



Arm® Core-Based Embedded Microprocessors

High Performance, Power Efficient, Secure, Easy to Use



Product	Core Sub-System				Memory										Connectivity					
	Core	VFPV/NEON/Trustzone	Clock Speed (MHz)	Core Operating Voltage	DDR2 SDRAM (MB)	LPDDR2 SDRAM (MB)	SRAM (KB)	L1 Cache Memory (KB) (Instruction/Data)	L2 Cache (KB)	QSPI Interface	DDR2/LPDDR/LPDDR2	DDR3/DDR3L/LPDDR3	NAND		UART	SPI	TWI (I²C)	SSC and I²S	CAN	Device Only
													SLC ECC (bit)	MLC ECC (bit)						
SAMA5D21	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	9	6	6	4	–	–
SAMA5D22	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	9	6	6	4	1	–
SAMA5D225C-D1M	Cortex-A5	1/1/1	500	1.2V	16	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	9	7	7	4	1	–
SAMA5D23	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	9	6	6	4	1	–
SAMA5D24	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	–	–
SAMA5D26	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	–	–
SAMA5D27	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D27C-D5M	Cortex-A5	1/1/1	500	1.2V	64	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D27C-D1G	Cortex-A5	1/1/1	500	1.2V	128	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D27C-LD1G	Cortex-A5	1/1/1	500	1.2V	–	128	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D27C-LD2G	Cortex-A5	1/1/1	500	1.2V	–	256	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D28	Cortex-A5	1/1/1	500	1.2V	–	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D28C-D1G	Cortex-A5	1/1/1	500	1.2V	128	–	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D28C-LD1G	Cortex-A5	1/1/1	500	1.2V	–	128	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D28C-LD2G	Cortex-A5	1/1/1	500	1.2V	–	256	128	2 × 32	128	2	1/1/1	1/1/1	32	32	10	7	7	4	2	–
SAMA5D31	Cortex-A5	1/–/–	536	1.2V	–	–	128	2 × 32	–	–	1/1/1	–	24	24	7	6	3	2	–	–
SAMA5D33	Cortex-A5	1/–/–	536	1.2V	–	–	128	2 × 32	–	–	1/1/1	–	24	24	5	6	3	2	–	–
SAMA5D34	Cortex-A5	1/–/–	536	1.2V	–	–	128	2 × 32	–	–	1/1/1	–	24	24	5	6	3	2	2	–
SAMA5D35	Cortex-A5	1/–/–	536	1.2V	–	–	128	2 × 32	–	–	1/1/1	–	24	24	7	6	3	2	2	–
SAMA5D36	Cortex-A5	1/1/1	536	1.2V	–	–	128	2 × 32	–	–	1/1/1	–	24	24	7	6	3	2	2	–
SAMA5D41	Cortex-A5	1/1/1	600	1.8V	–	–	128	2 × 32	128	–	1/1/1	–	24	24	8	8	4	2	–	–
SAMA5D42	Cortex-A5	1/1/1	600	1.8V	–	–	128	2 × 32	128	–	1/1/1	–	24	24	8	8	4	2	–	–
SAMA5D43	Cortex-A5	1/1/1	600	1.8V	–	–	128	2 × 32	128	–	1/1/1	–	24	24	8	8	4	2	–	–
SAMA5D44	Cortex-A5	1/1/1	600	1.8V	–	–	128	2 × 32	128	–	1/1/1	–	24	24	8	8	4	2	–	–

Temperature Range: –40°C to +85°C (ambient), except where indicated

UART: Support for RS485, ISO7816, IrDA®, LIN, modem control lines and SPI on selected UARTs.

TWI: Two-Wire Interface, interconnects components on a two-wire bus.

SSC: Serial Synchronous Controller, supports many serial synchronous communications protocols used in audio and telecom applications such as I2S, short or long frame sync.

16-bit and 32-bit Timers: Capture/compare, waveform generation and PWM modes.

ECC: Error Corrected Code controller.

