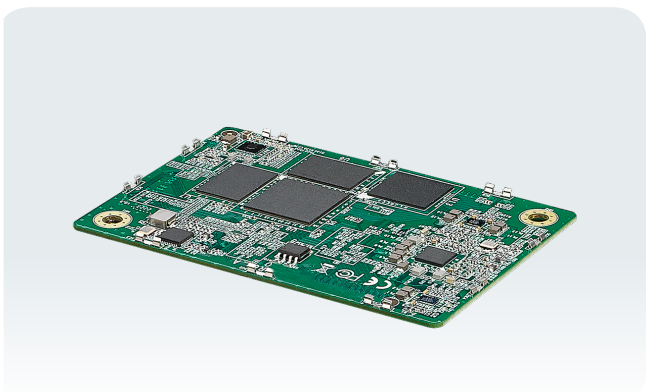


ESOM-MT-1200

MediaTek Genio 1200 System on Module

MediaTek
Genio



Features

- Octa-core MediaTek Genio 1200 processor with quad Cortex-A78 and quad Cortex-A55, 4.8 AI TOPS
- Integrated Mali-G57 GPU and H.265/H.264 4K video decoding
- Onboard 8GB LPDDR4X memory and 64GB eMMC
- Support 3 4-lane MIPI CSI-2 camera with internal ISP for dual 16MP
- Support 2 Digital Display, 2 DP and 2 4-lane MIPI DSI, 4K resolution
- Supports 1 PCIe x2, 2 USB 3.0, 1 Gigabit Ethernet
- Supports Android 11 and Yocto 3.1 operating system



Specifications

System	
Processor	MediaTek Genio 1200 Processor with Quad-core Cortex-A78 @2.2GHz and Quad Cortex-A55 @2.2GHz
Memory	8GB LPDDR4X SDRAM
eMMC	64GB eMMC
Flash	8Mb NOR Flash
OS	<ul style="list-style-type: none"> ▪ Android 11 ▪ Linux Yocto 3.1
I/O Interface	
Internal I/O	4 board to board Connector
Graphics	
Graphics Processor	<ul style="list-style-type: none"> ▪ ARM Mali-G57 high-performance GPU ▪ 3D graphics accelerator capable of processing 17600M pixel/sec @ 880MHz ▪ Graphics engine supporting OpenGL® ES 3.2, OpenCL 2.2, and Vulkan 1.1 hardware acceleration
Video	Encode/Decode: Supports H.265 and H.264 video decoding up to 4K2K@90fps
Display	Supports dual independent display: <ul style="list-style-type: none"> ▪ 1 Digital Display TX: 4096 x 2160 @60Hz ▪ 1 Digital Display RX: 4096 x 2160 @60Hz ▪ 2 DisplayPort TX: 4096 x 2160 @60Hz ▪ 2 MIPI DSI: 3840 x 2160
Camera	<ul style="list-style-type: none"> ▪ Three 4-lane MIPI CSI-2 ▪ Integrated image signal processor supports single 48MP @30fps or dual 16MP @30fps
Ethernet	
LAN	10/100/1000 Mbps Ethernet LAN by Microchip LAN7800
Audio	
Audio Codec	MediaTek MT6365
Audio Interface	Mic-in, Line-out
Power	
Power Input	4.2V DC-in

Expansion	
PCIe	1 PCIe Gen3 x2
USB	1 USB 3.0 2 USB 2.0
UART	1 4-wire UART 3 2-wire UART
SDIO	1 SDIO
SPI	2 SPI
I2C	2 I2C
I2S	1 I2S (In and Out)
DMIC	2 DMIC
PWM	2 PWM
AUXADC	6 AUXADC
GPIO	8 GPIO
Mechanical	
Dimensions (W x L)	82 mm x 55 mm
Environment	
Operating Temperature	-20°C to 85°C
Storage Temperature	-40°C to 85°C
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% at 85°C
EMC	CE, FCC

Order Information

ESOM-MT-1200	System on Module with MediaTek Genio 1200 octa-core Processor, 8GB LPDDR4 SDRAM, 64GB eMMC
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Block Diagram

