

MediaTek Genio 510

Mainstream edge-AI IoT platform for smart home, interactive retail, industrial and commercial applications. Provides highly responsive edge processing, advanced multimedia, multiple OS support and more.



Ideal Applications

Designed for products suitable for fanless enclosure designs and off-grid power solutions.

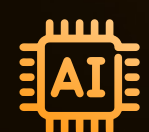
- Smart Retail: Digital signage, desktop POS
- Industrial: Edge AI, IoT gateway, HMI
- Smart Home: Fitness, smart home appliances



Superb Edge Performance and Efficiency

High-performance TSMC N6 (6nm) SoC featuring hexa-core CPU, graphics engine, and AI multi-processor.

- 2X Arm Cortex-A78 CPUs
- 4X Arm Cortex-A55 CPUs
- Arm Mali-G57 MC2
- Quad-channel LPDDR4X



AI performance

Versatile 3.2 TOPS AI multi-processor useful for Deep Learning, Neural Network acceleration, and Vision applications.

- MediaTek DLA + VP6
- MediaTek NeuroPilot SDK
- INT8, INT16 + FP16 capable



Android and Linux ready

Supports popular OSes that allow easy development and deployment of demanding edge applications

- Android
- Yocto Linux
- Ubuntu



Advanced Multimedia

Ideal for streaming video services, video conferencing, and visually interactive applications.

- 4K60+4K30 Dual Display
- Dual display support
- Video encoding up to 4K 30fps
- Video decoding up to 4K 60fps
- 32MP @ 30fps camera ISP



Platform Security & Longevity

MediaTek provides secure platforms ready for Enterprise and Industrial deployments.

- Arm SystemReady compliance
- Arm PSA certification for security
- 10-year supply commitment
- Consumer (-20°C to 95°C Tj) and Industrial (-40°C to 105°C Tj) support



Connectivity & Interfaces

Expand the platform to meet application specific needs via common interfaces and MediaTek's wireless portfolio.

- PCI-Express
- USB
- Gigabit Ethernet
- Optional Wi-Fi 6 / 5G