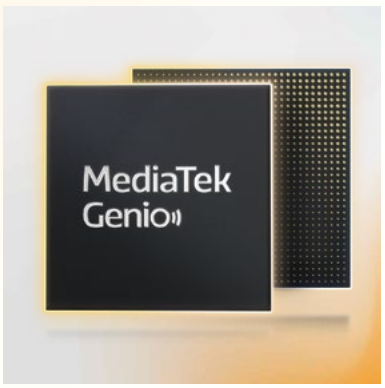
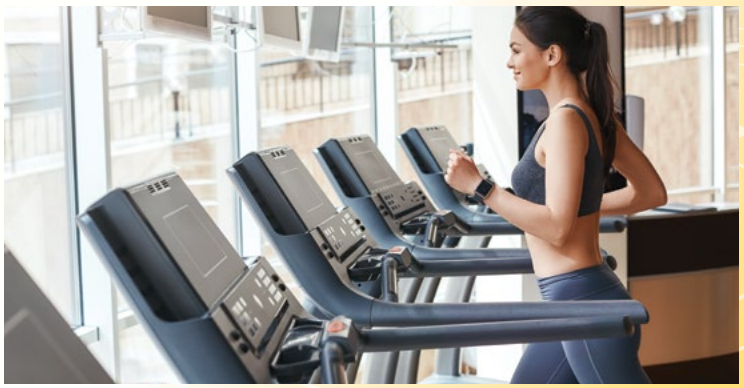
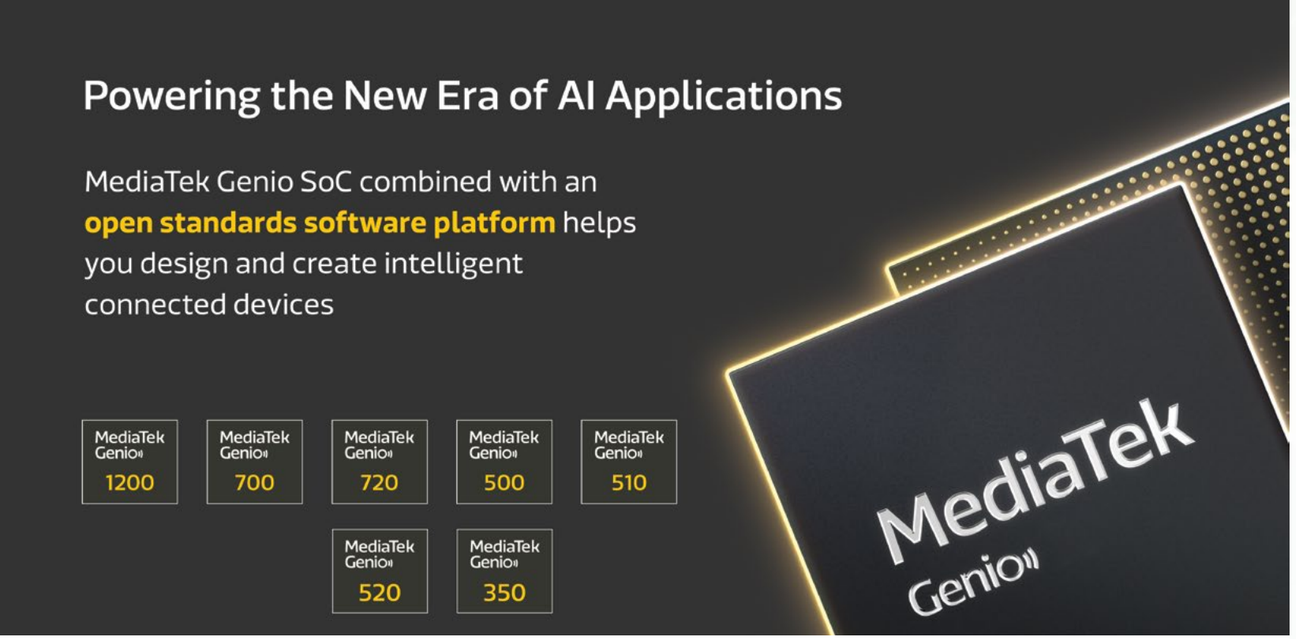
MediaTek Genio

Genius at the Edge

MEDIATEK







MediaTek's Genio family of System-on-Chips (SoCs) empowers a diverse range of next-generation IoT devices. From **smart home appliances** and **industrial automation** to **connected healthcare**, Genio SoCs offer a compelling combination of features:

Multicore CPUs: High-performance Arm® Cortex®-A processors deliver the performance needed for demanding tasks

Integrated GPUs: Seamless rendering of graphics enhances user experience and supports advanced functionalities without compromising performance

Dedicated AI Processing Units (NPUs): Efficiently handles complex AI workloads, enabling features like facial recognition and voice commands

Robust Connectivity: Reliable 5G, Wi-Fi and Bluetooth connectivity ensures devices stay online and responsive

Long-Lasting Battery Life: Genio SoCs dynamically switch between high-performance cores for demanding tasks and energy-efficient cores for background activities, reducing power consumption

10-Year Longevity Support

MediaTek offers a comprehensive 10-Year longevity program for Genio SoCs. This commitment guarantees sustained availability and ongoing assistance for applications demanding extended lifecycles, particularly in industrial and healthcare settings.

MediaTek Genio Open Platform

MediaTek simplifies development by offering a single SDK for all SoCs. This single platform eliminates the need for developers to learn and manage multiple, individual SDKs, significantly reducing development time and complexity.

