //P9
LCD_ILI9806_INDEX(0x08);        //P10
LCD_ILI9806_INDEX(0x05);        //P11
LCD_ILI9806_INDEX(0x0B);        //P12
LCD_ILI9806_INDEX(0x0F);        //P13
LCD_ILI9806_INDEX(0x31);        //P14
LCD_ILI9806_INDEX(0x2B);        //P15
LCD_ILI9806_INDEX(0x00);        //P16

LCD_ILI9806_CMD(0xE1);                  //Gamma
LCD_ILI9806_INDEX(0x00);        //P1
LCD_ILI9806_INDEX(0x01);        //P2
LCD_ILI9806_INDEX(0x05);        //P3
LCD_ILI9806_INDEX(0x0C);        //P4
LCD_ILI9806_INDEX(0x10);        //P5
LCD_ILI9806_INDEX(0x13);        //P6
LCD_ILI9806_INDEX(0x0A);        //P7
LCD_ILI9806_INDEX(0x08);        //P8
LCD_ILI9806_INDEX(0x03);        //P9
LCD_ILI9806_INDEX(0x09);        //P10
LCD_ILI9806_INDEX(0x08);        //P11
LCD_ILI9806_INDEX(0x0D);        //P12
LCD_ILI9806_INDEX(0x0D);        //P13
LCD_ILI9806_INDEX(0x2C);        //P14
LCD_ILI9806_INDEX(0x25);        //P15
LCD_ILI9806_INDEX(0x00);        //P16

LCD_ILI9806_CMD(0x35);                  //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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2.2 INNOLUX 3.97” (F04013)Initial Code

```
void ILI9806_Initial_CMI(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x71);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x05);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x28);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x6F);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          // CR/EQ/PC
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x79);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);                  //Gamma
LCD_ILI9806_INDEX(0x00);        //P1
LCD_ILI9806_INDEX(0x07);        //P2
LCD_ILI9806_INDEX(0x0F);        //P3
LCD_ILI9806_INDEX(0x09);        //P4
LCD_ILI9806_INDEX(0x0C);        //P5
LCD_ILI9806_INDEX(0x07);        //P6
LCD_ILI9806_INDEX(0x07);        //P7
LCD_ILI9806_INDEX(0x04);        //P8
LCD_ILI9806_INDEX(0x08);        //P9
LCD_ILI9806_INDEX(0x0C);        //P10
LCD_ILI9806_INDEX(0x12);        //P11
LCD_ILI9806_INDEX(0x10);        //P12
LCD_ILI9806_INDEX(0x0F);        //P13
LCD_ILI9806_INDEX(0x16);        //P14
LCD_ILI9806_INDEX(0x0D);        //P15
LCD_ILI9806_INDEX(0x00);        //P16

LCD_ILI9806_CMD(0xE1);                  //Gamma
LCD_ILI9806_INDEX(0x00);        //P1
LCD_ILI9806_INDEX(0x04);        //P2
LCD_ILI9806_INDEX(0x0F);        //P3
LCD_ILI9806_INDEX(0x0E);        //P4
LCD_ILI9806_INDEX(0x0E);        //P5
LCD_ILI9806_INDEX(0x0A);        //P6
LCD_ILI9806_INDEX(0x05);        //P7
LCD_ILI9806_INDEX(0x04);        //P8
LCD_ILI9806_INDEX(0x08);        //P9
LCD_ILI9806_INDEX(0x0B);        //P10
LCD_ILI9806_INDEX(0x11);        //P11
LCD_ILI9806_INDEX(0x0F);        //P12
LCD_ILI9806_INDEX(0x0C);        //P13
LCD_ILI9806_INDEX(0x14);        //P14
LCD_ILI9806_INDEX(0x09);        //P15
LCD_ILI9806_INDEX(0x00);        //P16

LCD_ILI9806_CMD(0x35);                  //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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2.3 INNOLUX 3.97” (F04014)Initial Code

```
void ILI9806_Initial_CMI(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x71);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x05);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x28);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x6F);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x79);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x08);      //P2
LCD_ILI9806_INDEX(0x0E);      //P3
LCD_ILI9806_INDEX(0x0B);      //P4
LCD_ILI9806_INDEX(0x0C);      //P5
LCD_ILI9806_INDEX(0x08);      //P6
LCD_ILI9806_INDEX(0x07);      //P7
LCD_ILI9806_INDEX(0x05);      //P8
LCD_ILI9806_INDEX(0x08);      //P9
LCD_ILI9806_INDEX(0x09);      //P10
LCD_ILI9806_INDEX(0x12);      //P11
LCD_ILI9806_INDEX(0x0F);      //P12
LCD_ILI9806_INDEX(0x0F);      //P13
LCD_ILI9806_INDEX(0x15);      //P14
LCD_ILI9806_INDEX(0x0C);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x07);      //P2
LCD_ILI9806_INDEX(0x0E);      //P3
LCD_ILI9806_INDEX(0x0A);      //P4
LCD_ILI9806_INDEX(0x0D);      //P5
LCD_ILI9806_INDEX(0x08);      //P6
LCD_ILI9806_INDEX(0x06);      //P7
LCD_ILI9806_INDEX(0x03);      //P8
LCD_ILI9806_INDEX(0x0A);      //P9
LCD_ILI9806_INDEX(0x0D);      //P10
LCD_ILI9806_INDEX(0x10);      //P11
LCD_ILI9806_INDEX(0x11);      //P12
LCD_ILI9806_INDEX(0x0E);      //P13
LCD_ILI9806_INDEX(0x11);      //P14
LCD_ILI9806_INDEX(0x08);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0xB9);                // Panel Control
```

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```
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0x35);          //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);          //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);          // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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2.4 INNOLUX 4.02” (F04011)Initial Code

```
void ILI9806_Initial_CMI(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x71);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x05);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x28);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0X75);
LCD_ILI9806_INDEX(0x79);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x03);      //P2
LCD_ILI9806_INDEX(0x0B);      //P3
LCD_ILI9806_INDEX(0x0C);      //P4
LCD_ILI9806_INDEX(0x0E);      //P5
LCD_ILI9806_INDEX(0x08);      //P6
LCD_ILI9806_INDEX(0x05);      //P7
LCD_ILI9806_INDEX(0x04);      //P8
LCD_ILI9806_INDEX(0x08);      //P9
LCD_ILI9806_INDEX(0x0C);      //P10
LCD_ILI9806_INDEX(0x13);      //P11
LCD_ILI9806_INDEX(0x11);      //P12
LCD_ILI9806_INDEX(0x11);      //P13
LCD_ILI9806_INDEX(0x14);      //P14
LCD_ILI9806_INDEX(0x0C);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);      //P1
LCD_ILI9806_INDEX(0x0D);      //P2
LCD_ILI9806_INDEX(0x11);      //P3
LCD_ILI9806_INDEX(0x0C);      //P4
LCD_ILI9806_INDEX(0x0C);      //P5
LCD_ILI9806_INDEX(0x04);      //P6
LCD_ILI9806_INDEX(0x06);      //P7
LCD_ILI9806_INDEX(0x03);      //P8
LCD_ILI9806_INDEX(0x08);      //P9
LCD_ILI9806_INDEX(0x0B);      //P10
LCD_ILI9806_INDEX(0x16);      //P11
LCD_ILI9806_INDEX(0x10);      //P12
LCD_ILI9806_INDEX(0x0D);      //P13
LCD_ILI9806_INDEX(0x16);      //P14
LCD_ILI9806_INDEX(0x0A);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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2.5 INNOLUX 4.46” (F04503)Initial Code

```
void ILI9806_Initial_CMI(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x71);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x28);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x83);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x20);
```

