![SiliconMotion logo]

SM750

LynxExp Embedded Graphics Processor

The SM750 is a PCI Express 2D multimedia mobile display controller device, packaged in a 265-pin BGA. Designed to complement needs for the embedded industry, it provides video and 2D capability. To help reduce system costs, it supports a wide variety of I/O, including analog RGB and digital LCD Panel interfaces, two Zoom Video interfaces, and Pulse Width Modulation (PWM). There are additional GPIO bits that can be used to interface to external devices as well.

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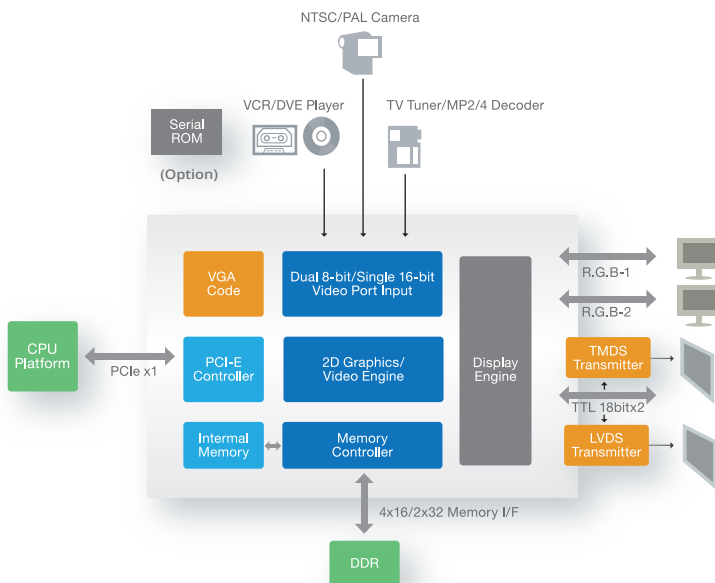- All Other Embedded Graphics Applications

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 90º, 180º, and 270º 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**

BLOCK DIAGRAM

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 Temperature	C-Temp & I-Temp
Package	265-pin BGA MCM (17mm x 17mm)

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Analog Front End - AFE *category:*

Click to view products by Silicon Motion *manufacturer:*

Other Similar products are found below :

AFE49I30YZT WM8255SEFL MAX5863ETM+ MAX30003CTI+T ADE9078ACPZ-RL AD8456ASTZ TC500ACPE MCP3913A1T-E/MV ISL98001IQZ-140 PGA460TPWQ1 AFE5809ZCF AFE5803ZCF ADPD103BCPZ ISL98002CRZ-170 WM8213SCDS/V AD73311ARSZ-REEL DS8005-RJX+ MCP3901A0T-ISS MCP3914A1-EMV ADE9078ACPZ TC510COG713 TC500ACOE713 MCP3919A1-E/MQ AFE031AIRGZR ATSENSE201A-AUR MAX30004CWV+ ATSENSE301A-AU AFE4900YZT ATSENSE201HA-AU ATSENSE101A-SUR ATSENSE201A-AU AFE58JD18ZBV ADPD107BCBZR7 AD80066KRSZRL AFE2256TDU AD4110-1BCPZ AD5590BBCZ ADPD1080WBCPZR7 AD73311LARSZ AD73311LARSZ-REEL7 AD8233ACBZ-R7 AD8452ASTZ AD9670BBCZ AD9671KBCZ AD9674KBCZ AD9675KBCZ AD9822JRSZ AD9822JRSZRL AD9826KRSZ AD9826KRSZRL