MN83875

Liquid Crystal Display Panel Source Driver

■ Overview

The MN83875 converts digital display data from a personal computer or engineering workstation into analog signal voltages for driving thin-film transistor color LCD panels.

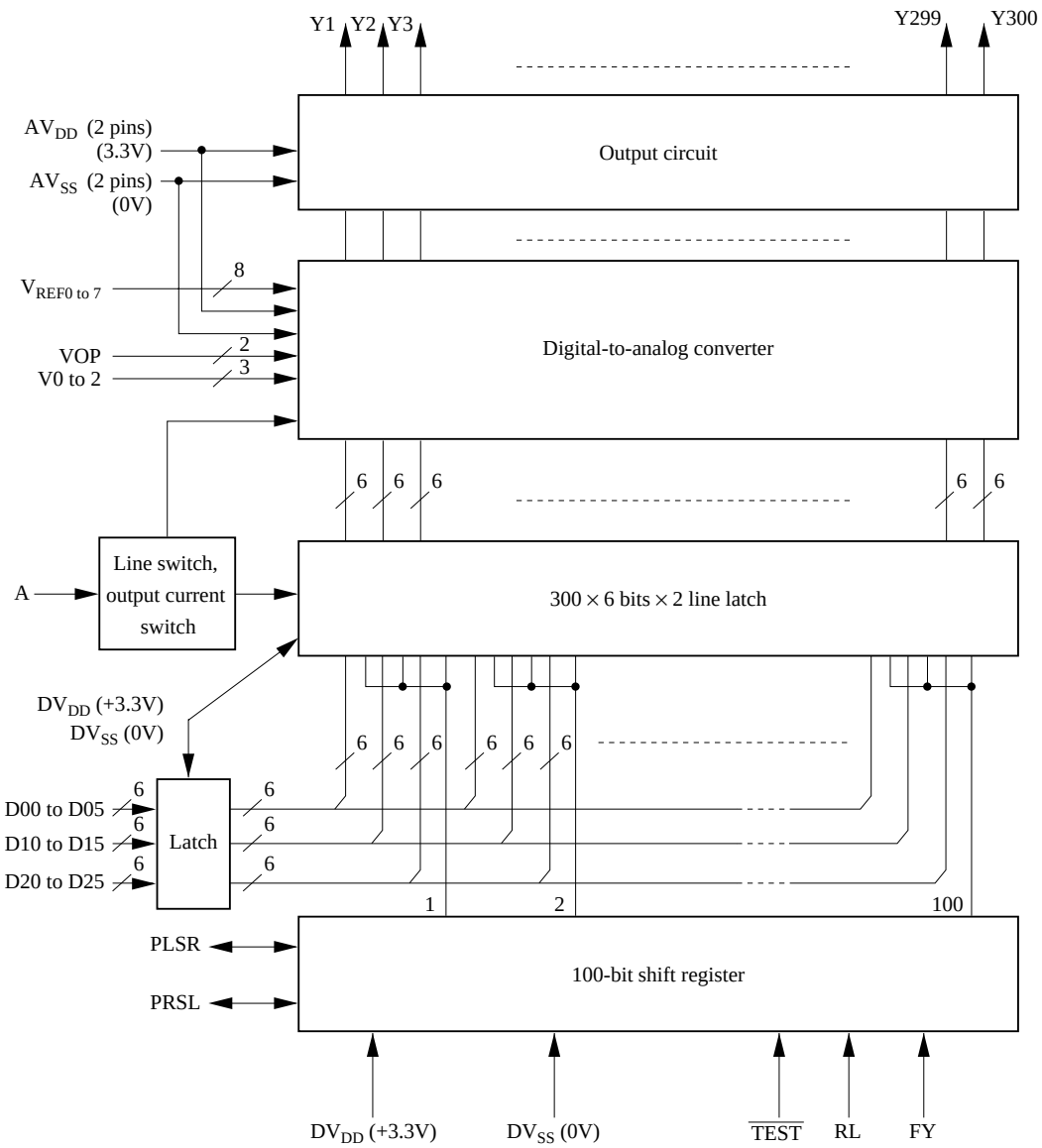
■ Features

- Driver capable of displaying 260,000 colors with built-in D/A converter accepting 6-bit digital inputs
- Maximum operating frequency of 55 MHz
- 300 drive outputs
- Seven-segment gamma correction
- Data settings of 01 and 3E in addition to 00, 07, 17, 27, 37, and 3F for output voltage inflection points
- No need for an external multilevel gradation voltage generator circuit
