

#### APPLICATION NOTE V02

### 7.6.2 The reference setting of normal display for register-content interface mode

## 7.6.2.1 The reference setting of CMO 3.2" panel

```
void HX8347A Init CMO32(void)
    RESET();
                     // After Inter-MicroP Program (load OTP)
    DelayX1ms(150);
// Gamma for CMO 3.2"
   Set LCD 8B REG(0x0046,0x00A4);
   Set_LCD_8B_REG(0x0047,0x0053);
   Set_LCD_8B_REG(0x0048,0x0000);
   Set LCD 8B REG(0x0049,0x0044);
   Set LCD 8B REG(0x004A,0x0004);
   Set_LCD_8B_REG(0x004B,0x0067);
   Set LCD 8B REG(0x004C,0x0033);
   Set LCD 8B REG(0x004D,0x0077);
   Set LCD 8B REG(0x004E,0x0012);
   Set_LCD_8B_REG(0x004F,0x004C);
   Set LCD 8B REG(0x0050,0x0046);
   Set LCD 8B REG(0x0051,0x0044);
//240x320 window setting
                                      // Column address start2
   Set LCD 8B REG(0x0002,0x0000);
   Set LCD 8B REG(0x0003,0x0000);
                                     # Column address start1
   Set LCD 8B REG(0x0004,0x0000);
                                     // Column address end2
                                     // Column address end1
   Set LCD 8B REG(0x0005,0x00EF);
   Set LCD 8B REG(0x0006,0x0000);
                                     // Row address start2
   Set LCD 8B REG(0x0007,0x0000);
                                     // Row address start1
   Set LCD 8B REG(0x0008,0x0001);
                                     // Row address end2
   Set LCD 8B REG(0x0009,0x003F);
                                     // Row address end1
// Display Setting
   Set LCD 8B REG(0x0001,0x0006);
                                     // IDMON=0, INVON=1, NORON=1, PTLON=0
   Set LCD 8B REG(0x0016,0x0048);
                                      // MY=0, MX=0, MV=0, ML=1, BGR=0, TEON=0
   Set LCD 8B REG(0x38,0x00);
                                  // RGB EN=0, use MPU Interface
   Set LCD 8B REG(0x0023,0x0095);
                                     // N DC=1001 0101
   Set LCD 8B REG(0x0024,0x0095);
                                     // PI DC=1001 0101
   Set LCD 8B REG(0x0025,0x00FF);
                                     // I DC=1111 1111
   Set LCD 8B REG(0x0027,0x0002);
                                     // N BP=0000 0010
   Set LCD 8B REG(0x0028,0x0002);
                                     // N FP=0000 0010
   Set LCD 8B REG(0x0029,0x0002);
                                     // PI BP=0000 0010
   Set LCD 8B REG(0x002A,0x0002);
                                     // PI FP=0000 0010
   Set LCD 8B REG(0x002C,0x0002);
                                     // I BP=0000 0010
   Set LCD 8B REG(0x002D,0x0002);
                                     // I FP=0000 0010
   Set LCD 8B REG(0x003A,0x0001);
                                     // N RTN=0000, N NW=001
   Set LCD 8B REG(0x003B,0x0000);
                                     // PI RTN=0000, PI NW=000
```

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# >> HX8347-A

240RGB x 320 dot, 262K color, TFT Mobile Single Chip Driver



**APPLICATION NOTE V02** 

```
Set LCD 8B REG(0x003C,0x00F0);
                                      // I RTN=1111, I NW=000
   Set LCD 8B REG(0x003D,0x0000);
                                      // DIV=00
   DelayX1ms(20);
   Set LCD 8B REG(0x0035,0x0038);
                                     // EQS=38h
   Set LCD 8B REG(0x0036,0x0078);
                                     // EQP=78h
   Set LCD 8B REG(0x003E,0x0038);
                                     // SON=38h
   Set LCD 8B REG(0x0040,0x000F);
                                     // GDON=0Fh
   Set LCD 8B REG(0x0041,0x00F0);
                                     // GDOFF
// Power Supply Setting
                                     // CADJ=0100, CUADJ=100(FR:60Hz),, OSD EN=1
   Set LCD 8B REG(0x0019,0x0049);
   Set LCD 8B REG(0x0093,0x000F);
                                     // RADJ=1111, 100%
   DelayX1ms(10);
   Set LCD 8B REG(0x0020,0x0040);
                                      // BT=0100
   Set LCD 8B REG(0x001D,0x0007);
                                      // VC1=111
   Set LCD 8B REG(0x001E,0x0000);
                                      // VC3=000
   Set LCD 8B REG(0x001F,0x0004);
                                      // VRH=0100
// VCOM Setting for CMO 3.2" Panel
   Set LCD 8B REG(0x0044,0x004D);
                                       // VCM=100 1101
                                        VDV=1 0001
   Set LCD 8B REG(0x0045,0x0011);
   DelayX1ms(10);
   Set LCD 8B REG(0x001C,0x0004);
                                       AP=100
   DelayX1ms(20);
                                      // GASENB=0, PON=1, DK=1, XDK=0, VLCD_TRI=0, STB=0
   Set LCD 8B REG(0x001B.0x0018);
   DelayX1ms(40);
   Set LCD 8B REG(0x001B,0x0010);
                                      # GASENB=0, PON=1, DK=0, XDK=0, VLCD TRI=0, STB=0
   DelayX1ms(40);
   Set LCD 8B REG(0x0043,0x0080);
                                     //Set VCOMG=1
   DelayX1ms(100);
// Display ON Setting
   Set_LCD_8B_REG(0x0090,0x007F);
                                      // SAP=0111 1111
   Set LCD 8B REG(0x0026,0x0004);
                                     //GON=0, DTE=0, D=01
   DelayX1ms(40);
   Set LCD 8B REG(0x0026,0x0024);
                                     //GON=1, DTE=0, D=01
   Set LCD 8B REG(0x0026,0x002C);
                                      //GON=1, DTE=0, D=11
   DelayX1ms(40);
   Set_LCD_8B_REG(0x0026,0x003C);
                                      //GON=1, DTE=1, D=11
// Internal register setting
   Set_LCD_8B_REG(0x0057,0x0002);
                                     //Test Mode Enable
   Set LCD 8B REG(0x0095,0x0001);
                                     // Set Display clock and Pumping clock to synchronize
   Set LCD 8B REG(0x0057,0x0000);
                                     // Test Mode Disable
```