

ISL24858

15-Channel I<sup>2</sup>C Programmable TFT-LCD Reference Voltage Generator with Integrated EEPROM, and Ultra-Low Power Operation

FN8295  
Rev 2.00  
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The ISL24858 is a programmable reference voltage generator for TFT-LCDs featuring ultra-low power operation. The ISL24858 contains an I<sup>2</sup>C programmable, 10-bit, 14-channel gamma reference voltage generator with buffered outputs, a 10-bit programmable V<sub>COM</sub> calibrator, a high output current V<sub>COM</sub> amplifier, and internal EEPROM to store all reference voltage data. The EEPROM features an endurance of 10,000 write cycles.

Combining gamma and V<sub>COM</sub> reference voltage generators with low power operation and EEPROM, the ISL24858 provides a complete reference voltage solution ideal for tablet, monitor, and mobile TFT-LCD applications.

The ISL24858 is available in a super thin 28 Ld 4x5mm X2QFN thermally enhanced package. It is specified for operation over the -40 °C to +105 °C ambient temperature range.

Features

- 15-Channel Reference Voltage Outputs, I<sup>2</sup>C Programmable:
  - 14-Channel Gamma References, 10-bit Resolution with Buffered Outputs
  - 1-Channel V<sub>COM</sub> Calibrator with 10-bit Resolution
- High Output Current V<sub>COM</sub> Amplifier
- Ultra-low Power Operation, Ideal for Tablet and Mobile Applications: Typical Quiescent Power, 12mW @ 8V A<sub>VDD</sub>
- EEPROM Endurance: 10,000 Write Cycles
  - Read/Write Capable Over 2.25V to 3.6V D<sub>VDD</sub> Range
- 6.3V to 19V Analog Supply Operating Range
- 2.25V to 3.6V Digital Supply Operating Range
- 28 Ld 4x5mm Super Thin X2QFN Package
- Pb-free (RoHS Compliant)

Applications

- Tablet, Notebook, Monitor TFT-LCD
- Mobile - 2D/3D TFT-LCD
- General-Purpose Reference Voltage Generator

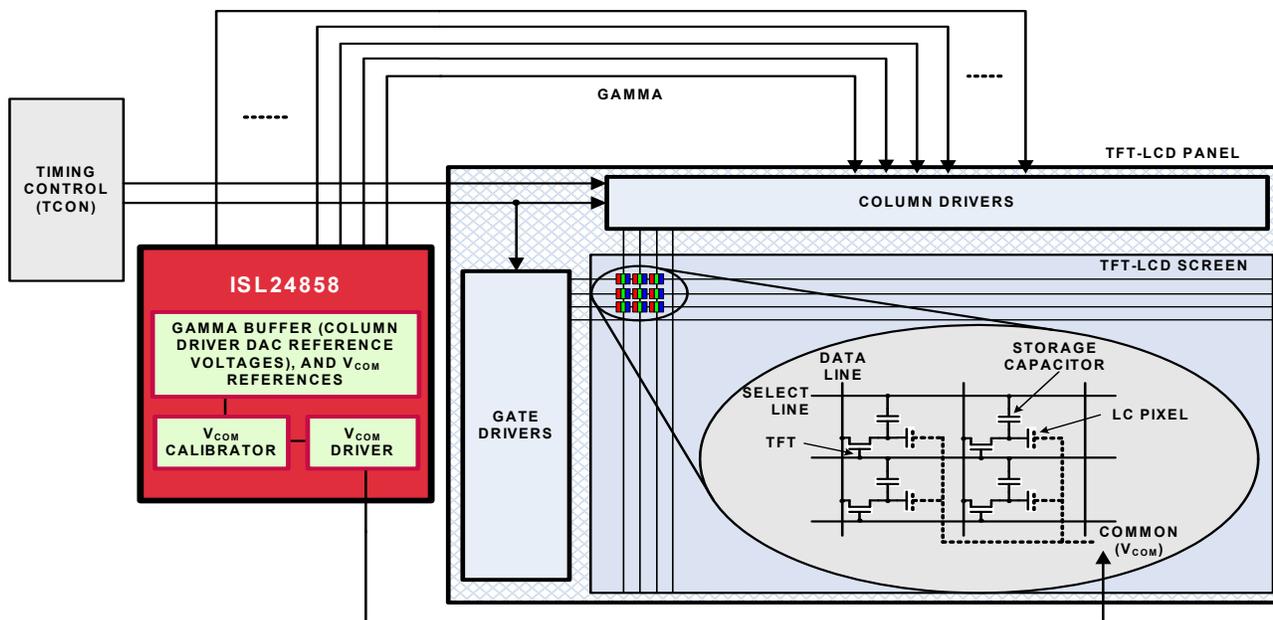


FIGURE 1. TYPICAL APPLICATION: TFT-LCD REFERENCE VOLTAGE GENERATOR

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