- Drive system that does not require precharging
- Supports serial cascade connections
- Automatic clock suspension after reading in specified data volume
- Choice of shift register shift directions (left/right)
- RGB voltage shifts supported
- Single 3.3-volt power supply

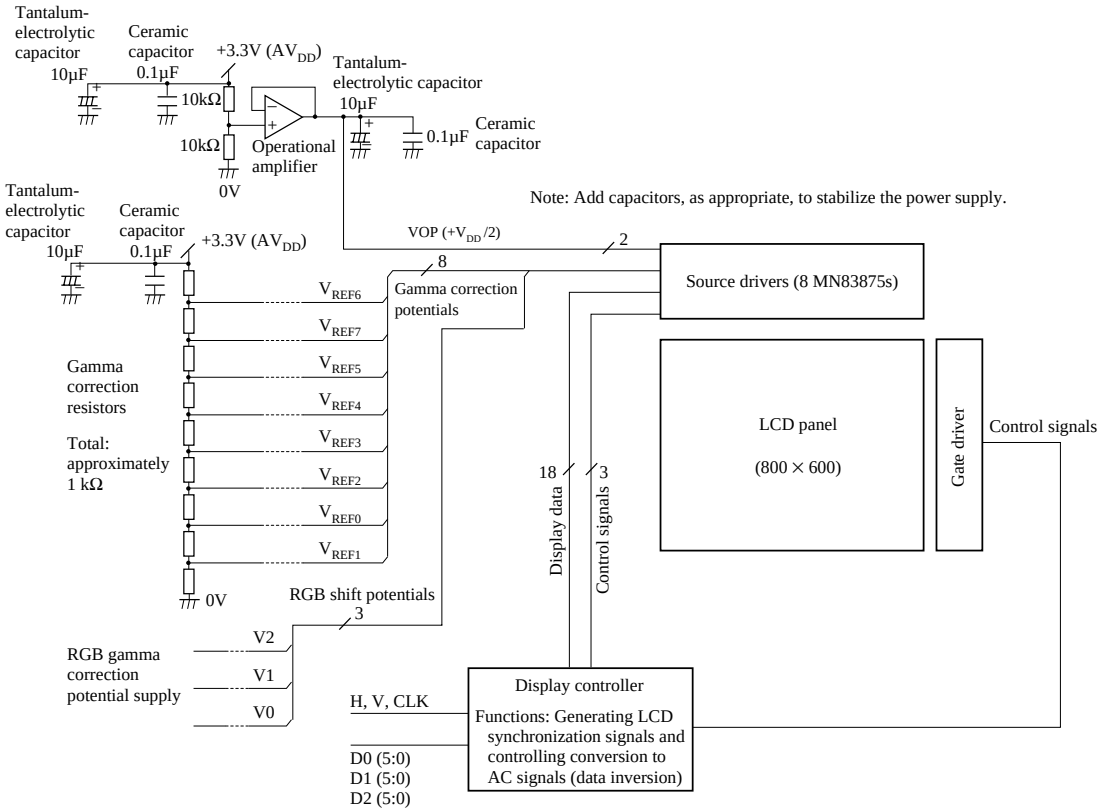
■ Applications

- Personal computers and workstations

■ Block Diagram



■ Application Circuit Example



Note: Supply independently each RGB shift potential to match the desired specifications. If RGB shifting is not used, connecting the V0, V1, and V2 pins to VOP supplies voltages equal to V_{DD} /2 and eliminates the need for RGB shift potentials.