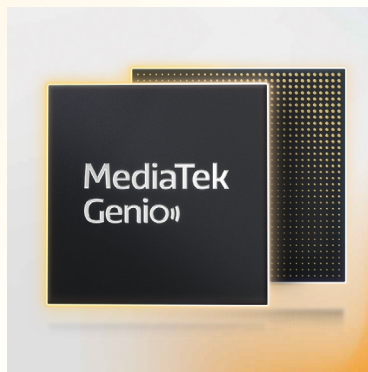


MediaTek Genio™

Genius at the Edge

MEDIATEK



Powering the New Era of AI Applications

MediaTek Genio SoC combined with an **open standards software platform** helps you design and create intelligent connected devices



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 Yocto 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



Yocto Linux Support

- 3-year 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

	MediaTek Genio 1200	NEW MediaTek Genio 720	NEW MediaTek Genio 520
	Genio 1200	Genio 720*	Genio 520*
Process	6nm	6nm	6nm
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
GPU	Arm Mali-G57 MC5	Arm Mali-G57 MC2	Arm Mali-G57 MC2
NPU	2x MDLA2.0 + 2x VP6, 4.8 TOPS	MediaTek 8 th generation NPU, up to 9 TOPS, Total up to 10 TOPS	MediaTek 8 th generation NPU, up to 9 TOPS, Total up to 10 TOPS
Audio DSP	Hi-Fi 4	N/A	N/A
Memory	4-ch 16-bit LP4(X)-4266, up to 16GB	2-ch 16-bit LP4X-4266 up to 8GB 2-ch 16-bit LP5(X)-6400 up to 16GB	2-ch 16-bit LP4X-4266 up to 8GB 2-ch 16-bit LP5(X)-6400 up to 16GB
Storage	UFS2.1, eMMC5.1, SPI NOR	UFS3.1 2L, eMMC5.1, SPI NOR	UFS3.1 2L, eMMC5.1, SPI NOR
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)	Single: UW5K60 or 4K60 Dual: 2.5K60 + 2.5K60 MIPI-DSI/LVDS/eDP/DP (Type C)
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
VDEC	4K90, H.265/H.264/VP9/AV1	4K60, H.265/H.264/VP9	4K60, H.265/H.264/VP9
VENC	4K60, H.265/H.264	4K30, H.265/H.264	4K30, H.265/H.264
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 (Type C) (1 shared with DP), 3x USB2.0, 1x GbE MAC (TSN)
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)

*Genio 720 and 520 are pin to pin compatible.

**Genio 700 and 510 are pin to pin compatible.

	MediaTek Genio 700	MediaTek Genio 510	MediaTek Genio 350
	Genio 700**	Genio 510**	Genio 350
Process	6nm	6nm	14nm
CPU	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 MC3	Arm Mali-G57 MC2	Arm Mali-G52
NPU	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 5	Hi-Fi 5	Hi-Fi 4
Memory	2/4-ch 16-bit LP4(X)-3733, up to 8GB	2/4-ch 16-bit LP4(X)-3733, up to 8GB	DDR3L/DDR4/LP3/ LP4(X), up to 4GB
Storage	eMMC 5.1, SPI NOR	eMMC 5.1, SPI NOR	eMMC 5.1
Display	Dual Display, FHD60+4K60 MIPI-DSI/eDP + HDMI/DP	Dual Display, FHD60+4K60 MIPI-DSI/eDP + HDMI/DP	Dual Display, FHD60+ HD60 MIPI-DSI + LVDS/DPI
Video Input	2x MIPI CSI-2, 16+16MP or 32MP@30fps 8x FHD30 with virtual channels	2x MIPI CSI-2, up to 16+16MP or 32MP@30fps 8x FHD30 with virtual channels	2x MIPI CSI-2
VDEC	4K75/4K60, H.265/H.264/VP9/AV1	4K60, H.265/H.264/VP9/AV1	1080P60, H.265/H.264
VENC	4K30, H.265/H.264	4K30, H.265/H.264	1080P60, H.265/H.264/VP9
Peripheral	1x PCIe2.0, 1x USB3.2 Gen1, 2x USB2.0, 4x UART, 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)	-20°C to 65°C (Ta)

MediaTek Genio Evaluation Kits

MediaTek Genio 520/720 EVK

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)