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```
LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x02);    //P2
LCD_ILI9806_INDEX(0x08);    //P3
LCD_ILI9806_INDEX(0x0A);    //P4
LCD_ILI9806_INDEX(0x0C);    //P5
LCD_ILI9806_INDEX(0x09);    //P6
LCD_ILI9806_INDEX(0x06);    //P7
LCD_ILI9806_INDEX(0x05);    //P8
LCD_ILI9806_INDEX(0x08);    //P9
LCD_ILI9806_INDEX(0x0B);    //P10
LCD_ILI9806_INDEX(0x0F);    //P11
LCD_ILI9806_INDEX(0x0F);    //P12
LCD_ILI9806_INDEX(0x0D);    //P13
LCD_ILI9806_INDEX(0x1F);    //P14
LCD_ILI9806_INDEX(0x18);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x0A);    //P3
LCD_ILI9806_INDEX(0x0D);    //P4
LCD_ILI9806_INDEX(0x0E);    //P5
LCD_ILI9806_INDEX(0x0A);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x05);    //P8
LCD_ILI9806_INDEX(0x08);    //P9
LCD_ILI9806_INDEX(0x0C);    //P10
LCD_ILI9806_INDEX(0x0F);    //P11
LCD_ILI9806_INDEX(0x10);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x21);    //P14
LCD_ILI9806_INDEX(0x1D);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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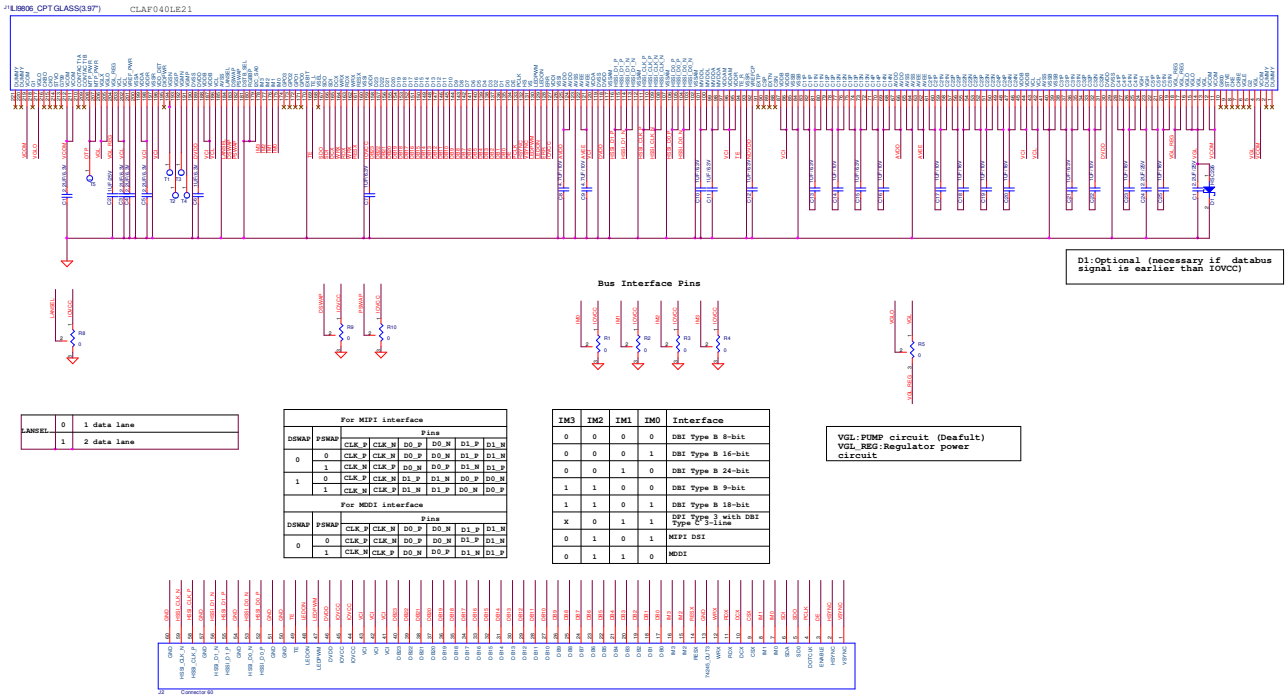
3. CPT Panel



LANSEL	0	1 data lane
	1	2 data lane

For MIPI interface							
DSWAP	PSWAP	Pins					
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P
1	0	CLK_P	CLK_N	D1_P	D1_N	D0_P	D0_N
	1	CLK_N	CLK_P	D1_N	D1_P	D0_N	D0_P

For MDDI interface							
DSWAP	PSWAP	Pins					
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P

IM3	IM2	IM1	IM0	Interface
0	0	0	0	DBI Type B 8-bit
0	0	0	1	DBI Type B 16-bit
0	0	1	0	DBI Type B 24-bit
1	1	0	0	DBI Type B 9-bit
1	1	0	1	DBI Type B 18-bit
X	0	1	1	DPI Type 3 with DBI Type C 3-line
0	1	0	1	MIPI DSI
0	1	1	0	MDDI

Note:

1. Please make sure the same named pin is connected by FPC. (Ex.Pin11~12 VCOM must be linked to Pin211~212 VCOM)

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3.1 CPT 3.97” (040LE)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x14);
LCD_ILI9806_INDEX(0x37);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x55);
LCD_ILI9806_INDEX(0x52);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x5B);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x09);
LCD_ILI9806_INDEX(0x09);
LCD_ILI9806_INDEX(0x09);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0x21);          // Display Inversion On
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x9B);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
```

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```
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x79);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x0E);    //P2
LCD_ILI9806_INDEX(0x1A);    //P3
LCD_ILI9806_INDEX(0x12);    //P4
LCD_ILI9806_INDEX(0x13);    //P5
LCD_ILI9806_INDEX(0x1D);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x06);    //P8
LCD_ILI9806_INDEX(0x06);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x03);    //P11
LCD_ILI9806_INDEX(0x0B);    //P12
LCD_ILI9806_INDEX(0x0A);    //P13
LCD_ILI9806_INDEX(0x26);    //P14
LCD_ILI9806_INDEX(0x21);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x01);    //P2
LCD_ILI9806_INDEX(0x05);    //P3
LCD_ILI9806_INDEX(0x0C);    //P4
LCD_ILI9806_INDEX(0x0F);    //P5
LCD_ILI9806_INDEX(0x12);    //P6
LCD_ILI9806_INDEX(0x0A);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x09);    //P13
LCD_ILI9806_INDEX(0x3B);    //P14
LCD_ILI9806_INDEX(0x35);    //P15
```

