

**ST7793**

# **ST7793 Application Note**

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# ST7793

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>CPT 3.0" &amp; 3.2" &amp; 3.6" Panel .....</b>                           | <b>4</b>  |
|          | CPT 3.0"(CLAF030JB01) Application FPC Circuit .....                         | 4         |
|          | CPT 3.2"(CLAF032JA01) Application FPC Circuit .....                         | 5         |
|          | CPT 3.6 (CLAG036JA01 AX) Application FPC Circuit.....                       | 6         |
|          | CPT 3.0" (CLAF030JB01) Software Reference Code .....                        | 7         |
|          | CPT 3.2"(CLAF032JA01) Software Reference Code.....                          | 10        |
|          | CPT 3.55" Software Reference Code .....                                     | 13        |
| <b>2</b> | <b>Hannstar 3.0" &amp; 3.2" Panel .....</b>                                 | <b>16</b> |
|          | HSD030BAW1 & HSD032BAW2 Application FPC Circuit .....                       | 16        |
|          | HSD036FAW1 & HSD040FAW1 Application FPC Circuit.....                        | 17        |
|          | HSD 3.0" HSD030BAW1 Software Reference Code .....                           | 18        |
|          | HSD 3.2" HSD032BAW2 Software Reference Code .....                           | 21        |
|          | HSD 3.6" HSD036FAW1 Software Reference Code .....                           | 24        |
|          | HSD 3.97" HSD040FAW1 Software Reference Code .....                          | 27        |
| <b>3</b> | <b>LGD 3.2" Panel .....</b>   | <b>30</b> |
|          | LG 3.2"(LH320WQ1- SH01) Application FPC Circuit .....                       | 30        |
|          | LG 3.2"(LH320WQ1- SH01)Software Reference Code.....                         | 31        |
| <b>4</b> | <b>CMI 3.2" Panel.....</b>  | <b>34</b> |
|          | CMI 3.2" Software Reference Code .....                                      | 34        |
| <b>5</b> | <b>TM 3.2" &amp; 3.5" &amp; 3.6" Panel.....</b>                             | <b>37</b> |
|          | TM3.2"(TM032LYS02) Panel Application FPC Circuit .....                      | 37        |
|          | TM3.5"(TM035LYH01) Panel Application FPC Circuit .....                      | 38        |
|          | TM3.6" (TM036LYH01) Panel Application FPC Circuit .....                     | 39        |
|          | TM3.2"(TM032LYS02) Software Reference Code.....                             | 40        |
|          | TM3.5"(TM035LYH01) Software Reference Code .....                            | 43        |
|          | TM3.6"(TM036LYH01) Software Reference Code .....                            | 46        |
| <b>6</b> | <b>BOE 2.8" &amp; 3.0" &amp; 3.97" Panel.....</b>                           | <b>49</b> |
|          | BOE2.8"(BT028WQME101) & 3.0"(BF030WQME601) Panel Application FPC Circuit .. | 49        |
|          | BOE 3.97" (BT040WQME601) Panel Application FPC Circuit .....                | 50        |
|          | BOE 2.8" (BT028WQME101) Software Reference Code .....                       | 51        |
|          | BOE 3.0" (BF030WQME601) Software Reference Code .....                       | 54        |
|          | BOE 3.97" (BT040WQME601) Software Reference Code .....                      | 57        |
| <b>7</b> | <b>Laibo 3.7" Panel.....</b>  | <b>60</b> |
|          | Laibo 3.7"(S37001A106G46B1T5B3) Panel Application FPC Circuit .....         | 60        |
|          | Laibo 3.7" Software Reference Code .....                                    | 61        |
| <b>8</b> | <b>Sharp 2.9" Panel .....</b>   | <b>64</b> |
|          | Sharp 2.9" Software Reference Code .....                                    | 64        |
| <b>9</b> | <b>Support Panel Cell Model.....</b>  | <b>67</b> |

