ITX-YS610R1_6C v:1.0

Mini ITX_ form factor, Based on Intel® Alder Lake_H610 chipset

Processor-**LGA1700** socket / below **65**W TDP

ideal for embedded systems, edge computing, IoT devices.

Features

- CPU: LGA1700 12th~14th Celeron/Pentium/Core™ i3/i5/i7/i9
- Memory: Dual channel SO-DIMM DDR4 up to 64GB
- Display: Intel® HD Graphics;DP+HDMI+LVDS displays
- Ethernet: 2* RTL8111H GbE Ports
- Storage: 2* SATA3.0; 1* M.2
- Expansion: 1* M.2 for WIFI/BT
- Power: DC_19V input

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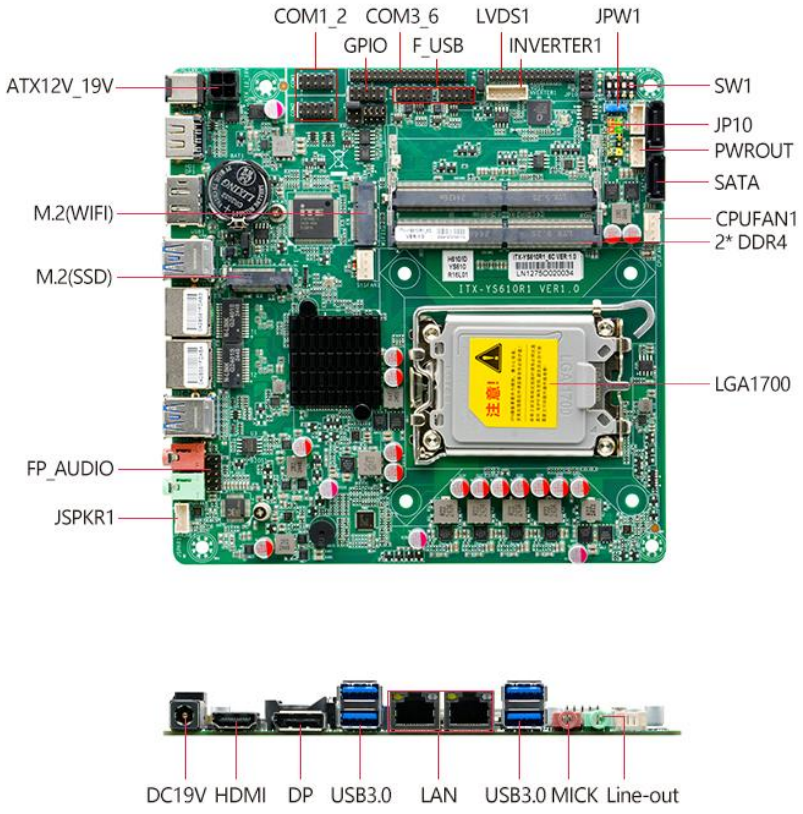
Introduction

The Senbainno ITX-YS610R1 is a high-performance X86-based Mini-ITX motherboard powered by the Intel H610 chipset. It supports LGA1700-socket Intel® Celeron, Pentium, and Core™ i3/i5/i7/i9 processors (12th, 13th, and 14th generations) and features dual-channel DDR4 SODIMM slots, supporting memory speeds up to 3200MHz and a maximum capacity of 128GB. Integrated with an Intel® HD graphics controller for high-performance display output, it supports DP, HDMI, and LVDS interfaces. Networking capabilities include dual RTL8111H Gigabit Ethernet ports, while storage options feature two SATA 3.0 interfaces with transfer speeds up to 6Gbps. Additionally, it supports six RS232 serial ports, with COM2 configurable for RS485/422 operation.

Combining powerful computing capabilities with robust integrated performance and an excellent balance of low power consumption and high efficiency, the Senbainno ITX-YS610R1 is suitable for a wide range of industrial applications. It is ideal for use in industrial control, information systems, financial equipment, automated ticketing systems, automotive sectors, military applications, and various terminal markets.

