



ATMEL - AT91SAM9G20-EK - AT91SAM9G20-EK Evaluation Kit

Product Overview:

The AT91SAM9G20-EK Evaluation Kit enables the evaluation of and code development for applications running on an AT91SAM9G20 device. This guide focuses on the AT91SAM9G20-EK board as an evaluation platform. The board supports the AT91SAM9G20 in a 217-ball LFBGA RoHS-compliant Package.



Kit Contents:

The AT91SAM9G20-EK package contains the following items:

- An AT91SAM9G20-EK board
- A universal input AC/DC power supply with US and Europe plug adapter
- One A/B-type USB cable one serial RS232 cable
- One RJ45 crossed Ethernet cable
- One CD-ROM that allows the user to begin evaluating the AT91 ARM® Thumb® 32-bit microcontroller quickly
- One 3V Lithium battery

Key Features:

- 64 Mbytes of SDRAM memory
- 256 Mbytes of NAND Flash memory
- One Atmel® serial Data Flash®
- One Atmel TWI serial EEPROM
- One USB Device port interface
- Two USB Host port interfaces
- One DBGU serial communication port
- One complete MODEM serial communication port
- One additional serial communication port with RTS/CTS handshake control
- JTAG/ICE debug interface
- One PHY Ethernet 100-base TX with three status LEDs

- One on-board Audio DAC
- One Power LED and one general-purpose LED
- Two user-input push buttons
- One Wakeup-input push button
- One reset push button
- Two Data Flash SD/MMC card slots
- Four expansion connectors (PIOA, PIOB, PIOC, IMAGE SENSOR)
- One BGA-like EBI expansion footprint connector
- One Lithium Coin Cell Battery Retainer for 12 mm cell size

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
AT91SAM9G20-EK	Atmel	1715470	15R0327

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AT91SAM-ICE	Atmel	ICE for AT91 ARM Cores	1095464	23M5083
AT91SAM9G20B-CU	Atmel	ARM9 Microcontroller	1715469	15R0328
MAX3241ECAI+	Maxim	RS-232 Transceiver	9724940	68K4636
LT1963AEQ-3.3#PBF	Linear	LDO Regulator	1273626	57M7440
TPS60500DGSR	TI	Step-down charge pump	1412493	77C0634
WM8731SEDS	Wolfson	Audio CODEC Driver	1776264	50M5333

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
AT91SAM9261-EK	Atmel	Evaluation for AT91SAM926EJ	AT91SAM9261	1629538	02P6236
AT91SAM9263-EK	Atmel	Evaluation for AT91SAM9263	AT91SAM9263	1629539	02P6237

AT91SAM9RL-EK	Atmel	Evaluation for AT91SAM9RL-EK	AT91SAM9RL	1648589	11P0231
AT91SAM9XE-EK	Atmel	Evaluation for AT91SAM9XE-EK	AT91SAM9XE	1648590	11P0232

Document List:

Datasheets:

Part Number	Description	Size
MAX3241E	±15kV ESD-Protected, Down to 10nA, 3.0V to 5.5V, up to 1Mbps, True RS-232 Transceivers	298KB
LT1963A Series	1.5A, Low Noise, fAST Transient Response LDO Regulators	278KB
ARM9TDMI	ARM9TDMI Technical Reference Manual	920KB
ARM920T	ARM920T Technical Reference Manual	2.11MB
AT91SAM9G20B	AT91SAM9G20B Microcontroller	12.1MB
TPS60500	High efficiency, 250-mA, Step-down charge pump	510KB
K9F2G08UXA	K9F2G08UXA Flash Memory datasheet	999KB
MT48LC64M4A2	MT48LC64M4A2 Synchronous DRAM 256MB	1.47MB
WM8731	WM8731 Portable Internet Audio CODEC with Headphone Driver	762KB

Application Notes:

File Name	Size
AT91 Assembler Code Startup Sequence for C Code Applications Software	116KB
AT91 Assembler Code Startup Sequence for C Code Applications Software Based on the AT91SAM7S64 Evaluate	140KB
AT91SAM9RL-EK Evaluation Board	968KB
AT91SAM Internet Radio	425KB
Connecting an Atmel ARM-based Serial Synchronous Controller to an I2S-compatible Serial Bus	114KB
Interfacing a 4x4 Keyboard to an AT91 Microcontroller	898KB
Migrating to an AT91SAM9G20-based System from an AT91SAM9260-based System	190KB
Pulse Width Modulation Generation Using the AT91 Timer and Counter	87KB
Using the ECC Controller on AT91SAM9260 and AT91SAM7SE Microcontrollers	774KB
Using the Serial Peripheral Interface with AT91SAMxx Devices	149KB
Using the Two-wire interface (TWI) in Master Mode on AT91SAM Microcontrollers	1.05MB
Interfacing a Hard Disk Drive to an AT91RM9200 Microcontroller	112KB
Interfacing a PC Card to an AT91RM9200-DK	184KB

Interrupt Generation Using the AT91 Timer and Counter	112KB
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Hardware & Software:

File Name	Size
AT91SAM9G20-EK Hardware Files	2.37MB
Install AT91-ISP v1.13(Windows XP - v1.13 current release)	3.64MB
SAM-BA_CDC(Windows Vista - v1.13 current release)	6.85MB