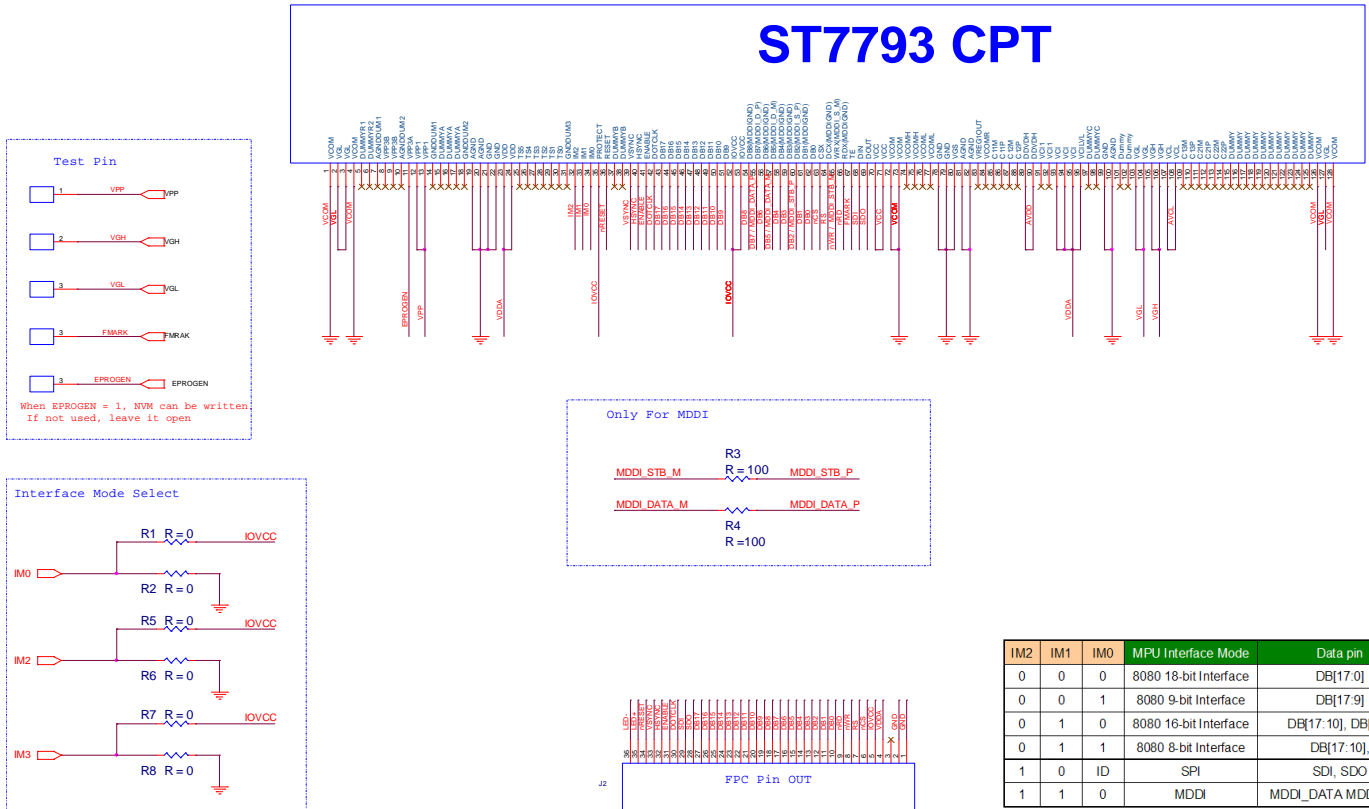
**ST7793**

10 History ..... 68

# ST7793

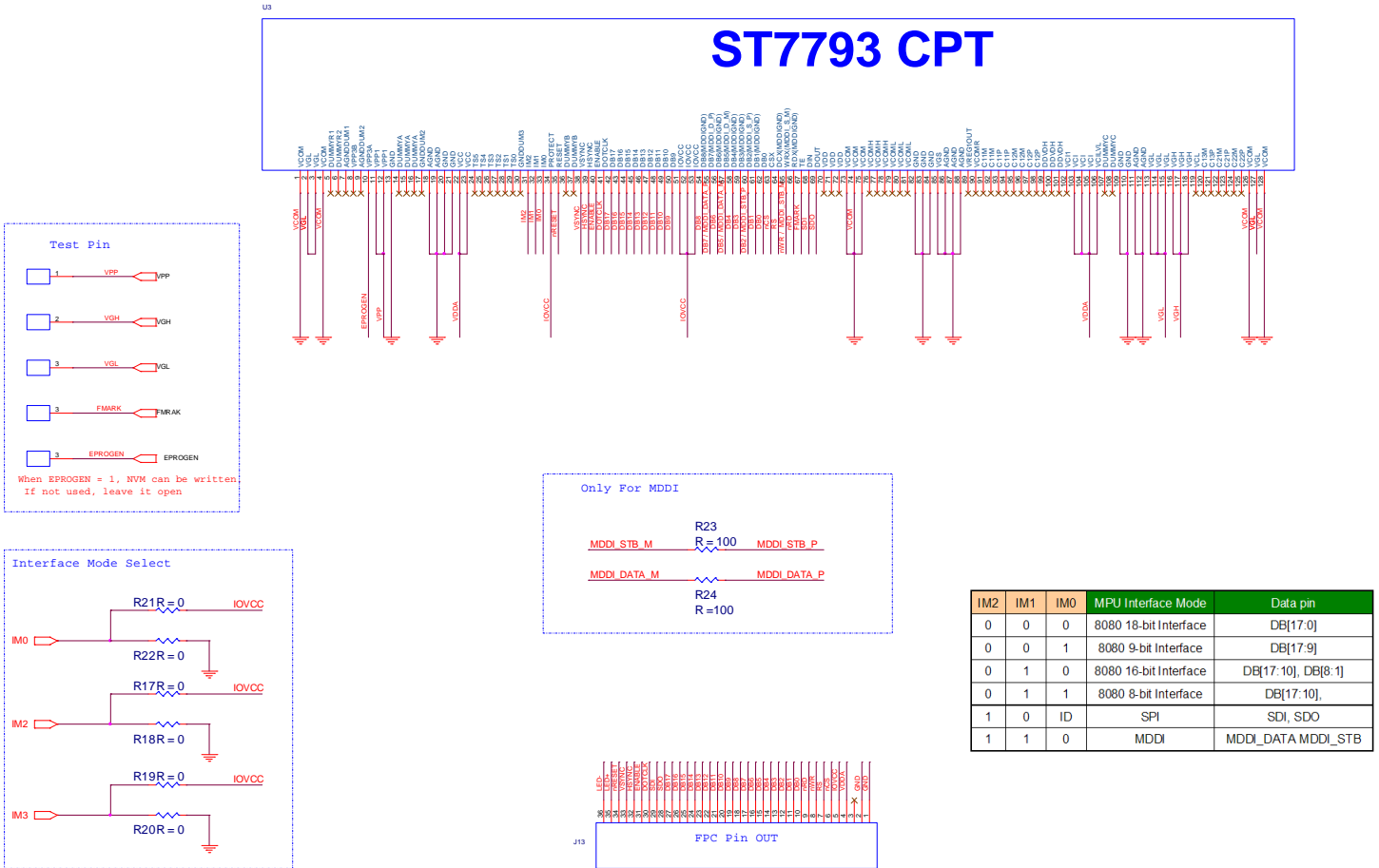
## 1 CPT 3.0" & 3.2" & 3.6" Panel

- CPT 3.0"(CLAF030JB01) Application FPC Circuit



| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DB[17:10], DB[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DB[17:10]          |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |

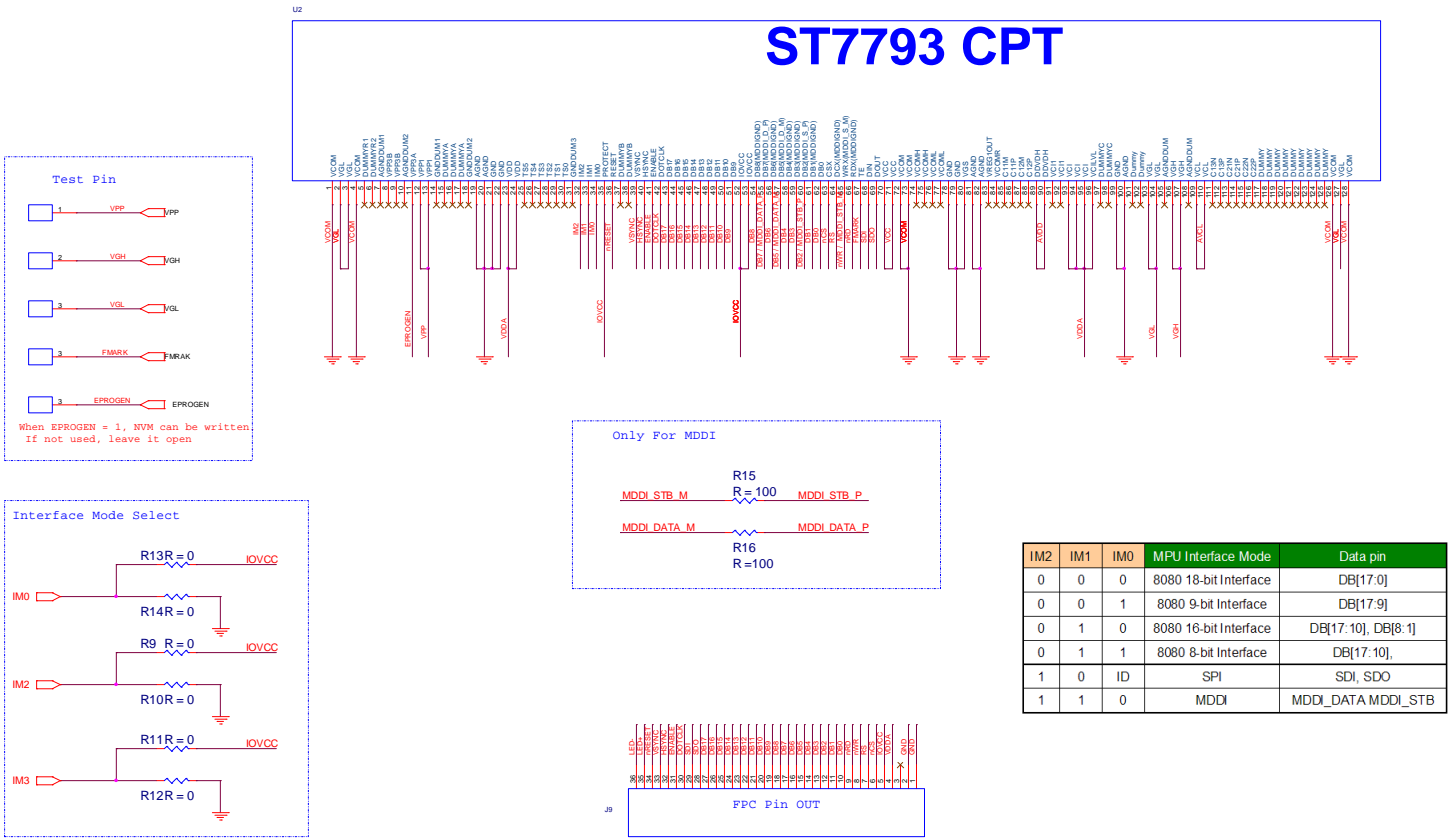
## ● CPT 3.2”(CLAF032JA01) Application FPC Circuit



| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DB[17:10], DB[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DB[17:10]          |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |

# ST7793

## ● CPT 3.6 (CLAG036JA01 AX) Application FPC Circuit



## ST7793

### ● CPT 3.0” (CLAF030JB01) Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0018);
    Write(Command,0x0712);
    Write(Data,0x0011);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
    Write(Data,0x0070);
}
```

## ST7793

```
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0101);
    Write(Command,0x0381);
    Write(Data,0x6c1b);
    Write(Command,0x0382);
    Write(Data,0x0704);
    Write(Command,0x0383);
    Write(Data,0x0612);
    Write(Command,0x0384);
    Write(Data,0x3211);
    Write(Command,0x0385);
    Write(Data,0x0101);
    Write(Command,0x0386);
    Write(Data,0x6c1c);
    Write(Command,0x0387);
    Write(Data,0x0803);
    Write(Command,0x0388);
    Write(Data,0x0611);
    Write(Command,0x0389);
    Write(Data,0x3211);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x0056);
    Write(Command,0x00ff);
```



## ST7793

```
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

## ST7793

### ● CPT 3.2”(CLAF032JA01) Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0016);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0713);
    Write(Data,0x0057);
    Write(Command,0x0752);
    Write(Data,0x002f);
}
```

## ST7793

```
Write(Command,0x0759);
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delaysms (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0100);
    Write(Command,0x0381);
    Write(Data,0x5c0f);
    Write(Command,0x0382);
    Write(Data,0x0703);
    Write(Command,0x0383);
    Write(Data,0x0611);
    Write(Command,0x0384);
    Write(Data,0x2230);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0x6e0f);
    Write(Command,0x0387);
    Write(Data,0x0503);
    Write(Command,0x0388);
    Write(Data,0x0611);
    Write(Command,0x0389);
    Write(Data,0x2230);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
```

## ST7793

```
Write(Data,0x005c);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

# ST7793

## CPT 3.55” Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0016);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0100);
    Write(Command,0x0381);
    Write(Data,0x3718);
    Write(Command,0x0382);
    Write(Data,0x0802);
    Write(Command,0x0383);
    Write(Data,0x060f);
    Write(Command,0x0384);
    Write(Data,0x2223);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0x5816);
    Write(Command,0x0387);
    Write(Data,0x0503);
    Write(Command,0x0388);
    Write(Data,0x0510);
    Write(Command,0x0389);
    Write(Data,0x2233);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x0057);
```

## ST7793