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```
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                    //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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3.2 CPT 3.97” (040LJ)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x34);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x31);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x03);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xF7);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x72);
LCD_ILI9806_INDEX(0x2A);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xD2);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x47);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x2A);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x86);
LCD_ILI9806_INDEX(0x96);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x09);    //P2
LCD_ILI9806_INDEX(0x1B);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x1A);    //P6
LCD_ILI9806_INDEX(0x0B);    //P7
LCD_ILI9806_INDEX(0x09);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x2A);    //P14
LCD_ILI9806_INDEX(0x27);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x0C);    //P2
LCD_ILI9806_INDEX(0x18);    //P3
LCD_ILI9806_INDEX(0x11);    //P4
LCD_ILI9806_INDEX(0x13);    //P5
LCD_ILI9806_INDEX(0x17);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0B);    //P12
LCD_ILI9806_INDEX(0x0D);    //P13
LCD_ILI9806_INDEX(0x24);    //P14
LCD_ILI9806_INDEX(0x20);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
 LCD_ILI9806_INDEX(0x00);

 LCD_ILI9806_CMD(0x11);                    //Exit Sleep
 Delayms(120);
 LCD_ILI9806_CMD(0x29);                    // Display On
}

void LCD_Enter Sleep In_ILI9806 (void)
 {
 LCD_ILI9806_CMD(0x28); // Display off
 Delayms(10);
 LCD_ILI9806_CMD(0x10); // Enter Standby mode
 Delayms(120);
 }
 void LCD_Exit Sleep In_ILI9806 (void)
 {
 LCD_ILI9806_CMD(0x11); // Standby out
 Delayms(120);
 LCD_ILI9806_CMD(0x29); // Display on
 }
```

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3.3 CPT 4.3” (043LG)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x14);
LCD_ILI9806_INDEX(0x37);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x55);
LCD_ILI9806_INDEX(0x52);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0XC7);          // Vcom
LCD_ILI9806_INDEX(0x44);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x09);
LCD_ILI9806_INDEX(0x09);
LCD_ILI9806_INDEX(0x09);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x9B);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x79);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x2B);    //P2
LCD_ILI9806_INDEX(0x34);    //P3
LCD_ILI9806_INDEX(0x0E);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x13);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x0A);    //P10
LCD_ILI9806_INDEX(0x06);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0D);    //P13
LCD_ILI9806_INDEX(0x1C);    //P14
LCD_ILI9806_INDEX(0x17);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x0A);    //P2
LCD_ILI9806_INDEX(0x11);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x10);    //P5
LCD_ILI9806_INDEX(0x14);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x05);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x09);    //P11
LCD_ILI9806_INDEX(0x0C);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x38);    //P14
LCD_ILI9806_INDEX(0x33);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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3.4 CPT 4.30” (043LJ)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x14);
LCD_ILI9806_INDEX(0x37);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x55);
LCD_ILI9806_INDEX(0X52);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x44);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x9B);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x79);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x1D);    //P2
LCD_ILI9806_INDEX(0x2A);    //P3
LCD_ILI9806_INDEX(0x11);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x18);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x06);    //P8
LCD_ILI9806_INDEX(0x00);    //P9
LCD_ILI9806_INDEX(0x04);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x08);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x1D);    //P14
LCD_ILI9806_INDEX(0x18);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x04);    //P2
LCD_ILI9806_INDEX(0x0E);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x13);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x06);    //P9
LCD_ILI9806_INDEX(0x0C);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x13);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x39);    //P14
LCD_ILI9806_INDEX(0x33);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29); /                  / Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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3.5 CPT 4.50” (045LA)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x6A);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x39);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x03);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0XF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x82);
LCD_ILI9806_INDEX(0x2A);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xD2);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x42);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x0C);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x2A);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x70);
LCD_ILI9806_INDEX(0x6E);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x09);    //P2
LCD_ILI9806_INDEX(0x14);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x0C);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x0B);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0F);    //P12
LCD_ILI9806_INDEX(0x10);    //P13
LCD_ILI9806_INDEX(0x2C);    //P14
LCD_ILI9806_INDEX(0x27);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x09);    //P2
LCD_ILI9806_INDEX(0x14);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x14);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x05);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x0A);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0F);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x26);    //P14
LCD_ILI9806_INDEX(0x21);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29); /                  / Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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3.6 CPT 4.63” (047LA)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x6A);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x39);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0XF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x82);
LCD_ILI9806_INDEX(0x2A);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xD2);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x3D);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x0A);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xF9);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFD);
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x40);
```

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```
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);                    // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x23);    //P2
LCD_ILI9806_INDEX(0x2A);    //P3
LCD_ILI9806_INDEX(0x0E);    //P4
LCD_ILI9806_INDEX(0x10);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x06);    //P8
LCD_ILI9806_INDEX(0x04);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x06);    //P11
LCD_ILI9806_INDEX(0x0B);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x24);    //P14
LCD_ILI9806_INDEX(0x20);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x02);    //P2
LCD_ILI9806_INDEX(0x07);    //P3
LCD_ILI9806_INDEX(0x0C);    //P4
LCD_ILI9806_INDEX(0x0F);    //P5
LCD_ILI9806_INDEX(0x13);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x06);    //P9
LCD_ILI9806_INDEX(0x0A);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
```

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```
LCD_ILI9806_INDEX(0x0B);     //P13
LCD_ILI9806_INDEX(0x37);     //P14
LCD_ILI9806_INDEX(0x33);     //P15
LCD_ILI9806_INDEX(0x00);     //P16

LCD_ILI9806_CMD(0x35);                    //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29); /                  / Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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3.7 CPT 5.0” (050LB)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x34);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x39);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x04);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0XF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);                  // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);      /           / GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x82);
LCD_ILI9806_INDEX(0x2A);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xDE);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);                  // Vcom
LCD_ILI9806_INDEX(0x27);

LCD_ILI9806_CMD(0xED);                  // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);                  // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0xD2);
LCD_ILI9806_INDEX(0x50);
LCD_ILI9806_INDEX(0x2A);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x74);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x1D);    //P2
LCD_ILI9806_INDEX(0x2A);    //P3
LCD_ILI9806_INDEX(0x11);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x18);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x06);    //P8
LCD_ILI9806_INDEX(0x00);    //P9
LCD_ILI9806_INDEX(0x04);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x08);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x1D);    //P14
LCD_ILI9806_INDEX(0x18);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x04);    //P2
LCD_ILI9806_INDEX(0x0E);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x13);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x06);    //P9
LCD_ILI9806_INDEX(0x0C);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x13);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x39);    //P14
LCD_ILI9806_INDEX(0x33);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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3.8 CPT 5.0” (050LD)Initial Code

