

The MT8385 is a powerful IoT platform designed for a wide range of use cases that require high performance edge processing, advanced multimedia and connectivity capabilities, several high-resolution cameras, connected touchscreen displays, and use of a multi-tasking HLOS.

The chip's highly-capable octa-core CPU mixes big Arm® Cortex™-A73 and power-efficient Cortex-A53 processors, plus an Arm Mali™-G72 MP3 GPU for powerful 3D-graphics acceleration and gaming through support for Open GL ES 3.1, Vulkan 1.0 and OpenCL ES 1.1.

It's multi-core AI processor (APU) operates up to 500MHz and enables deep learning, neural network acceleration and computer vision applications. The latter, combined with up to 25MP camera, can clearly and accurately perform AI-vision functions such as facial recognition, object identification, scene analysis, OCR and much more.

An extensive set of interfaces, connectivity, flexible storage and memory options give product designers freedom to customize and innovate, while Arm TrustZone security easily enables the creation of secure devices.

Advanced multimedia encoding/decoding engines plus hardware-accelerated, dual-camera arrays make it ideal for media-centric or human-centric applications and smart systems that are environment and situation aware. Up to Full HD+ displays provide pin-sharp detail and quality, and a premium user experience.

Through a single antenna sharing with the external MT7668 connectivity chip, MT8385 provides the most convenient solution in the industry. With its small footprint and low power consumption it enables a wide variety of potential device designs, reducing development costs and accelerating time to market.

Powerful Edge Processing
<ul style="list-style-type: none"> Quad-core Arm Cortex-A73 up to 2GHz Quad-core Arm Cortex-A53 up to 2GHz Arm Mali-G72 MP3 up to 800MHz Multi-core AI Processor up to 500MHz Support for Tensorflow, Caffe and ONNX Flexible choice of LPDDR3 or LPDDR4X memory

High Resolution, Multi-Camera Framework
<ul style="list-style-type: none"> 25MP @ 30fps 16+16MP @ 30fps AI-Vision camera capabilities

Rich Interfaces
<ul style="list-style-type: none"> 3X UART 6X SPI masters 6X I2C or 3X I3C 3X PWM I2S GPIOs 2X SD/SDIO USB 3.0 device or USB 2.0 OTG

MT8385	
CPU	Quad-core Arm® Cortex™ - A73 up to 2.0GHz, 1MB unified L2 cache, Arm NEON multimedia processing engine
GPU	Quad-core Arm Cortex - A53 up to 2.0GHz, 1MB unified L2 cache, Arm NEON multimedia processing engine
GPU	Arm Mali™ - G72 MP3 up to 800MHz
Memory	32-bit LPDDR4(X) up to 1600MHz
Storage	e.MMC 5.1 UFS 2.1
AI Processor	Dual-core APU up to 500MHz
Camera	25MP @ 30fps 16+16MP @ 30fps
Video Decoding	1080P @ 30FPS, H.264/HEVC
Video Encoding	1080P @ 30FPS, H.264
Display	2400 x 1080 (Full HD+), 20:9
Connectivity	(Companion Chip MT7668) Dual-band MIMO 2x2 Wi-Fi 5 (802.11ac) Bluetooth 5

MT8385

Powerful rich IoT platform with integrated AI processor

