



A PROFESSIONAL LCD DRIVER & SOC IC DESIGN HOUSE

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ST7549

Customer Services

68 x 102 Dot Matrix LCD Controller/Driver

Product Description

The ST7549 is a driver & controller LSI for graphic dot-matrix liquid crystal display system. It contains 102 segment and 67 common with 1 ICOM driver circuits. This chip is connected directly to a microprocessor, accepts 3-line or 4-line serial peripheral interface (SPI), I2C interface or 8-bit parallel interface, display data can store in an on-chip display data RAM 68 x 102 bits. It performs display data RAM read/write operation with no external operating clock to minimize power consumption. In addition, because it contains power supply circuit to drive liquid crystal, it is possible to make a display system with the fewest components.

Features

- Single-chip LCD controller & driver
- Driver Output Circuits
 - 102 segment outputs / 67 common + 1 ICON common
- On-chip Display Data Ram
 - Capacity: 68X102=6,936 bits
- Microprocessor Interface
 - 8-bit parallel bi-directional interface with 6800-series or 8080-series
 - 4-line SPI (serial peripheral interface) available (only write operation)
 - 3-line SPI (serial peripheral interface) available
 - I2C (Inter-Integrated Circuit) Interface
- On-chip Low Power Analog Circuit
 - Generation of LCD supply voltage (externally Vout voltage supply is possible)
 - Generation of intermediate LCD bias voltages
 - Oscillator requires no external components (external clock also possible)
 - Voltage converter (x4, x5)
 - Voltage regulator (temperature gradient -0.05%/°C)
 - Voltage follower
 - On-chip electronic contrast control function (256 steps)
- External RESB (reset) pin
- Logic supply voltage range VDD1,2 -VSS
 - 1.7 to 3.3V
- Display supply voltage range VLCD -VSS
 - 4.5 to 13V
- Temperature range: -40 to +85 degree