Mar/27/2008

errata_080327

S1C63709 Manual errata

ITEM: About Power supply for LCD driving		
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		4.6.2 Power supply for LCD driving
		4.6.6 LCD contrast adjustment
		7.4 Analog Circuit Characteristics and Power Current Consumption
		7.8 Characteristics Curves (reference value)

(Error)

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(14)LCD segment specification

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14. SEGMENT OPTION

(Correct)

Page 6

(14)LCD system reference voltage VC2

The reference voltage VC2 can be selected from 2.4V and 2.8V when using the VC2 voltage for the voltage regulator output.

Refer to Section 4.6.2, “Power supply for LCD driving”, for details.

(15)LCD segment specification

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14. LCD SYSTEM REFERENCE VOLTAGE VC2

☐1. 2.4V

☐2. 2.8V

15. SEGMENT OPTION

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ITEM: About Power supply for LCD driving
(Error) 4.6.2 Power supply for LCD driving No account. 4.6.6 LCD contrast adjustment When VC2 regulator is selected by mask option, the VC2 value varies within the range from 2.08V to 2.84V.
(Correct) 4.6.2 Power supply for LCD driving A mask option is provided to select either VC1 regulator or VC2 regulator. The reference voltage VC2 can be selected from 2.4V and 2.8V when using the VC2 voltage for the voltage regulator output. Notes: ・VC2 reference voltage is a voltage that the LCD system voltage regulator uses. The different LCD drive voltages (VC1-VC3) is generated from the LCD system voltage circuit. ・VC2 reference voltage is a reference voltage that is used for the LCD system. The LCD drive voltages (VC1-VC3) are different depending on the VC2 selected voltage 2.4V and 2.8V. Refer to Section 7.4, “Analog Circuit Characteristics and Power Current Consumption”, for details. ・The ranges of contrast adjustment are different depending on the VC2 selected voltage 2.4V and 2.8V. Refer to Section 4.6.6, “LCD contrast adjustment”, and Section 7.4, “Analog Circuit Characteristics and Power Current Consumption”, for details. ・The characteristics of VC2 are different depending on the VC2 selected voltage 2.4V and 2.8V. Refer to Section 7.8, “Characteristics Curves (reference value)”, for details. 4.6.6 LCD contrast adjustment When VC2 regulator is selected and 2.4V regulator is selected by mask option, the VC2 value varies within the range from 1.77V to 2.37V. When 2.8V is selected, it varies within the range from 2.08V to 2.84V.

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ITEM: About Power supply for LCD driving

(Error)

7.4 Analog Circuit Characteristics and Power Current Consumption

No account.

7.8 Characteristics Curves (reference value)

No account.

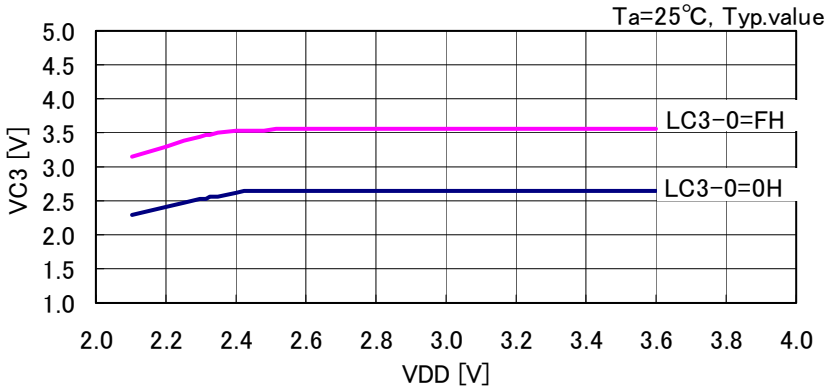
(Correct)

