**POLYHEX**
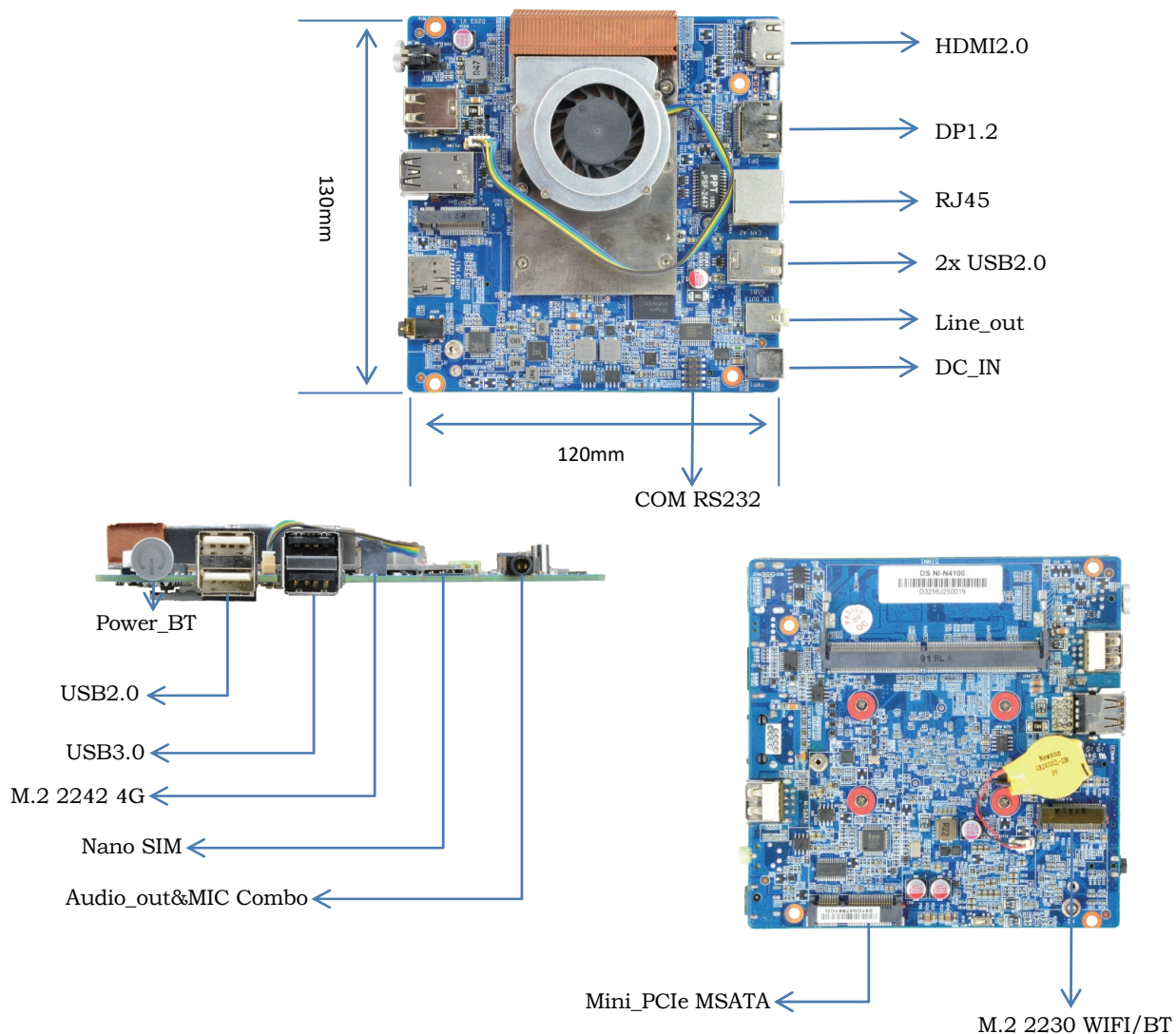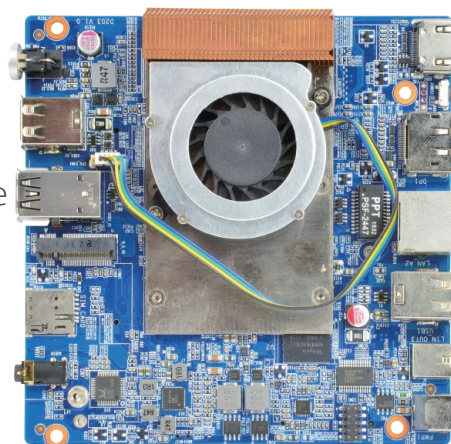
# Nano-ITX Motherboard Based on Intel Gemini Lake

