SAM9X60T-V/DWB

Data Sheet

ARM926 MPU, BGA, EXT. TEMP, T&R

Manufacturers	Microchip Technology, Inc
Package/Case	TFBGA
Product Type	Embedded Processors & Controllers
RoHS	
Lifecycle	

Images are for reference only

Please submit RFQ for SAM9X60T-V/DWB or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The SAM9X60 is a high-performance, ultra-low-power ARM926EJ-S CPU-based embedded microprocessor (MPU) running up to 600 MHz. The SAM9X60 supports various memory interfaces, including 16-bit LPDDR/DDR2, 32-bit LPSDR/SDRAM, NAND Flash, Quad SPI and eMMC Flash. The device integrates powerful peripherals for connectivity and user interface applications. It offers State-of-the-Art security functions such as SecureBoot capability with on-chip secure key storage (OTP), high-performance crypto accelerators (SHA, AES and TDES) as well as tamper pins.

Microchip offers for different supply and DRAM configurations, fully tested power management solutions respecting the SAM9X60 power sequencing specifications. Go to Treelinktool under DC/DC converters and SAM9X60 for further information.

Features

High-performance Architecture:

600MHz ARM926EJ-S Core, 200MHz System/Memory Bus

32 kB Data Cache and 32kB Instruction Cache

Memories:

16/32-bit SDR/LPSDR Controller

16-bit Multi-port DDR2/LPDDR Controller

64 kB internal SRAM

Enhanced User Interface capability:

24-bit LCD Controller with overlays up to 1024x768 resolution

2D Graphics Engine, Camera Interface

Built-in Class D Amplifier

Large number of connectivity options:

Dual 10/100 Ethernet, Dual CAN, Dual SD Card/eMMC

Two High-speed USB Host + One High-speed Host or Device

Thirteen FLEXCOMs (USART, SPI and I²C)

State-of-the-Art Security:

Hardware Encryption Engine (TDES, AES and SHA) and True Random Generator (TRNG)

Secure Boot with on-chip Secure Key Storage (OTP)

Physical protection against tamper, 8 tamper detection pins

On the Fly scrambling / unscrambling for memories

Rich Development Ecosystem:

Free mainline Linux® Distribution

MPLAB® X Integrated Development Environment and MPLAB® Harmony v3

Multiple Third-party Software and Hardware Solutions

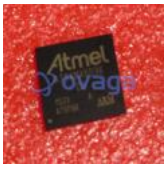
Optimized for Easy PCB Design and Low EMI:

TFBGA228, 11x11, 0.65 mm pitch

Power/GND balls placed and distributed for optimal decoupling

Fractional System PLL, I/Os slew rate and drive control, DDR I/Os calibration for Low EMI

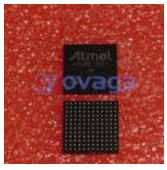
Related Products



ATSAMA5D36A-CU

Microchip Technology, Inc

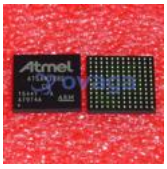
LFBGA-324



ATSAME70Q21A-CN

Microchip Technology, Inc

LFBGA-144



ATSAM3X8EA-CU

Microchip Technology, Inc

LFBGA-144

AT91SAM7X256C-AU

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LQFP-100

[ATSAM4S8CA-AU]

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TQFP-32

[AT91SAM9G20B-CU]

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LFBGA-217

[ATSAM4S2BA-AU]

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LQFP-64