7.4 Analog Circuit Characteristics and Power Current Consumption

Item	Symbol	Condition		Min.	Typ.	Max.	Unit
LCD drive voltage (when VC2 regulator 2.4V regulator is selected)	VC1	Connect 1MΩ load resistor between VSS and VC1 (without panel load)		1/2・VC2 ×0.95		1/2・VC2	V
	VC2	Connect 1MΩ load resistor between VSS and VC2 (without panel load)	LC0～3="0"	Typ. −100mV	1.77	Typ. +100mV	V
			LC0～3="1"		1.82		
			LC0～3="2"		1.87		
			LC0～3="3"		1.92		
			LC0～3="4"		1.97		
			LC0～3="5"		2.00		
			LC0～3="6"		2.03		
			LC0～3="7"		2.06		
			LC0～3="8"		2.11		
			LC0～3="9"		2.16		
			LC0～3="10"		2.20		
			LC0～3="11"		2.23		
			LC0～3="12"		2.27		
			LC0～3="13"		2.30		
			LC0～3="14"		2.33		
			LC0～3="15"		2.37		
	VC3	Connect 1MΩ load resistor between VSS and VC3 (without panel load)		3/2・VC2 ×0.95		3/2・VC2	V

7.8 Characteristics Curves (reference value)

LCD drive voltage − power supply voltage characteristic (VC2 regulator 2.4V regulator)



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ITEM: About LCD frame frequency		
Object manuals	Document code	Object number
S1C63709	411028900	4.6 LCD Driver

(Error)

4.6.8 Programming note

Because at initial reset, the contents of display memory are undefined and LC3-LC0(LCD contrast) is set to 0000B, there is need to initialize by the software. Furthermore, take care of the registers LPWR and ALOFF because these are set so that the display goes off.

(Correct)

4.6.8 Programming notes

(1) Because at initial reset, the contents of display memory are undefined and LC3-LC0(LCD contrast) is set to 0000B, there is need to initialize by the software. Furthermore, take care of the registers LPWR and ALOFF because these are set so that the display goes off.

(2) Please do not write “1” in FF61H･D0 because of the difference between Peripheral Circuit Board and the actual IC.

＊Above note2 is valid till the new Peripheral Circuit Board is ready.

And new Peripheral Circuit Board will be released at the end of Feb. 2008.

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ITEM: About LCD frame frequency		
Object manuals	Document code	Object number
S1C63709	411028900	4.6 LCD Driver

(Error)

[P56]

The frame frequency can be set to 25.6 Hz or 32 Hz using the LCFCHG register as shown in Table 4.6.3.2. However, it is fixed at 25.6 Hz when 1/5 duty is selected.

Table 4.6.3.2 Frame frequency

LCFCHG	1/8 duty	1/5duty	1/4 duty
1	25.6Hz	25.6Hz	25.6Hz
0	32Hz	25.6Hz	32Hz

Note: Be sure to turn the LCD power off before the frame frequency can be switched.

[P23, P63]

FF61H	0	ALOFF	ALON	LCFCHG	0 *3	- *2			Unused
					ALOFF	1	All Off	Normal	LCD all Off control
	R	R/W			ALON	0	All On	Normal	LCD all On control
					LCFCHG	0	25.6Hz	32Hz	Frame frequency selection (when 1/4 or 1/8 duty is selected)

[P64]

Explanation of LCFCHG: Frame frequency selection register (FF61H・D0).

(Correct)

[P56]

Table 4.6.3.2 shows the frame frequency corresponding to the drive duty.

Table 4.6.3.2 Frame frequency

OSC1 oscillation frequency	1/8 duty	1/5duty	1/4 duty
32.768kHz	32Hz	25.6Hz	32Hz

[P63]

FF61H	0	ALOFF	ALON	0	0 *3	- *2			Unused
					ALOFF	1	All Off	Normal	LCD all Off control
	R	R/W		R	ALON	0	All On	Normal	LCD all On control
					0 *3	- *2			Unused

[P64]

Please delete the Explanation of LCFCHG: Frame frequency selection register (FF61H・D0).