Available
July 2025



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 510/700 EVK

Key Features

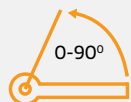
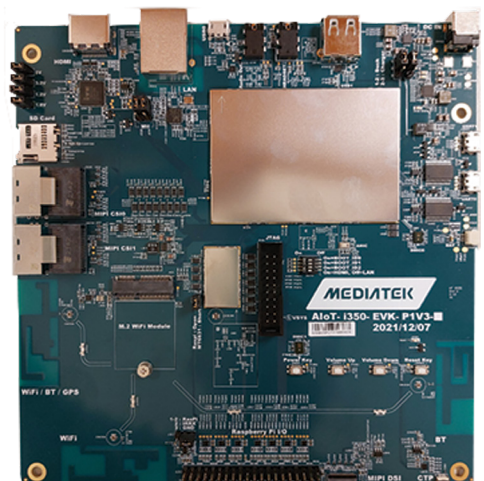
- 4GB/8GB of LPDDR4X
- 64GB eMMC onboard
- Wi-Fi 6 (2x2) + BT5.2 wireless connectivity
- 2x MIPI CSI connectors with 13MP and 8MP cameras
- 2x USB 2.0 ports
- 1x Micro SD card slot
- 1x HDMI Tx port
- 1x 10/100/1000M Ethernet RJ45 connector
- 40-Pin GPIO
- A 7-inch Full HD LCM touch panel



MediaTek Genio 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



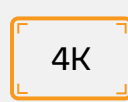
Lay Flat



Dual
Display



Camera
Board



4K UltraHD



HDMI



Type-C



Wi-Fi 6 2x2



Android



Yocto 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, and Ubuntu

ADLINK
LEADING EDGE COMPUTING

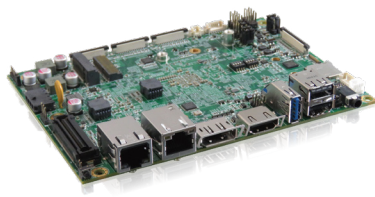


I-Pi SMARC 1200

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 and Ubuntu

kontron

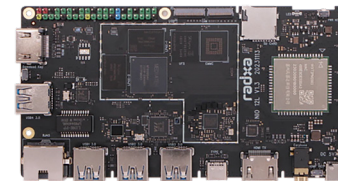


3.5"-SBC-i1200

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 Linux

radxa

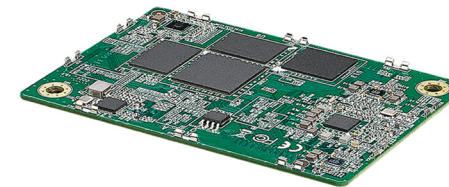


NIO 12L

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 Linux, and Android

Vecow
Smarter AIoT Solution Services

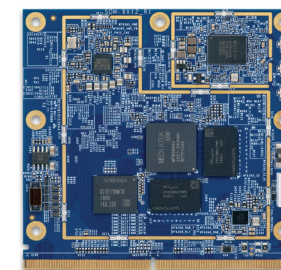


ESOM-MT-1200

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
- Yocto Linux

VIA



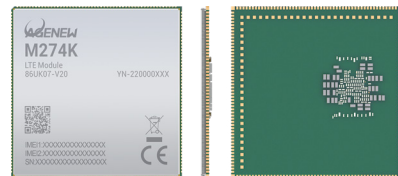
SOM-7000

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, Yocto Linux, and Debian

MediaTek Genio Featured Partner Solutions

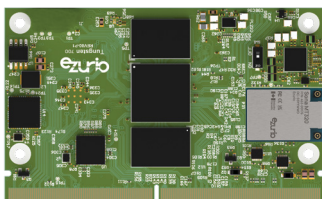
MediaTek Genio 700



M274K

Intelligent Micro Module

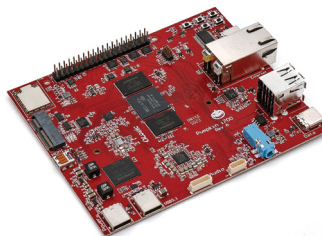
- LCC + LGA Package
- 64bit LP4X 1866MHz, eMMC 5.1
- 4-lane MIPI DSI, 2x 4-lane MIPI CSI, USB3 x1, USB2 x2, supports OTG, 3x SPI, 6x I2C, 2x I2S, 2x ADC
- Android



