

Specifications

High-Efficiency NPU

- Quad-core NPU architecture, configurable for independent or coordinated operation
- Native support for mainstream Transformer operators, including Softmax/LayerNorm/Top-K
- Mixed precision computing (INT4/INT8/INT16)
- Supports model weight compression

MAIN Domain

- Quad-Core Arm® Cortex®-A53

MCU Domain

- Dual-Core Arm® Cortex®-R52+ with Lockstep/Split configuration
- Integrated Hardware Security Module (HSM)
- Supports AUTOSAR CP

High-Performance ISP

- Processing throughput up to 16MP@60fps or 4K@120fps
- Supports 8 independent ISP pipelines
- Supports up to 4-Frame 140dB HDR & Local Tone Mapping (LTM)

Typical Power Consumption

- < 3W

Video Codec

- H.264/H.265 Codec, up to 4K@60fps
- JPEG Codec, up to 1080p@120fps

Intelligent Vision Processing

- Hardware-accelerated stereo disparity computation, up to 1080p@90fps
- Integrated hardware accelerators for various computer vision tasks

Interfaces

- 2x4-Lane or 4x2-Lane MIPI CSI RX
- 2x4-Lane MIPI CSI/DSI TX
- 2xETH MAC
- 7xCAN/CAN FD
- SDIO, SPI, I2C, UART, PWM, ADC, GPIO, etc.

Compliance & Certifications

- ISO 26262 ASIL B
- AEC-Q100 Grade 2
- ISO 21434

M2 Camera Development Platform

- The M2 camera development platform contains the necessary tools, software, hardware, and documentation to develop a camera utilizing the M2 while supporting the development of customized features.

Evaluation Kit

- M2 main board with connectors for sensor/lens board and peripherals
- Sensor board: SmartSens
- Datasheet, BOM, schematics

Software Development Kit

- Image Tuning Tool
- Detailed documentation, including a programmer's guide and more

Contact Us

Flyingchip Microelectronics (Shanghai) Co., Ltd., a wholly owned subsidiary of SmartSens Technology (SSE: 688213), specializes in the R&D of advanced vision processing chip technologies. Bringing together top-tier R&D and engineering talents, and leveraging extensive technical expertise, proven mass-production capabilities, and deep insights into market and customer needs, Flyingchip delivers a portfolio of high-performance vision processing SoCs tailored for Physical AI domains, including smart vehicles, embodied AI, and industrial machine vision. Through close collaboration with Tier-1 manufacturers, suppliers, algorithm solution providers, and other ecosystem partners worldwide, Flyingchip is accelerating the commercialization of edge AI vision technologies and jointly building a new ecosystem for intelligent perception.

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