Security level: Adv. = hardware encryption engine + on the fly DDR encryption/decryption + secure storage + tamper pin Med. = hardware encryption engine only

System on Module (SoM)

Product	MPU	Microchip Components
SAMA5D27-SOM1	System-In-Package (SAMA5D27C-D1G) including 500 MHz Arm® Cortex®-A5 Processor and 128 MByte DDR2 SDRAM	Power Management Unit (MIC2800-G1JJYML) 2 Kb Serial EEPROM with EUI-48™ Node Identity (24AA02E48T-I/O) 64 Mb Serial Quad I/O Flash Memory (SST26VF064BT-104I/MF) 10Base-T/100Base-TX Ethernet PHY (KSZ8081RNAIA) Integrated Crystals and Internal Voltage Regulators
SAMA5D27-WLSOM1	System-In-Package (SAMA5D27C-LD2G) including 500 MHz Arm Cortex-A5 Processor and 256 MByte LPDDR2 SDRAM	Power Management Unit (MCP16502AC-E/S8B) IEEE 802.11 n/g/n Link Controller with integrated Bluetooth® 4.0 (ATWILC3000-MR110UA) CryptoAuthentication™ Device (ATECC608-TNGTSLU) 64 Mb Serial Quad I/O Flash Memory (SST26VF064BEUI-104I/MF) 10Base-T/100Base-TX Ethernet PHY (KSZ8081RNAIA) Analog Comparator (MIC842NYMT) Clock Oscillators and Internal Voltage Regulators

SAMA5 Arm Cortex-A5 MPUs

					User Interface							Security				Control				Max I/O Pins	Extended Temperature Range (-40 to 105°C Ambient)	Packages
USB		Ethernet			SD/eMMC	Graphic LCD	LCD Overlay	Resistive (R) and/or CAP (C) Touch	Hardware Video Decoder	Camera Interface	Class D/PDM/Audio PLL	Security Level	Secure Boot	Anti-Tamper Pins	Environmental Monitors	32-bit Timers	PWM Channels	10-bit ADC Channels	12-bit ADC Channels			
Device and Host	Host Only	10/100 Ethernet MAC	10/100/1000 MAC	IEEE 1588 Support																		
1 HS	1 HS	1	–	Y	1	1	Y	R	–	1	1/1/1	Med.	Y	6	–	5	4	–	5	72	–	BGA 196, 11 × 11, 0.75 mm pitch
1 HS	1 HS	1	–	Y	1	1	Y	R, C	–	1	1/1/1	Adv.	Y	6	–	5	4	–	5	72	Y	BGA 196, 11 × 11, 0.75 mm pitch
1 HS	1 HS	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	6	–	5	4	–	5	90	–	BGA 196, 11 × 11, 0.75 mm pitch
1 HS	1 HS	1	–	Y	1	1	Y	R, C	–	1	1/1/1	PCI Pre-certified	Y	6	Y	5	4	–	5	72	Y	BGA 196, 11 × 11, 0.75 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	2	–	6	4	–	12	105	–	BGA 256, 8 × 8, 0.4 mm pitch
1 HS	1 HS	1	–	Y	2	1	Y	R	–	1	1/1/1	Med.	Y	8	–	6	4	–	12	128	Y	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	8	–	6	4	–	12	128	Y	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	8	–	6	4	–	12	128	–	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	8	–	6	4	–	12	128	–	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	8	–	6	4	–	12	128	–	BGA 361, 16 × 16, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	Adv.	Y	8	–	6	4	–	12	128	–	BGA 361, 16 × 16, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	PCI Pre-certified	Y	8	Y	6	4	–	12	128	Y	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	PCI Pre-certified	Y	8	Y	6	4	–	12	128	–	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	PCI Pre-certified	Y	8	Y	6	4	–	12	128	–	BGA 361, 16 × 16, 0.8 mm pitch
1 HS	1 HS, 1 HSIC	1	–	Y	2	1	Y	R, C	–	1	1/1/1	PCI Pre-certified	Y	8	Y	6	4	–	12	128	–	BGA 361, 16 × 16, 0.8 mm pitch
1 HS	2 HS	1	–	Y	3	1	Y	R	–	1	–	Med.	Y	–	–	5	4	–	12	160	–	BGA 324, 15 × 15, 0.8 mm pitch, BGA 324, 12 × 12, 0.5 mm pitch
1 HS	2 HS	–	1	Y	2	1	Y	R	–	1	–	Med.	Y	–	–	5	4	–	12	160	–	BGA 324, 15 × 15, 0.8 mm pitch
1 HS	2 HS	–	1	Y	3	1	Y	R	–	1	–	Med.	Y	–	–	5	4	–	12	160	–	BGA 324, 15 × 15, 0.8 mm pitch
1 HS	2 HS	1	1	Y	3	–	–	R	–	1	–	Med.	Y	–	–	6	4	–	12	160	Y	BGA 324, 15 × 15, 0.8 mm pitch
1 HS	2 HS	1	1	Y	3	1	Y	R	–	1	–	Med.	Y	–	–	6	4	–	12	160	Y	BGA 324, 15 × 15, 0.8 mm pitch
1 HS	2 HS	2	–	Y	2	1	Y	R	–	1	–	Adv.	Y	8	–	9	4	5	–	152	–	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	2 HS	2	–	Y	2	1	Y	R	–	1	–	Adv.	Y	8	–	9	4	5	–	152	–	BGA 361, 16 × 16, 0.8 mm pitch
1 HS	2 HS	2	–	Y	2	1	Y	R	30 fps, 720p	1	–	Adv.	Y	8	–	9	4	5	–	152	–	BGA 289, 14 × 14, 0.8 mm pitch
1 HS	2 HS	2	–	Y	2	1	Y	R	30 fps, 720p	1	–	Adv.	Y	8	–	9	4	5	–	152	–	BGA 361, 16 × 16, 0.8 mm pitch

