SSD2119

RGB Interface

RGB Interface

SSD2119 supports RGB interface. RGB interface unit consists of D[17:0], HSYNC, VSYNC, DOTCLK and OE signals for display moving pictures. When the RGB interface is selected, the display operation is synchronized with external control signals (HSYNC, VSYNC and DOTCLK). Data is written in synchronization with the control signals when DEN is enabled for write operation in order to avoid flicker or tearing effect while updating display data.

Mode Selection Pins

<table>
<tr><th>Name</th><th>Type</th><th>Connect to</th><th>Function</th><th colspan="5">Description</th><th>When not in use</th></tr>
<tr><td rowspan="5">PS[3:0]</td><td rowspan="5">I</td><td rowspan="5">V_{DDIO} or V_{SS}</td><td rowspan="5">Interface Selection</td><td>PS3</td><td>PS2</td><td>PS1</td><td>PS0</td><td>Interface Mode</td><td rowspan="5">-</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9-bit generic D[8:0] (262k colour) + 3-wire SPI
If 65K color, D3 shorts to D8 internally</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>16-bit generic (262k colour) + 3-wire SPI</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>18-bit generic (262k colour) + 3-wire SPI</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>6-bit generic D[8:3] (262k
colour) + 3-wire SPI</td></tr>
</table>

SSD2119 init Code for RGB

Comment	Data[7:4]	Data[3:0]	Description
28	00	06	
00	00	01	Turn Oscillator On
01	30	EF	
02	06	00	
11	46	70	DFM[1:0] : 262k Color Mode DenMode = 0 : RGB interface controlled by HSYNC, VSYNC pin and HBP, VBP WMode = 1 : Write RAM from Generic RGB data (POR, if PS:00xx) Nosync=1 : Dmode change immediately Dmode=0 : Display engine will be clocked by DOTCLK pin and onchip oscillator will be off (POR, if PS:00xx)
10	00	00	
07	00	33	
0C	00	05	
30	0	0	
31	3	2	
32	4	7	
33	3	3	
34	0	0	Gamma Setting
35	6	3	
36	7	7	
37	6	0	
3A	10	0	
3B	10	3	
0D	0	0d	
0E	31	0	
15	0	58	

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