Welcome

FAE Training for MPU

Atmel

Agenda

- **1st Day**
  - Welcome
  - MPU Product Line Presentation
  - Software, Tools and Ecosystem
  - Hands On:
    - Experiment the SAMA5D4-XULT and the Software Package
    - Get Linux demo running on the SAMA5D4-XULT
- **2nd Day**
  - Board Bring up Consideration
  - Security Solutions
  - Questions and Answers
  - Hands On:
    - Experiment the SAM-BA 3

Before

Now

Value Proposition

- **Low Power**
  - Market leader with proven architectures

- **Ease of Use**
  - Low ball count, simple power scheme, maximum integration, available to the mass market

- **Small footprint**
  - Down to ultra small 8X8 packages size

- **Open source SW and HW**
  - Schematics, Linux, Bare Metal Softpack, Android, Qt, RTOS

Target Markets and Applications

HMI / Control Panel (white goods, alarm systems,…)

- Powerful 24-bit TFT LCD controller with Overlays
- Large bandwidth (32-bit DDR, 1328MB/s)
- System integration : resistive touchscreen, embedded capacitive touch for BSW, audio subsystem, camera interface

IoT / Secure Gateways

- Connectivity rich peripheral set (Ethernet, CAN, UARTs, SPI, I2C, USB, SDIO,..)
- Secure boot and encryption engines for secure communication
- Secure application environment with TrustZone™
- 105°C ambient temperature support

POS Terminals and Imaging

- Enhanced CMOS sensor interface
- NEON engine and FPU for state-of-the-art image processing
- PCI level of security
- Low power consumption

Battery Operated System

- <150mA RUN mode, ~250uA retention state (ULP mode), 5uA typical in backup
- Ultra fast wake-up from retention state
- LPDDR, LPDDR2, LPDDR3 memory support
- Ultra-small package 8x8 0.4mm pitch

Application Design-ins

Smartgrid Gateway

White Goods HMI

Robot vacuum cleaner

POS Terminal

2D Barcode Scanner

Surveillance system

Biometrics

Outdoor GPS

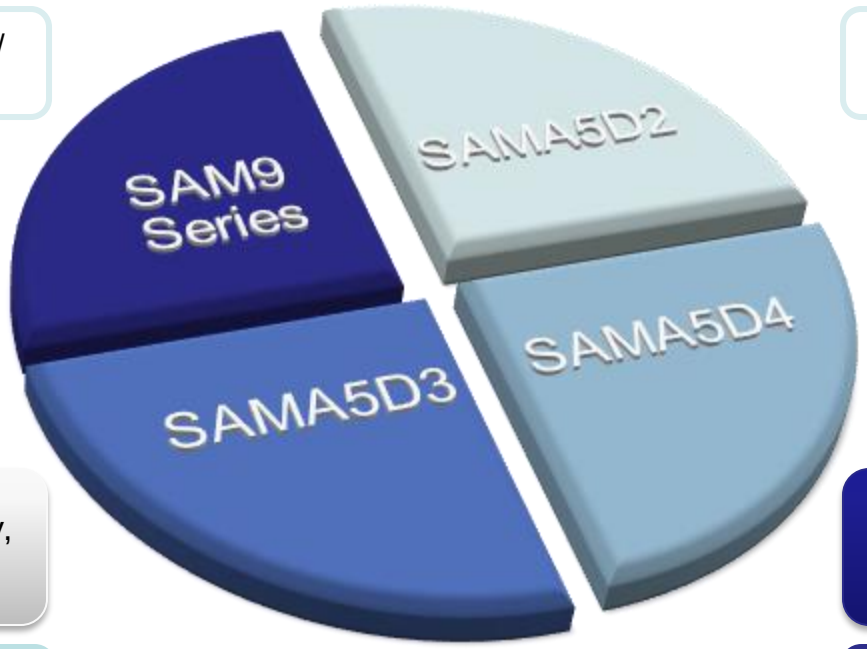
Product Portfolio

Entry Level MPU, Price, SDRAM

Entry Level UI Applications / Basic Linux Machine

DDR3 Support, Low Power, **Low system cost** High Grade Security

Secure Gateway, Payment, Battery Operated Applications



Low Power, Connectivity, **Large number of I/Os**

Battery Operated Applications, Gateway

HW **Video Decoder**, **Performance**, Advanced Security

UI with Video applications, Secure Gateway

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