# iG-RainboW- G70M

MediaTek Genio 1200 OSM -L LGA System on Module

The MediaTek Genio 1200 SoC based size L Module is designed as per the Open Standard Module™ specification v1.2 (OSM). It integrates MediaTek's Genio 1200 offerings Quad Cortex-A78@2200MHz, Quad Cortex-A55@2000MHz, Mali-G57 MC5@880MHz, HiFi4 DSP @720MHz, HDR capable Image Signal Processor (ISP) module. Genio 1200 supports Vision Processor 6 (VP6) and MediaTek Deep Learning Accelerators (MDLA) for enhancing multimedia performance.
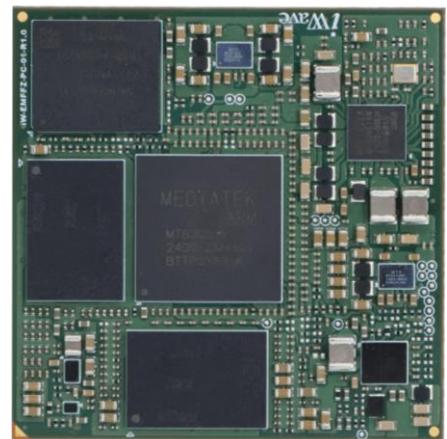
The MediaTek Genio 1200 OSM is aimed to offer for applications mainly focusing on Smart Home Appliance, Industrial IoT and other AI Embedded devices with high reliability.

▍ Highlights

❖ Supports Quad Cortex®-A78 and Quad Cortex®-A55 processor

❖ Up to 16GB LPDDR4X Memory

❖ Supports 1x 1Gbps Ethernet

❖ OSM v1.2 Size-L LGA Module with 45mm x 45mm form factor

❖ 10+ years of Product Longevity Program

Ordering Information

iG-G70M- OL8395-4L008G-E032G-IAA   MediaTek Genio 1200 OSM, 8GB LPDDR4X, 32GB eMMC

Block Diagram
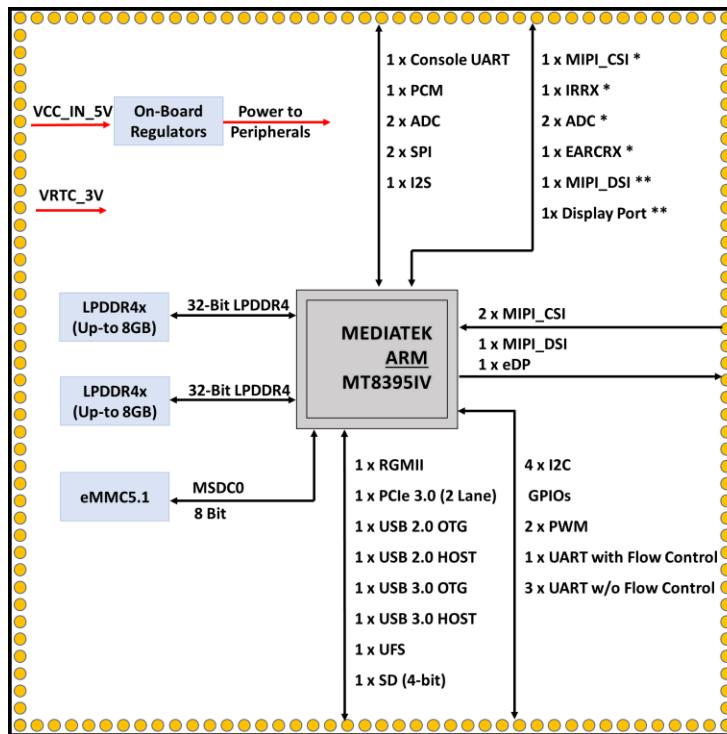
Note:
* Supported through vendor defined pins of OSM
** Supported through reserved pins of OSM

Technical Specifications

CPU	**MT8395** : 4 x Arm®Cortex-A78@2200MHZ, 4 x Arm®Cortex-A55@2000MHz, 1 x Arm®Mali™-G57 MC5@880MHz, Vision Processor 6-AI for accelerating AI processing.
Memory	8GB LPDDR4X (Expandable up to 16GB)
Storage	32GB eMMC Flash (Expandable up to 128GB)
OSM LGA Features	• 1 x RGMII • 1 x SD (4bit) • 1 x USB 2.0 Host • 1 x USB 2.0 OTG • 1 x USB 3.1 Host • 1 x USB 3.1 OTG • 1 x UFS • 1 x eDP • 1 x PCM • 2 x SPI

OSM LGA Features	• 1 x PCIe3.0 (2 lane) • 2 x MIPI CSI (4-lane) • 1 x MIPI DSI (4-lane) • 4 x I2C • 1 x I2S • 2 x PWM • 1 x UART (with flow control) • 3 x UART (without flow control) • 1 x Debug UART • 2 x ADC • GPIOs • 1 x MIPI_CSI, 1 x IRRX, 2 x ADC (through vendor defined pins) • 1 x MIPI_DSI1, 1 x DP (through reserved pins)
Operating System	Linux 5.15.47
Operating Temp.	-40°C to +85°C (Industrial Grade)
Form Factor	45mm x 45mm
Power Input	5V input through OSM LGA
Environment Spec.	REACH & RoHS3 Compliant

Product accessories

Genio 1200 SBC

The MediaTek Genio 1200 OSM includes a Quad Cortex-A78 and Cortex-A55 CPU, Mali-G57 MC5 GPU, HDR-capable ISP, Ethernet PHY, and expansion connectors.
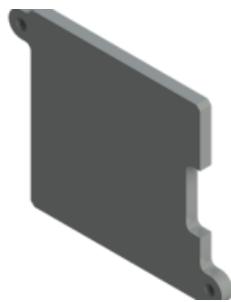
Thermal Solutions

iWave offers heat sink and spreader solutions for the MediaTek Genio 1200 Size-L OSM LGA module.

Enclosure

iWave offers rugged aluminiums and metal enclosures for SBCs, ensuring protection with full port access.

Applications

- **Smart Home Appliances**

    Automates home functions like lighting, climate control, security, and entertainment for convenience and energy efficiency.

- **Industrial IoT**

    Enhances manufacturing processes with connected devices for real-time monitoring, predictive maintenance, and operational efficiency.

- **AI Embedded Devices**

    Provides intelligent, autonomous functions in appliances, robots, and sensors for decision-making and automation.

A Global Leader in Embedded Systems Engineering and Solutions

Since 1999, we have pioneered leadership in embedded systems technology, establishing ourselves as a strategic embedded technology partner for advanced solutions. Our comprehensive portfolio encompasses ARM and FPGA System on Modules, COTS FPGA solutions, and ODM solutions which include Telematics, Gateways & HMI Solutions.

Beyond our robust product ecosystem, we provide comprehensive ODM support with specialized custom design and manufacturing capabilities, enabling customers to accelerate and optimize their product development roadmaps. With a strategic focus on industrial, automotive, medical, and avionics markets, we deliver innovative technology solutions to global clients.

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