The streamlined process allows for shorter development cycles and simplified codebases. Additionally, the unified SDK enhances code portability, allowing applications to be deployed on multiple Genio SoCs. This enables wider application compatibility and facilitates seamless integration across the Genio hardware ecosystem.

Scalable, Standard Software

- Standard Linux architecture & interfaces
- Upstream BSP (expert features with confidential IPs)
- Active migration to latest kernel
- Single SDK for the Genio family SoCs

AI Development Tools

- Software tools and APIs
- Verified AI models from MediaTek model hub and NVIDIA TAO NGC Catalog

Android Support

- 3 Android upgrade with vendor freeze
- 3-year security patch after last upgrade

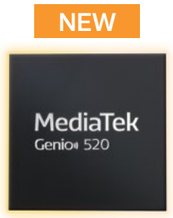
Linux Support

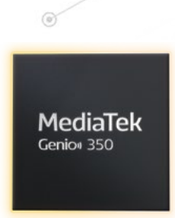
- 3yr BSP maintenance
- 3-year security patch after last upgrade
- Active migration to recent LTS Kernel

Ubuntu Support

- Lifecycle 10 years
- Follow Canonical's policy

MediaTek Genio Portfolio





	Genio 1200	Genio 720	Genio 520	Genio 700	Genio 510	Genio 350
Process	6nm	6nm		6nm		14nm
CPU	4x Arm® Cortex®-A78, 2.2 GHz + 4x Arm® Cortex®-A55, 2.0 GHz	2x Arm® Cortex® A78, 2.4~2.6GHz + 6x Arm® Cortex® A55, 2.0GHz	2x Arm® Cortex® A78, 2.0~2.2GHz + 6x Arm® Cortex® A55, 1.8~2.0GHz	2x Arm® Cortex®-A78, 2.2 GHZ + 6x Arm® Cortex®-A55, 2.0 GHz	2x Arm® Cortex®-A78, 2.0 GHZ + 4x Arm® Cortex®-A55, 2.0 GHz	4x Arm® Cortex®-A53, 2.0 GHz
GPU	Arm Mali-G57 MC5	Arm Mali-G57 MC2		Arm Mali-G57 MC3	Arm Mali-G57 MC2	Arm Mali-G52
NPU	2x MDLA2.0 + 2x VP6, 4.8 TOPS	MediaTek 8th generation NPU, up to 9 TOPS, Total up to 10 TOPS		1x MDLA3.0 + 1x VP6, 4.0 TOPS	1x MDLA3.0 + 1x VP6, 3.2 TOPS	1x VP6, 0.35 TOPS
Audio DSP	Hi-Fi 4	N/A		Hi-Fi 5		Hi-Fi 4
Memory	4-ch 16-bit LPDDR4(X)-4266, up to 16GB	2-ch 16-bit LPDDR4X-4266 up to 8GB 2-ch 16-bit LPDDR5(X)-6400 up to 16GB		2/4-ch 16-bit LPDDR4(X)-3733, up to 8GB		DDR3L/DDR4/LP3/ LPDDR4(X), up to 4GB
Storage	UFS2.1, eMMC5.1, SPI NOR	UFS3.1 2L, eMMC5.1, SPI NOR		eMMC 5.1, SPI NOR		eMMC 5.1
Display	Triple Display, FHD60+ FHD60+ 4K60 MIPI-DSI + eDP + HDMI/DP	Single: up to UW5K60, Dual: up to 2.5K60+2.5K60 MIPI-DSI/LVDS/eDP/DP (Type-C)		Dual Display, FHD60+4K60 MIPI-DSI/eDP + HDMI/DP		Dual Display, FHD60+ HD60 MIPI-DSI + LVDS/DPI
Video Input	3x MIPI CSI-2, 1x HDMI 2.0 16+16MP or 48MP@30fps 6x FHD30 with virtual channels	2x MIPI-CSI-2, 16+16MP or 32MP@30fps "or" 6x FHD30 with virtual channels	2x MIPI-CSI-2, 16MP@30fps or 6x FHD30 with virtual channels	2x MIPI CSI-2, 16+16MP or 32MP@30fps 8x FHD30 with virtual channels		2x MIPI CSI-2
VDEC	4K90, H.265/H.264/VP9/AV1	4K60, H.265/H.264/VP9		4K75/4K60, H.265/H.264/VP9/AV1	4K60, H.265/H.264/VP9/AV1	1080P60, H.265/H.264
VENC	4K60, H.265/H.264	4K30, H.265/H.264		4K30, H.265/H.264		1080P60, H.265/H.264/VP9
Peripheral	1x PCIe3.0, 1xPCIe2.0/USB3.1, 1x USB3.1, 2x USB2.0, 6x UART, 1x GbE MAC (TSN)	1x PCIe2.0, 1x USB3.2 Gen1 (Type C) (1 shared with DP), 3x USB2.0, 1x GbE MAC (TSN)		1x PCIe2.0, 1x USB3.2 Gen1, 2x USB2.0, 4x UART, 1x GbE MAC (TSN)		2x USB2 (1xOTG, 1xHost), 3x UART, 4x I2C, 10/100 Ethernet MAC
Temperature	Consumer: -20°C to 95°C (Tj) Industrial: -40°C to 105°C (Tj)	Consumer: -20°C to 95°C (Tj) Industrial: -40°C to 105°C (Tj)		Consumer: -20°C to 95°C (Tj) Industrial: -40°C to 105°C (Tj)		-20°C to 65°C (Ta)