```
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

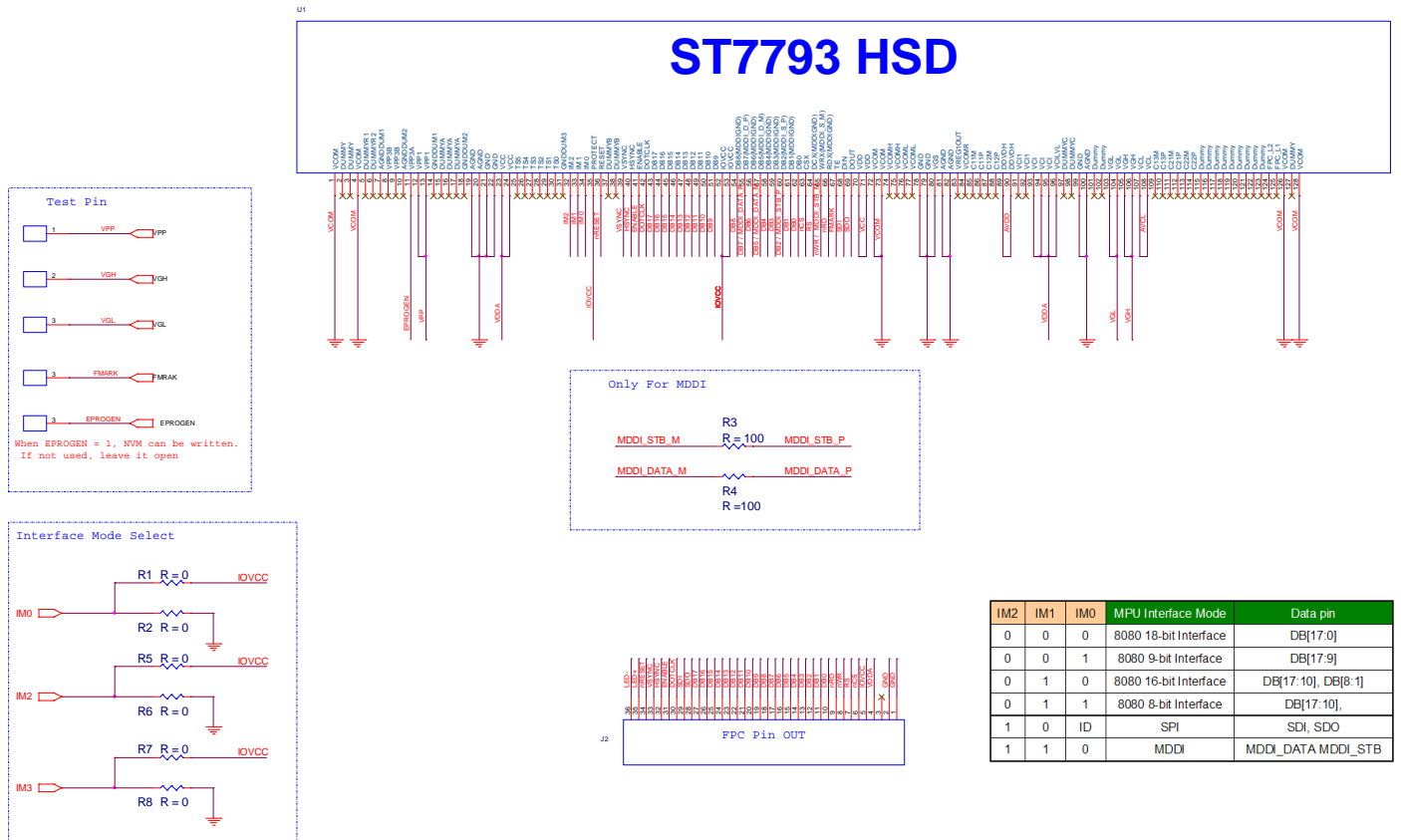
Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delayms (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delayms (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delayms (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delayms (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
}
```

# ST7793

## 2 Hannstar 3.0" & 3.2" Panel

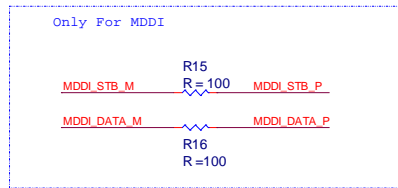
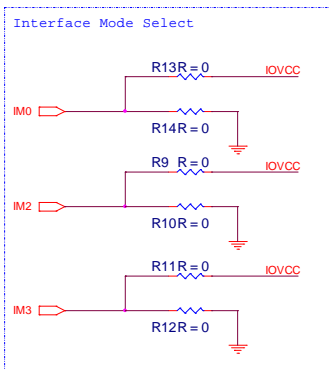
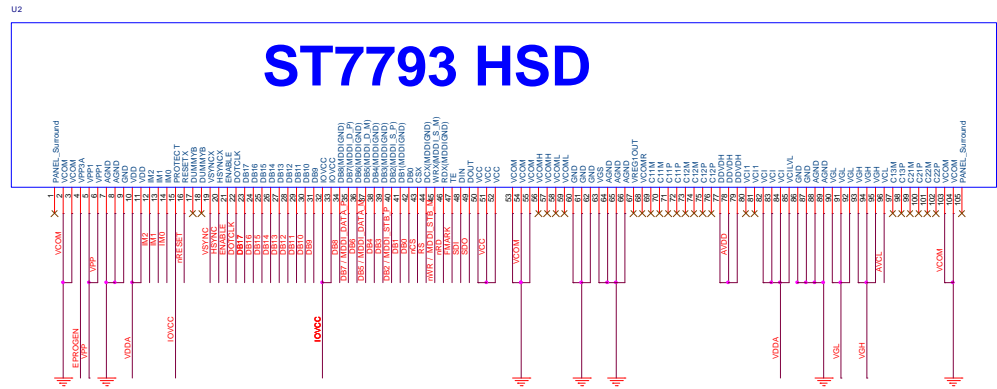
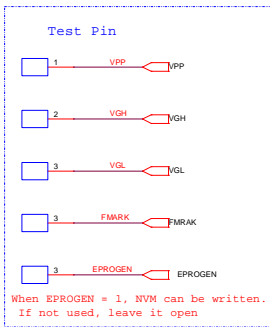
### ● HSD030BAW1 & HSD032BAW2 Application FPC Circuit



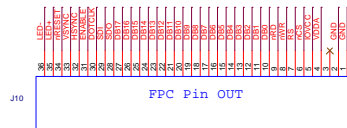


# ST7793

## ● HSD036FAW1 & HSD040FAW1 Application FPC Circuit



| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DB[17:10], DB[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DB[17:10]          |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |



## ST7793

### ● HSD 3.0” HSD030BAW1 Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0018);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
    Write(Data,0x0070);
}
```

## ST7793

```
Write(Command,0x0724);
Write(Data,0x001A);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0000);
    Write(Command,0x0381);
    Write(Data,0x4e1a);
    Write(Command,0x0382);
    Write(Data,0x0a01);
    Write(Command,0x0383);
    Write(Data,0x0614);
    Write(Command,0x0384);
    Write(Data,0x0111);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0xaf15);
    Write(Command,0x0387);
    Write(Data,0x0605);
    Write(Command,0x0388);
    Write(Data,0x0612);
    Write(Command,0x0389);
    Write(Data,0x0111);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
```

## ST7793

```
Write(Data,0x0027);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

# ST7793

## ● HSD 3.2” HSD032BAW2 Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0016);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);
Write(Command,0x0724);
Write(Data,0x001A);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0000);
    Write(Command,0x0381);
    Write(Data,0x3e1a);
    Write(Command,0x0382);
    Write(Data,0x0a02);
    Write(Command,0x0383);
    Write(Data,0x0614);
    Write(Command,0x0384);
    Write(Data,0x0111);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0x9f15);
    Write(Command,0x0387);
    Write(Data,0x0605);
    Write(Command,0x0388);
    Write(Data,0x0612);
    Write(Command,0x0389);
    Write(Data,0x0111);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
```

## ST7793

```
Write(Command,0x0702);
Write(Data,0x0031);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delayms (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delayms (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delayms (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delayms (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
}
```

# ST7793

## ● HSD 3.6” HSD036FAW1 Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{  
//-----ST7793 Reset Sequence-----//  
    LCD_Nreset=1;  
    Delaysms (1);                //Delay 1ms  
    LCD_Nreset=0;  
    Delaysms (1);                //Delay 1ms  
    LCD_Nreset=1;  
    Delaysms (10);  
//-----Display Control Setting-----//  
    delay_ms(200);  
    Write(Command,0x0001);  
    Write(Data,0x0100);  
    Write(Command,0x0003);  
    Write(Data,0x9030);  
    Write(Command,0x0008);  
    Write(Data,0x0808);  
    Write(Command,0x0090);  
    Write(Data,0x8000);  
    Write(Command,0x0400);  
    Write(Data,0x6200);  
    Write(Command,0x0401);  
    Write(Data,0x0001);  
//-----End Display Control setting-----//  
//----- Power Control Registers Initial -----//  
    Write(Command,0x00ff);  
    Write(Data,0x0001);  
    Write(Command,0x0102);  
    Write(Data,0x01b0);  
    Write(Command,0x0710);  
    Write(Data,0x0018);  
    Write(Command,0x0712);  
    Write(Data,0x000f);  
    Write(Command,0x0752);  
    Write(Data,0x003F);  
    Write(Command,0x0759);
```



## ST7793

```
Write(Data,0x0070);
Write(Command,0x0724);
Write(Data,0x001a);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0103);
    Write(Command,0x0381);
    Write(Data,0x5c1b);
    Write(Command,0x0382);
    Write(Data,0x0b01);
    Write(Command,0x0383);
    Write(Data,0x0615);
    Write(Command,0x0384);
    Write(Data,0x0111);
    Write(Command,0x0385);
    Write(Data,0x0103);
    Write(Command,0x0386);
    Write(Data,0x9c17);
    Write(Command,0x0387);
    Write(Data,0x0607);
    Write(Command,0x0388);
    Write(Data,0x0614);
    Write(Command,0x0389);
    Write(Data,0x0111);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
```

## ST7793