```
void ILI9806_Initial_CPT(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0x6A);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x39);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x82);
LCD_ILI9806_INDEX(0x2A);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xDE);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x25);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0xD2);
LCD_ILI9806_INDEX(0x50);
LCD_ILI9806_INDEX(0x2A);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x74);
LCD_ILI9806_INDEX(0x20);
```

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```
LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x10);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x1A);    //P6
LCD_ILI9806_INDEX(0x0A);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x0A);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x09);    //P12
LCD_ILI9806_INDEX(0x0E);    //P13
LCD_ILI9806_INDEX(0x2C);    //P14
LCD_ILI9806_INDEX(0x27);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x03);    //P2
LCD_ILI9806_INDEX(0x0B);    //P3
LCD_ILI9806_INDEX(0x10);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x19);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x06);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x2B);    //P14
LCD_ILI9806_INDEX(0x27);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);
```

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```
 LCD_ILI9806_CMD(0x11);                    //Exit Sleep

 Delayms(120);

 LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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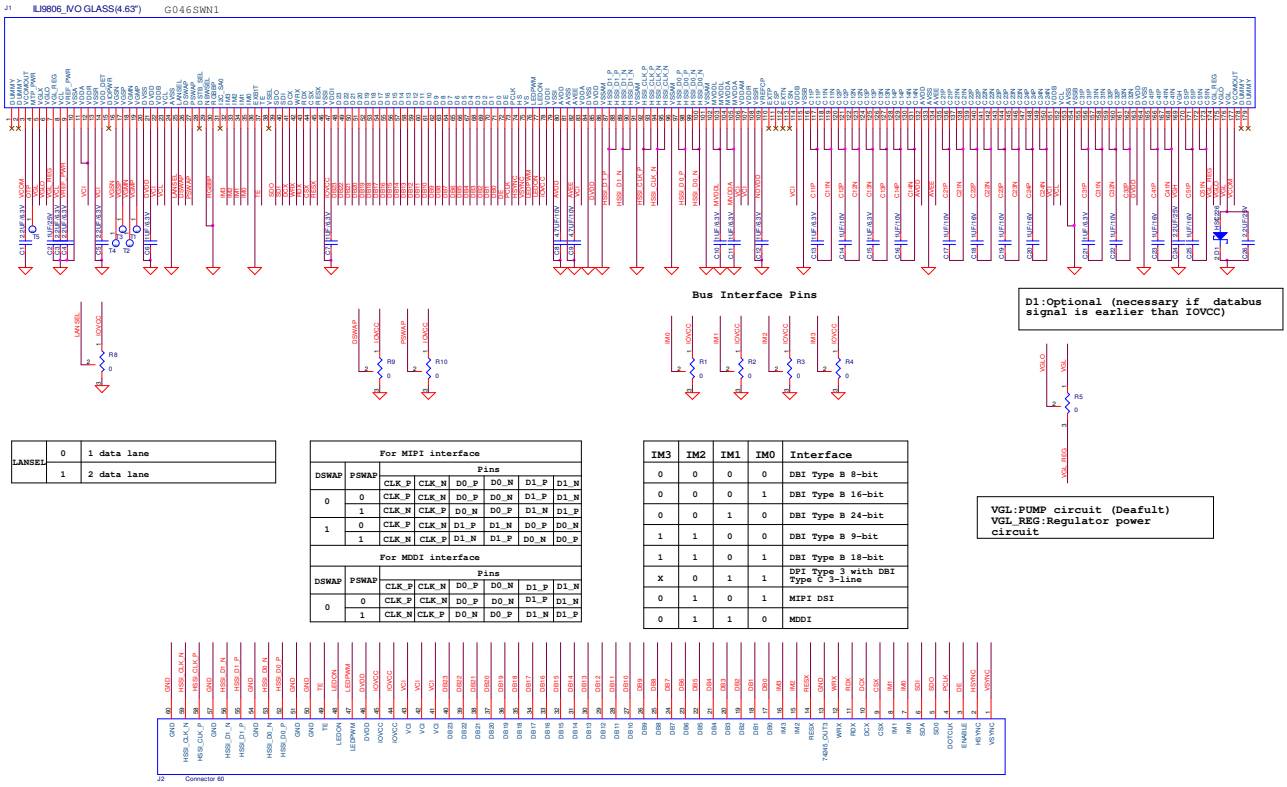
4. IVO Panel



LANSEL	0	1 data lane
	1	2 data lane

For MIPI interface							
DSWAP	PSWAP	Pins					
		CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P
1	0	CLK_P	CLK_N	D1_P	D1_N	D0_P	D0_N
	1	CLK_N	CLK_P	D1_N	D1_P	D0_N	D0_P
For MDDI interface							
DSWAP	PSWAP	Pins					
		CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P

IM3	IM2	IM1	IM0	Interface
0	0	0	0	DBI Type B 8-bit
0	0	0	1	DBI Type B 16-bit
0	0	1	0	DBI Type B 24-bit
1	1	0	0	DBI Type B 9-bit
1	1	0	1	DBI Type B 18-bit
X	0	1	1	DPI Type 3 with DBI Type C 3-line
0	1	0	1	MIPI DSI
0	1	1	0	MDDI

Note:

1. Please make sure the same named pin is connected by FPC. (Ex.Pin3 VCOM must be linked to Pin 177 VCOM)

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4.1 IVO 3.97 Initial Code

```
void ILI9806_Initial_IVO(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0xE0);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x33);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x11);
LCD_ILI9806_INDEX(0x38);
LCD_ILI9806_INDEX(0x73);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x0A);
LCD_ILI9806_INDEX(0x0A);
LCD_ILI9806_INDEX(0x05);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xE2);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC1);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x27);
LCD_ILI9806_INDEX(0x6A);
LCD_ILI9806_INDEX(0xBC);
LCD_ILI9806_INDEX(0xD8);
LCD_ILI9806_INDEX(0x92);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x7B);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x15);

LCD_ILI9806_CMD(0xF1);          // Panel Timing Control
LCD_ILI9806_INDEX(0x29);
LCD_ILI9806_INDEX(0x8A);
LCD_ILI9806_INDEX(0x07);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0xD0);
LCD_ILI9806_INDEX(0x50);
LCD_ILI9806_INDEX(0x28);
```

