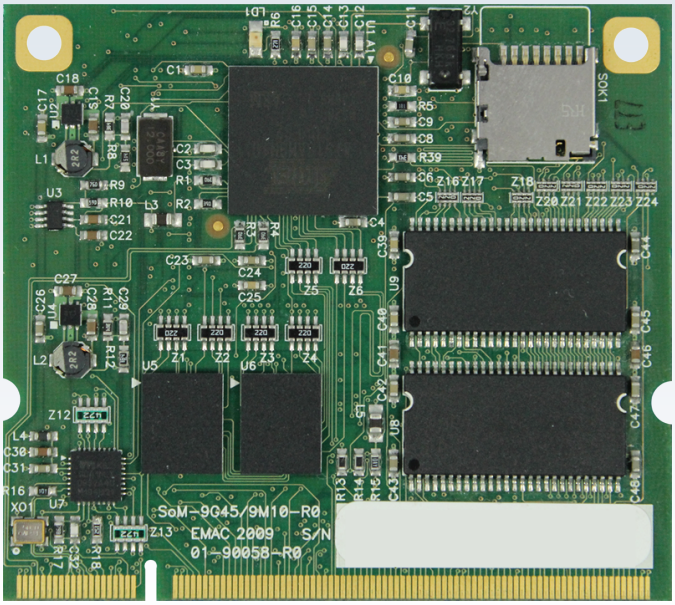
SoM-9G45M

Embedded System on Module (SoM)



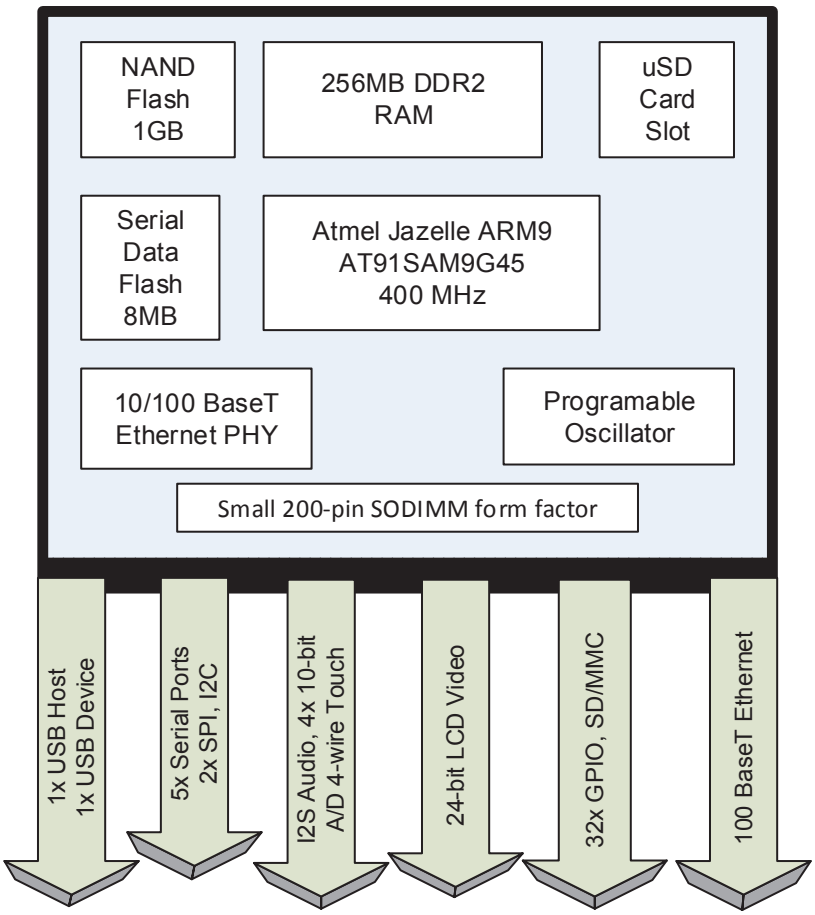
Features

- Atmel ARM9 AT91SAM9G45 Jazelle 400MHz
- Up to 256MB DDR2 RAM
- Up to 8MB of Serial Data Flash
- Up to 1GB of NAND Flash
- Ethernet, A/D, SPI, I2C, I2S PWM, GPIO
- 2x USB, 5x Serial Ports 3 with Handshake
- LCD & Resistive Touch Interfaces
- Wide Temperature -40° to + 85° C

Specifications

Processor	Embedded Atmel ARM9 Jazelle AT91SAM9G45
	400 MHz
Memory	Up to 256 MB of DDR2 RAM, 133 MHz SDRAM
	Up to 1 GB of NAND Flash
	Up to 8 MB of Serial Data Flash
	SD/MMC Flash Card Interface
I/O	32x GPIO
	1x I2S Audio Ports
	1x 10/100 BaseT Ethernet with on-board PHY
	1x USB 2.0 High Speed Host Port
	1x USB 2.0 High Speed OTG (Host/Device)
	5x Serial Ports, 4 with Handshake (UARTS: 5x TTL, 3 with RTS/CTS handshaking & Auto RS485)
	2x SPI Ports
	2x Timer/Counters/PWM
	Battery backed Real Time Clock
	1x I2C Port
Video	LCD Video Interface with up 1280 x 860 resolution
	4-wire Touch Screen Interface
Analog	4x A/D Channels with 10-bit Resolution
Bus Expansion	Local ARM Bus
OS	Embedded EMAC OE Linux
Dimensions	Small, 200-pin SODIMM form factor 2.66" ×2.375" (67mm × 60mm)
Power Req.	3.3 V
	Typical Running Current Consumption 300mA
Environment	-40° to + 85° C Industrial Wide Temperature
	90% Upper Operating Humidity

Block Diagram



Ordering Information

Product #	CPU	Memory	Serial	GPIO	USB	Video	LAN	Temperature
SoM-9G45-120	Atmel ARM926 AT91SAM9G45 Jazelle 400MHz	128MB DDR2 256 NAND 8MB Serial Data	5x	32x	1x HS Host 1x HS OTG	LCD Interface with 4-wire Touch	1x 10/100 BaseT w/ On-board PHY	-40° to +85° C

Carrier Board Options

PRODUCT #	DESCRIPTION
SoM-200GS-000	Standard Carrier Board with SD Card, Audio, CAN, PLD & 4.3" LCD Touch Screen
SoM-200GS-001	Deluxe Standard Carrier with WiFi, Audio, CAN, PLD & 4.3" LCD Touch Screen, without SD Card Socket
SoM-200GS-007	Bare-Bones Carrier Board with SD Card & CAN, without Audio, PLD & LCD
SoM-210ES-000	Standard Carrier Board with 4.3" LCD & Touch Screen
SoM-210ES-007	Bare-bones carrier board
SoM-212ES-000	Standard Carrier Board with LCD & Touch Screen
SoM-212ES-003	Deluxe Carrier with POE, Audio, LCD & Touch Screen
SoM-212ES-007	Bare-Bones Carrier Board
SoM-250GS-000	Standard Carrier Board with CAN, Audio, 7" LCD Touch Screen
SoM-250GS-001	Deluxe Carrier Board with CAN, Audio,10" LVDS LCD Touch Screen
SoM-250GS-007	Bare-Bones Carrier Board, no LCD