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# VisionSOM-STM32MP1 Datasheet and Pinout

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# VisionSOM-STM32MP1 Datasheet and Pinout

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## General description



The VisionSOM-STM32MP1 family is a SODIMM-sized SoM based on the STMicroelectronics STM32MP1 application processor which features an advanced implementation of a single or dual ARM Cortex-A7 cores (at speed up to 650MHz) and ARM Cortex-M4 core (at speed up to 209MHz) as well as a 3D Graphics Processing Unit (GPU) Open GL 2.0 ES compatible.

The VisionSOM-STM32MP1 is a general-purpose highly integrated SoM (System on Module) featuring high computation power and 802.11b/g/n Wi-Fi and Bluetooth v5.1 connectivity. The option of integrated, fully certified Wi-Fi and Bluetooth module simplifies the carrier board design and is ideally suited for wireless application. The VisionSOM-STM32MP1 provides a variety memory configuration including flexible range of DDR3L, eMMC and SD memory card that meets our customers requirements.

The SoM supports connections to a variety of interfaces: two high-speed USB on-the-go with PHY, dual Ethernet, audio, display with touch panel and serial interfaces. In addition, the system supports industrial grade embedded applications.

SoMLabs also provides a complete hardware and software development board for the SoM in the form of a carrier board and

optional TFT display and touch panel.

## **Applications**

- Industrial embedded Linux computer
- Home Appliances
- Home Automation - Smart Home
- Human-machine Interfaces (HMI)
- Point-of-sales (POS) terminals
- Cash Register
- 2D barcode scanners and printers
- Smart grid infrastructure
- IoT gateways
- Residential gateways
- Machine vision equipment
- Robotics
- Fitness/outdoor equipment

## Features

- Powered by STMicroelectronics STM32MP1 application processor
- Single or dual ARM Cortex-A7 cores at speed up to 800MHz
- ARM Cortex-M4 core at speed up to 209MHz
- Up to 512MB SDRAM DDR3L
- Up to 32GB eMMC memory or uSD memory card
- Optional Murata 802.11b/g/n Wi-Fi and Bluetooth v5.1+EDR module
- Power-efficient and cost-optimized solution
- Ideal for industrial IoT and embedded applications
- Integrated security features

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