GPIO Watchdog

I/O Interfaces

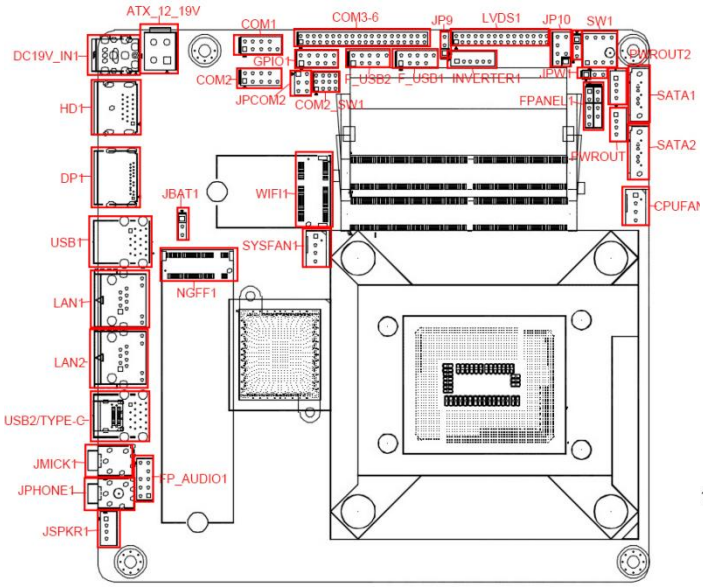


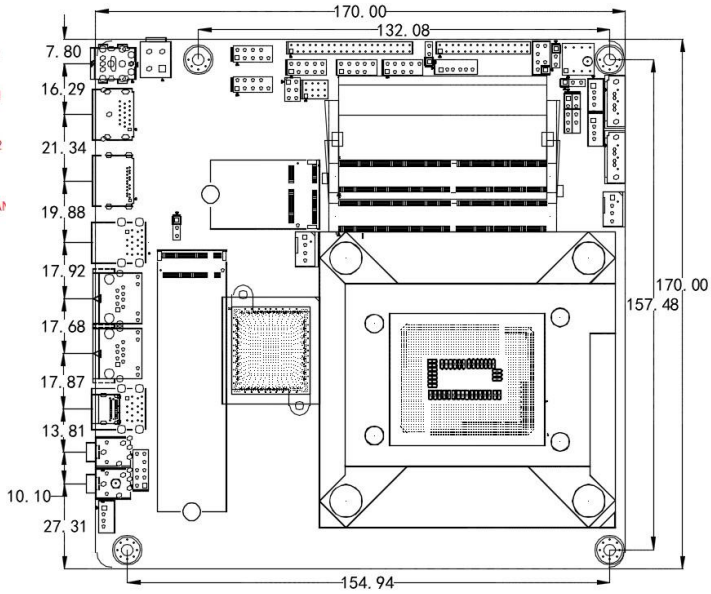
Specifications:

Model No.	ITX-YS610R1_6C VER:1.0
Processor	Supports LGA1700 12th/13th/14th Intel® Celeron/Pentium/Core™ i3/i5/i7/i9 processor
	Note:Supports below 65W CPU,Turbo Boost is disabled by default
Chipset	Based on Intel® H610 chipset
RAM	2* SODIMM slot ,support dual channel 3200MHz DDR4 memory, up to 64GB
Dispay	Integrated Intel® HD Graphics, supportsDirectX12.1, OpenGL4.5, supports 4K/60Hz
	1* DP, the maximum resolution supported is: 4096x 2106 @ 60Hz
	1* HDMI1.4, the maximum resolution supported is: 4096x2304 @24Hz
	1* LVDS, supports dual channel 24BIT
Ethernet	2* Realtek RTL8111H Gigabit Ethernet Lan, support Wake_on_LAN/PXE function
Storage	2* SATA3.0, the transfer rate is up to 6Gbps
	1* M.2 slot, supports M.2 Key M 2260/2280 NVME PCIE3.0 X4 SSD
Audio	Onboard ALC897 7.1+2 channel high fidelity audio controller,supporting MIC/Line-out and power amplifier
Expansion Slot	1* M.2, support M.2 Key E 2230 WIFI&BT module
Rear I/O interface	1*DC power supply slot, support DC19V power supply
	1* HDMI1.4, 1*DP
	4* USB3.0 (5Gbps) (USB2 and TYPE-C are the same column, and one TYPE-C interface can be selected)
	2* RJ45 Gigabit network interface
	1* Line-out(green), 1*MIC(red)
Built-in I/O interface	6* RS232 serial ports, COM2 supports RS485/422
	4* USB2.0, 2*5pin
	1* LVDS, supports dual channel 24BIT
	2* Hard disk power supply interface, 1*4pin
	1* Screen backlight power supply interface, 1*6pin
	1* 2*2pin ATX power interface, supports 19V power input and output
	1* Front audio interface, 2*5pin
	1* Amplifier interface, 1*4pin (NS4251)
	1* Front panel function buttons and indicator light interface, 2*5pin
Fan interface	1*4pin CPU fan connector, 1*4pin system fan connector
GPIO	Support 4-way input output GPIO function (Alternative to PS/2)
BIOS	128Mb Flash ROM
Watchdog	Support hardware reset function (256 levels, 0~255 seconds)
OS	Windows 10/Windows 11/Linux
Power type	DC_19V power input
Operating temperature	-20℃ ~ 60℃
Storage temperature	-20℃ ~ 70℃
Working humidity	5%-95% relative humidity, non-condensing
Size	170mm x 170mm

*All specifications and photos are subject to change without notice

Interface Diagram





Ordering Info

No.	Model	Processor	South bridge	Memory	DP	HDMI	LVDS	LAN	USB	COM	Power
1	ITX-YS610R1_6C VER:1.0	LGA1700	H610	2*SODDR4	1	1	2ch*24BIT	2*8111H	8	6	DC/19V

!! *For customized options, please consult regional sales. And please conrm the model name and description before purchasing.

*The model name and description might vary due to inventory changes.