Tungsten700 SMARC

SOM with MediaTek AI Accelerator

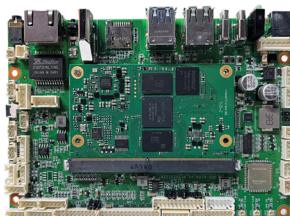
- Standard SMARC 2.1.1 Module
- 8GB LPDDR4, 16GB eMMC
- Dual GbE, CAN/CAN-FD, UART, I2C, SPI, SDIO/eMMC, GPIO, 2x 4-lane MIPI-CSI
- Yocto Linux, Ubuntu, and Android



Pumpkin Genio 700

Single Board Computer with Advanced Multimedia and AI

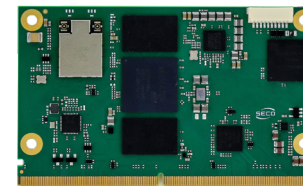
- SBC with Tensilica VP6 NPU3.0
- 8GB 4-channel LPDDR4X, 16GB eMMC
- USB Type C DRP (Host/Device), Type A x2, Micro-B
- 10/100Mbps Ethernet, MIPI 4-lane DSI, 2x MIPI CSI-2 4-Lane
- Android and Yocto Linux



MTB-620

Single Board Computer for MediaTek Genio 700

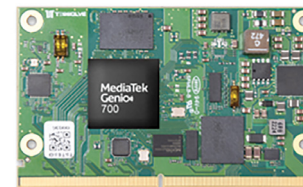
- SMARC 2.1 314 Pin SBC
- 8GB LPDDR4X, 64GB eMMC
- HDMI type A port, EDP, Dual 8-bit LVDS, DP, MIPI-CSI
- Android and Yocto Linux



SOM-SMARC-Genio700

High-Performance Multimedia SOM

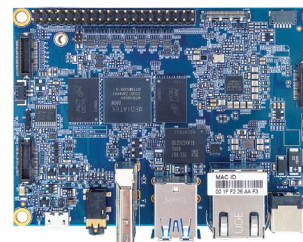
- SMARC Rel. 2.1.1 Module
- 8GB LPDDR4X, 64GB eMMC
- 1x Gigabit Ethernet (RGMII), 1x 100Mbit Ethernet (USB)
- 1x USB3.1, 1x USB2.0 Host/Slave, 4x USB2.0 Host, MIPI-CSI, 2x I2S port
- Yocto Linux and Android



Tessolve Genio700 SOM

System on Module for MediaTek Genio 700

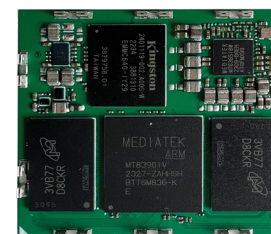
- SMARC Rel. 2.1 Module
- 8GB LPDDR4X, 128GB eMMC
- 1x GbE, 1x USB 3.1, 2x USB 2.0, 2x MIPI CSI, 1x MIPI DSI
- Android and Yocto Linux



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, Yocto Linux, and Debian



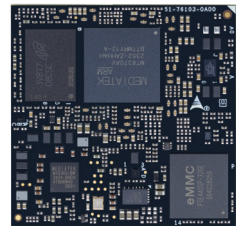
Grinn GenioSOM-700

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 and Android

MediaTek Genio Featured Partner Solutions

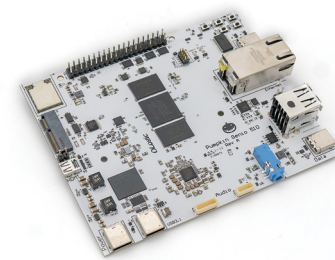
MediaTek Genio 510



OSM-MTK510

Compact and Rugged SOM

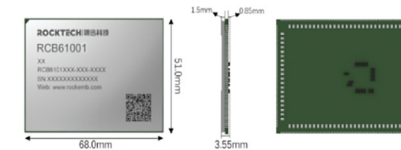
- OSM 45x45 mm Module
- 4GB LPDDR4X, 128GB eMMC
- Dual GbE, CAN bus, 1x MIPI-CSI, Bluetooth 5.0, HDMI/DP
- Ubuntu, Yocto Linux, and Android



Pumpkin Genio 510

Single Board Computer for MediaTek Genio 510

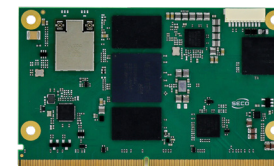
- SBC with Tensilica VP6 NPU3.0
- 8GB 4-channel LPDDR4X, 16GB eMMC
- 10/100/1000Mbps Ethernet, MIPI 4-lane DSI, 2x MIPI CSI-2 4-Lane
- Supports Type C DRP USB-3.1 (Host/Device), Type A x2, USB-C (Serial Console)
- Android and Yocto Linux