MediaTek Genio Evaluation Kits

MediaTek Genio 520/720 EVK

Available
July 2025

Key Features

- 8GB of LPDDR5
- 128GB UFS 3.1 (default booting device) and 64GB eMMC onboard
- Wi-Fi 6 (2x2) + BT5.3 wireless connectivity
- 2x MIPI CSI camera board with 13MP and 5MP camera modules
- 1x USB 3.2 port support DP (Type-C)
- 1x USB 3.2 port (Type-C), 1x USB 2.0 port (Type-C), 1x Micro SD card slot
- 1x eDP connector (reserved), 1x LVDS connector (reserved)
- 7 inch FullHD LCM with touch panel
- 1x 10/100/1000M Ethernet RJ45 connector, 40-Pin Raspberry Pi pin header, CAN-FD with D-Sub 9 pin connector, 2x 2-wire UART connector (Type-C), 2x 4-wire UART pin header
- 1x M.2 Key B slot (USB2.0), 1x M.2 Key E slot (PCIe), 1x M.2 Key E slot (SDIO)

MediaTek Genio 510/700 EVK

Key Features

- 4GB/8GB of LPDDR4X
- 64GB eMMC onboard
- Wi-Fi 6 (2x2) + BT5.2 wireless connectivity
- 2x MIPI CSI connectors with 13MP and 8MP cameras
- 2x USB 2.0 ports
- 1x Micro SD card slot
- 1x HDMI Tx port
- 1x 10/100/1000M Ethernet RJ45 connector
- 40-Pin GPIO
- A 7-inch Full HD LCM touch panel

MediaTek Genio 1200 EVK

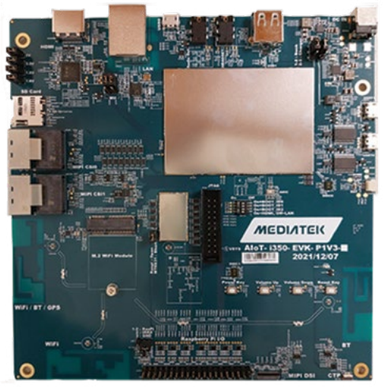
Key Features

- 8GB of LPDDR4X
- 64GB eMMC (default booting device) and 128GB UFS 2.1 onboard
- Wi-Fi 6 (2x2) + BT5.2 wireless connectivity
- 2x MIPI CSI camera board with 13MP and 8MP camera modules
- 1x USB 3.2 port support DP (Type-C), 2x USB 3.2 port (Type-A), 1x USB 2.0 port (Micro USB)
- 1x Micro SD card connector
- 2x HDMI port (IN x1, OUT x1), 1x eDP connector (reserved)
- 1x LVDS connector (reserved)
- 1x 10/100/1000M Ethernet RJ45 connector
- 40-Pin Raspberry Pi pin header, CAN-FD with D-Sub 9 pin connector, 1x 2-wire UART connector (Micro USB), 1x 4-wire UART pin header
- 7 inch FullHD LCM with touch panel, 1x M.2 Key B slot (USB 3.2 interface), 1x M.2 Key E slot (PCIe or SDIO interface)

MediaTek Genio 350 EVK

Key Features

- 3GB of LPDDR4X
- 64GB eMMC onboard
- Wi-Fi 5 2x2 wireless connectivity
- 2x MIPI CSI connectors with 1.3MP cameras
- 2x USB 2.0 ports
- 1x Micro SD card slot
- 1x HDMI Tx port
- 1x 10/100M Ethernet RJ45 connector
- 40-Pin GPIO
- A 7-inch Full HD LCM touch panel



0-90° Lay Flat · Dual Display · Camera Board · 4K UltraHD · HDMI · Type-C · Wi-Fi 6 2x2 · Android · Linux · Ubuntu

MediaTek Genio Featured Partner Solutions

MediaTek Genio 1200

ADVANTECH
Enabling an Intelligent Planet

RSB-3810 & EPC-R3810

Edge AI Single Board Computer and Box

- 2.5” Pico-ITX single board computer
- 8GB LPDDR4X, 32GB eMMC
- Dual GbE, 1x 4-wire RS-232/422/485, 6 rear I/O configurations
- Android, Yocto Linux, Ubuntu

radxa

NIO 12L

High-Performance Meets AI Efficiency

- 140x75 mm Single Board Computer
- 16GB LPDDR4X, 512GB UFS
- 1x HDMI TX, 1x DP (USB Type C), 1x MIPI DSI, 2x 4-lane MIPI CSI, 40-Pin GPIO Header
- Ubuntu, Yocto, Android

ADLINK
LEADING EDGE COMPUTING

I-Pi SMARC 1200

Edge AI Development Kit

- Standard SMARC Module Plus Carrier
- 4GB LPDDR4X, 64GB UFS
- 2x GbE, CAN bus, 3x MIPI-CSI
- 2x USB 3.0, 4x USB 2.0, CAN, SPI, I2C, GPIO
- Yocto Linux, Ubuntu

