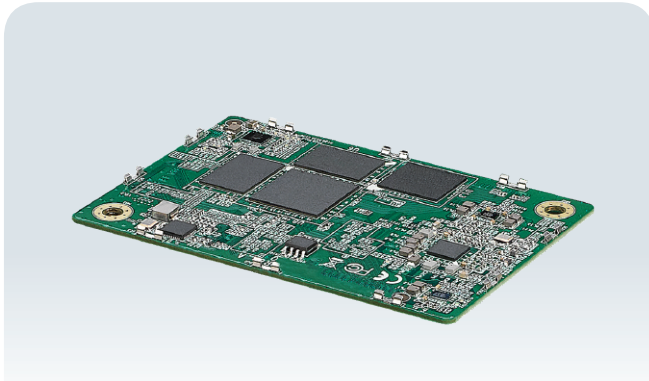


ESOM-MT-1200

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 2 4-lane MIPI CSI-2 camera with internal ISP for dual 16MP
- Support 2 Digital Display, 1 DP, 1 eDP and 1 4-lane MIPI DSI, 4K resolution
- Supports 1 PCIe x2, 2 USB 3.0, 1 Gigabit Ethernet
- Supports Yocto 3.1 operating system

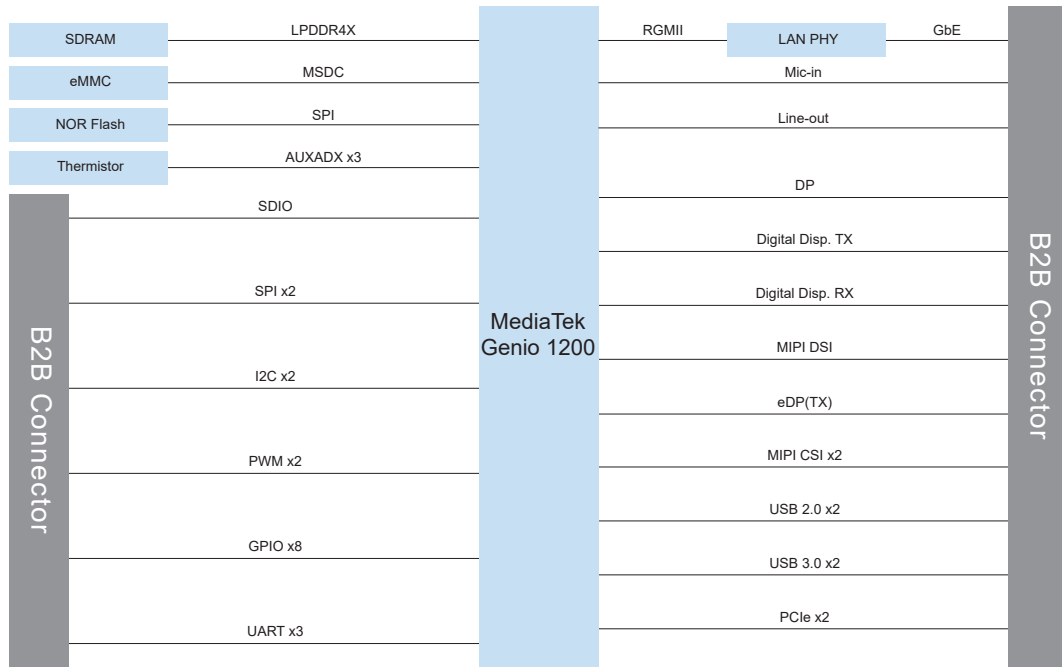


Specifications

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	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	<ul style="list-style-type: none">▪ Video Encode:<ul style="list-style-type: none">- HEVC: 4K2K@60fps- H.264: 4K2K@60fps▪ Video Decode:<ul style="list-style-type: none">- HEVC: 4K2K@90fps- H.264: 4K2K@90fps
Display	Supports dual independent display: <ul style="list-style-type: none">▪ 1 Digital Display TX: 4K @60Hz▪ 1 Digital Display RX: 4K @60Hz▪ 1 DisplayPort TX: 4K @60Hz▪ 1 eDP : 4K @60Hz▪ 1 MIPI DSI: 4K @60Hz
Camera	<ul style="list-style-type: none">▪ Two 4-lane MIPI CSI-2▪ Integrated image signal processor supports single 48MP @30fps or dual 16MP @30fps
Audio	
Audio Interface	Mic-in, Line-out

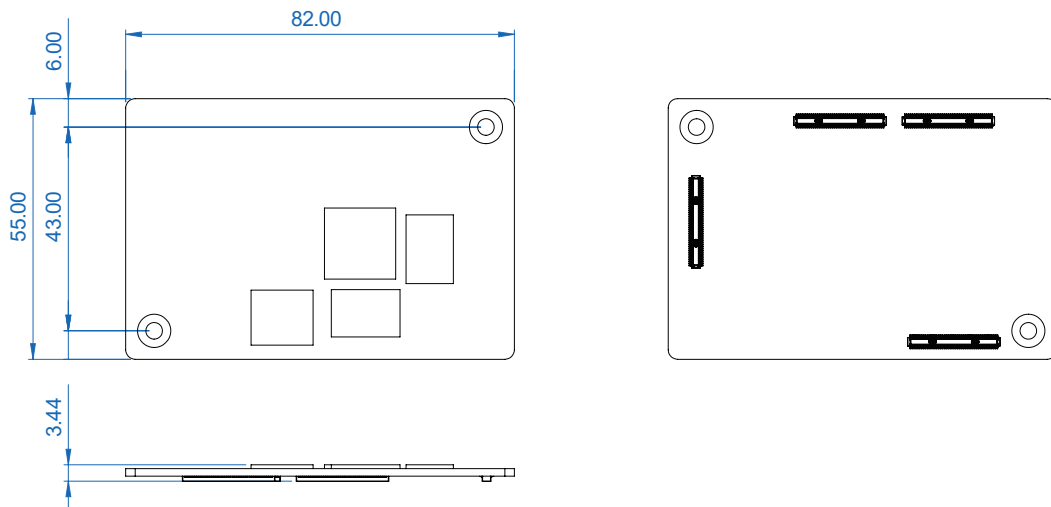
Ethernet	
LAN	10/100/1000 Mbps Ethernet LAN by Realtek RTL8211F
Power	
Power Input	4.2V DC-in
Expansion	
PCIe	1 PCIe Gen3 x2
USB	2 USB 3.0 2 USB 2.0
UART	1 4-wire UART 2 2-wire UART
SDIO	1 SDIO
SPI	2 SPI
I2C	2 I2C
PWM	2 PWM
GPIO	8 GPIO
Mechanical	
Dimensions (W x L)	82 mm x 55 mm
Environment	
Operating Temperature	-25°C to 70°C
Storage Temperature	-40°C to 85°C
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% at 85°C
EMC	CE, FCC

Block Diagram



Dimension

Unit : mm/ inch



Order Information

ESOM-MT-1200	System on Module with MediaTek Genio 1200 Octa-core Processor, 8GB LPDDR4 SDRAM, 64GB eMMC, Yocto OS
ESOM-MT-1200-EV	MediaTek Genio 1200 SOM Evaluation Kit, Yocto OS
ESOM-MT-1200-EVP	MediaTek Genio 1200 SOM Evaluation Kit Plus, Yocto OS