RCB-6111

System on Module for MediaTek Genio 510

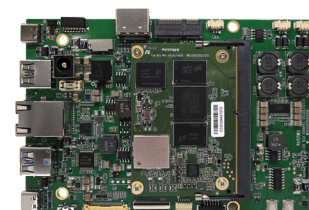
- LGA 316 Pin System on Module
- 8GB LPDDR4X, 64GB eMMC
- MIPI DSI, EDP, DP, HDMI, MIPI_CSI
- Android and Yocto Linux



SOM-SMARC-Genio510

High-Performance Multimedia SOM

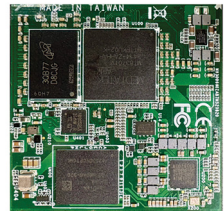
- SMARC Rel. 2.1.1 Module
- 8GB LPDDR4X, 64GB eMMC
- 1x Gb Ethernet, 1x USB3.1, 1x USB2.0 Host/Slave, 4x USB2.0 Host, MIPI-CSI
- Yocto Linux and Android



SBC-MB510

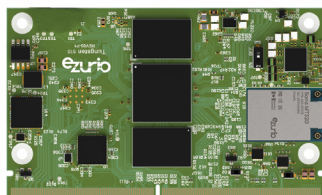
MediaTek G510 Single Board Computer

- Supports Android, and Yocto Linux
- 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.



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 and Ubuntu



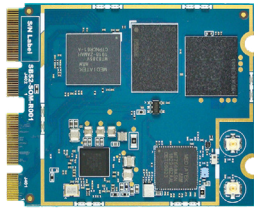
Tungsten510 SMARC

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 and Android

MediaTek Genio Featured Partner Solutions

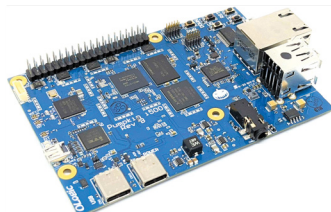
MediaTek Genio 500



SB52

System on Module for MediaTek Genio 500

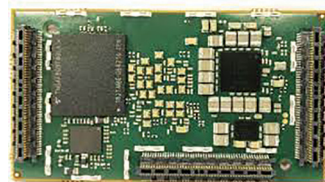
- M.2 E-key x2 Form Factor SOM
- 4GB LPDDR4, 32GB eMMC
- Supports Wi-Fi 802.11 a/b/g/n/ac MIMO, USB2.0 OTG
- I2C, PWN, SPI, UART, x2 key matrix, ADC, GPIO
- Android



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 and Yocto Linux

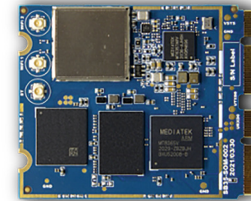


MT8385 Nano SOM

System on Module for MediaTek Genio 500

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

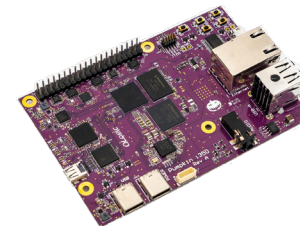
MediaTek Genio 350



SB35

SOM for Edge AI Applications

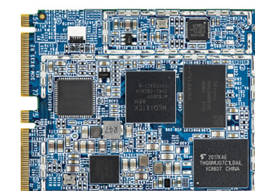
- M.2 E-key x2 Form Factor SOM
- 4GB LPDDR4, 32GB eMMC
- Supports Wi-Fi 802.11 a/b/g/n/ac MIMO, USB2.0 OTG & Host
- I2C, PWN, SPI, UART, x2 key matrix, ADC, GPIO
- Android



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 and Yocto Linux



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 and Yocto Linux

MediaTek Genio Connectivity Solutions

Wireless Module for 5G



RMM-G1 (T700)

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



CMM-G3 (T300)

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



RM500K (T700)

- 5G Modem: MediaTek T700
- M.2 3052 Key B
- 5G Sub-6 GHz
- -40° C to +85° C
- China Region
- Android and Yocto Linux

MediaTek Genio Connectivity Solutions

Wi-Fi: MediaTek MT7663



WCT22M2101 (MT7663)