Vecow
Smarter AIoT Solution Services

ESOM-MT-1200

SOM for Premium AIoT Applications

- 82x55 mm System on Module
- 8GB LPDDR4X, 64GB eMMC
- 1x GbE, 2x USB3.0, 1x MIPI DSI, 2x MIPI CSI-2
- Linux Yocto 3.1

kontron

3.5”-SBC-i1200

Rich I/O Extension

- 3.5” Single Board Computer
- 8GB LPDDR4X, 32GB eMMC
- 1x DP, 1x DSI, 1x LVDS, 1x 2.5 GbE LAN, 1x GbE LAN, 1x USB 3.2 Gen 1, 4x USB 2.0
- Yocto

VIA

SOM-7000

Rich Wireless Connectivity Options

- SMARC 2.11 System on Module
- 8GB LPDDR4X, 16GB eMMC
- 2x 4-lane MIPI DSI, 2x MIPI CSI-2, 1x HDMI 2.0, 1x USB 3.1 and 3x USB 2.0, 12x GPIO
- Android 13, Yocto 4.0, Debian 12

MediaTek Genio Featured Partner Solutions

MediaTek Genio 700

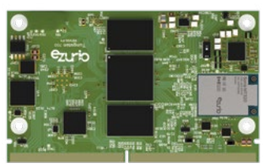
M274K

Intelligent Micro Module

- LCC + LGA Package
- 64bit LP4X 1866MHz, eMMC 5.1
- 4-lane MIPI DSI, 2x 4-lane MIPI CSI, USB3 ×1, USB2 ×2, supports OTG, 3x SPI, 6x I2C, 2x I2S, 2x ADC
- Android 13

Tungsten700 SMARC

SOM with MediaTek AI Accelerator



- Standard SMARC 2.1.1 Module
- 8GB LPDDR4, 16GB eMMC
- Dual GbE, CAN/CAN-FD, UART, I2C, SPI, SDIO/eMMC, GPIO, 2x 4-lane MIPI-CSI
- Yocto Linux, Ubuntu, or Android

Pumpkin Genio 700

Single Board Computer with Advanced Multimedia and AI

- SBC with Tensilica VP6 NPU3.0
- 8GB 4-channel LPDDR4X, 16GB eMMC
- USB Type C DRP (Host/Device), Type A x2, Micro-B
- 10/100Mbps Ethernet, MIPI 4-lane DSI, 2x MIPI CSI-2 4-Lane
- Android 11 and Yocto Kernel 5.10

MTB-620

Single Board Computer for MediaTek Genio 700

- SMARC 2.1 314 Pin SBC
- 8GB LPDDR4X, 64GB eMMC
- HDMI type A port, EDP, Dual 8-bit LVDS, DP, MIPI-CSI
- Android13/Linux

SOM-SMARC-Genio700

High-Performance Multimedia SOM

- SMARC Rel. 2.1.1 Module
- 8GB LPDDR4X, 64GB eMMC
- 1x Gigabit Ethernet (RGMII), 1x 100Mbit Ethernet (USB)
- 1x USB3.1, 1x USB2.0 Host/Slave, 4x USB2.0 Host, MIPI-CSI, 2x I2S port
- Linux Yocto Kirkstone, Android T (13)

Tessolve Genio700 SOM

System on Module for MediaTek Genio 700

- SMARC Rel. 2.1 Module
- 8GB LPDDR4X, 128GB eMMC
- 1x GbE, 1x USB 3.1, 2x USB 2.0, 2x MIPI CSI, 1x MIPI DSI
- Android 13 or Linux Yocto

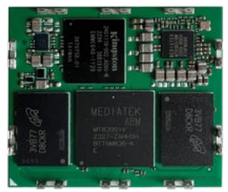
VAB-5000

Fanless Low-Power Single Board Computer

- Pico-ITX Single Board Computer
- 4GB/8GB LPDDR4X, 16GB eMMC
- 1x40-Pin Raspberry Pi-type GPIO header, 1x Micro coaxial 4-lane MIPI DSI, 2x USB 3.1 1x Micro USB 2.0, 1x Nano SIM card slot
- MIPI CSI camera, AHD camera, and eDP/LVDS display panel support
- Also available in the SMARC form factor
- Android 13, Yocto 4.0, Debian 12

Grinn GenioSOM-700

SOM for Advanced IoT Devices



- LGA312 System on Module
- 8GB LPDDR4, 64GB eMMC, 2x USB 2.0, 1x USB 3.1
- 1x PCIe, 1x eDP, 1x DP, 6x SPI, 4x UART, 1x AUX, 2x MSDC 7x I2C (up to 2x I3S included), 2x I2S, 1x PCM, 2x DMIC
- 4x CSI, 2x DSI, 1x DPI, 1x HDMI, 4x PWM, 1x RGMII
- Yocto Linux, Android

MediaTek Genio Featured Partner Solutions

MediaTek Genio 510

ADLINK LEADING EDGE COMPUTING

OSM-MTK510

Compact and Rugged SOM

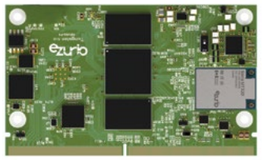
- OSM 45x45 mm Module
- 4GB LPDDR4X, 128GB eMMC
- Dual GbE, CAN bus, 1x MIPI-CSI, Bluetooth 5.0, HDMI/DP
- Ubuntu, Yocto, Android