```
Write(Command,0x0702);
Write(Data,0x003C);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delayms (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delayms (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delayms (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delayms (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
}
```

# ST7793

## ● HSD 3.97” HSD040FAW1 Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delayms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delayms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delayms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0016);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);
Write(Command,0x0724);
Write(Data,0x001a);
Write(Command,0x0754);
Write(Data,0x0018);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018f);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0000);
    Write(Command,0x0381);
    Write(Data,0x5f10);
    Write(Command,0x0382);
    Write(Data,0x0b02);
    Write(Command,0x0383);
    Write(Data,0x0614);
    Write(Command,0x0384);
    Write(Data,0x0111);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0xa90b);
    Write(Command,0x0387);
    Write(Data,0x0606);
    Write(Command,0x0388);
    Write(Data,0x0612);
    Write(Command,0x0389);
    Write(Data,0x0111);
```

## ST7793

```
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x003b);
    Write(Command,0x00ff);
    Write(Data,0x0000);
//-----End Vcom Setting-----//
    Write(Command,0x0007);
    Write(Data,0x0100);
    Delayms (200); //Delay 200ms
    Write(Command,0x0200);
    Write(Data,0x0000);
    Write(Command,0x0201);
    Write(Data,0x0000);
}

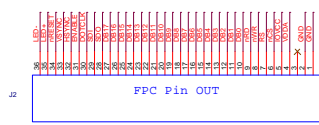
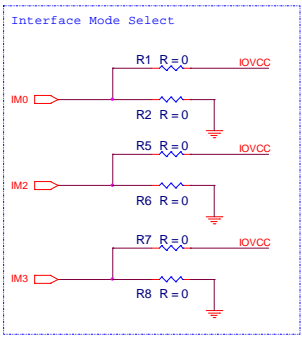
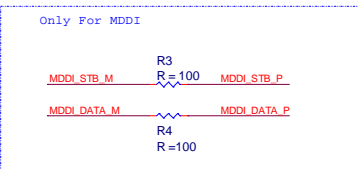
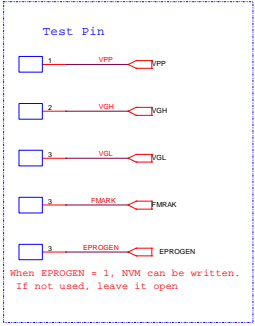
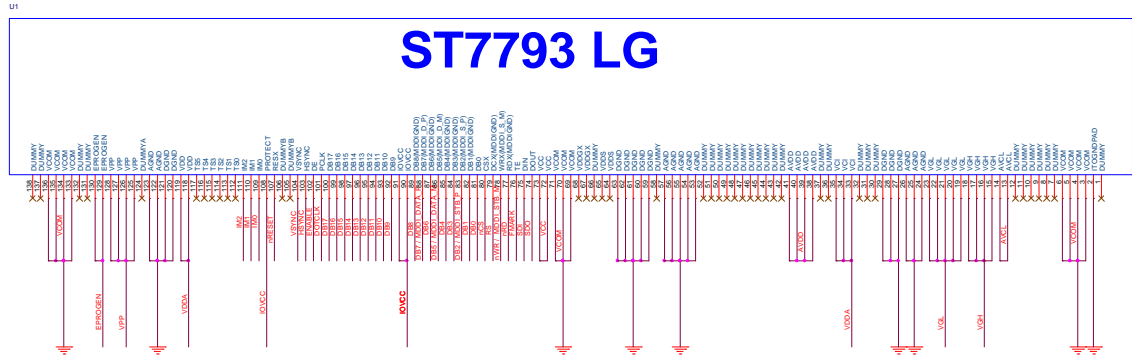
Void ST7793_PanelEnterStandby (void)
{
    Write(Command,0x0007);
    Write(Data,0x0000);
    Delayms (50); //Delay 50ms
    Write(Command, 0x0102);
    Write(Data,0x0180);
    Delayms (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
    Delayms (200);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Delayms (50); //Delay 50ms
    Write(Command,0x0007);
    Write(Data,0x0100);
    Delayms (200); //Delay 200ms
}
```

# ST7793

## 3 LGD 3.2" Panel

### ● LG 3.2"(LH320WQ1- SH01) Application FPC Circuit



| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DB[17:10], DB[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DB[17:10],         |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |

## ST7793

### ● LG 3.2”(LH320WQ1- SH01)Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0000);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0018);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x003f);
    Write(Command,0x0754);
    Write(Data,0x002a);
}
```

## ST7793

```
Write(Command,0x0759);
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delaysms (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0500);
    Write(Command,0x0381);
    Write(Data,0x9b0f);
    Write(Command,0x0382);
    Write(Data,0x100d);
    Write(Command,0x0383);
    Write(Data,0x0901);
    Write(Command,0x0384);
    Write(Data,0x1032);
    Write(Command,0x0385);
    Write(Data,0x0400);
    Write(Command,0x0386);
    Write(Data,0xbc10);
    Write(Command,0x0387);
    Write(Data,0x1205);
    Write(Command,0x0388);
    Write(Data,0x0901);
    Write(Command,0x0389);
    Write(Data,0x1032);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
```



## ST7793

```
Write(Data,0x0051);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

## 4 CMI 3.2” Panel

### ● CMI 3.2” Software Reference Code

Void ST7793\_PanelInitialCode (void)

```
{  
//-----ST7793 Reset Sequence-----//  
    LCD_Nreset=1;  
    Delaysms (1);                //Delay 1ms  
    LCD_Nreset=0;  
    Delaysms (1);                //Delay 1ms  
    LCD_Nreset=1;  
    Delaysms (10);  
//-----Display Control Setting-----//  
    delay_ms(200);  
    Write(Command,0x0001);  
    Write(Data,0x0100);  
    Write(Command,0x0003);  
    Write(Data,0x9030);  
    Write(Command,0x0008);  
    Write(Data,0x0808);  
    Write(Command,0x0090);  
    Write(Data,0x8000);  
    Write(Command,0x0400);  
    Write(Data,0x6200);  
    Write(Command,0x0401);  
    Write(Data,0x0001);  
//-----End Display Control setting-----//  
//----- Power Control Registers Initial -----//  
    Write(Command,0x00ff);  
    Write(Data,0x0001);  
    Write(Command,0x0102);  
    Write(Data,0x01b0);  
    Write(Command,0x0710);  
    Write(Data,0x0018);  
    Write(Command,0x0712);  
    Write(Data,0x000f);
```

## ST7793

```
Write(Command,0x0713);
Write(Data,0x00b7);
Write(Command,0x0752);
Write(Data,0x002f);
Write(Command,0x0759);
Write(Data,0x0070);
Write(Command,0x0754);
Write(Data,0x002a);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0101);
    Write(Command,0x0381);
    Write(Data,0x471d);
    Write(Command,0x0382);
    Write(Data,0x0b03);
    Write(Command,0x0383);
    Write(Data,0x0612);
    Write(Command,0x0384);
    Write(Data,0x1230);
    Write(Command,0x0385);
    Write(Data,0x0101);
    Write(Command,0x0386);
    Write(Data,0x691d);
    Write(Command,0x0387);
    Write(Data,0x0504);
    Write(Command,0x0388);
```