Camera Interface: For CMOS-type image sensor, ITU-R BT. 601/656 external interface, programmable frame capture rate, up to 12-bit data interface, SAV and EAV synchronization, preview path with scaling, output is in YCbCr format; Raw Bayer is supported on the ATSAMA5D2 series.

Graphics LCD: 24-bit parallel interface; supports STN and TFT displays, up to 16-bits per pixel in STN color mode, up to 16M colors in TFT mode.

Video Decoder: Hardware video decoding and image post processing : H.264, MPEG4, H.263, MPEG2, JPEG, VP8.

eMMC™: V4.3 – MLC NandFlash supported through eMMC interface; V4.5 support for ATSAMA5D2 series.

USB: High speed (HS) or Full Speed (FS), High Speed Inter-Chip (HSIC)

Peripheral implementation varies among products. Consult individual product datasheets for a detailed description.

FLEXCOM: Flexible Serial Communication Controller that can be configured as USART, SPI or TWI.

PTC: Peripheral Touch Controller, built-in hardware for capacitive touch buttons, sliders and wheels.

SoM Interfaces	Dimensions (mm)	Number of Pins	IO Pins	Main Supply Voltage	Temperature Range	Connector Style	Metal Shield Ready	Optional Voltage Supplies
4 UARTS, 4 FLEXCOMs, 2 SPI, TWI, QSPI, SSC, I ² S, 6 PTC Buttons, 4 ADC, 2 CAN-FD, 3 HS-USB Host/Device and HSIC, 10 Base-/100Base-TX Ethernet, 2 SD/MMC/eMMC/SDIO, 24-bit RGB, Camera - ISC, Mono PDMIC, Class D Stereo, 6 Tamper Pins, Shutdown and Reset control pins	38 x 40	176	103	3.3V	–40°C to +85°C	Single-sided, hand-solderable board	Yes	VDDBU, VDDSDHC, VDDISC
5 UARTS, 4 FLEXCOMs, 2 SPI, TWI, 2 QSPI, SSC, I ² S, Full PTC, 6 ADC, CAN-FD, 2 HS-USB Host/Device and HSIC, 10 Base-/100Base-TX Ethernet, SD/MMC/eMMC, 18-bit RGB, Camera - ISC, Mono PDMIC, Class D Mono, 7 Tamper Pins, Start, Shutdown, Wake-Up and Reset control pins	40.8 x 40.8	188	94	5V	–40°C to +85°C	Single-sided, hand-solderable board	No	VDDBU, VDDSDHC, VDDISC, VDDFUSE, VDDANA