MiTwell

MiTwell MOSM-MM20E

- OSM 45x45 mm Module
- 8GB LPDDR4X, eMMC 64GB
- 1 x MIPI DSI, 1x 4-lane MIPI CSI, 3x USB2.0, 1x USB3.0
- 2x SPI, 2x I2C, 3x UART, 2x ADC, 1x I2S
- Yocto Linux, Ubuntu v22.04

ezurio
New name for Laird Connectivity



Tungsten510 SMARC

SOM with MediaTek AI Accelerator

- Standard SMARC 2.1.1 Module
- 8GB LPDDR4X, 16GB eMMC
- Dual GbE, CAN/CAN-FD, UART, I2C, SPI, SDIO/eMMC, GPIO, 2x 4-lane MIPI-CSI
- Yocto Linux or Android

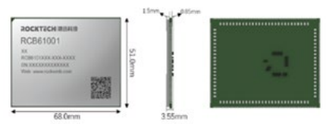
OLogic

Pumpkin Genio 510

Single Board Computer for MediaTek Genio 510

- SBC with Tensilica VP6 NPU3.0
- 8GB 4-channel LPDDR4X, 16GB eMMC
- 10/100/1000Mbps Ethernet, MIPI 4-lane DSI, 2x MIPI CSI-2 4-Lane
- Supports Type C DRP USB-3.1 (Host/Device), Type A x2, USB-C (Serial Console)
- Android 11 and Yocto Kernel 5.10

ROCKTECH



RCB-6111

System on Module for MediaTek Genio 510

- LGA 316 Pin System on Module
- 8GB LPDDR4X, 64GB eMMC
- MIPI DSI, EDP, DP, HDMI, MIPI_CSI
- Android13/Linux

SECO
Endless ways to the future

SOM-SMARC-Genio510

High-Performance Multimedia SOM

- SMARC Rel. 2.1.1 Module
- 8GB LPDDR4X, 64GB eMMC
- 1x Gb Ethernet, 1x USB3.1, 1x USB2.0 Host/Slave, 4x USB2.0 Host, MIPI-CSI
- Linux Yocto Kirkstone, Android T (13)

AMOBILE

SBC-MB510

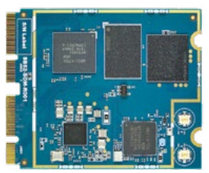
MediaTek G510 Single Board Computer

- Supports Android 14 and Yocto 4.0 (upgradable)
- 92x140 mm, SODIMM I/F
- 4GB/8GB LPDDR4, 64GB eMMC 5.1 storage
- Multi-type I/O ports include eDP, USB, HDMI, camera, audio, network, SD card, RTC, expansion connectors, etc.

MediaTek Genio Featured Partner Solutions

MediaTek Genio 500

innocomm



SB52

System on Module for MediaTek Genio 500

- M.2 E-key x2 Form Factor SOM
- 4GB LPDDR4, 32GB eMMC
- Supports Wi-Fi 802.11 a/b/g/n/ac MIMO, USB2.0 OTG
- I2C, PWN, SPI, UART, x2 key matrix, ADC, GPIO
- Android

OLogic

Pumpkin Genio 500

Single Board Computer for MediaTek Genio 500

- SBC with Dual-core Tensilica Vision P6 NPU
- 2GB LPDDR4, 16GB eMMC
- USB Type C DRP (Host/Device), Type A x2, Micro-B
- 10/100Mbps Ethernet, MIPI 4-lane DSI, MIPI CSI-2 ports x4
- Android 11 and Yocto Kernel 5.10

TESSOLVE
A HERO ELECTRONIX VENTURE

MT8385 Nano SOM

System on Module for MediaTek Genio 500

- 50x28 mm Nano System on Module
- 8GB LPDDR4X, 128GB eMMC
- 1x GbE, 1x USB 2.0Host, 1x USB 2.0 OTG, 2x MIPI CSI
- 1x HDMI, 1x LVDS, 4x I2C, 1x SPI, 1x UART
- Linux: Yocto (Kirkstone), Kernel 5.15, Android: V13

MediaTek Genio 350

innocomm

SB35

SOM for Edge AI Applications

- M.2 E-key x2 Form Factor SOM
- 4GB LPDDR4, 32GB eMMC
- Supports Wi-Fi 802.11 a/b/g/n/ac MIMO, USB2.0 OTG & Host
- I2C, PWN, SPI, UART, x2 key matrix, ADC, GPIO
- Android

OLogic

Pumpkin Genio 350

AWS Greengrass V2 Certified SBC

- SBC Designed for Mainstream AI + IoT Applications
- 2GB LPDDR4, 16GB eMMC
- USB Type C DRP (Host/Device), Type A x2, Micro-B
- 10/100Mbps Ethernet, MIPI 4-lane DSI, MIPI CSI-2 ports x3
- Android 11 and Yocto Kernel 5.10

VIA

SOM-3000

Integrated AI Processor SOM

- 60x45x6.8 mm System on Module
- 2GB LPDDR4, 16GB eMMC
- 1x 4-Lane MIPI DSI, 1x HDMI 1.4, 2x 4-Lane MIPI CSI, 1x USB 2.0 Host ,1x USB 2.0 OTG, 1x SPI, 3x I2C, 2x UART
- Android 12, Yocto 3.1

MediaTek Genio Connectivity Solutions

Wireless Module for 5G

COMPAL

RMM-G1 (T700)

- 30x52x2.25 mm M.2 3052 (Key B) Module
- 3GPP Rel-15 complied
- OP: -40°C to +85°C
- OS: Linux Driver Support

COMPAL

CMM-G3 (T300)

- M.2 Key. B Module
- 3GPP Rel-17 Redcap complied
- OP: -25°C to +75°C
- OS: Linux

