CV72S System On Module

Rhonda Software CV72S SoM is the innovative Edge AI camera platform designed for feasibility and POC studies, rapid prototyping, quick development and manufacturing of camera products. It is a smart solution for low-power and high-performance demanding applications. CV72S SoM supports efficient 4K video recording and streaming. The platform enables elevated capabilities of CVflow architecture supporting HW acceleration for running traditional CNN / DNN and modern Transformer / LLM AI models with high-resolution image processing from multiple cameras.

The rich set of interfaces provides flexibility and accelerates development of intelligent vision systems for Robotics, Medical and Industrial Automation use cases.

Key features

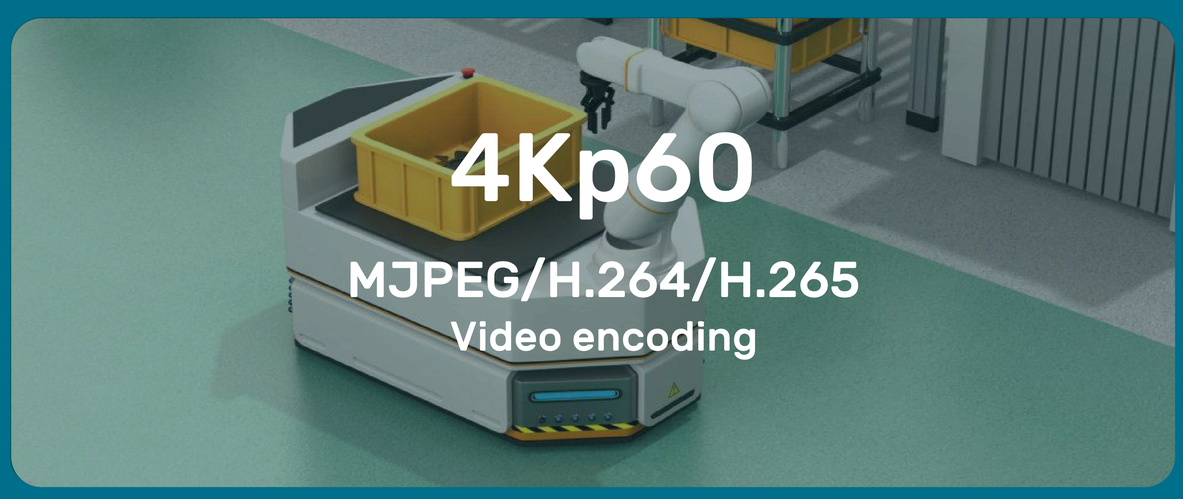
LPDDR5
32 Gbit
operating memory

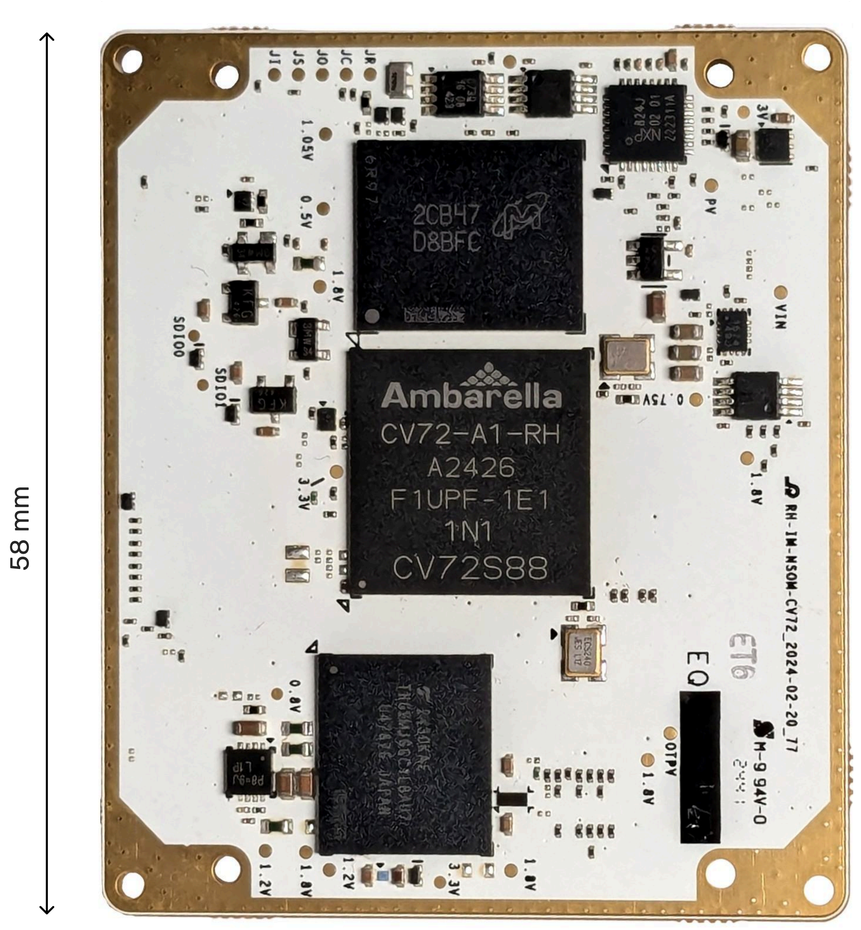
eMMC
64 Gbit
boot & user storage

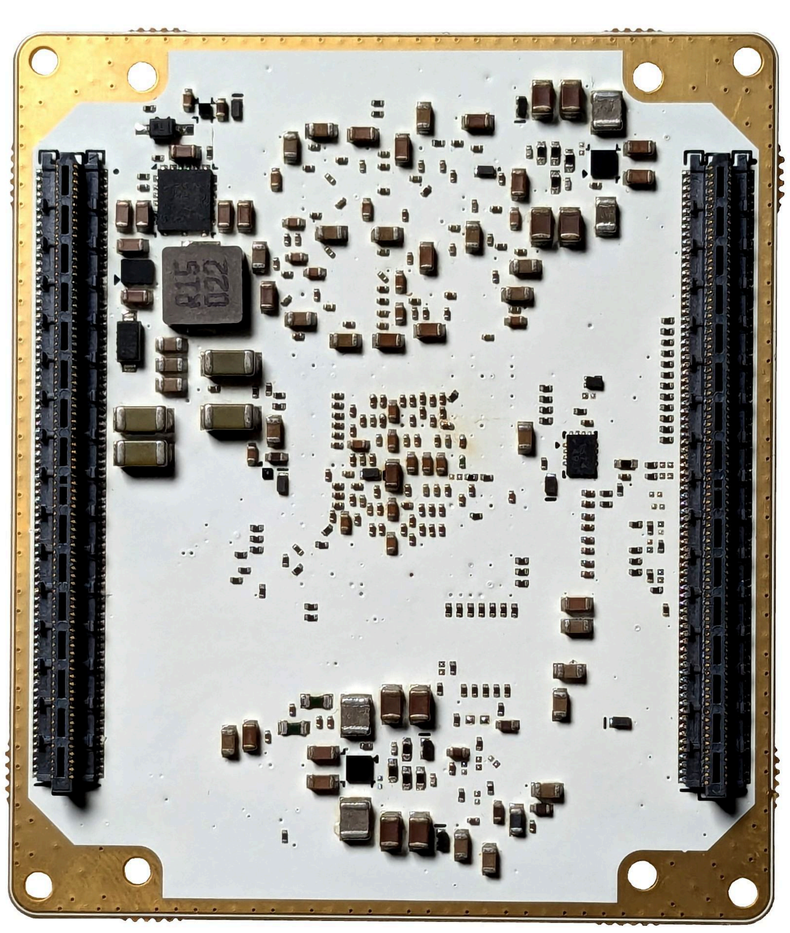
Ambarella™
CV72S88
Dual-core Arm® Cortex®-A76 CPU
up to 1.6 GHz

up to 10 image sensors

CVflow
Hardware accelerator for
CNN & LLM AI models







CV72S SoM General Specifications

Key components

- Ambarella® CV72S88™ SoC
- 32Gbit LPDDR5 DRAM
- 64Gbit eMMC boot & user memory

Power options

3.6–5V from board-to-board connector

Physical dimensions

Main board size 58×50 mm

Operating temperature

-25˚C to 85˚C

Image sensor interface

- 2 x MIPI D-PHY (2x4 or 1x8 lanes) or
  2 x SLVS (2x4 or 1x8 lanes)
  up to 6 MIPI virtual channels (3 per PHY)
- 1 x MIPI D-PHY (4 lanes)
  up to 4 MIPI virtual channels

Video output interface

- 2x MIPI DSI / CSI-2
- HDMI® 2.0
- Analog CVBS

Peripheral interfaces

- Gigabit RGMII
- USB 3.2 Host / Device
- PCIe
- SDIO
- I²S
- I²C
- UART
- JTAG
- SPI
- ADC
- GPIO

Rhonda CV72S SoM Block Diagram

Contact us today

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