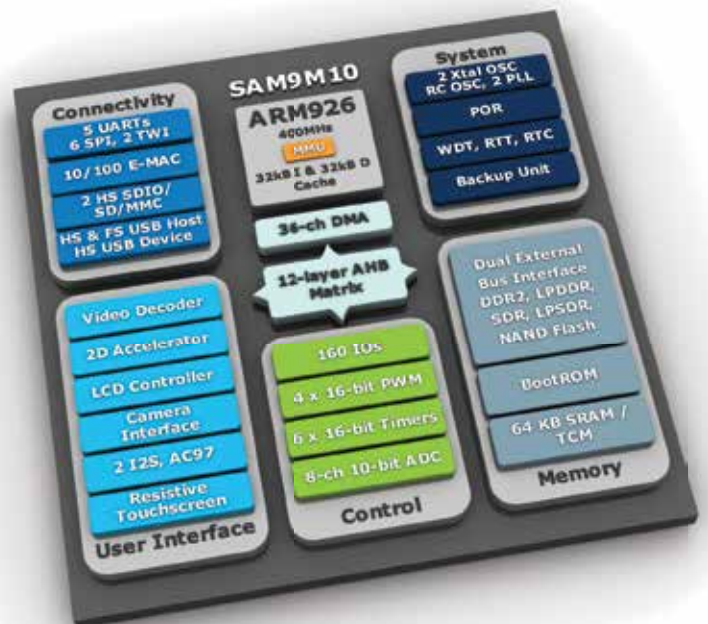# Atmel SAM9M10
400MHz ARM926-based Embedded MPU with Hardware Video Decoder for Industrial Applications

Benefits

- Renders high-quality user interfaces with video content and 2D acceleration
- DDR2 and Low Power DDR support ensures market availability and low cost
- High-bandwidth architecture provides data speedway
- High-speed connectivity
- Optimized for industrial applications
- Designed for low active power and high performance

Key Features

- Hardware video decoder with playback of multiple formats(H264, H263, MPEG4, MPEG2, VC1, JPEG) in resolutions up to 800 x 480 pixels or 720 × 480 pixels at 30fps
- 2D accelerator with scaling, rotation, color conversion and picture-in-picture
- DDR2 and LPDDR support
- 400MHz ARM926 core with 32kB I & D cache
- 133MHz twelve-layer 32-bit Advanced High-Performance Bus Matrix
- 36 Direct Memory Access(DMA) channels
- Dual External Bus Interface
- 100Mbps+ data rates on multiple high-speed peripherals, including high-speed USB, 10/100 Ethernet, SDIO/SDCard, MMC
- EHCI-compliant high-speed USB Host
- 3.3V I/Os eliminate need for external level shifters
- I/O drive controller simplifies PCB design
- 0.8mm ball pitch, BGA324 package for reduced PCB manufacturing cost
- Integrated power management replaces external components
- Sub 300µW/MHz at 400MHz operation with 8µA in backup mode
- Backup unit with RTC, timer and four 32-bit registers and fast wake-up

Application Areas

- Home and commercial building automation
- Point-of-sale(POS) terminals
- Entertainment systems
- Internet appliances
- Medical
- Video-enabled control panels

Evaluation Kit and Ecosystem

- Fully-featured evaluation board delivered with free board support packages
    - Android™ BSP with video support via OpenCORE
    - Linux® distribution with video support via GStreamer
    - Microsoft® Windows® Embedded CE BSP with video support via Directshow
- Worldwide support ecosystem of industry-leading suppliers of development tools, operating systems, protocol stacks and applications

Ordering Information

Device Ordering Code	AT91SAM9M10-CU
Status	In production
Kit Ordering Code	AT91SAM9M10-G45-EK
Availability	In stock

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