Product	Core Sub-System			Memory										Connectivity							
	Core	Clock Speed (MHz)	Core Operating Voltage	SDRAM (MB)	DDR2 SDRAM (MB)	SRAM (KB)	L1 Cache Memory (KB) (Instruction/Data)	LPDDR/SDRAM	QSPI Interface	External Bus Interface	DDR2/LPDDR/ LPDDR2	NAND		UART	SPI	TWI (I ² C)	SSC and I ² S	CAN	USB		
												SLC ECC (bit)	MLC ECC (bit)						Device Only	Device and Host	Host Only
SAM9X60	ARM926EJ-S	600	1.2V	–	–	64	2 × 32	1/1	1	1	1/1/-	24	24	13	6	13	2	2	–	1 HS	3 HS
SAM9X60D6K	ARM926EJ-S	600	1.2V	8	–	64	2 × 32	1/1	1	1	1/1/-	24	24	13	6	13	2	2	–	1 HS	3 HS
SAM9X60D5M	ARM926EJ-S	600	1.2V	–	64	64	2 × 32	1/1	1	1	1/1/-	24	24	13	6	13	2	2	–	1 HS	3 HS
SAM9X60D1G	ARM926EJ-S	600	1.2V	–	128	64	2 × 32	1/1	1	1	1/1/-	24	24	13	6	13	2	2	–	1 HS	3 HS
SAM9M10/M11	ARM926EJ-S	400	1.0V	–	–	64	2 × 32	1/1	–	2	1/1/-	1	–	5	6	2	2	–	–	1 HS	2 HS
SAM9G45/G46	ARM926EJ-S	400	1.0V	–	–	64	2 × 32	1/1	–	2	1/1/-	1	–	5	6	2	2	–	–	1 HS	2 HS
SAM9X35	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	7	5	3	1	2	–	1 HS	1 HS, 1 FS
SAM9X25	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	7	6	3	1	2	–	1 HS	1 HS, 1 FS
SAM9G35	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	6	5	3	1	–	–	1 HS	1 HS, 1 FS
SAM9G25	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	7	6	3	1	–	–	1 HS	1 HS, 1 FS
SAM9G15	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	5	5	3	1	–	–	1 HS	1 HS, 1 FS
SAM9CN12	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	7	6	2	1	–	1 FS	–	1 FS
SAM9CN11	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	7	6	2	1	–	1 FS	–	1 FS
SAM9N12	ARM926EJ-S	400	1.0V	–	–	32	2 × 16	1/1	–	1	1/1/-	24	24	7	6	2	1	–	1 FS	–	1 FS
SAM9G20	ARM926EJ-S	400	1.0V	–	–	32	2 × 32	–/1	–	1	–	1	–	7	6	1	1	–	1 FS	–	2 FS
SAM9G10	ARM926EJ-S	266	1.2V	–	–	16	2 × 16	–/1	–	1	–	1	–	4	5	1	3	–	1 FS	–	2 FS
SAM9263	ARM926EJ-S	240	1.3V	–	–	96	2 × 16	–/1	–	2	–	1	–	4	5	1	2	1	1 FS	–	2 FS
SAM9261	ARM926EJ-S	190	1.2V	–	–	160	2 × 16	–/1	–	1	–	1	–	4	5	1	3	–	1 FS	–	2 FS
SAM9260	ARM926EJ-S	190	1.2V	–	–	8	2 × 8	–/1	–	1	–	1	–	7	6	1	1	–	1 FS	–	2 FS

Temperature Range: –40°C to +85°C (ambient)

UART: Support for RS485, ISO7816, IrDA®, LIN, modem control lines and SPI on selected UARTs.

