Osprey Visual IoT Embedded Solution

Internet of Things Application Platform

Osprey Visual IoT is a complete product ready platform for connected display devices where small form factor and low power are key requirements for systems targeted at applications from POS terminals, kiosk, digital signage, and consumer devices such as digital picture frames. Test instruments, medical devices and dual head human machine interfaces (HMI) also benefit from the compact ISA solution useful in transportation and industrial automation.

Osprey IoT Platform using Intel® Quark X1000 SoC provides a robust set of standard I/O and interfaces such as Ethernet, USB Host, USB Client, UART, SPI, I2C and GPIOs. The SM750 embedded graphics enables multiple displays and Ferri-eMMC provides best in class performance with industry compliance to eMMC/JEDEC 4.5.

Osprey IoT platform design kit comes with reference board, schematics, layout files, data sheets and application notes for SM750 and Ferri-eMMC™. SM750 drivers and DDK are also included.

APPLICATIONS

- Digital Signage
- Medical Device
- HMI / Factory Automation

- Test Instrument
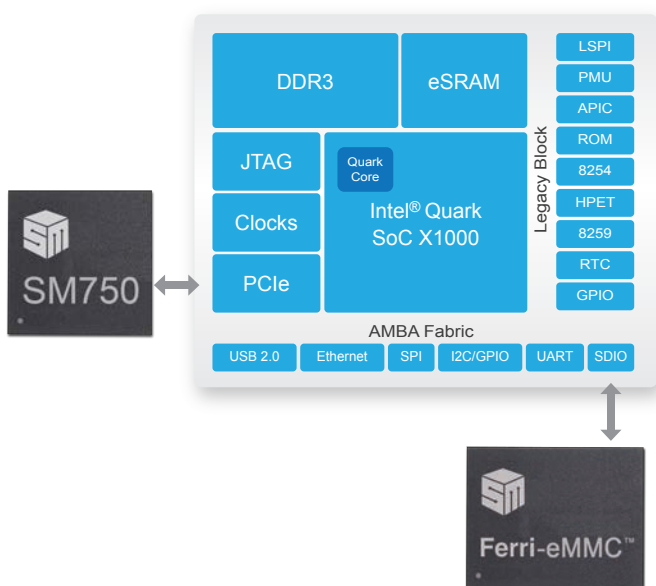- Dual Display Client
- POS / Kiosk

FEATURES

- **Application Processor: Intel Quark SoC**
  - X1000 - Pentium® ISA compatible 32-bit Intel® Quark
  - Single-core, single thread processor based on Intel architecture, running at 400 MHz.

- **Graphics Engine: SM750 LynxExp Embedded Graphics Processor**
  - Supports dual display up to Full-HD resolution

- **Storage: Ferri-eMMC™ single-package embedded memory**
  - Fully compliant with JEDEC-standard eMMC 4.5
  - Advanced ECC management, wear leveling and DataRefresh™ features to offer the best data retention and the most robust protection against read disturbance
  - Advanced system level protection against unstable power to deliver robust data protection

- **I/O Peripherals**
  - USB2.0 Host with 4-port Hub, USB2.0 Client, UART, I2C, SPI, GPIO, Ethernet 10/100, ZV Port for video capture and JTAG

- **Display Interface**
  - Dual Display: Dual Analog CRT outputs
  - HDMI/DVI digital video
  - Supports single display up to 1920x1200 or dual display up to 1920x1080 (Full HD)

- **Audio Support**
  - Stereo Audio Output
  - Microphone/Audio Line Input

- **Software Support**
  - Linux Yocto / Ubuntu drivers
  - Linux Userful Multi-Seat
  - Windows Embedded

BLOCK DIAGRAM

SPECIFICATION

Application Processor	Intel Quark SoC
Graphics Engine	SM750
Storage	Ferri-eMMC™ (2GB-32GB)
Frame Buffer Memory	16MB DDR
System Memory	256MB DDR3
Resolution	Up to 1920x1200
Software Support	Linux Yocto / Ubuntu drivers
	Linux Userful Multi-Seat
	Windows Embedded

For more information about Osprey, please go to **www.siliconmotion** or send e-mail to **graphics@siliconmotion.com**