

ISL24007

Programmable 14-Channel x 2 Bank, 8-bit TFT-LCD VREF Generator with 4 Integrated Static Gamma Buffers

FN6420
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The ISL24007 is a I²C programmable 14-channel, 8-bit reference voltage generator with 4 static gamma buffers, creating an 18-channel gamma solution for TFT-LCD displays. Two selectable banks of 14-channels allow fast hardware switching between two different gamma curves. The ISL24007 has 4 inputs (REF_{X_X}) to set the reference voltages for the DACs. Two of these reference inputs set the range for the upper DACs and two of these reference inputs set the range for the lower DACs. The ISL24007 is configured and controlled via an I²C Interface.

ISL24007 is available in a 38 Ld QFN package and is specified for operation over the -40 °C to +85 °C temperature range.

Features

- 14 I²C-programmable 8-Bit DACs
- 4 Static Buffers
- 2 Banks of Volatile Memory for DACs
- Fast Switching Time (<1µs) Between Output Banks
- 4.5V to 19V Analog Supply Range
- 2.25V to 3.6V Digital Supply Range
- 11mA Analog Supply Current (Unloaded)
- 1mA Digital Supply Current
- I²C Serial Interface
- Pb-free (RoHS compliant)

Applications

- TFT-LCD Column Driver Reference Generator
- General-Purpose Reference Voltage Generators

Typical Application

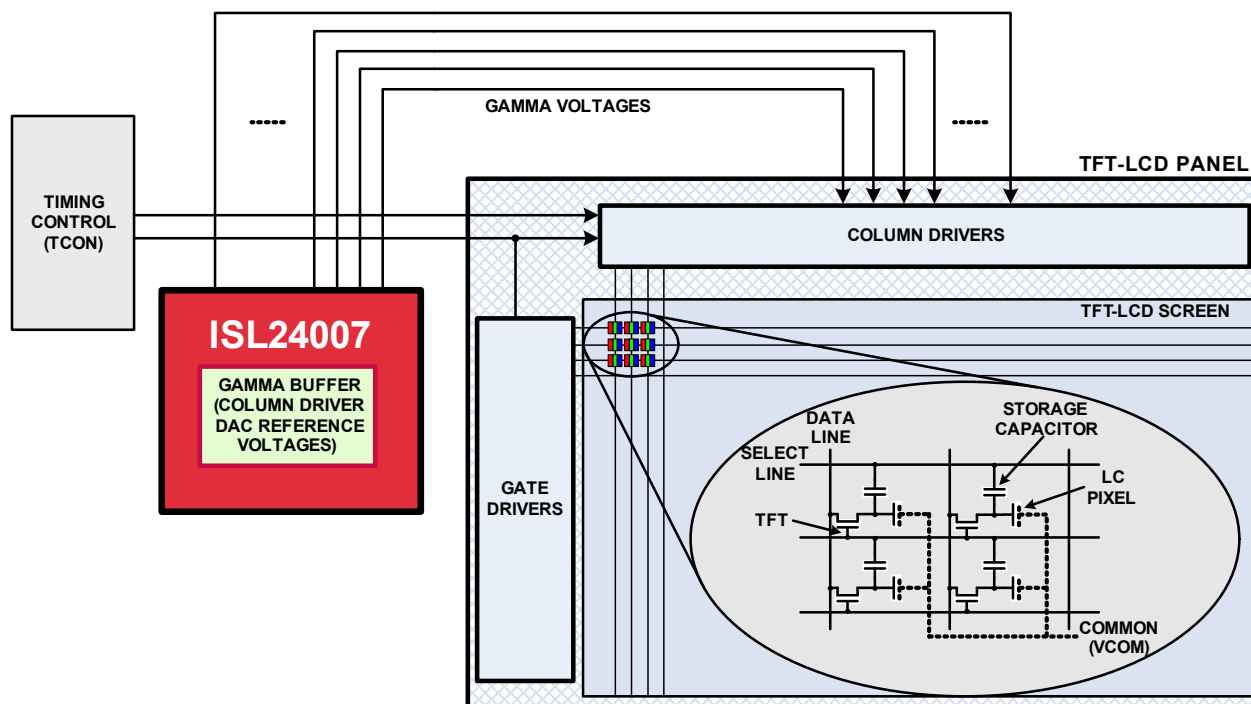


FIGURE 1. TYPICAL APPLICATION: TFT-LCD REFERENCE VOLTAGE GENERATOR

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