

1. PRODUCT DESCRIPTION

The CL-FP6840 is a 6-bit, 309-channel signal driver designed for low power XGA TFT-LCD panel applications. The CL-FP6840's minimum form factor and optimized layout permit the implementation of high-display-quality, low-power 6-bit TFT-LCDs with minimum bezel area.

The CL-FP6840's internal architecture includes a resistor-string DAC with the value of the individual resistor segments weighted to reduce signal driver power dissipation by as much as 20% to 60% when compared to non-weighted resistor string DAC architectures.

The following new features have been incorporated into the CL-FP6840 to further reduce EMI and power dissipation:

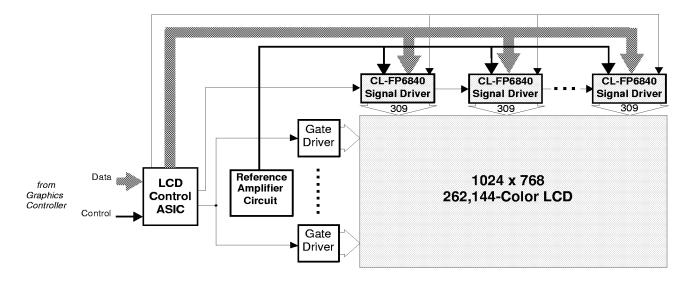
- · 2.5 Volt Logic Interface
- 2xCLK circuit to allow DCLK input to operate at half dot clock frequency
- Data Inversion circuit to enable data transition reduction schemes

Signal Driver

309-Channel, 6-Bit Signal Driver for TFT-LCD Applications

Features

- Weighted R-String:Reduces Power Dissipation 20-40% or more
- Low-power operation
 - Logic Supply: 2.5V, 3.3 V or 5.0 V
 - Analog Supply: 3.3 V ± 0.3 to 5.0 V ± 0.5
- · Minimum Form Factor
 - 20.19 mm x 1.13 mm
 - 64 μm output pitch
- · High Speed Operation
 - 65 MHz (3.3 V and 5.0V logic supply)
 - 40 MHz 2.5V operation
- Data Inversion Feature
- Double Edge Clocking Feature (2xCLK pin)
- E/O Pin Eases Use of 2xCLK Feature
- Program channels w/ MODE300 Pin
- 9 or 11 Voltage References
- · High Integration
 - 309 output voltage channels
 - · Bi-directional shift register
- · Excellent Output Uniformity
- Output Error = 0.15 LSB



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