## Description：

EMB-IN4100D-NI1 features ultra-small size and supports Intel Gemini Lake CPU. It is designed with six USB interfaces and HDMI2.0 & DP high-definition digital display output, which support display replication and expansion. Besides, it also provides MSATA SSD storage option and WIFI, 4G expansion functions. At present, EMB-IN4100D-NI1 can be widely used in cloud terminals, intelligent education, business office, smart retail and other fields.



HDMI2.0
DP1.2
RJ45
2x USB2.0
Line_out
DC_IN

130mm
120mm
COM RS232

Power_BT
USB2.0
USB3.0
M.2 2242 4G
Nano SIM
Audio_out&MIC Combo

Mini_PCIe MSATA
M.2 2230 WIFI/BT

## Features:

· Supports Intel Gemini Lake CPU
· HDMI and DP dual display
· Onboard 4G DDR4 RAM, 64G eMMC storage
· 2x USB3.0+4x USB2.0
· Ultra thin design with cooling fan



## Specifications:

| | | |
|---|---|---|
| Processor | Pentium Sliver J5005 1.5GHz/Turbo 2.8GHz/Quad Core/TDP 10W | |
| | Pentium Sliver N5000 1.1GHz/Turbo 2.7GHz/Quad Core/TDP 6W | |
| | Celeron J4105 1.5GHz/Turbo 2.5GHz/Quad Core/TDP 10W | |
| | Celeron J4005 2.0GHz/Turbo 2.7GHz/Dual Core/TDP 10W | |
| | Celeron N4100 1.1GHz/Turbo 2.4GHz/Quad Core/TDP 6W | |
| | Celeron N4000 1.1GHz/Turbo 2.6GHz/Dual Core/TDP 6W | |
| RAM | Type | DDR4 2400 |
| | Max Capacity | Onboard 4G, supports independent SO-DIMM DDR4 memory |
| Display | Display Core | CPU integration |
| | Front Output Interfaces | HDMI2.0 （Max：3840 x 2160@60Hz） |
| | | DP1.2 （Max：4096 x 2304@24Hz） |
| Internet | Control chipset | 1x RTL8111H 1000Mbps network, supports network wakeup and PXE guidance |
| USB | I/O | 2x USB3.0 + 4x USB2.0 |
| Storage | eMMC | Onboard 64G eMMC (128G optional) |
| | Mini_PCIe | 1x MSATA SSD |
| Audio | Control chipset | Realtel ALC662-VDO，supports 1x Audio_out+1x Mic_IN |
| Serial Port | COM | Supports 1x COM -RS232 protocol interface |
| Expansion | TF | Supports 1x standard TF card slot |
| | M.2 | Supports 1x M.2 2230 slot for WIFI/BT module connection |
| | | Supports 1x M.2 2242 slot for 3G/4G module connection |
| Software Functions | Network Wakeup | Support |
| | Operating System | Windows7, 8.1, 10；Linux |
| Power | Input Voltage | DC_IN 12V |
| Application Environment | Operating Temperature | 0°C-40°C |
| | Storage Temperature | -20°C-80°C |
| Physical Features | Size | 120 x 130mm |
| Cooling Method | Cooling Method | Direct Blowing Fan, supports temperature control to regulate speed |

**POLYHEX**
Beyond the Embedded Deployment