- Wi-Fi/BT: MediaTek MT7663B
- LGA (20x25x2.4), 3xANT
- Wi-Fi 5 (SDIO) + Bluetooth 5.2 (SDIO)
- -10° C to +70° C
- Android



AW-CB451NF-D V2 (MT7663)

- Wi-Fi/BT: MediaTek MT7663B
- M.2 2230 Key E
- Wi-Fi 5 (SDIO) + Bluetooth 5.2 (SDIO)
- -10° C to +70° C
- Worldwide Homologation certified
- Android

MediaTek Genio Connectivity Solutions

Wi-Fi: MediaTek MT7921



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

- Wi-Fi/BT: MediaTek MT7921LS
- M.2 2230 Key E
- Wi-Fi 6 (SDIO) + Bluetooth 5.4 (SDIO)
- -40° C to +85° C
- Bluetooth SIG Approval
- Android and Yocto Linux



WXT2PM2003

- Wi-Fi/BT: MediaTek MT7921LE
- LGA (24x24x2.6), 3xANT
- Wi-Fi 6 (PCIe) + Bluetooth 5.4 (USB2)
- 10° C to +70° C
- Android and Yocto Linux



AW-XB468NF

- Wi-Fi/BT: MediaTek MT7921LE
- M.2 2230 Key E
- Wi-Fi 6 (PCIe) + Bluetooth 5.4 (USB2)
- -10° C to +70° C
- Worldwide Homologation certified
- Android and Yocto Linux



AW-XB554NF

- Wi-Fi/BT: MediaTek MT7921LS
- M.2 2230 Key E
- Wi-Fi 6 (SDIO) + Bluetooth 5.4 (SDIO)
- -10° C to +70° C
- Worldwide Homologation certified
- Android and Yocto Linux

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/>

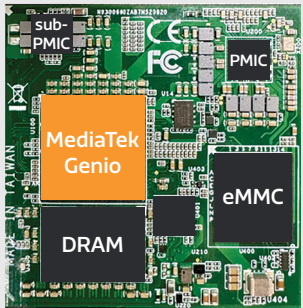
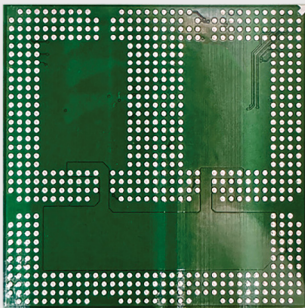
Genio Solutions Support OSM for Compact Designs

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

45 mm



OPEN

STANDARD

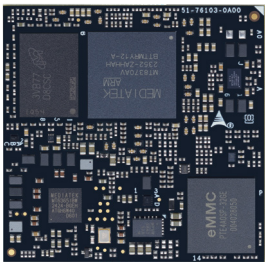
MODULE™

Partner Solutions

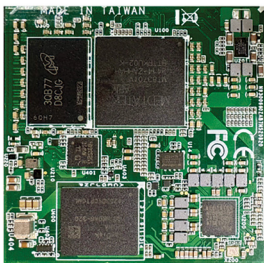
MediaTek supports OSM with reference designs that ensure power and signal integrity, which greatly shortens users' development cycle in OSM. ADLINK and Mitwell offer ready to use OSM solutions that help reduce development resources and accelerate time to market.



ADLINK OSM-MTK510



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.

