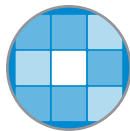


LCD Controller

**Image Rendering,
Displaying Rich
Content & Low Power
Consumption,
Reducing Main CPU
Loading & Software
Manipulation**



Solomon Systech offers a vast portfolio of LCD controllers, to cater to applications spanning smart mobile devices, medical, commercial, industrial equipment, etc. Our LCD controllers are ideal solutions for image rendering, displaying rich content in high resolution with low power consumption, and also reducing main CPU loading and software manipulation.

Display Controller

Solomon Systech's **SSD1960/61/63** Display Controllers are ideal for mobile and handheld applications that require high-resolution display. These controllers contain an embedded SRAM which serves as a frame buffer between the host processor and the LCD panel. The chips support 8/9/16/18-bit indirect CPU interface and 18/24-bit RGB LCD interface. The feature set includes hardware display rotation (0°, 90°, 180° and 270°), mirroring and windowing, and display enhancement such as brightness, contrast and saturation control.

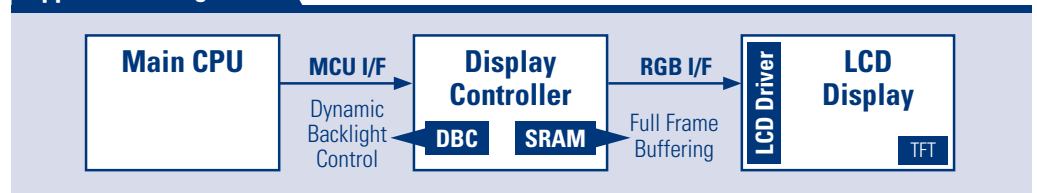
Power consumption is one of the most pressing challenges in designing consumer electronics, especially for battery-operated devices such as mobile phones, personal navigation devices and portable media players. As the LCD display increases in size and resolution, the backlight becomes the most power consuming part in the system. The SSD1960/61/63 controllers feature Solomon Systech's Dynamic Backlight Control (DBC) technology which brings added value to portable device manufacturers without sacrificing the display quality of the end products.

Applications:

Mobiles, Smartphones, Smart Devices, Security Systems, Equipment, Diagnostic Tools, etc.



Application Diagram



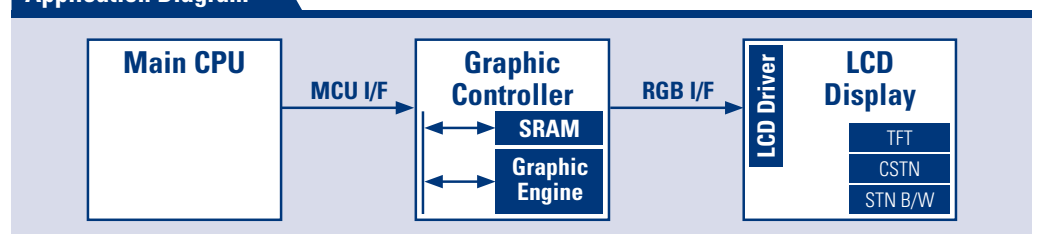
Graphic Controller

Solomon Systech's **SSD1905/1906** Graphic Controllers can handle the entire image rendering and STN/TFT display interfaces to provide a content rich display. Both ICs can interface with nearly any kinds of MCU, including low-cost 8-bit MCUs. An embedded SRAM frame buffer memory can support from 1 bit-per-pixel with 2 gray shades to up to 16 bit-per-pixel colors with 64 gray shades. To reduce software manipulation for animation display, the on-chip graphic engine provides command type graphic manipulation such as display rotation, window mode, cursor mode, and so on.

Applications:

Office Appliances, Coffee Machines, Equipment, Lottery Machines, etc.

Application Diagram



LCD Controller

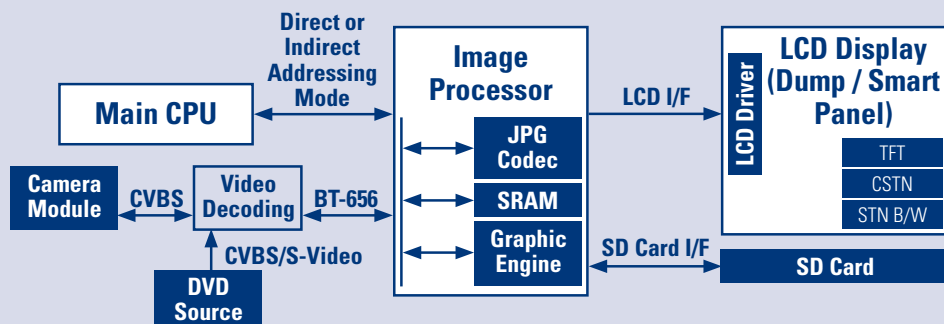
Image Processor (with Camera I/F)

Displaying contents including animated graphics, OSD menus with customized fonts/icons, DVD movies, and JPEG photos have now become an essential factor in handheld electronic devices. Solomon Systech's **SSD1921/1926/1928** Image Processors are powerful imaging engines that bring the above dreams to reality.

Applications:

Baby Monitors, Camera Portable Terminals, Security Equipment.

Application Diagram

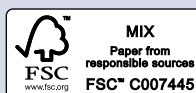


Selection Guide

	SSD1960	SSD1961	*SSD1963	SSD1905	SSD1906	#SSD1921	SSD1926	#SSD1928
Panel Support	320x240 / 18bpp	640x480 / 18bpp	864x480 / 24bpp	160x160 / 16bpp	320x240 / 16bpp	320x240 / 16bpp	480x234 / 16bpp	
Internal RAM	170KB	675KB	1215KB	80KB	256KB	256KB		
MCU Interface	8 / 9 / 16 / 18-bit (6800, 8080)			Direct Addressing		Direct or Indirect Addressing 8 / 16-bit (6800, 8080)		
LCD Interface	- Serial TFT 6-bit / *8-bit - Parallel TFT 18-bit / *24-bit			- STN or CSTN - Parallel TFT 9 / 12 / 18-bit		- STN or CSTN - Serial TFT 8-bit - Parallel TFT 18-bit	- STN or CSTN - Serial TFT 8-bit - Parallel TFT 24-bit	- STN or CSTN - Serial TFT 8-bit
Features	- MCU to RGB Conversion - Display Rotation - Display Mirroring - Display Windowing - Dynamic Backlight Control			- Display Rotation - Display Color Invert - Multi-page Buffering - Color Look-Up Table - Floating Window - Virtual Display - Hardware Cursor		- Color Invert - Display Rotation - Multi-page Buffering - Color Look-Up Table - Floating Window - Virtual Display - Hardware Cursor - SD Card I/F	*Camera I/F *JPEG Encode *JPEG Decode *Motion JPEG *Draw Lines *Draw Circles *Color Fill *Color Expansion	
Package	TFBGA - 64	TFBGA - 64	TFBGA - 80 LQFP - 128	TQFP - 100	TQFP - 100	LQFP - 144	LQFP - 128	LQFP - 128

Solomon Systech Limited

Solomon Systech Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications.



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