QUECTEL

RM500K (T700)

- M.2 Module Carton Box Package
- 4GB LPDDR4X + 4GB NAND memory combination
- Cellular: NR SA/NR NSA/LTE-FDD/LTE-TDD/WCDMA
- OP: -40°C to +85°C

MediaTek Genio Connectivity Solutions

Wi-Fi: MediaTek MT7663

GSD

WCT22M2101 (MT7663)

- 19.5x25x2.5 mm Half Hole Patch Module
- Wi-Fi 5 2x2 MIMO, BT 5.1
- OP: -10°C to +70°C
- Certification: KC, FCC, IC, CE, NCC, MIC
- OS: Android, Linux

AzureWave

AW-CB451NF-D V2 (MT7663)

- M.2 2230 AE-Key Module (SDIO/SDIO)
- 11ac (Wi-Fi 5) and BT5.2
- OP: -10°C to +70°C
- Certification: Worldwide homologation

MediaTek Genio Connectivity Solutions

Wi-Fi: MediaTek MT7921

ezurio
New name for Laird Connectivity

Sona™ MT320 - Wi-Fi 6 + Bluetooth® 5.4 Module

- M.2 2230 Key A+E Module (SDIO/SDIO)
- Dual-Band Wi-Fi 6, BT 5.4
- OP: -40°C to +85°C
- Bluetooth SIG Approval
- Certification: Worldwide homologation

GSD

WXT2PM2003

- 24x24x2.6 mm SMD Module (PCIe/USB)
- Wi-Fi 6 2x2 MIMO, BT 5.4
- OP: -10°C to +70°C
- Certification: CC/CE/MIC/NCC/SRRC/3x Antenna

AzureWave

AW-XB468NF

- M.2 2230 Key A+E Module (PCIe/USB)
- Wi-Fi 6 2x2 MIMO, BT5.4
- OP: -10°C to +70°C
- Certification: Worldwide homologation

AzureWave

AW-XB554NF

- M.2 2230 Key A+E Module (SDIO/SDIO)
- Wi-Fi 6 2x2 MIMO, BT5.4
- OP: -10°C to +70°C
- Certification: Worldwide homologation

NeuroPilot:
MediaTek's Ecosystem for AI Development

MediaTek's NeuroPilot is an ecosystem of software tools and APIs designed to simplify the development of efficient AI applications on devices powered by MediaTek chipsets, specifically targeting the edge AI space. MediaTek's NeuroPilot technology enables executing AI tasks directly on the device reducing latency, improving security, and facilitating reliable and efficient offline operation.

Features of NeuroPilot include:

- **Support for Popular AI Frameworks:** Compatibility with frameworks like TensorFlow Lite, PyTorch, Caffe, and others allows developers to leverage existing models and code
- **IoT Model Hub:** Set of pre-trained machine learning models ready for fine-tuning and deployable anywhere with AI enabled devices powered by MediaTek
- **Hardware Acceleration:** Utilizes dedicated hardware components, MediaTek AI Processing Unit (NPU), within the chipset to accelerate AI computations, improving performance and power efficiency

Resources:

- Neuropilot Home Page
- Getting Started
- Watch video: What is Neuropilot?

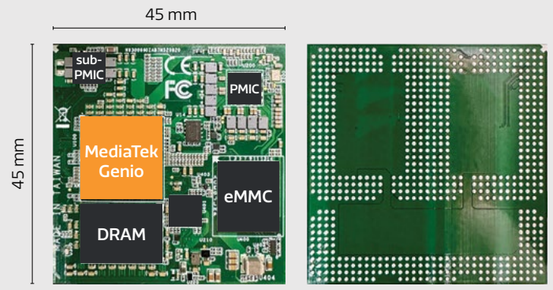
https://neuropilot.mediatek.com/

Genio Solutions Support OSM for Compact Designs

The Open Standard Module (OSM) offers solderless BGA/LGA/FTGA mini modules that enable higher integration density, small footprint, and significantly reduced costs through direct PCB mounting. It offers machine-automated manufacturing with standardized interfaces, while maintaining open-source hardware and software flexibility.

This compact and powerful solution enables rapid development and deployment of embedded systems across various industries including factory automation, fleet management, gaming, EV charging infrastructure, medical devices, and more.

- Genio 720/520
- Single-side PCB, Support Size L: 45x45mm
- PDN/DRAM SI Pre-simulation



OPEN STANDARD MODULE™

Partner Solutions

MediaTek supports OSM with reference designs that ensure power and signal integrity, which greatly shortens users' development cycle in OSM. ADLINK and Mitwell offer ready to use OSM solutions that help reduce development resources and accelerate time to market.

ADLINK LEADING EDGE COMPUTING

ADLINK OSM-MTK510

MiTwell

MiTwell MOSM-MM20E

Reference Design

Enhancing Industrial Vehicle Safety with AI-Powered Multi-Camera Solutions

Industrial vehicles operate with significant blind spots due to elevated driver positions, increasing safety risks. To address this, a robust multi-camera solution is essential—one that supports extended cable lengths while delivering real-time video processing with AI-driven recognition.

Challenge

Traditional camera systems struggle with extended cable lengths and real-time processing demands in industrial environments.

