

4096 Colors STN-LCD Driver

BU98267CH-3BW

Description

BU98267CH-3BW is a single chip LCD driver for color STN dot matrix LCD that is possible to connect to MPU bus directly. This IC has the display RAM area of 6968 × 12bits. 1 color dot RGB of color LCD panel is corresponded with 4bits of RAM data to achieve high-flexible display.

Features

Display Area

Display	Duty	Bias
104RGBX67	1/67	1/9, 1/8, 1/7, 1/6, 1/5

Supports 4096 colors by PWM(Pulse Width Modulation) R:16, G:16, B:16 grayscale

RAM display

Display Data RAM (DDRAM): 104 X 67 X 12=83,616bits

8bit parallel interface(80-mode, 68-mode)

3-line serial interface(3-SPI(Serial Peripheral Interface))

V0 volume center set by external(variable) resistor

On chip oscillator circuit

LCD driver power supply circuit

On chip voltage follower circuit

On chip 5x boost circuit

On chip bias select circuit(1/9, 1/8, 1/7, 1/6, 1/5)

Power supply voltage :

Logic : 1.7 to 3.3V

Analog : 2.6 to 3.3V

Booster : 2.6 to 3.3V

LCD driver : 6.0 to 15.0V

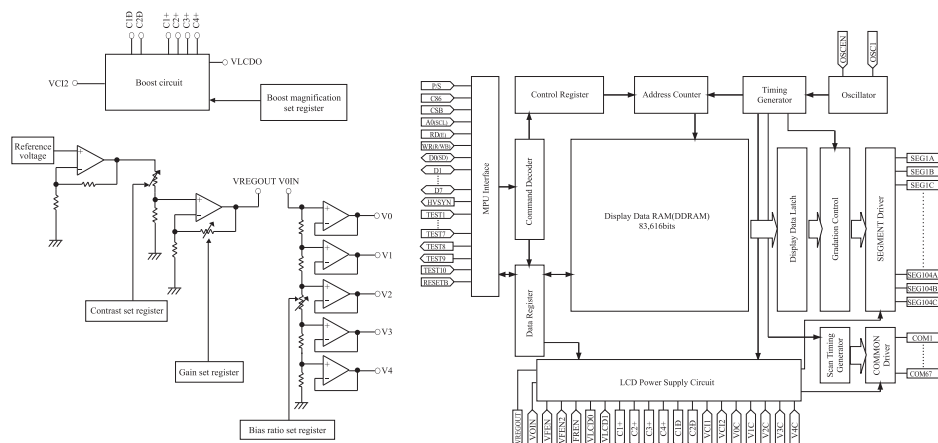
Electrical characteristics

DC Characteristics

(Unless otherwise noted: Ta=−40 to 85°C, VDD=1.7 to 3.3V, VCI1=2.6 to 3.3V, VSS=VSS2=VSS3=0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
LCD driver ON resistance	RON	—	1.0	4.0	k $\frac{1}{2}$	VLCD1=11.2V, V0=8.0V, Iout=±10 μ A
LCD driver voltage	Δ V0	−160	—	160	mV	V0=8.0V
Power supply current	VDD	IDD1	—	10	μ A	Sleep mode
	VCI	IDD2	—	500	μ A	Normal operation, VDD=1.8V, Iload=0 μ A, VCI1=VCI2=2.8V, V0=8.0V, Internal boost(4X) circuit

Block Diagram



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