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```
LCD_ILI9806_CMD(0xC1);                    // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x60);
LCD_ILI9806_INDEX(0x60);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x16);    //P2
LCD_ILI9806_INDEX(0x21);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x10);    //P5
LCD_ILI9806_INDEX(0x15);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x06);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0F);    //P12
LCD_ILI9806_INDEX(0x0F);    //P13
LCD_ILI9806_INDEX(0x35);    //P14
LCD_ILI9806_INDEX(0x31);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x16);    //P2
LCD_ILI9806_INDEX(0x19);    //P3
LCD_ILI9806_INDEX(0x0C);    //P4
LCD_ILI9806_INDEX(0x0F);    //P5
LCD_ILI9806_INDEX(0x10);    //P6
LCD_ILI9806_INDEX(0x06);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x04);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x0A);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
```

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```
LCD_ILI9806_INDEX(0x24);      //P14
LCD_ILI9806_INDEX(0x20);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                // Display On
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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4.2 IVO 4.63 Initial Code

```
void ILI9806_Initial_IVO(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0xE0);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x69);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x6F);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
```

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```
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0xC1);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x27);
LCD_ILI9806_INDEX(0x6A);
LCD_ILI9806_INDEX(0xBC);
LCD_ILI9806_INDEX(0xD8);
LCD_ILI9806_INDEX(0x92);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x5A);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
```

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```
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x16);

LCD_ILI9806_CMD(0xF1);          // Panel Timing Control
LCD_ILI9806_INDEX(0x29);
LCD_ILI9806_INDEX(0x8A);
LCD_ILI9806_INDEX(0x07);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0xD0);
LCD_ILI9806_INDEX(0x52);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
```

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```
LCD_ILI9806_INDEX(0X85);
LCD_ILI9806_INDEX(0x85);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x0D);    //P2
LCD_ILI9806_INDEX(0x1B);    //P3
LCD_ILI9806_INDEX(0x11);    //P4
LCD_ILI9806_INDEX(0x14);    //P5
LCD_ILI9806_INDEX(0x1A);    //P6
LCD_ILI9806_INDEX(0x0C);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x0A);    //P10
LCD_ILI9806_INDEX(0x06);    //P11
LCD_ILI9806_INDEX(0x0B);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x27);    //P14
LCD_ILI9806_INDEX(0x21);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x0D);    //P2
LCD_ILI9806_INDEX(0x1B);    //P3
LCD_ILI9806_INDEX(0x12);    //P4
LCD_ILI9806_INDEX(0x12);    //P5
LCD_ILI9806_INDEX(0x17);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x07);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0E);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x24);    //P14
LCD_ILI9806_INDEX(0x20);    //P15
LCD_ILI9806_INDEX(0x00);    //P16
```

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```
LCD_ILI9806_CMD(0x35);          //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);          //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);          // Display On
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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5. TM Panel

5.1 TM 3.97” TN Initial Code

```
void ILI9806_Initial_TM(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x35);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x06);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x50);
LCD_ILI9806_INDEX(0x52);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xAB);
LCD_ILI9806_INDEX(0x62);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x77);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x0C);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0xAD);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
```

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```
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x70);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x03);    //P2
LCD_ILI9806_INDEX(0x07);    //P3
LCD_ILI9806_INDEX(0x0D);    //P4
LCD_ILI9806_INDEX(0x0E);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x09);    //P8
LCD_ILI9806_INDEX(0x00);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0A);    //P12
LCD_ILI9806_INDEX(0x11);    //P13
LCD_ILI9806_INDEX(0x34);    //P14
LCD_ILI9806_INDEX(0x30);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x01);    //P2
LCD_ILI9806_INDEX(0x04);    //P3
LCD_ILI9806_INDEX(0x09);    //P4
LCD_ILI9806_INDEX(0x0F);    //P5
LCD_ILI9806_INDEX(0x11);    //P6
LCD_ILI9806_INDEX(0x0A);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x08);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x2F);    //P14
LCD_ILI9806_INDEX(0x29);    //P15
```

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```
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                    //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                     //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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5.2 TM 3.97” IPS Initial Code

```
void ILI9806_Initial_TM(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0A);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x35);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x04);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF0);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x5A);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0xC3);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x0C);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x14);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x42);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x07);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x07);    //P2
LCD_ILI9806_INDEX(0x0E);    //P3
LCD_ILI9806_INDEX(0x0B);    //P4
LCD_ILI9806_INDEX(0x0D);    //P5
LCD_ILI9806_INDEX(0x0B);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x05);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x0A);    //P10
LCD_ILI9806_INDEX(0x0E);    //P11
LCD_ILI9806_INDEX(0x0E);    //P12
LCD_ILI9806_INDEX(0x0F);    //P13
LCD_ILI9806_INDEX(0x18);    //P14
LCD_ILI9806_INDEX(0x12);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x03);    //P2
LCD_ILI9806_INDEX(0x0A);    //P3
LCD_ILI9806_INDEX(0x0B);    //P4
LCD_ILI9806_INDEX(0x0E);    //P5
LCD_ILI9806_INDEX(0x0B);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x0E);    //P11
LCD_ILI9806_INDEX(0x0E);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x14);    //P14
LCD_ILI9806_INDEX(0x0E);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x21);              // Display Inversion On
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x36);                    // Memory Access Control
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0x35);                    //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                     //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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5.3 TM 4.5” Initial Code

```
void ILI9806_Initial_TM(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x6D);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x06);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x55);
LCD_ILI9806_INDEX(0x53);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xAB);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x26);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x32);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x2A);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x0D);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x09);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0D);    //P13
LCD_ILI9806_INDEX(0x2E);    //P14
LCD_ILI9806_INDEX(0x28);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x0D);    //P3
LCD_ILI9806_INDEX(0x0E);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x16);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x08);    //P10
LCD_ILI9806_INDEX(0x07);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0E);    //P13
LCD_ILI9806_INDEX(0x2E);    //P14
LCD_ILI9806_INDEX(0x28);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29); /                  / Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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5.4 TM 5.0” IPS Initial Code

```
void ILI9806_Initial_TM(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0A);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x6D);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xF0);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0xBA);
LCD_ILI9806_INDEX(0xDC);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x58);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          //Panel Timing Control
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x20);
```

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```
LCD_ILI9806_CMD(0xE0);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x15);    //P2
LCD_ILI9806_INDEX(0x1C);    //P3
LCD_ILI9806_INDEX(0x0F);    //P4
LCD_ILI9806_INDEX(0x10);    //P5
LCD_ILI9806_INDEX(0x11);    //P6
LCD_ILI9806_INDEX(0x07);    //P7
LCD_ILI9806_INDEX(0x05);    //P8
LCD_ILI9806_INDEX(0x06);    //P9
LCD_ILI9806_INDEX(0x0B);    //P10
LCD_ILI9806_INDEX(0x0B);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0A);    //P13
LCD_ILI9806_INDEX(0x13);    //P14
LCD_ILI9806_INDEX(0x10);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x1A);    //P2
LCD_ILI9806_INDEX(0x25);    //P3
LCD_ILI9806_INDEX(0x0C);    //P4
LCD_ILI9806_INDEX(0x0D);    //P5
LCD_ILI9806_INDEX(0x0A);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x05);    //P9
LCD_ILI9806_INDEX(0x09);    //P10
LCD_ILI9806_INDEX(0x10);    //P11
LCD_ILI9806_INDEX(0x0F);    //P12
LCD_ILI9806_INDEX(0x0F);    //P13
LCD_ILI9806_INDEX(0x0D);    //P14
LCD_ILI9806_INDEX(0x07);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);
```