TWI: Two-Wire Interface, interconnects components on a two-wire bus.

SSC: Serial Synchronous Controller, supports many serial synchronous communications protocols used in audio and telecom applications such as I2S, short or long frame sync.

16-bit and 32-bit Timers: Capture/compare, waveform generation and PWM modes.

ECC: Error Corrected Code controller.

Security level: Adv. = hardware encryption engine + on the fly DDR encryption/decryption + secure storage + tamper pin Med. = hardware encryption engine

ATSAM9 Arm9-Based MPUs

			User Interface							Security			Control						Max I/O Pins	Extended Temperature Range (-40 to 105°C Ambient)	Packages
Ethernet	SD/eMMC	Soft Modem	Graphic LCD	LCD Overlay	Resistive Touchscreen	Hardware Video Decoder	2D Graphics	Camera Interface	Class D	Security Level	Secure Boot	Anti-Tamper Pins	16-bit Timers	32-bit Timers	64-bit Timers	PWM Channels	10-bit ADC Channels	12-bit ADC Channels			
10/100 Ethernet MAC																					
2	2	–	1	Y	Y	–	Y	1	1	Adv.	Y	8	–	6	1	4	–	12	112	Y	BGA 228, 11 × 11, 0.65 mm pitch
2	2	–	1	Y	Y	–	Y	1	1	Adv.	Y	8	–	6	1	4	–	12	112	–	BGA 196, 11 × 11, 0.65 mm pitch
2	2	–	1	Y	Y	–	Y	1	1	Adv.	Y	8	–	6	1	4	–	12	112	–	BGA 233, 14 × 14, 0.8 mm pitch
2	2	–	1	Y	Y	–	Y	1	1	Adv.	Y	8	–	6	1	4	–	12	112	–	BGA 233, 14 × 14, 0.8 mm pitch
1	2	–	1	Y	Y	30 fps, D1	–	1	–	Med. (M11)	–	–	6	–	–	4	8	–	160	–	BGA 324, 15 × 15, 0.8 mm pitch
1	2	–	1	–	Y	–	–	1	–	Med. (G46)	–	–	6	–	–	4	8	–	160	–	BGA 324, 15 × 15, 0.8 mm pitch
1	2	Y	1	Y	Y	–	–	–	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch
2	2	Y	–	–	–	–	–	–	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch
1	2	Y	1	Y	Y	–	–	–	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch
1	2	Y	–	–	–	–	–	1	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch, BGA 247, 10 × 10, 0.5 mm pitch
–	2	Y	1	Y	Y	–	–	–	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch
–	1	–	1	–	Y	–	–	–	–	Med.	Y	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch, BGA 247, 10 × 10, 0.5 mm pitch
–	1	–	1	–	Y	–	–	–	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch, BGA 247, 10 × 10, 0.5 mm pitch
–	1	–	1	–	Y	–	–	–	–	–	–	–	6	–	–	4	12	–	105	–	BGA 217, 15 × 15, 0.8 mm pitch, BGA 247, 10 × 10, 0.5 mm pitch
1	1	–	–	–	–	–	–	Y	–	–	–	–	6	–	–	–	4	–	96	–	BGA 217, 15 × 15, 0.8 mm pitch
–	1	–	1	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	96	–	BGA 217, 15 × 15, 0.8 mm pitch
1	2	–	1	–	–	–	–	Y	–	–	–	–	3	–	–	4	–	–	160	–	BGA 324, 15 × 15, 0.8 mm pitch
–	1	–	1	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	96	–	BGA 217, 15 × 15, 0.8 mm pitch
1	1	–	–	–	–	–	–	Y	–	–	–	–	6	–	–	–	4	–	96	–	BGA 217, 15 × 15, 0.8 mm pitch, QFP 208, 28 × 28, 0.5 mm pitch

Camera Interface: For CMOS-type image sensor, ITU-R BT. 601/656 external interface, programmable frame capture rate, up to 12-bit data interface, SAV and EAV synchronization, preview path with scaler, YCbCr format ; Raw Bayer support with ATSAMA5D2 series

Graphics LCD: 24-bit parallel interface; supports STN and TFT displays, up to 16-bits per pixel in STN color mode, up to 16M colors in TFT mode.

