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# VisionSOM-8Mmini Datasheet and Pinout

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# VisionSOM-8Mmini Datasheet and Pinout

## General description



The VisionSOM-8Mmini family is a SODIMM-sized SoM based on the NXP quad core i.MX8M mini application processor which features an advanced implementation of a single or four ARM Cortex-A53 cores (at speed up to 1,8GHz) and ARM Cortex-M4 core (at speed up to 400MHz) as well as a 2D (HD1080p60) and 3D Graphics Processing Unit (GPU) Open GL 2.0 ES compatible and Video Processing Unit (VPU) with D1080p60 H.264 and HD1080p60 H.265 capabilities.

The VisionSOM-8Mmini is a multimedia and video oriented, 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-8Mmini provides a variety memory configuration including flexible range of LPDDR4, 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, single Ethernet 1Gbit, audio, display with touch panel and MIPI-DSI interface and serial communication 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

- Human-machine Interfaces (HMI)
- IP Cameras

- Video Stream Servers
- Home Appliances
- Home Automation - Smart Home
- Machine vision equipment
- Robotics
- IoT gateways
- Residential gateways
- Industrial embedded Linux computer
- Smart grid infrastructure
- Point-of-sales (POS) terminals
- Cash Register
- Fitness/outdoor equipment

## Features

- Powered by quad core NXP i.MX8Mmini application processor
- Quad ARM Cortex-A53 core at speed up to 1,8GHz
- ARM Cortex-M4 core at speed up to 400MHz
- Up to 4GB DRAM LPDDR4
- Up to 32GB eMMC memory or uSD memory card
- Optional Murata 802.11b/g/n Wi-Fi and Bluetooth v5.1
- Power-efficient and cost-optimized solution
- Ideal for industrial IoT and embedded applications
- Integrated security features

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