## ST7793

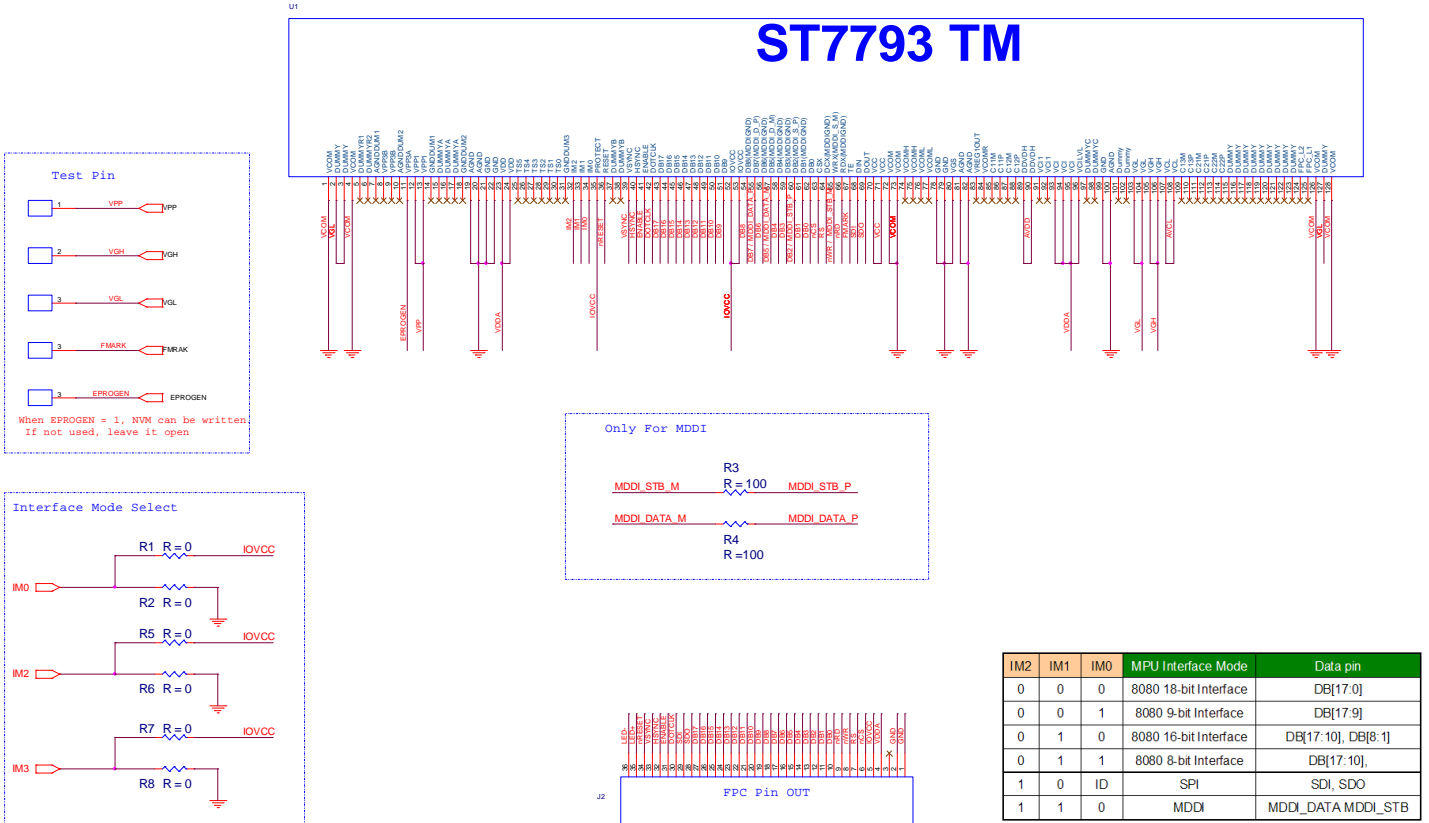
```
Write(Data,0x0611);
Write(Command,0x0389);
Write(Data,0x1230);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
Write(Command,0x0702);
Write(Data,0x0035);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delayms (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delayms (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delayms (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delayms (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
}
```

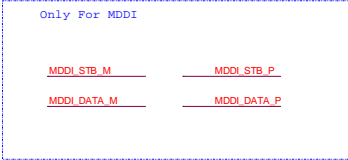
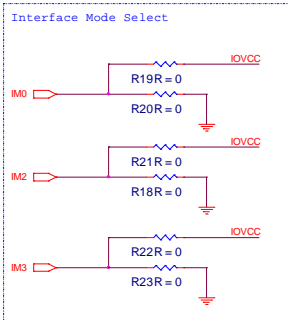
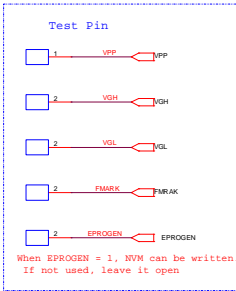
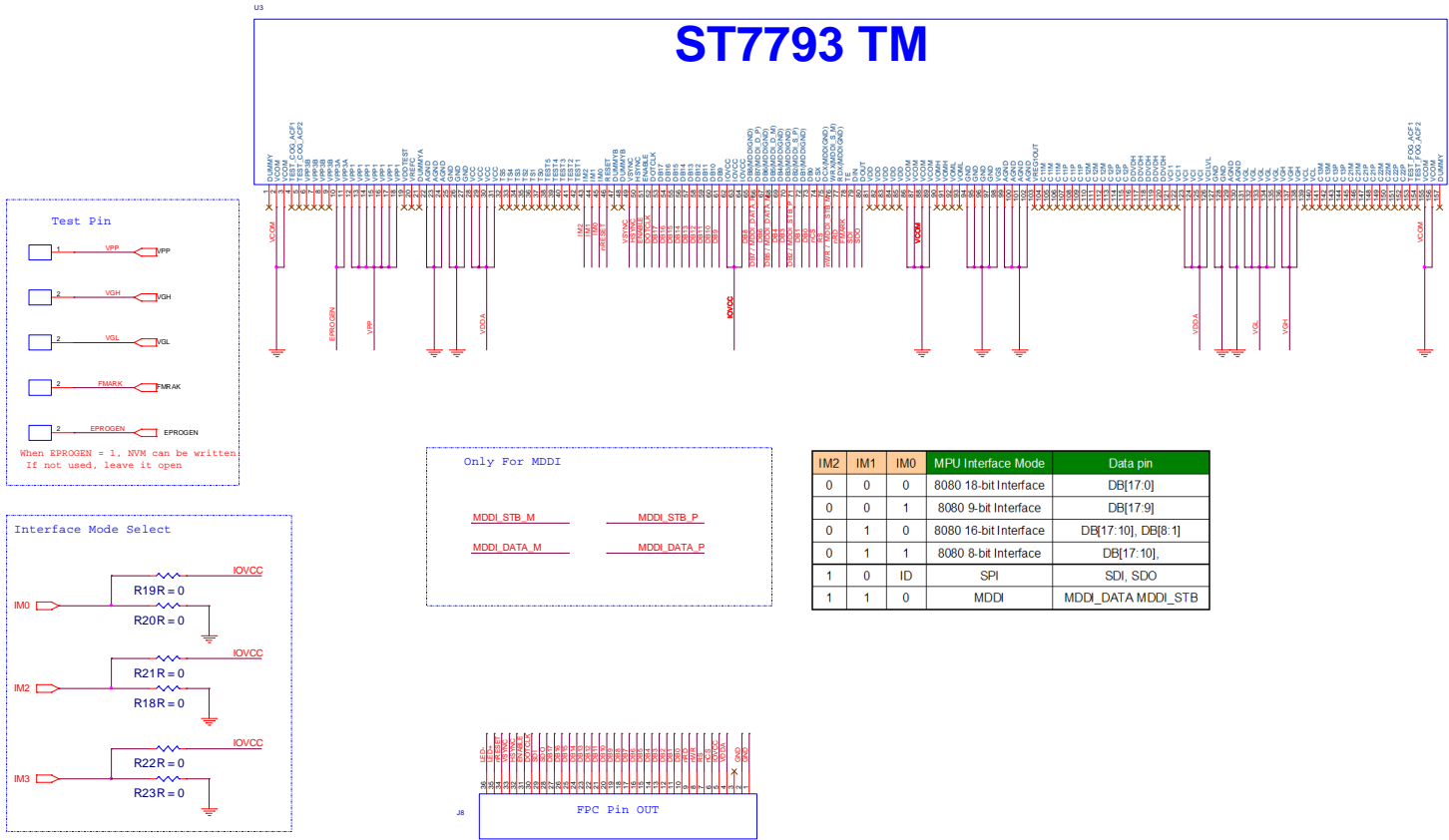
## 5 TM 3.2" & 3.5" & 3.6" Panel

- TM3.2"(TM032LYS02) Panel Application FPC Circuit

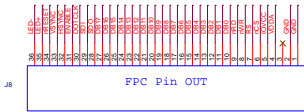


# ST7793

## ● TM3.5”(TM035LYH01) Panel Application FPC Circuit

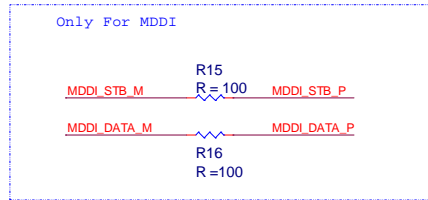
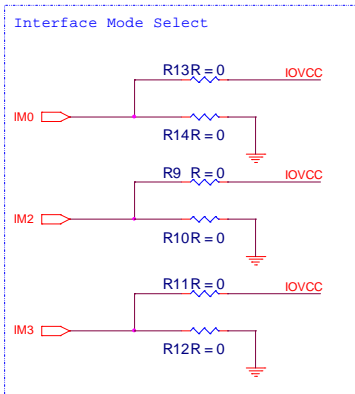
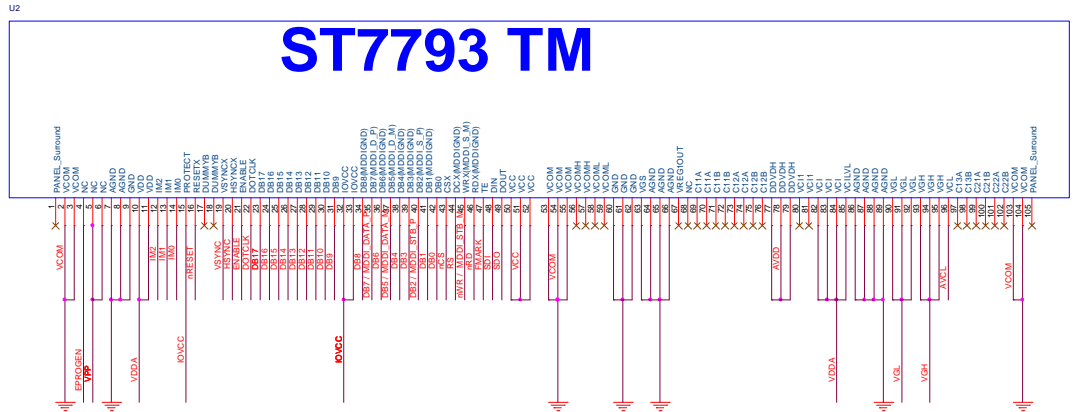
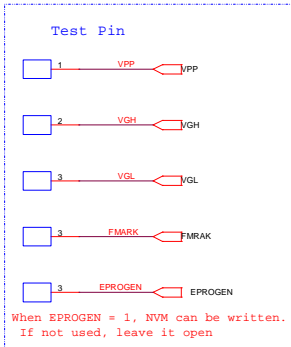


| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DB[17:10], DB[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DB[17:10],         |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |

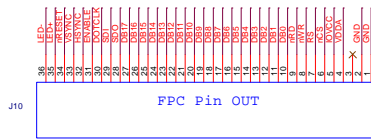


# ST7793

## ● TM3.6" (TM036LYH01) Panel Application FPC Circuit



| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DE[17:10], DE[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DE[17:10],         |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |



# ST7793

## ● TM3.2”(TM032LYS02) Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delayms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delayms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delayms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0012);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0713);
    Write(Data,0x0039);
    Write(Command,0x0752);
```



## ST7793

```
Write(Data,0x002f);
Write(Command,0x0759);
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0000);
    Write(Command,0x0381);
    Write(Data,0x7b11);
    Write(Command,0x0382);
    Write(Data,0x0b04);
    Write(Command,0x0383);
    Write(Data,0x0615);
    Write(Command,0x0384);
    Write(Data,0x1211);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0x9c0f);
    Write(Command,0x0387);
    Write(Data,0x0804);
    Write(Command,0x0388);
    Write(Data,0x0615);
    Write(Command,0x0389);
    Write(Data,0x1211);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
```

## ST7793

```
Write(Command,0x0702);
Write(Data,0x003c);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delayms (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delayms (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delayms (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delayms (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
}
```

# ST7793

## TM3.5”(TM035LYH01) Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{  
//-----ST7793 Reset Sequence-----//  
    LCD_Nreset=1;  
    Delaysms (1);                //Delay 1ms  
    LCD_Nreset=0;  
    Delaysms (1);                //Delay 1ms  
    LCD_Nreset=1;  
    Delaysms (10);  
//-----Display Control Setting-----//  
    delay_ms(200);  
    Write(Command,0x0001);  
    Write(Data,0x0100);  
    Write(Command,0x0003);  
    Write(Data,0x9030);  
    Write(Command,0x0008);  
    Write(Data,0x0808);  
    Write(Command,0x0090);  
    Write(Data,0x8000);  
    Write(Command,0x0400);  
    Write(Data,0x6200);  
    Write(Command,0x0401);  
    Write(Data,0x0001);  
//-----End Display Control setting-----//  
//----- Power Control Registers Initial -----//  
    Write(Command,0x00ff);  
    Write(Data,0x0001);  
    Write(Command,0x0102);  
    Write(Data,0x01b0);  
    Write(Command,0x0710);  
    Write(Data,0x0018);  
    Write(Command,0x0712);  
    Write(Data,0x000f);  
    Write(Command,0x0752);  
    Write(Data,0x002f);  
    Write(Command,0x0759);  
    Write(Data,0x0070);
```

## ST7793

```
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0000);
    Write(Command,0x0381);
    Write(Data,0x7f12);
    Write(Command,0x0382);
    Write(Data,0x0c03);
    Write(Command,0x0383);
    Write(Data,0x0614);
    Write(Command,0x0384);
    Write(Data,0x1233);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0x9f12);
    Write(Command,0x0387);
    Write(Data,0x0703);
    Write(Command,0x0388);
    Write(Data,0x0613);
    Write(Command,0x0389);
    Write(Data,0x1233);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x0052);
    Write(Command,0x00ff);
```

## ST7793

```
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

## ST7793

### ● TM3.6”(TM036LYH01) Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0012);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0713);
    Write(Data,0x0039);
    Write(Command,0x0752);
    Write(Data,0x002f);
}
```

## ST7793

```
Write(Command,0x0724);
Write(Data,0x001a);
Write(Command,0x0759);
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delaysms (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0000);
    Write(Command,0x0381);
    Write(Data,0x7b11);
    Write(Command,0x0382);
    Write(Data,0x0c04);
    Write(Command,0x0383);
    Write(Data,0x0616);
    Write(Command,0x0384);
    Write(Data,0x1211);
    Write(Command,0x0385);
    Write(Data,0x0000);
    Write(Command,0x0386);
    Write(Data,0xbd0f);
    Write(Command,0x0387);
    Write(Data,0x0805);
    Write(Command,0x0388);
    Write(Data,0x0615);
    Write(Command,0x0389);
    Write(Data,0x1211);
//-----End Gamma Setting-----//
```

## ST7793

```
//-----Vcom Setting-----//
Write(Command,0x0702);
Write(Data,0x003B);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

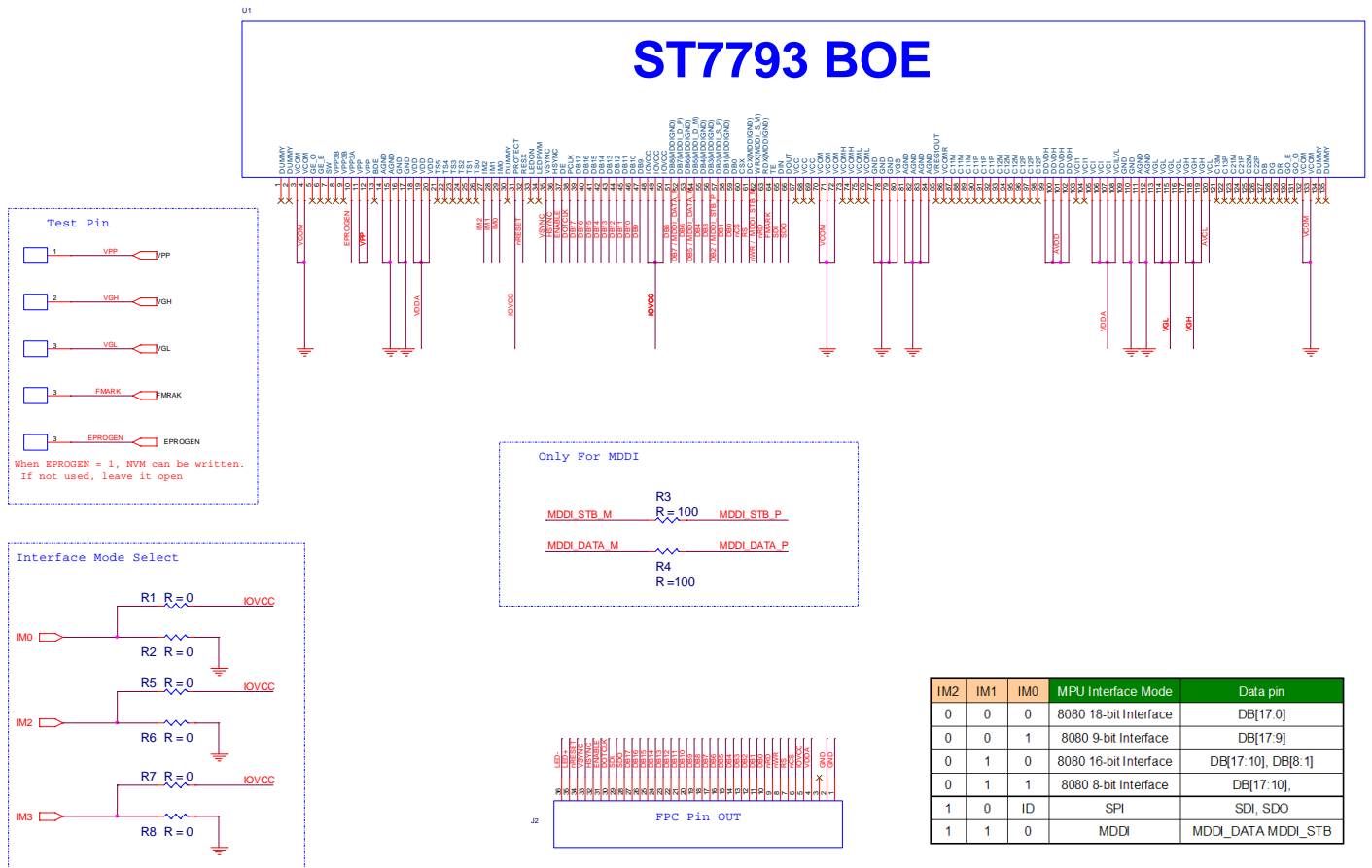
Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```



## 6 BOE 2.8" & 3.0" & 3.97" Panel

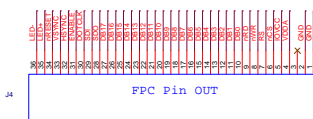
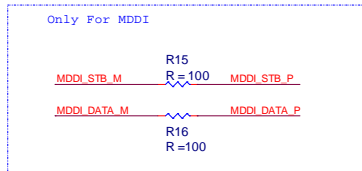
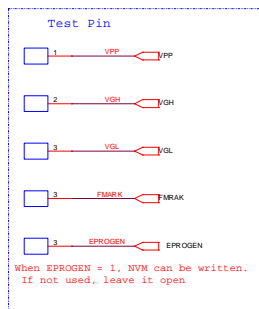
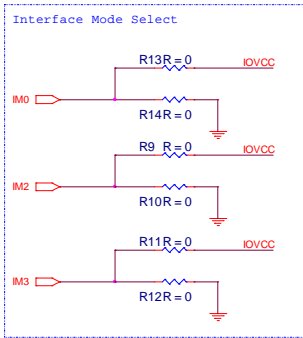
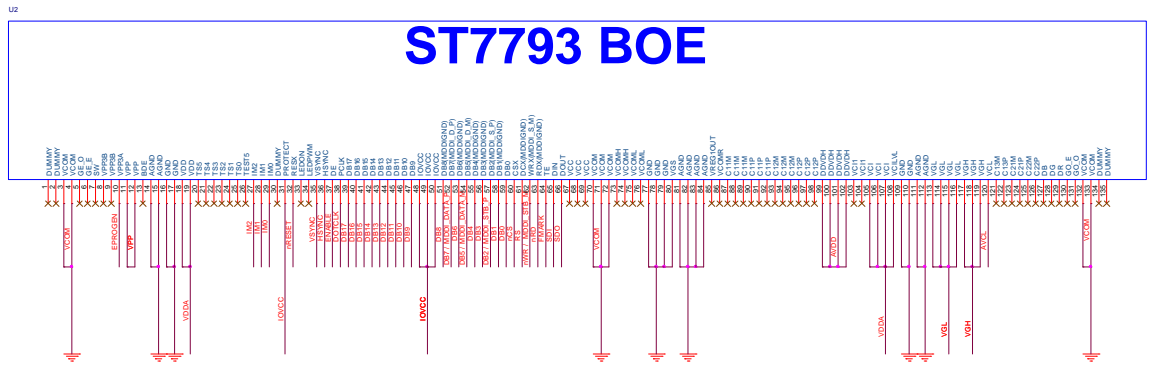
- BOE2.8"(BT028WQME101) & 3.0"(BF030WQME601) Panel

### Application FPC Circuit



# ST7793

## ● BOE 3.97” (BT040WQME601) Panel Application FPC Circuit



| IM2 | IM1 | IM0 | MPU Interface Mode    | Data pin           |
|-----|-----|-----|-----------------------|--------------------|
| 0   | 0   | 0   | 8080 18-bit Interface | DB[17:0]           |
| 0   | 0   | 1   | 8080 9-bit Interface  | DB[17:9]           |
| 0   | 1   | 0   | 8080 16-bit Interface | DB[17:10], DB[8:1] |
| 0   | 1   | 1   | 8080 8-bit Interface  | DB[17:10],         |
| 1   | 0   | ID  | SPI                   | SDI, SDO           |
| 1   | 1   | 0   | MDDI                  | MDDI_DATA MDDI_STB |

# ST7793

## ● BOE 2.8" (BT028WQME101) Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delayms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delayms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delayms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0018);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x001f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0101);
    Write(Command,0x0381);
    Write(Data,0x4c1e);
    Write(Command,0x0382);
    Write(Data,0x0901);
    Write(Command,0x0383);
    Write(Data,0x0611);
    Write(Command,0x0384);
    Write(Data,0x1211);
    Write(Command,0x0385);
    Write(Data,0x0101);
    Write(Command,0x0386);
    Write(Data,0x6d1e);
    Write(Command,0x0387);
    Write(Data,0x0404);
    Write(Command,0x0388);
    Write(Data,0x0610);
    Write(Command,0x0389);
    Write(Data,0x1211);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x0045);
```

