

National Introduces TFT-LCD Timing Controller with RSDS Outputs For VGA, XGA and Wide XGA Resolutions

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National Semiconductor Corporation introduced the FPD87370, a timing controller that combines an LVDS single-pixel input interface with National's RSDS™ (Reduced Swing Differential Signaling) output driver interface for VGA, XGA and Wide XGA resolutions. The timing controller resides on the TFT-LCD panel and provides the data buffering and control-signal generation for VGA, XGA, and Wide XGA graphic modes. The RSDS™ path to the column driver contributes toward reducing the bus width from the timing controller, lowering the radiated electromagnetic interference (EMI) and reducing system dynamic power consumption.

This single RSDS bus conveys the 8-bit color data for VGA, XGA, and Wide XGA panels at 170 Mb/s when using VESA 60 Hz standard timing.

Key Features for the FPD87370:

Input clock range from 25 MHz to 85 MHz

Drives RSDS column drivers at 170 Mb/s with an 85 MHz clock (max.)

Virtual 8 bit color depth in FRC/dithering mode

Single narrow 9-bit differential source driver bus minimizes width of Source PCB

Ability to drive VGA, XGA and Wide XGA TFT-LCD Systems

Failure detect function in DE mode (Bonding Option)

CMOS circuitry operates from a 3.0V-3.6V supply

Pricing and Availability

National's FPD87370 is available now in a 64-pin TQFP package and costs \$5.00 in 1,000-unit quantities.

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