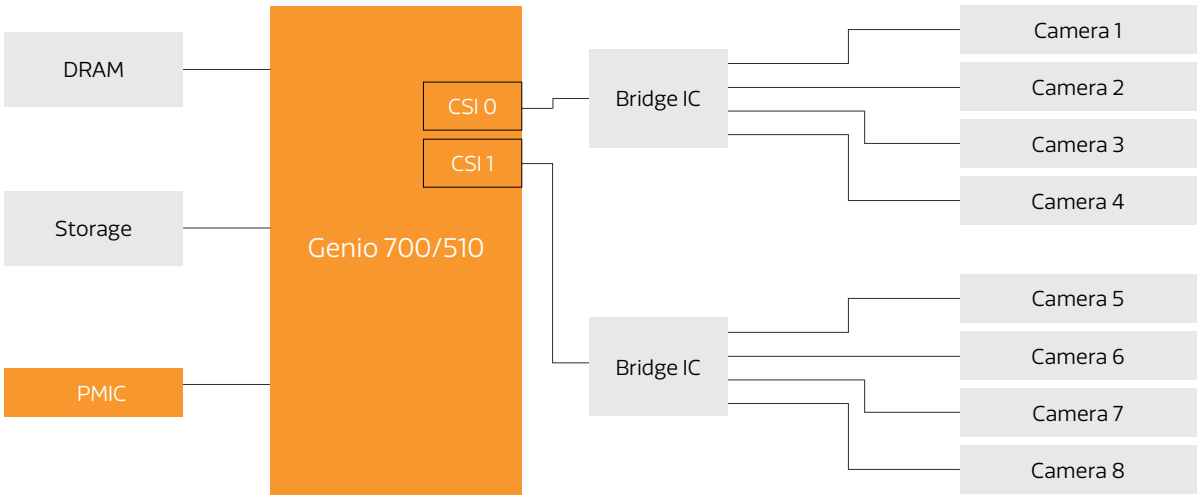


Solution

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.

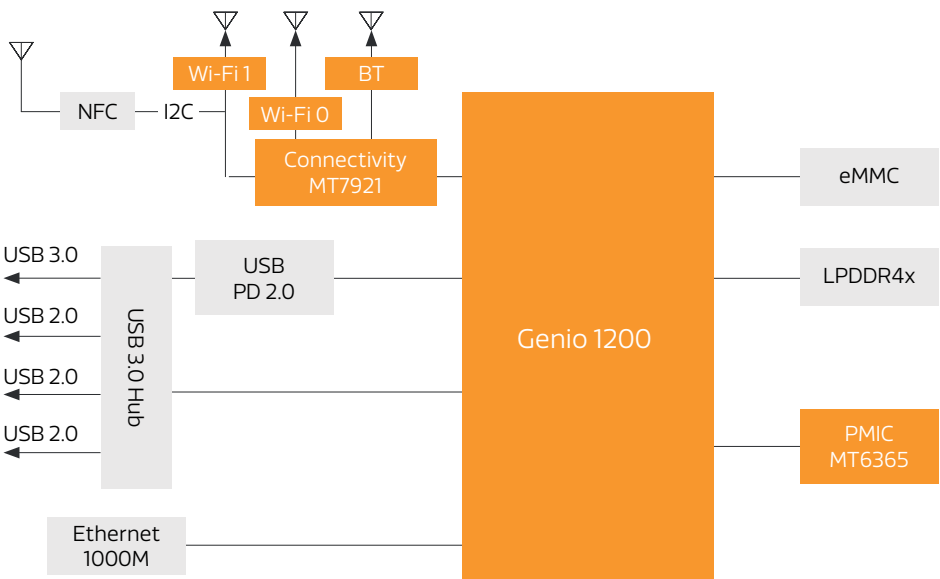


Solution

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.