## ST7793

```
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

## ST7793

### ● BOE 3.0" (BF030WQME601) Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0000);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0018);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data,0x0600);
    Write(Command,0x0381);
    Write(Data,0xcc13);
    Write(Command,0x0382);
    Write(Data,0x0c0a);
    Write(Command,0x0383);
    Write(Data,0x0a00);
    Write(Command,0x0384);
    Write(Data,0x1022);
    Write(Command,0x0385);
    Write(Data,0x0600);
    Write(Command,0x0386);
    Write(Data,0xcd11);
    Write(Command,0x0387);
    Write(Data,0x0e07);
    Write(Command,0x0388);
    Write(Data,0x0a00);
    Write(Command,0x0389);
    Write(Data,0x1022);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x0057);
```

## ST7793

```
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```



## ST7793

### ● BOE 3.97” (BT040WQME601) Software Reference Code

Void ST7793\_PanellInitialCode (void)

```
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x1030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0014);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x001f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);
//-----End Power Control Registers Initial -----//
    Delays (100);
//-----Display Windows 240 X 400-----//
    Write(Command,0x0210);
    Write(Data,0x0000);
    Write(Command,0x0211);
    Write(Data,0x00ef);
    Write(Command,0x0212);
    Write(Data,0x0000);
    Write(Command,0x0213);
    Write(Data,0x018F);
//-----End Display Windows 240 X 400-----//
    delay_ms(10);
//-----Gamma Cluster Setting-----//
    Write(Command,0x0380);
    Write(Data, 0x0303);
    Write(Command,0x0381);
    Write(Data, 0x481f);
    Write(Command,0x0382);
    Write(Data,0x0803);
    Write(Command,0x0383);
    Write(Data, 0x030f);
    Write(Command,0x0384);
    Write(Data, 0x2230);
    Write(Command,0x0385);
    Write(Data, 0x0300);
    Write(Command,0x0386);
    Write(Data, 0x491e);
    Write(Command,0x0387);
    Write(Data, 0x0703);
    Write(Command,0x0388);
    Write(Data, 0x070f);
    Write(Command,0x0389);
    Write(Data,0x2230);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
    Write(Command,0x0702);
    Write(Data,0x0060);
```

## ST7793

```
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delayms (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delayms (200); //Delay 200ms
}

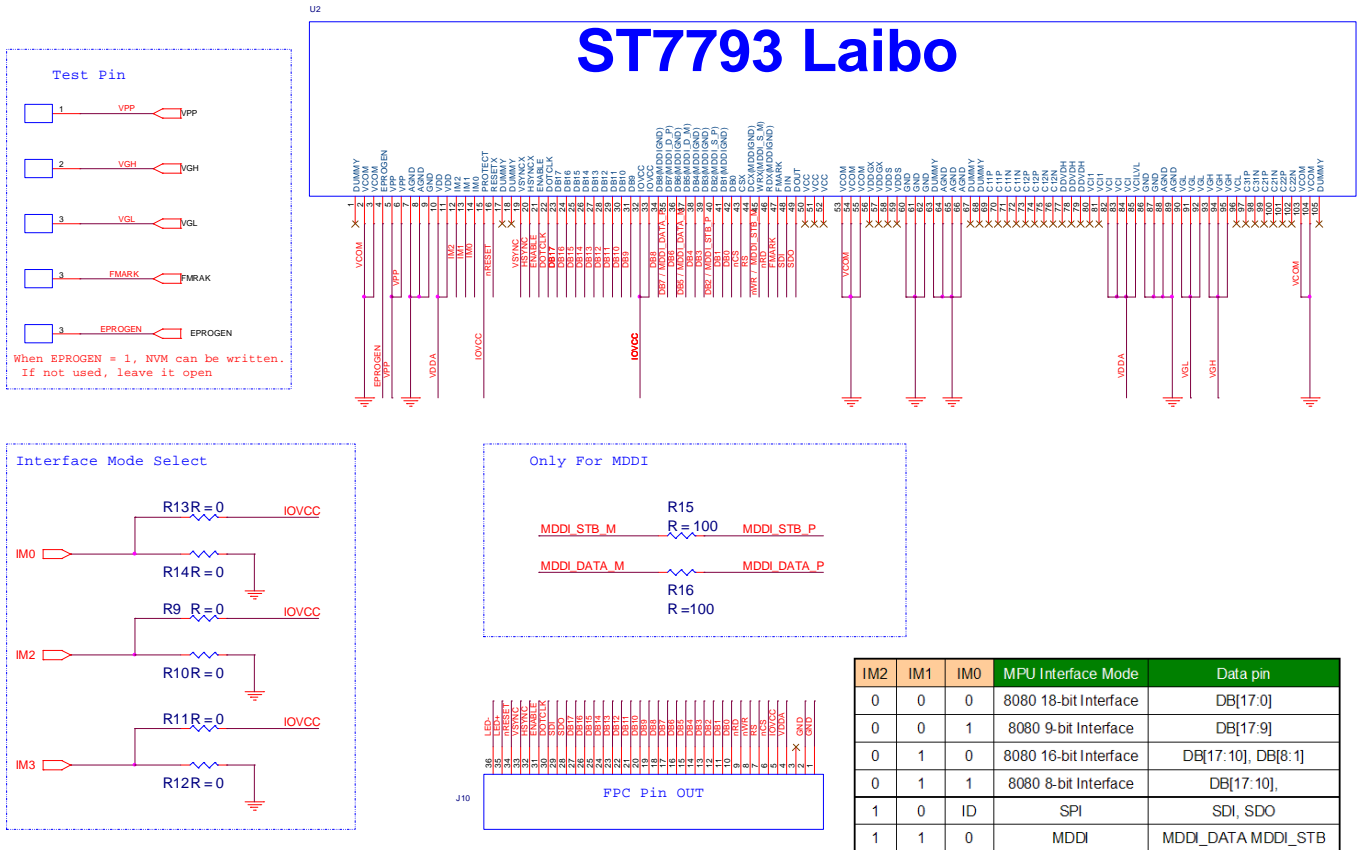
Void ST7793_PanelExitStandby (void)
{
Delayms (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delayms (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delayms (200); //Delay 200ms
}
```

# ST7793

## 7 Laibo 3.7” Panel

### ● Laibo 3.7”(S37001A106G46B1T5B3) Panel Application FPC

#### Circuit



# ST7793

## ● Laibo 3.7” Software Reference Code