Hardware Video Decoder: Hardware video decoding and image post processing : H.264, MPEG4, H.263, MPEG2, JPEG, VP8.

2D Graphics: 2D Graphics Engine supporting fill BLT, copy BLT, transparent BLT, blend/alpha BLT, ROP4 BLT (Raster Operations) and command ring buffer.

eMMC: V4.3 – MLC NandFlash supported through MMC interface; V4.5 support for ATSAMA5D2 series.

USB: High speed (HS) or Full Speed (FS).

Ordering Code	Supported Devices	Image
SAM9X60-EK	SAM9X60	
ATSAMA5D27-WLSOM1-EK1	SAMA5D2-Series LPDDR2 SiP and Wireless SOM included	
ATSAMA5D27-SOM1-EK1	SAMA5D2-Series DDR2 SiP and SOM included	
DM320108-BNDL	Bundle ATSAMA5D2-PTC-EK + QT1-XPRO	
ATSAMA5D2C-XULT	SAMA5D2 Series	
ATSAMA5D4-XULT	SAMA5D4 Series	
ATSAMA5D3-XPLD	SAM5D3 Series	
AT91SAM9M10-G45-EK	SAM9M10, SAM9G45	
AT91SAM9X35-EK	SAM9X35	
AT91SAM9X25-EK	SAM9X25	
AT91SAM9G35-EK	SAM9G35	

Ordering Code	Supported Devices	Image
AT91SAM9G15-EK	SAM9G15	
AT91SAM9N12-EK	SAM9N12	
AT91SAM9G10-EK2	SAM9G10	
AT91SAM9263-EK	SAM9263	
DV164232	J-32 Debug Probe supporting all MPU products	

Software

Microchip has developed software solutions optimized for and tested on our Microprocessors (MPUs) to speed up your development and shorten time to market. For more information, visit www.microchip.com/design-centers/32-bit-mpus/software

Operating Systems

- Linux® Operating System (OS)
www.at91.com/linux4sam
- FreeRTOS
www.freertos.org

Bare Metal

- MPLAB® Harmony v3
<https://github.com/Microchip-MPLAB-Harmony/Microchip-MPLAB-Harmony.github.io/wiki>
- Softpacks
<https://github.com/atmelcorp/atmel-software-package/releases>

Development Tools

Our MPUs are supported by a full range of development tools for software development, debugging and programming. The Linux cross-build environments, our MPLAB development ecosystems and selected partner solutions are particularly well suited for developing embedded applications. For more information, please visit www.microchip.com/design-centers/32-bit-mpus/development-tools

- Cross-build environments for Linux OS users
www.at91.com/linux4sam
- MPLAB X Integrated Development Environment
www.microchip.com/mplab/mplab-x-ide
- IAR Embedded Workbench for Arm® processors (EWARM)
www.iar.com/iar-embedded-workbench/partners/microchip/
- GNU Toolchain Bare Metal and RTOS-Based Systems Learning
developer.arm.com/tools-and-software/open-source-software/developer-tools/gnu-toolchain
- J-32 Debug Probe
www.microchip.com/DevelopmentTools/ProductDetails/DV164232
- SAM-BA In-System Programmer
www.microchip.com/DevelopmentTools/ProductDet

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If additional training interests you, then Microchip can help. We continue to expand our technical training options, offering a growing list of courses and in-depth curriculum locally, as well as significant online resources.

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- MASTERs Conferences: www.microchip.com/masters
- Worldwide Seminars: www.microchip.com/seminars
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