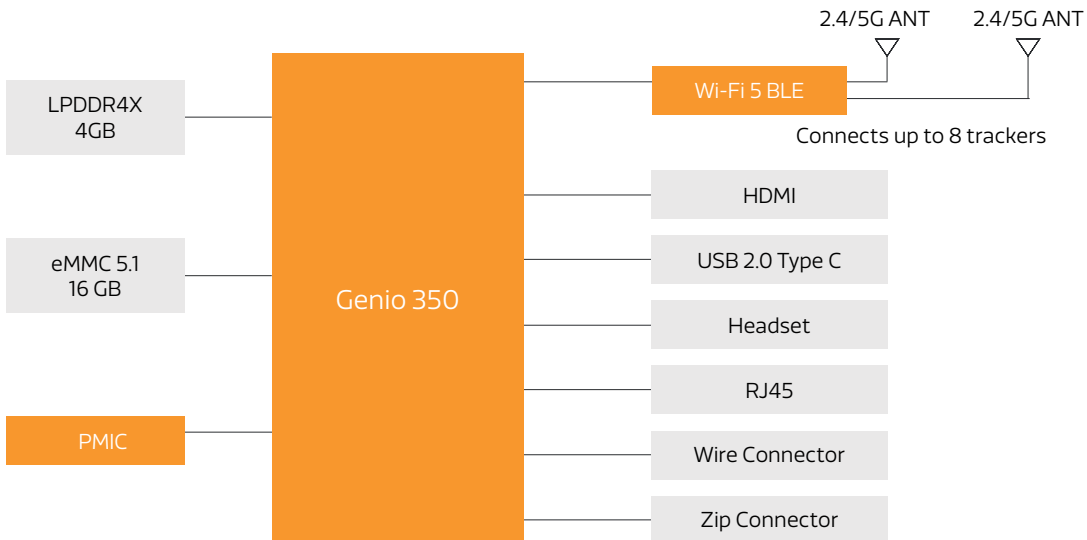


Solution

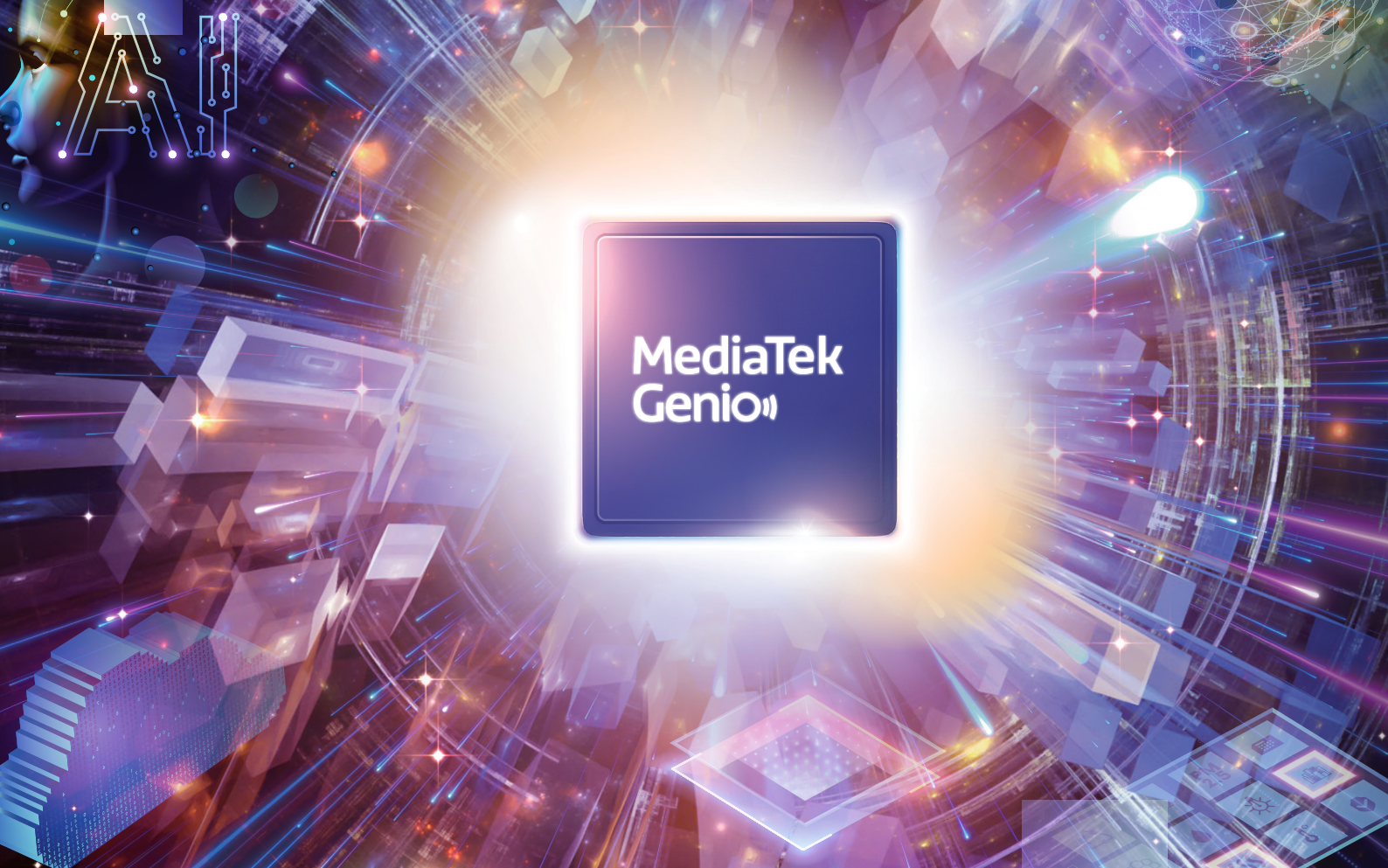
MediaTek's Genio 350 SoC provided FightCamp with robust AI processing, seamless connectivity and ability to handle intense AI tasks without overheating or draining. Edge AI enabled precise feedback during workouts.

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

