

MediaTek Genio 1200

Premium AIoT platform for powerful edge processing needs

MediaTek Genio

Designed for demanding AI and performance-centric IoT applications, the MediaTek Genio 1200 is a premium AIoT SoC that provides best-in-class CPU, graphics and AI performance, support for the latest multimedia standards, multiple 4K displays and exceptional power efficiency in a 6nm-class chip.

- Advanced Smart Home Appliances
- Human Machine Interface (HMI)
- 4K/Multi-Display Audio/Video applications
- Industrial IoT
- Robotics

Empowering the Edge

The Genio 1200 empowers the edge with multiple in-chip processors and extremely capable multitasking performance in the latest Open Linux. It's ideal for highly demanding edge-weighted applications such as advanced smart home appliances, industrial IoT, interactive 4K audio-visual, and other demanding use-cases that needs heavy IO, and reliable embedded processing.

- Advanced Smart Home Appliances
- Human Machine Interface (HMI)
- 4K/Multi-Display Audio/Video applications
- Industrial IoT

- Robotics

Premium Performance & Leading Capabilities

The Genio 1200 gives device makers design freedom with its powerful functionality that includes a high performance octa-core CPU with 4X premium Arm Cortex-A78 processors operating up to 2.2GHz, plus a five core graphics engine capable of advanced 3D graphics.

It can drive multiple 4K displays and touchscreens, and also receive and process ultra-high definition display and camera inputs. The Genio 1200 platform also offers generous expansion and connectivity opportunities to meet wide-ranging needs.

Dual-core MediaTek APU

For AI-based tasks - whether common INT8, INT16, or even precision focused FP16, the in-chip, dual-core AI Processor Unit (APU) enables deep learning (DL), Neural Network (NN) acceleration, and Computer Vision (CV) applications.

Exceptionally Power-efficient Chip

Using the advanced TSMC N6 (6nm-class) production process means the Genio 1200 is exceptionally light on power, allowing device makers to minimize their BOM costs, design using fanless enclosures or even off-grid power solutions that give more untapped application opportunity.

Specifications

Application Processor

CPU Type

- 4X Arm Cortex-A78
- 4X Arm Cortex-A55

CPU Cores

Octa (8)

CPU Frequency

Up to 2.2GHz

Graphics Processor

GPU Type

Arm Mali-G57 MC5

Additional Processors

AI & Audio

- MediaTek AI Processor (dual core)
- HiFi 4 Audio DSP

Display

Max Display Output Resolution

2X 4K60 (3840 x 2160)

Display Input

HDMI2.0 Receiver (HDMIRX)

Video Processing

Video Encoding

- HEVC
- H.264

Max Recording Resolution

4K60

Video Decoding

- AV1
- VP9
- HEVC
- H.264

Max Playback Resolution

4K90

Software

OS, Software & SDK

- Android
- Yocto Linux
- Ubuntu
- NeuroPilot SDK

Peripheral Interfaces

IO

- PCIe 3.0
- PCIe 2.0
- USB 3.1
- USB 2.0
- GbE MAC

Connectivity

Wireless Connectivity

Add-on chip/module:

- MediaTek Wi-Fi 6 / Bluetooth 5.2 Combo
- MediaTek 5G

Camera

ISP

- 48MP @ 30fps
- 16MP+16MP @ 30fps