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SSD1803A

► Introduction

Advance Information

100 x 34 STN

☐ LCD Segment/ Common Mono Driver with Controller

CMOS

SSD1803A is a single-chip CMOS LCD driver with controller for liquid crystal dot-matrix character display system. It consists of 134 high voltage driving output pins for driving 100 Segments, 34 Commons. It can display 1, 2, 3 or 4 lines with 5x8 or 6x8 dots format.

SSD1803A displays character directly from its internal 10,240 bits (256 characters x 5 x 8 dots) Character Generator ROM (CGROM). All the character codes are stored in the 640 bits (80 characters) Data Display RAM (DDRAM). User defined character can be loaded via 512 bits (8 characters) Character Generator RAM (CGRAM). In addition, there is a 128 bits Icon RAM for Icon display. Data/ Commands are sent from general MCU through software selectable 4/ 8-bit Parallel Interface, Serial Peripheral Interface or I2C interface.

SSD1803A embeds a DC-DC Converter and oscillator which reduce the number of external components. With the special design on minimizing power consumption and die size, SSD1803A is suitable for portable battery-driven applications requiring a long operation period and a compact size.

► Features

- Power Supply (2 options selected by VDDREG pin):
- [Low voltage I/O application]
 - VDDIO=2.4-VCI
 - VCI = VDD = 2.4-3.6V
- [5V I/O application]
 - VDDIO=4.5-5.5V
 - VDD outputs 3V, a stabilizing capacitor is needed
 - VCI connects to VDD
- LCD Driving Output Voltage: (VLCD = V0-VSS): 3.0 to 10.0V
- Low Current power down mode
- On Chip DC-DC Voltage Converter/External Power Supply
- On-chip voltage regulator, voltage divider
- On-chip oscillator
- Programmable bias ratio: 1/4, 1/5, 1/6, 1/7
- Selectable duty cycle: 1/9, 1/17, 1/25, 1/33
- Double-height Font characters
- 4 different Temperature Coefficient values
- Support I2C (up to 400kbit/s), 8/4-bit Parallel Interface and Serial Peripheral Interface
- Bi-direction shift function
- All character reverse display
- Display shift per line
- Automatic power on reset
- 3 sets of CGROM (ROM A/ B/ C)
- On-Chip Memories
 - Character Generator ROM (CGROM): 10,240 bits (256 characters x 5 x 8 dot)
 - Character Generator RAM (CGRAM): 64 x 8 bits (8 characters) ☐ - Display Data RAM (DDRAM): 80 x 8 bits (80 characters max)
 - Segment Icon RAM (SEGRAM): 16 x 8 bits (96 icons max)
- 1, 2, 3 or 4 lines with 5x8 or 6x8 dots format display

► Ordering Information

Ordering Part No.	Package
SSD1803AM1Z	COG

Contact our sales representative for more information:

Tel: (852) 2207 1111
sales@solomon-systech.com

or

[Request a datasheet](#)