



Atmel | SMART SAM9G45

400MHz ARM926-based Embedded MPU with
HS USB and DDR2 Optimized for Industrial Applications

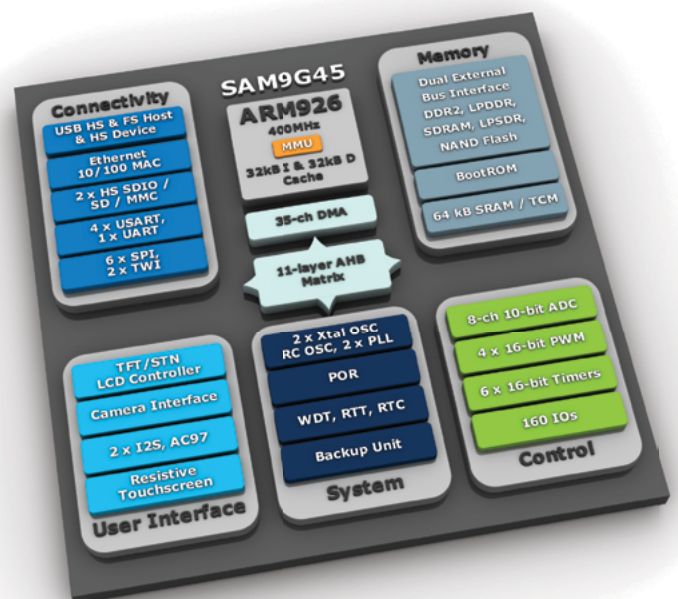


Benefits

- DDR2 and Low Power DDR (LPDDR) 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

- 400MHz ARM926™ core with 32kB I & D cache
- DDR2 and LPDDR support
- 133MHz 12-layer 32-bit Advanced High-performance Bus (AHB) Matrix
- 35 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 costs
- 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
- Data loggers
- Internet appliances
- Medical



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Evaluation Kit and Ecosystem

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



Ordering Information

Device Ordering Code AT91SAM9G45-CU

Kit Ordering Code AT91SAM9M10-G45-EK



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