# OLED Reverse Display Operating Instruction

1. Reverse display and normal display is the most common display; hope that we can really understand what its real principle. OLED display dot corresponds to one internal diode; most are common cathode. So we lit a point when you need to send a high level corresponding to the point. In the display text that there are many friends like to use reverse display; this time we hope to make a careful analysis function properly when displayed.

2. The following do a explain about normal display and reverse display, we find OLED_ShowChar (u8 x, u8 y, u8 chr) function...

```
void OLED_ShowChar(u8 x,u8 y,u8 chr)
{
  unsigned char c=0,i=0;
    c=chr-' '; //Values obtained after offset
    if(x>Max_Column-1){x=0;y=y+2;}
    if(SIZE ==16)
      {
      OLED_Set_Pos(x,y);
      for(i=0;i<8;i++)
      OLED_WR_Byte(F8X16[c*16+i],OLED_DATA);
      OLED_Set_Pos(x,y+1);
      for(i=0;i<8;i++)
      OLED_WR_Byte(F8X16[c*16+i+8],OLED_DATA);
      }
    else {
        OLED_Set_Pos(x,y+1);
        for(i=0;i<6;i++)
        OLED_WR_Byte(F6x8[c][i],OLED_DATA);

      }
}
```

Then enter into the scribe function; into the interior

```
void OLED_WR_Byte(u8 dat,u8 cmd)
{
  u8 i;
  if(cmd)
    OLED_DC_Set();
  else
    OLED_DC_Clr();
  OLED_CS_Clr();
  for(i=0;i<8;i++)
  {
    OLED_SCLK_Clr();
    if(dat&0x80)
        OLED_SDIN_Set();
    else
        OLED_SDIN_Clr();
    OLED_SCLK_Set();
    dat<<=1;
  }
  OLED_CS_Set();
  OLED_DC_Set();
}
```

```
void OLED_WR_Byte(u8 dat,u8 cmd) //used when reverse display
{
   u8 i;
   if(cmd)
      OLED_DC_Set();
   else
      OLED_DC_Clr();
   OLED_CS_Clr();
   for(i=0;i<8;i++)
   {
      OLED_SCLK_Clr();
      if(dat&0x80)
         OLED_SDIN_Clr();

      else
          OLED_SDIN_Set();
      OLED_SCLK_Set();
      dat<<=1;
   }
   OLED_CS_Set();
   OLED_DC_Set();
}
```

However, it should be noted; not directly modified directly in this function; because OLED WR Byte (u8 dat, u8 cmd) this function elsewhere on the screen sends a control operation should be used; so we should define a new function; function name can be defined as OLED WR Byte2 (u8 dat, u8 cmd)

```
void OLED_WR_Byte2(u8 dat,u8 cmd)
{
   u8 i;
   if(cmd)
      OLED_DC_Set();
   else
      OLED_DC_Clr();
   OLED_CS_Clr();
   for(i=0;i<8;i++)
   {
      OLED_SCLK_Clr();
      if(dat&0x80)
         OLED_SDIN_Clr();

      else
          OLED_SDIN_Set();
      OLED_SCLK_Set();
      dat<<=1;
   }
   OLED_CS_Set();
   OLED_DC_Set();
}
```

After modification; Back <u>void OLED_Show Char (u8 x, u8 y, u8 chr)</u> to this function; call <u>OLED_WR_Byte2 (u8 dat, u8 cmd)</u>

```c
void OLED_ShowChar(u8 x,u8 y,u8 chr)
{
    unsigned char c=0,i=0;
        c=chr-' ';
        if(x>Max_Column-1){x=0;y=y+2;}
        if(SIZE ==16) //Values obtained after offset
        {
        OLED_Set_Pos(x,y);
        for(i=0;i<8;i++)
        OLED_WR_Byte2(F8X16[c*16+i],OLED_DATA);
        OLED_Set_Pos(x,y+1);
        for(i=0;i<8;i++)
        OLED_WR_Byte2(F8X16[c*16+i+8],OLED_DATA);
        }
        else {
            OLED_Set_Pos(x,y+1);
            for(i=0;i<6;i++)
            OLED_WR_Byte2(F6x8[c][i],OLED_DATA);

        }
}
```

This completes the reverse display character; because the string is called directly as a function of the character; so it will reverse display.
The principles of reverse display should have a basic understanding; empathy and anti-Chinese image was also the same principles . We sincerely hope to understand the function of the normal display operating experience, so that will not be any problems.
Thank you very much serious reading

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