

PD-40FA Functional Description

The PD-40 A is a flat panel display device with integrated touchscreen.

The flat panel display section utilizes a standard VGA type analogue RGB input, and converts the signal to digital format for the display panel. At the highest resolution (SGA Mode) and 60 Hz Refresh rate, the clock signals are as follows:

Horizontal scan rate	37.9 KHz
Vertical scan rate	60 Hz
VCLK	40.0 MHz

These frequencies are supplied to display panel from the Display Controller Circuit, and generated by on-board VCOs and Phased Locked Loops.

The Touch controller uses a low frequency (PCLK 4.0 MHz) microprocessor to scan the resistive element for touch coordinates.

The power regulation uses solid state DC-DC convertors to provide the logic and required circuit voltages, and a backlight inverter operates at about 75 KHz to provide the voltages for the backlight of the display panel.

PD-40FA Block Diagram