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```
 LCD_ILI9806_CMD(0x11);                    //Exit Sleep
 Delayms(120);
 LCD_ILI9806_CMD(0x29); /                  / Display On
}

void LCD_Enter Sleep In_ILI9806 (void)
 {
 LCD_ILI9806_CMD(0x28); // Display off
 Delayms(10);
 LCD_ILI9806_CMD(0x10); // Enter Standby mode
 Delayms(120);
 }
 void LCD_Exit Sleep In_ILI9806 (void)
 {
 LCD_ILI9806_CMD(0x11); // Standby out
 Delayms(120);
 LCD_ILI9806_CMD(0x29); // Display on
 }
```

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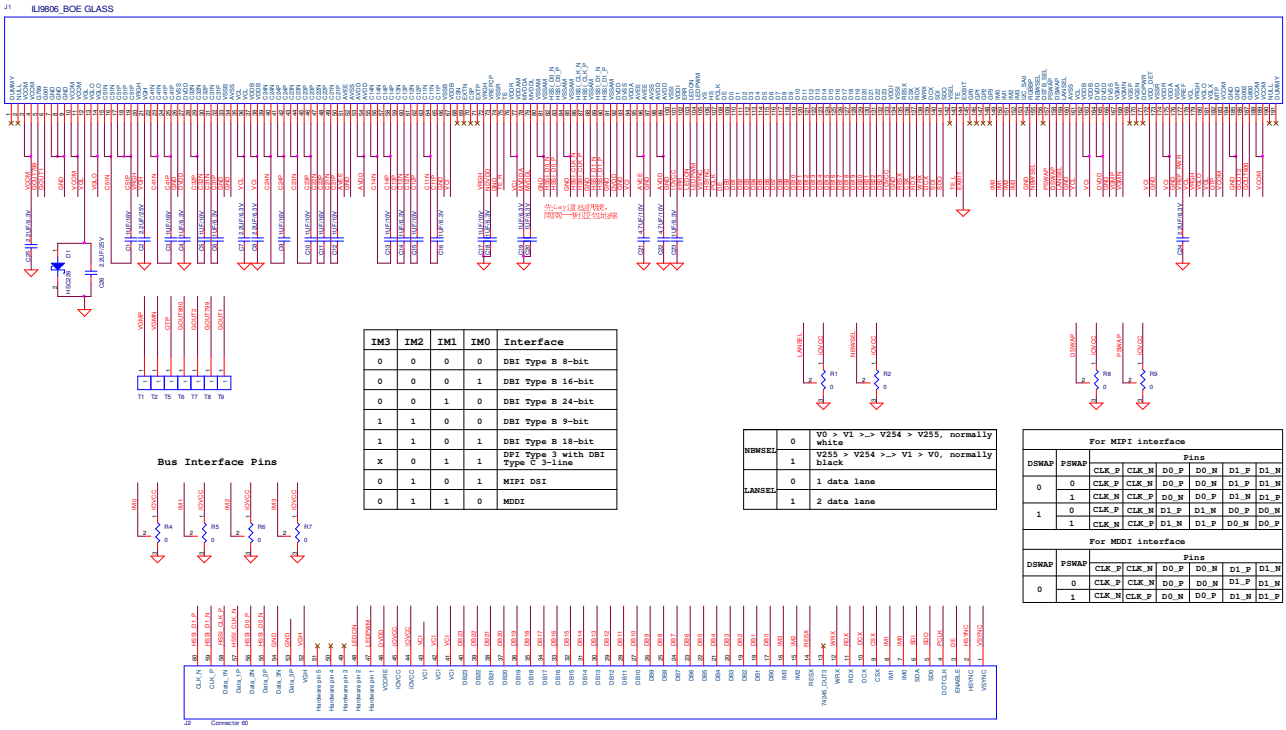
6. BOE Panel



IM3	IM2	IM1	IM0	Interface
0	0	0	0	DBI Type B 8-bit
0	0	0	1	DBI Type B 16-bit
0	0	1	0	DBI Type B 24-bit
1	1	0	0	DBI Type B 9-bit
1	1	0	1	DBI Type B 18-bit
X	0	1	1	DPI Type 3 with DBI Type C 3-line
0	1	0	1	MIPI DSI
0	1	1	0	MDDI

NBWSEL	0	V0 > V1 >_> V254 > V255, normally white
	1	V255 > V254 >_> V1 > V0, normally black
LANSEL	0	1 data lane
	1	2 data lane

For MIPI interface							
DSWAP	PSWAP	Pins					
		CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P
1	0	CLK_P	CLK_N	D1_P	D1_N	D0_P	D0_N
	1	CLK_N	CLK_P	D1_N	D1_P	D0_N	D0_P
For MDDI interface							
DSWAP	PSWAP	Pins					
		CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
0	0	CLK_P	CLK_N	D0_P	D0_N	D1_P	D1_N
	1	CLK_N	CLK_P	D0_N	D0_P	D1_N	D1_P

Note:

1. Please make sure the same named pin is connected by FPC. (Ex.Pin3~4 VCOM must be linked to Pin188~189 VCOM)

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6.1 BOE 3.97 Initial Code

```
void ILI9806_Initial_BOE(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0xFB);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x2E);
LCD_ILI9806_INDEX(0x73);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x00);
```

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```
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x66);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0xAB);
LCD_ILI9806_INDEX(0x60);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x47);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xB6);          // Display Function Control
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x37);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x0A);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x0A);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x12);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          // CR/EQ/PC
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x5B);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);
```

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```
LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x07);
LCD_ILI9806_INDEX(0x9F);
LCD_ILI9806_INDEX(0x71);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);      //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x11);    //P2
LCD_ILI9806_INDEX(0x18);    //P3
LCD_ILI9806_INDEX(0x0C);    //P4
LCD_ILI9806_INDEX(0x0F);    //P5
LCD_ILI9806_INDEX(0x0D);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x02);    //P9
LCD_ILI9806_INDEX(0x06);    //P10
LCD_ILI9806_INDEX(0x0F);    //P11
LCD_ILI9806_INDEX(0x0E);    //P12
LCD_ILI9806_INDEX(0x10);    //P13
LCD_ILI9806_INDEX(0x18);    //P14
LCD_ILI9806_INDEX(0x14);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);      //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x0D);    //P3
LCD_ILI9806_INDEX(0x0B);    //P4
LCD_ILI9806_INDEX(0x0D);    //P5
LCD_ILI9806_INDEX(0x0B);    //P6
LCD_ILI9806_INDEX(0x05);    //P7
LCD_ILI9806_INDEX(0x03);    //P8
LCD_ILI9806_INDEX(0x09);    //P9
LCD_ILI9806_INDEX(0x0D);    //P10
LCD_ILI9806_INDEX(0x0C);    //P11
LCD_ILI9806_INDEX(0x10);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x13);    //P14
```

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```
LCD_ILI9806_INDEX(0x09);      //P15
LCD_ILI9806_INDEX(0x00);      //P16

LCD_ILI9806_CMD(0x35);                //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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6.2 BOE 4.95 Initial Code