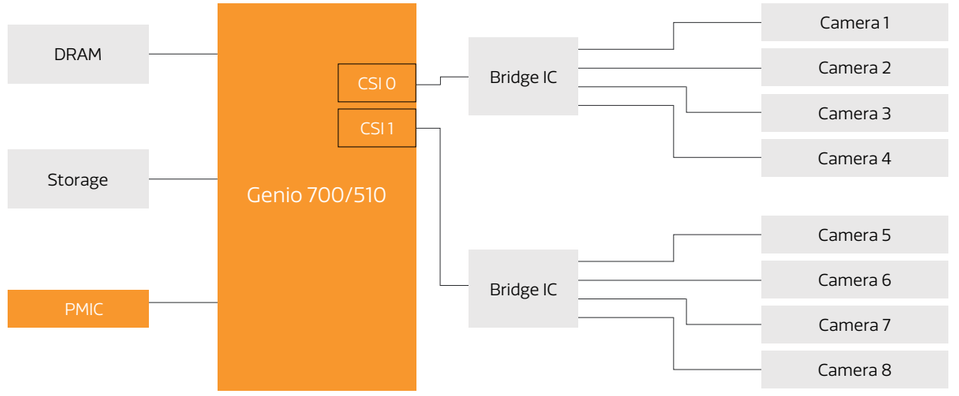
.

Solution

MediaTek's Genio platform features Virtual Channel technology with SERDES interfaces, supporting 8 simultaneous camera feeds with advanced AI processing capabilities. This technology enhances situational awareness with cutting-edge AI capabilities.

Benefits:

- **Processing Power:** Up to 10 TOPs for real-time video processing.
- **Camera Support:** 8 channels running simultaneously with Virtual Channel technology.
- **AI Performance:** Specific hardware AI accelerator to provide best AI user experience.
- **Reference Design:** Validated solution available upon request.



MediaTek Genio Multi-Camera Solution Block Diagram

Case Study

Boosting Smart Manufacturing Productivity with Genio 1200

XC Tech's H08 Pro, a smart industrial device, powered by MediaTek's Genio 1200 SoC streamlines training, enables real-time monitoring and drives digital transformation in manufacturing.

Challenge

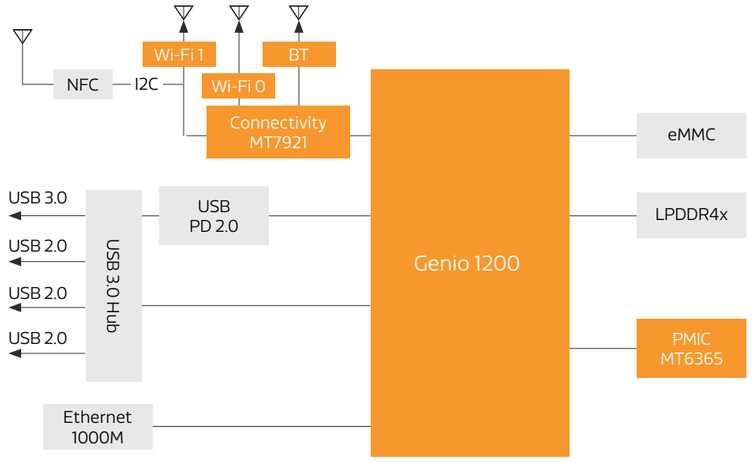
Manufacturers required high processing power, robust AI and multimedia capabilities, seamless connectivity, and an energy efficient solution that can train and improve workforce productivity.

Solution

MediaTek's Genio 1200 SoC provided high computing power for real time data analysis, process monitoring and digital training. With AI, multimedia, industrial-durability and cost-efficient development, Genio 1200 SoC met all the requirements.

Benefits:

- **High compute performance:** The Genio 1200 SoC handles heavy workloads simultaneously.
- **Automated employee training and quality monitoring:** Supports digital training, and AI-driven real-time quality monitoring.
- **Seamless Integration:** Integrates seamlessly with manufacturing systems and production lines.
- **Enhanced Adoption:** 20% faster development accelerates time-to-market and industry adoption.



Solution Block Diagram

Case Study

At-Home Boxing Training with MediaTek's AI-Driven Edge Solutions

FightCamp, an AI-driven fitness solution scaled their product's capabilities with MediaTek's Genio 350 SoC, providing real-time feedback, better connectivity and upgrading their user experience.

Challenge

FightCamp required edge-AI capabilities for real-time feedback on boxing training, and higher computing power for multitasking while being energy efficient. It also required better connectivity to connect to more devices than just 4.

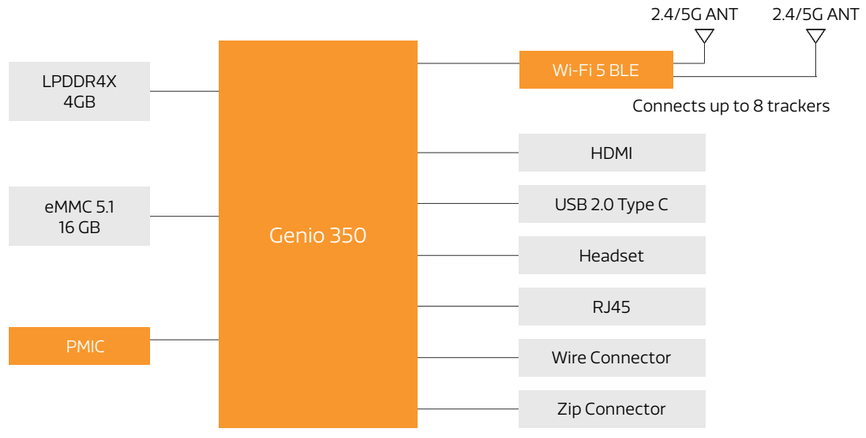
.

