

High Frequency LCD Panel EMI Reduction IC

FEATURES

- Provides up to 20 dB of EMI suppression
- FCC approved method of EMI attenuation
- Generates a low EMI spread spectrum clock of the input frequency
- 40 MHz to 166 MHz input frequency range
- Optimized for SVGA, XGA and high resolution SXGA and UXGA LCD panels
- Internal loop filter minimizes external components and board space
- 2 selectable spreading options
- SSON control pin for spread spectrum enable and disable options
- 2 selectable modulation rates
- Low cycle-to-cycle jitter
- 3.3V operating range
- 16 mA output drives
- TTL or CMOS compatible outputs
- Low power CMOS design
- Supports most mobile graphic accelerator specifications
- Available in 8 pin SOIC and TSSOP

PRODUCT DESCRIPTION

The P2160 is a selectable spread spectrum frequency modulator designed specifically for digital flat panel applications. The P2160 reduces electromagnetic interference (EMI) at the clock source which provides system wide reduction of EMI of all clock dependent signals. The P2160 allows significant system cost savings by reducing the number of circuit board layers and shielding that are traditionally required to pass EMI regulations.

The P2160 uses the most efficient and optimized modulation profile approved by the FCC and is implemented in a proprietary all-digital method.

The P2160 modulates the output of a single PLL in order to "spread" the bandwidth of a synthesized clock and, more importantly, decreases the peak amplitudes of its harmonics. This results in significantly lower system EMI

compared to the typical narrow band signal produced by oscillators and most frequency generators. Lowering EMI by increasing a signal's bandwidth is called "spread spectrum clock generation".

APPLICATIONS

The P2160 is targeted towards digital flat panel applications for Notebook PCs, Palm-size PCs, Office Automation Equipments, and LCD Monitors, Digital Still Cameras and GPS Devices.

Figure 1 – P2160 Pin Diagram