```
Void ST7793_PanellInitialCode (void)
{
//-----ST7793 Reset Sequence-----//
    LCD_Nreset=1;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=0;
    Delaysms (1);                //Delay 1ms
    LCD_Nreset=1;
    Delaysms (10);
//-----Display Control Setting-----//
    delay_ms(200);
    Write(Command,0x0001);
    Write(Data,0x0100);
    Write(Command,0x0003);
    Write(Data,0x9030);
    Write(Command,0x0008);
    Write(Data,0x0808);
    Write(Command,0x0090);
    Write(Data,0x8000);
    Write(Command,0x0400);
    Write(Data,0x6200);
    Write(Command,0x0401);
    Write(Data,0x0001);
//-----End Display Control setting-----//
//----- Power Control Registers Initial -----//
    Write(Command,0x00ff);
    Write(Data,0x0001);
    Write(Command,0x0102);
    Write(Data,0x01b0);
    Write(Command,0x0710);
    Write(Data,0x0014);
    Write(Command,0x0712);
    Write(Data,0x000f);
    Write(Command,0x0752);
    Write(Data,0x002f);
    Write(Command,0x0759);
```

## ST7793

```
Write(Data,0x0070);  
Write(Command,0x0724);  
Write(Data,0x001a);
```

```
//-----End Power Control Registers Initial -----//
```

```
Delaysms (100);
```

```
//-----Display Windows 240 X 400-----//
```

```
Write(Command,0x0210);  
Write(Data,0x0000);  
Write(Command,0x0211);  
Write(Data,0x00ef);  
Write(Command,0x0212);  
Write(Data,0x0000);  
Write(Command,0x0213);  
Write(Data,0x018F);
```

```
//-----End Display Windows 240 X 400-----//
```

```
delay_ms(10);
```

```
//-----Gamma Cluster Setting-----//
```

```
Write(Command,0x0380);  
Write(Data,0x0100);  
Write(Command,0x0381);  
Write(Data,0x7c1d);  
Write(Command,0x0382);  
Write(Data,0x0808);  
Write(Command,0x0383);  
Write(Data,0x0610);  
Write(Command,0x0384);  
Write(Data,0x1222);  
Write(Command,0x0385);  
Write(Data,0x0001);  
Write(Command,0x0386);  
Write(Data,0x9c1d);  
Write(Command,0x0387);  
Write(Data,0x0702);  
Write(Command,0x0388);  
Write(Data,0x0510);  
Write(Command,0x0389);  
Write(Data,0x1223);
```

```
//-----End Gamma Setting-----//
```

## ST7793

```
//-----Vcom Setting-----//
Write(Command,0x0702);
Write(Data,0x003e);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
}
```

# ST7793

## 8 Sharp 2.9" Panel

### ● Sharp 2.9" Software Reference Code

Void ST7793\_PanelInitialCode (void)

```
{  
//-----ST7793 Reset Sequence-----//  
    LCD_Nreset=1;  
    Delayms (1);                //Delay 1ms  
    LCD_Nreset=0;  
    Delayms (1);                //Delay 1ms  
    LCD_Nreset=1;  
    Delayms (10);  
//-----Display Control Setting-----//  
    delay_ms(200);  
    Write(Command,0x0001);  
    Write(Data,0x0100);  
    Write(Command,0x0003);  
    Write(Data,0x0030);  
    Write(Command,0x0008);  
    Write(Data,0x0808);  
    Write(Command,0x000c);  
    Write(Data,0x0110);  
    Write(Command,0x0090);  
    Write(Data,0x8000);  
    Write(Command,0x0400);  
    Write(Data,0x6a00);  
    Write(Command,0x0401);  
    Write(Data,0x0000);  
//-----End Display Control setting-----//  
//----- Power Control Registers Initial -----//  
    Write(Command,0x00ff);  
    Write(Data,0x0001);  
    Write(Command,0x0102);  
    Write(Data,0x01b0);  
    Write(Command,0x0710);  
    Write(Data,0x0016);  
    Write(Command,0x0712);
```



## ST7793

```
Write(Data,0x0007);
Write(Command,0x0752);
Write(Data,0x003f);
Write(Command,0x0759);
Write(Data,0x0070);
Write(Command,0x0724);
Write(Data,0x0018);
```

```
//-----End Power Control Registers Initial -----//
```

```
Delays (100);
```

```
//-----Display Windows 240 X 400-----//
```

```
Write(Command,0x0210);
Write(Data,0x0000);
Write(Command,0x0211);
Write(Data,0x00ef);
Write(Command,0x0212);
Write(Data,0x0000);
Write(Command,0x0213);
Write(Data,0x01aF);
```

```
//-----End Display Windows 240 X 400-----//
```

```
delay_ms(10);
```

```
//-----Gamma Cluster Setting-----//
```

```
Write(Command,0x0380);
Write(Data,0x0100);
Write(Command,0x0381);
Write(Data,0x0303);
Write(Command,0x0382);
Write(Data,0x1903);
Write(Command,0x0383);
Write(Data,0x070f);
Write(Command,0x0384);
Write(Data,0x1311);
Write(Command,0x0385);
Write(Data,0x0100);
Write(Command,0x0386);
Write(Data,0x140b);
Write(Command,0x0387);
Write(Data,0x1301);
Write(Command,0x0388);
```

## ST7793

```
Write(Data,0x070f);
Write(Command,0x0389);
Write(Data,0x1311);
//-----End Gamma Setting-----//
//-----Vcom Setting-----//
Write(Command,0x0702);
Write(Data,0x0047);
Write(Command,0x00ff);
Write(Data,0x0000);
//-----End Vcom Setting-----//
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
Write(Command,0x0200);
Write(Data,0x0000);
Write(Command,0x0201);
Write(Data,0x0000);
Write(Command,0x0202);
}

Void ST7793_PanelEnterStandby (void)
{
Write(Command,0x0007);
Write(Data,0x0000);
Delays (50); //Delay 50ms
Write(Command, 0x0102);
Write(Data,0x0180);
Delays (200); //Delay 200ms
}

Void ST7793_PanelExitStandby (void)
{
Delays (200);
Write(Command,0x0102);
Write(Data,0x01b0);
Delays (50); //Delay 50ms
Write(Command,0x0007);
Write(Data,0x0100);
Delays (200); //Delay 200ms
}
```

## 9 Support Panel Cell Model

| No | Glass Company | Model name          | Size  |
|----|---------------|---------------------|-------|
|    | CPT           | CLAF030JB01A0       | 3.0"  |
|    | CPT           | CLAF032JC01__00XA   | 3.2"  |
|    | CPT           | CLAG036JA01AX       | 3.6"  |
|    | HSD           | HSD030BAW1          | 3.0"  |
|    | HSD           | HSD032BAW2-A        | 3.2"  |
|    | HSD           | HSD036FAW1-A        | 3.6"  |
|    | HSD           | HSD040FAW1-B        | 4.0"  |
|    | TM            | TM032LYS02          | 3.2"  |
|    | TM            | TM036LYH01          | 3.6"  |
|    | TM            | TM035LYH01          | 3.5"  |
|    | BOE           | BT028WQME601        | 2.8"  |
|    | BOE           | BF030WQME601        | 3.0"  |
|    | BOE           | BT040WQME601        | 3.97" |
|    | LGD           | LH320WQ1- SH01      | 3.2"  |
|    | Laibo         | S37001A106G46B1T5B3 | 3.7"  |

## 10 History

| ST77793 Application Note Revision History |         |   |
|---|---------|---|
| Version                                   | Date    | Description   |
| 0.0                                       | 2012/04 | First Issue   |
| 0.1                                       | 2012/04 | Add Application Circuit & initial code  |
| 0.2                                       | 2012/04 | Add TM & CPT Application Circuit  |
| 0.3                                       | 2012/05 | Add HS 3.6" & CMI 3.2" initial code<br>Add CPT 3.2" & Modify BOE 3.97" Circuit                      |
| 0.4                                       | 2012/05 | Add Laibo Application circuit & initial code  |
| 0.5                                       | 2012/07 | Modified IOVCC<br>Add TM035LYH01/ TM036LYH01/TM032LYS01 initial code<br>Add Sharp 2.9" initial code |
| 0.6                                       | 2012/08 | Modified TM036LYH01 initial code<br>Modified TM032LYS02 initial code                                |
| 0.7                                       | 2012/09 | Modified BF030WQME601 initial code  |