Solution

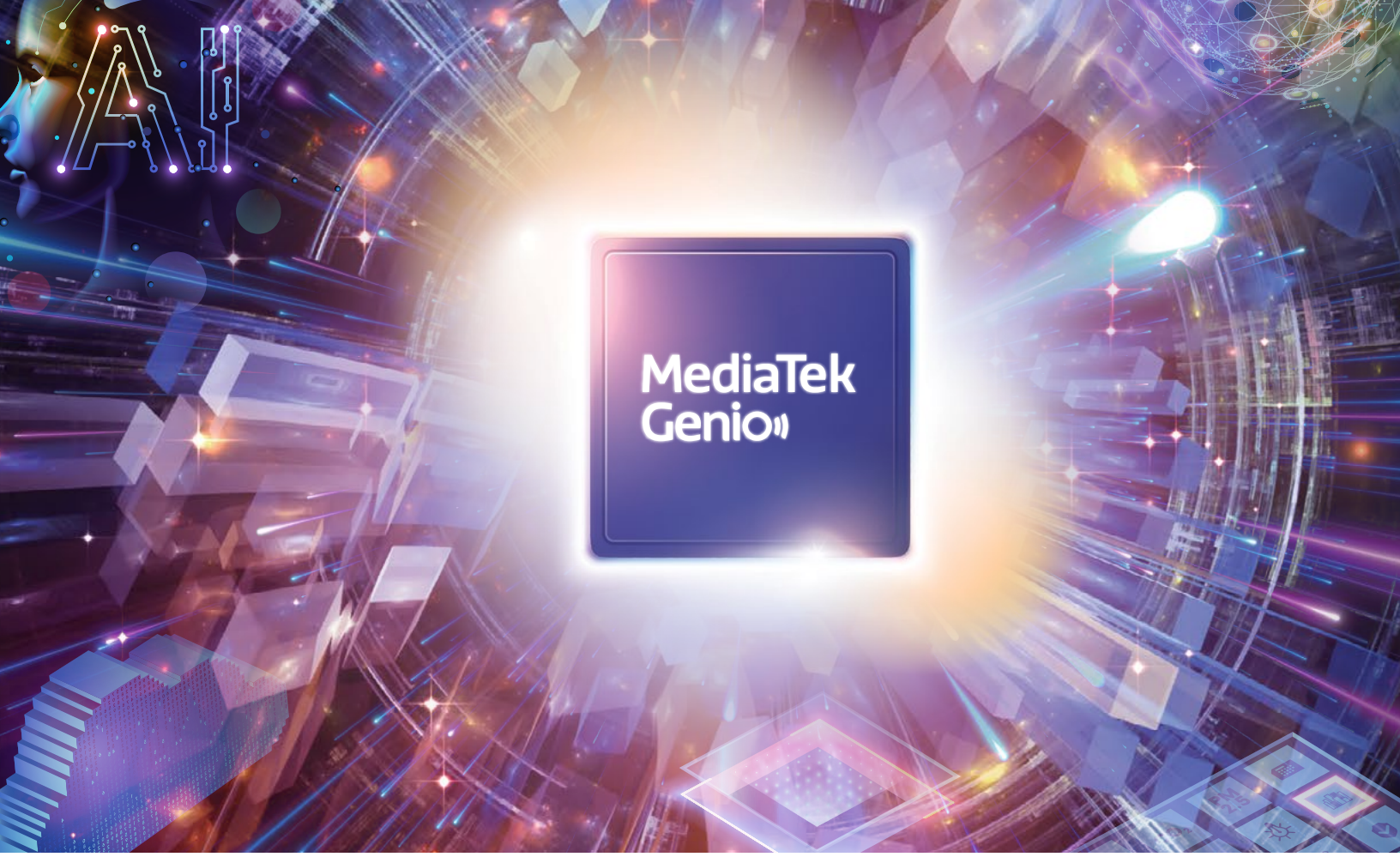
MediaTek's Genio 350 SoC provided FightCamp with robust AI processing, seamless connectivity and ability to handle intense AI tasks without overheating or draining. Edge AI enabled precise feedback during workouts.

Benefits:

- **Enhanced Connectivity:** Supports multiple trackers of the fitness console simultaneously.
- **Real-time Feedback:** Edge AI computing provides detailed feedback during workouts.
- **Higher processing power:** Powerful processing allows the console to track punch metrics and training posture in real-time.
- **Power efficiency:** Longer battery life along with handling intensive AI tasks.
- **Seamless Streaming:** Seamless connectivity to a TV for streaming workouts live.



Solution Block Diagram



About MediaTek

MediaTek Incorporated (TWSE: 2454) is the world's 5th largest global fabless semiconductor company and powers more than 2 billion connected devices a year. We are a market leader in developing innovative systems-on-chip (SoC) for mobile device, home entertainment, connectivity, and IoT products.

Our dedication to innovation has positioned us as a driving market force in several key technology areas, including highly power-efficient mobile technologies, industrial and automotive solutions, and a broad range of advanced multimedia products such as smartphones, tablets, TVs, 5G, Chromebooks, Voice Assistant Devices (VAD) and wearables.

Contact Information

Contact mail :
Genio@mediatek.com

Online:
www.mediatek.com/products/iot/genio-iot

MEDIATEK

March 2025