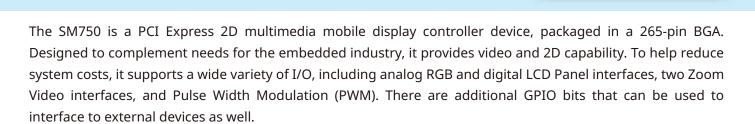


SM750

LynxExp Embedded Graphics Processor



The 2D engine includes a front-end color space conversion with 4:1 and 1:8 scaling support. The video engine supports two different video outputs (Dual Monitor), at 8-bit, 16-bit, or 32-bit per pixel and a 3-color hardware cursor per video output. The LCD panel video pipe supports a back-end YUV color space conversion with 4:1 and 1:212 scaling. A Zoom Video (ZV) port is also included to interface to external circuitry for MPEG decode or TV input.

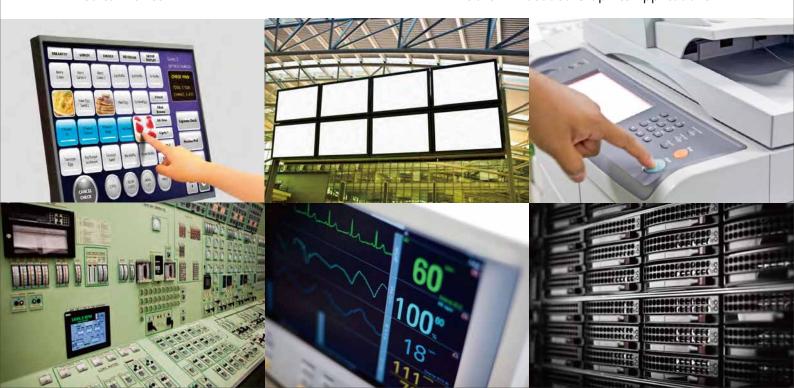
APPLICATIONS

- Thin Client
- Server
- IPC / POS / MFP / DVR
- Factory Automation (HMI)
- Medical Device

Handheld / Portable Device

SM750

- Gaming Machine
- Test Instrument
- Digital Signage
- All Other Embedded Graphics Applications



FEATURES

PCI-Express x 1 Architecture

- X86 processors
- ARM, MIPS, PPC, and ARC processors

• 16MB Integrated Video DDR Memory

- Embedded 16MB DDR only
- Embedded 16MB DDR (32Bit I/F) + external 16MB DDR (32Bit I/F)
- External up to 64MB DDR (64bit I/F)

• Low Power Consumption < 1.5W

Cost-Effective Multi-Display/Panel Supports

- Dual 300 MHz DAC supports up to 1920x1200 resolution
- Dual 18-bit DVO interface for TMDS or LVDS transmitter supports up to 1920x1200 resolution
- Independent resolution and refresh rates for dual display types

Quick-Rotation Features

- Allow for 90°, 180°, and 270° rotation of on-screen images

• 2D Graphic Accelerator

- 128-bit 2D graphic engine
- ROP3's, BitBLT, transparent BLT, pattern BLT, color expansion, and line drawing
- YUV-16/32-bit RGB conversion

Video Display Layers

 Support 7 layers of display frames (2 hardware cursors, primary graphic, video, video alpha, alpha, and secondary graphic)

Zoom Video Port

 Two 8-bit ports or one 16-bit video capture port supports ITU601 and ITU 656 specifications
V-16/32-bit RGB conversion

- Serial EEPROM Interface
- DMA Controller
- GPIO/I2C/SSP Interface

SPECIFICATION

Graphics Engine	2D
Host Interface	PCIe x 1
Int. Memory	16MB DDR (option)
Ext. Memory	64MB DDR (max)
Resolution	1920 x 1200 (max)
Software Support	WinCE, WinXP, Win7, Win8, Win8.1,
	Win2008(32-bit/64-bit),Win2012(32-bit/64-bit),
	Linux Enterprise(32-bit/64-bit)
CPU Platform	Intel, AMD, ZFMicro, Freescale PPC, AMCC,
	STMicro, Marvell, Loongson and other PCIe
Operation	C-Temp & I-Temp
Temperature	
Package	265-pin BGA MCM (17mm x 17mm)

