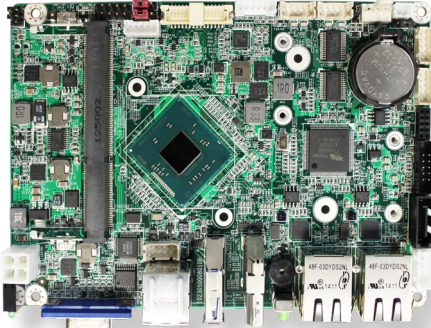


EmCORE-i93N3

Intel® Alder Lake N series 3.5" Compact Board



Features

- Support Intel® Processor N-Series
- Support one DDR5 SO-DIMM socket
- Integrated 2.5 Gigabit Ethernet ports
- LVDS, Analog RGB Port, HDMI ports (Support Triple Independent Displays)
- Two USB 3.2 (Gen 2) and Four USB 2.0 ports
- One M.2 M-key and One SATA 3.0
- One M.2 E-key and One M.2 B-key
- Extended Operating Temp.: -40 ~ 85°C (WT series)
- Commercial Operating Temp.: -20 ~ 50°C

System

| | |
|----------------|---|
| CPU | Soldered onboard Intel® processor N Series N50 3.4GHz Dual cores, TDP 6W N97 2.9GHz Quad cores, TDP 12W |
| Memory | 1 x DDR5 SO-DIMM socket, supporting up to 16GB 4800 MT/s SDRAM |
| BIOS | AMI BIOS |
| Watchdog Timer | 1~255 levels reset |

I/O Interface

| | |
|------------------|---|
| Super IO Chipset | Fintek F81804ED |
| Serial Port | 2 x RS-232/422/485 selectable |
| USB | 2 x USB 3.2 (Gen 2) ports 4 x USB 2.0 ports |
| Expansion | 1 x M.2 E-key 2030 (PCIe x1 / USB 2.0) 1 x M.2 B-key 3042/3052 (PCIe x1 / USB 3.2) |
| Storage | 1 x SATA 3.0 port 1 x M.2 M-key 2280 (PCIe x1 / SATA 3.0) |
| Ethernet Chipset | 2 x Intel i226 PCIe 2.5 GbE controllers |
| Digital I/O | 8-bit Programmable |
| Audio Interface | Realtek® HD Audio CODEC, Mic-in/ Line-out |

Display

| | |
|-------------------|--|
| Graphic Chipset | Integrated Intel® Gen 12 UHD Graphics Analog RGB with resolution up to 2048x1536 DisplayPort 1.4 with resolution up to 4096x2160 |
| Graphic Interface | HDMI 2.0b with resolution up to 4096x2160 LVDS: Dual Channels 24-bit LVDS, with resolution up to 1920x1200 |

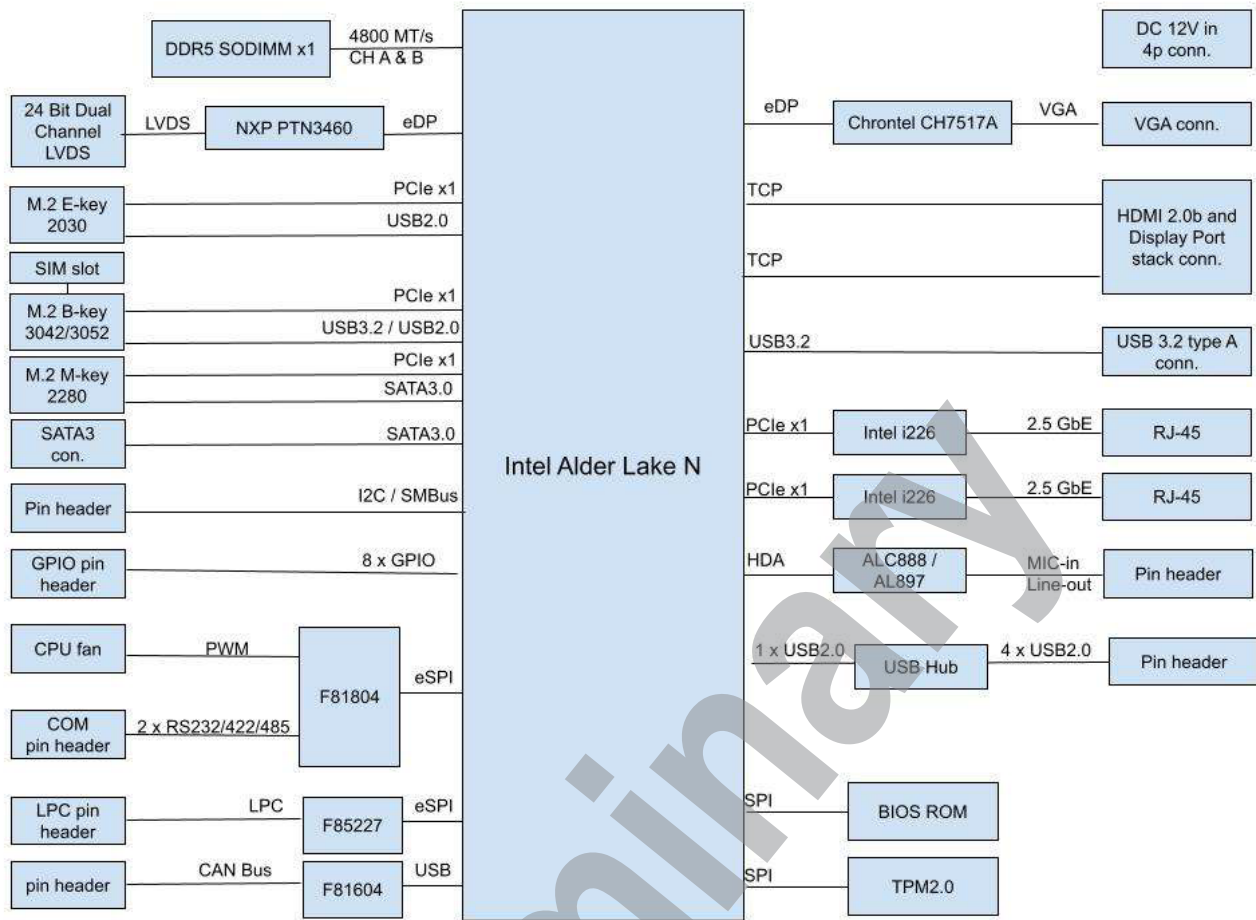
OS Support

| |
|---------------------|
| Windows 11 / 10 IoT |
| Linux: Ubuntu |

Mechanical & Environmental

| | |
|--------------------|----------------------------------|
| Power Input | DC 12V |
| Power Consumption | TBD |
| Operating Temp. | -20 ~ 50°C (-4 ~ 122°F) |
| Operating Humidity | 10 ~ 95% @ 50°C (non-condensing) |
| Dimension (L x W) | 146 x 102 mm (5.7" x 4.0") |

Block Diagram



Ordering Information

| | |
|---------------------------------|---|
| EmCORE-i93N3-N50 | Intel® Processor N50 3.5" compact board |
| EmCORE-i93N3-N97 | Intel® Processor N97 3.5" compact board |
| EmCORE-i93N3-N200 (OEM request) | Intel® Processor N200 3.5" compact board |
| EmCORE-i93N3-N305 (OEM request) | Intel® Processor i3-N305 3.5" compact board |

Optional Accessories

| | |
|----------------|---|
| CBK-07-93N3-00 | Cable kit 1 x AUDIO cable 2 x COM port latching cables 1 x SATA cable 1 x SATA power cable 2 x USB cable |
|----------------|---|