```
void ILI9806_Initial_BOE(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0B);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x30);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x03);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x42);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x21);
LCD_ILI9806_INDEX(0xAB);
LCD_ILI9806_INDEX(0x60);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x47);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x0C);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x08);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x854
LCD_ILI9806_INDEX(0x81);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          // CR/EQ/PC
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x04);
LCD_ILI9806_INDEX(0x40);
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);          // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x9F);
LCD_ILI9806_INDEX(0x71);
```

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```
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);      //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x11);    //P2
LCD_ILI9806_INDEX(0x18);    //P3
LCD_ILI9806_INDEX(0x0C);    //P4
LCD_ILI9806_INDEX(0x0F);    //P5
LCD_ILI9806_INDEX(0x0D);    //P6
LCD_ILI9806_INDEX(0x09);    //P7
LCD_ILI9806_INDEX(0x08);    //P8
LCD_ILI9806_INDEX(0x02);    //P9
LCD_ILI9806_INDEX(0x06);    //P10
LCD_ILI9806_INDEX(0x0F);    //P11
LCD_ILI9806_INDEX(0x0E);    //P12
LCD_ILI9806_INDEX(0x10);    //P13
LCD_ILI9806_INDEX(0x18);    //P14
LCD_ILI9806_INDEX(0x14);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);      //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x0D);    //P3
LCD_ILI9806_INDEX(0x0B);    //P4
LCD_ILI9806_INDEX(0x0D);    //P5
LCD_ILI9806_INDEX(0x0B);    //P6
LCD_ILI9806_INDEX(0x05);    //P7
LCD_ILI9806_INDEX(0x03);    //P8
LCD_ILI9806_INDEX(0x09);    //P9
LCD_ILI9806_INDEX(0x0D);    //P10
LCD_ILI9806_INDEX(0x0C);    //P11
LCD_ILI9806_INDEX(0x10);    //P12
LCD_ILI9806_INDEX(0x0B);    //P13
LCD_ILI9806_INDEX(0x13);    //P14
LCD_ILI9806_INDEX(0x09);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep
Delayms(120);
LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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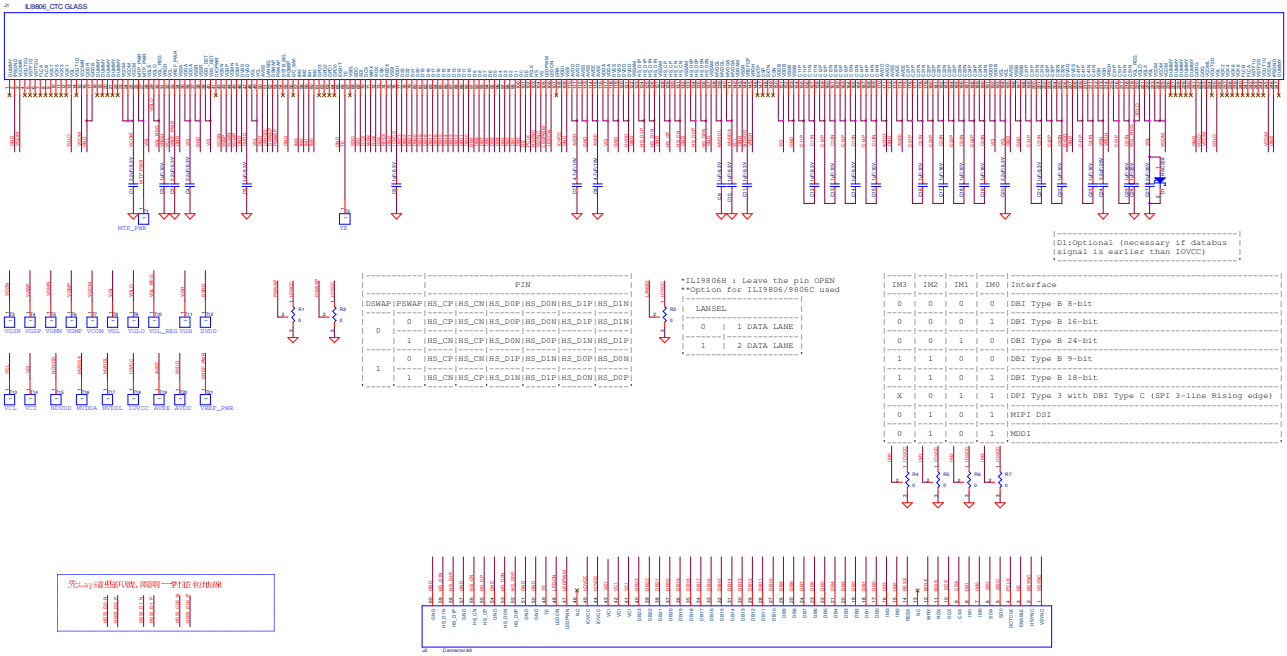
7. CTC Panel



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7.1 CTC 3.97 Initial Code

```
void ILI9806_Initial_CTC(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x3B);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x05);
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x55);
LCD_ILI9806_INDEX(0xD0);
LCD_ILI9806_INDEX(0X01);
LCD_ILI9806_INDEX(0X00);
LCD_ILI9806_INDEX(0X40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x2D);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xA2);
LCD_ILI9806_INDEX(0x62);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0xE2);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x83);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x07);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xF9);          // EBBG CLK
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFD);
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x02);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          // CR/EQ/PC
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x40);
```

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```
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);              // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x86);
LCD_ILI9806_INDEX(0xA0);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);              //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x05);    //P2
LCD_ILI9806_INDEX(0x14);    //P3
LCD_ILI9806_INDEX(0x11);    //P4
LCD_ILI9806_INDEX(0x13);    //P5
LCD_ILI9806_INDEX(0x1D);    //P6
LCD_ILI9806_INDEX(0x0D);    //P7
LCD_ILI9806_INDEX(0x0C);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x06);    //P10
LCD_ILI9806_INDEX(0x04);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
LCD_ILI9806_INDEX(0x0E);    //P13
LCD_ILI9806_INDEX(0x2E);    //P14
LCD_ILI9806_INDEX(0x27);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);              //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x06);    //P2
LCD_ILI9806_INDEX(0x0F);    //P3
LCD_ILI9806_INDEX(0x13);    //P4
LCD_ILI9806_INDEX(0x14);    //P5
LCD_ILI9806_INDEX(0x1A);    //P6
LCD_ILI9806_INDEX(0x08);    //P7
LCD_ILI9806_INDEX(0x07);    //P8
LCD_ILI9806_INDEX(0x04);    //P9
LCD_ILI9806_INDEX(0x0B);    //P10
LCD_ILI9806_INDEX(0x05);    //P11
LCD_ILI9806_INDEX(0x0E);    //P12
```

