

Display Driver ICs

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 X 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=−40~85°C, VDD=1.7~3.3V, VCI1=2.6~3.3V, VSS=VSS2=VSS3=0V)				
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
LCD driver ON resistance	RON	—	1.0	4.0	k½	VLCD1=11.2V, V0=8.0V, Iout=±10µA
LCD driver voltage	Δ V0	−160	—	160	mV	V0=8.0V
Power supply current	VDD	IDD1	—	10	µA	Sleep mode
	VCI	IDD2	—	500	µA	Normal operation, VDD=1.8V, Iload=0µA, VCI1=VCI2=2.8V, V0=8.0V, Internal boost(4X) circuit

Block Diagram