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```
LCD_ILI9806_INDEX(0x0C);    //P13
LCD_ILI9806_INDEX(0x28);    //P14
LCD_ILI9806_INDEX(0x22);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0x35);              //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);              //Exit Sleep

Delayms(120);

LCD_ILI9806_CMD(0x29);              // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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7.2 CTC 4.3 Initial Code

```
void ILI9806_Initial_CTC(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_ILI9806_CMD(0xFF);                    // EXTC Command Set enable register
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x98);
LCD_ILI9806_INDEX(0x06);

LCD_ILI9806_CMD(0xBA);                    // SPI Interface Setting
LCD_ILI9806_INDEX(0x60);

LCD_ILI9806_CMD(0xBC);                    // GIP 1
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x0E);
LCD_ILI9806_INDEX(0x61);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x1B);
LCD_ILI9806_INDEX(0x10);
LCD_ILI9806_INDEX(0x37);
LCD_ILI9806_INDEX(0x63);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0xFF);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x02);
```

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```
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x55);
LCD_ILI9806_INDEX(0xD0);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x40);

LCD_ILI9806_CMD(0xBD);          // GIP 2
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x23);
LCD_ILI9806_INDEX(0x45);
LCD_ILI9806_INDEX(0x67);

LCD_ILI9806_CMD(0xBE);          // GIP 3
LCD_ILI9806_INDEX(0x01);
LCD_ILI9806_INDEX(0x2D);
LCD_ILI9806_INDEX(0xCB);
LCD_ILI9806_INDEX(0xA2);
LCD_ILI9806_INDEX(0x62);
LCD_ILI9806_INDEX(0xF2);
LCD_ILI9806_INDEX(0xE2);
LCD_ILI9806_INDEX(0x22);
LCD_ILI9806_INDEX(0x22);

LCD_ILI9806_CMD(0xC7);          // Vcom
LCD_ILI9806_INDEX(0x8D);

LCD_ILI9806_CMD(0xED);          // EN_volt_reg
LCD_ILI9806_INDEX(0x7F);
LCD_ILI9806_INDEX(0x0F);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xC0);          // Power Control 1
LCD_ILI9806_INDEX(0x03);
LCD_ILI9806_INDEX(0x0B);
```

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```
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xFC);          // LVGL
LCD_ILI9806_INDEX(0x07);

LCD_ILI9806_CMD(0xDF);          // Engineering Setting
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xF3);          // DVDD Voltage Setting
LCD_ILI9806_INDEX(0x74);

LCD_ILI9806_CMD(0xF9);          // EBBG CLK
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0xFD);
LCD_ILI9806_INDEX(0x80);
LCD_ILI9806_INDEX(0xC0);

LCD_ILI9806_CMD(0xB4);          // Display Inversion Control
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0xF7);          // 480x800
LCD_ILI9806_INDEX(0x82);

LCD_ILI9806_CMD(0xB1);          // Frame Rate
LCD_ILI9806_INDEX(0x00);
LCD_ILI9806_INDEX(0x13);
LCD_ILI9806_INDEX(0x13);

LCD_ILI9806_CMD(0xF2);          // CR/EQ/PC
LCD_ILI9806_INDEX(0xC0);
LCD_ILI9806_INDEX(0x02);
LCD_ILI9806_INDEX(0x40);
```

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```
LCD_ILI9806_INDEX(0x28);

LCD_ILI9806_CMD(0xC1);              // Power Control 2
LCD_ILI9806_INDEX(0x17);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x75);
LCD_ILI9806_INDEX(0x20);

LCD_ILI9806_CMD(0xE0);              //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x01);    //P2
LCD_ILI9806_INDEX(0x02);    //P3
LCD_ILI9806_INDEX(0x08);    //P4
LCD_ILI9806_INDEX(0x0A);    //P5
LCD_ILI9806_INDEX(0x07);    //P6
LCD_ILI9806_INDEX(0x02);    //P7
LCD_ILI9806_INDEX(0x01);    //P8
LCD_ILI9806_INDEX(0x0C);    //P9
LCD_ILI9806_INDEX(0x0E);    //P10
LCD_ILI9806_INDEX(0x11);    //P11
LCD_ILI9806_INDEX(0x11);    //P12
LCD_ILI9806_INDEX(0x10);    //P13
LCD_ILI9806_INDEX(0x24);    //P14
LCD_ILI9806_INDEX(0x1C);    //P15
LCD_ILI9806_INDEX(0x00);    //P16

LCD_ILI9806_CMD(0xE1);              //Gamma
LCD_ILI9806_INDEX(0x00);    //P1
LCD_ILI9806_INDEX(0x08);    //P2
LCD_ILI9806_INDEX(0x12);    //P3
LCD_ILI9806_INDEX(0x0E);    //P4
LCD_ILI9806_INDEX(0x11);    //P5
LCD_ILI9806_INDEX(0x09);    //P6
LCD_ILI9806_INDEX(0x0A);    //P7
LCD_ILI9806_INDEX(0x09);    //P8
LCD_ILI9806_INDEX(0x03);    //P9
LCD_ILI9806_INDEX(0x06);    //P10
LCD_ILI9806_INDEX(0x11);    //P11
LCD_ILI9806_INDEX(0x0D);    //P12
```

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```
LCD_ILI9806_INDEX(0x0B);     //P13
LCD_ILI9806_INDEX(0x0E);     //P14
LCD_ILI9806_INDEX(0x07);     //P15
LCD_ILI9806_INDEX(0x00);     //P16

LCD_ILI9806_CMD(0x35);                    //Tearing Effect ON
LCD_ILI9806_INDEX(0x00);

LCD_ILI9806_CMD(0x11);                    //Exit Sleep

Delayms(120);

LCD_ILI9806_CMD(0x29);                    // Display On
}
```

void LCD_Enter Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x28); // Display off
Delayms(10);
LCD_ILI9806_CMD(0x10); // Enter Standby mode
Delayms(120);
}
```

void LCD_Exit Sleep In_ILI9806 (void)

```
{
LCD_ILI9806_CMD(0x11); // Standby out
Delayms(120);
LCD_ILI9806_CMD(0x29); // Display on
}
```

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8. Revision History

Version No.	Date	Page	Description
V0.1	20121106	118	New
V02.	20121211	118	Add new code
V03	20121224	138	修正 CR/PC/GPM, Add new code
V04	20130419	184	Add HSD/CMI/CPT/IVO/TM new code

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