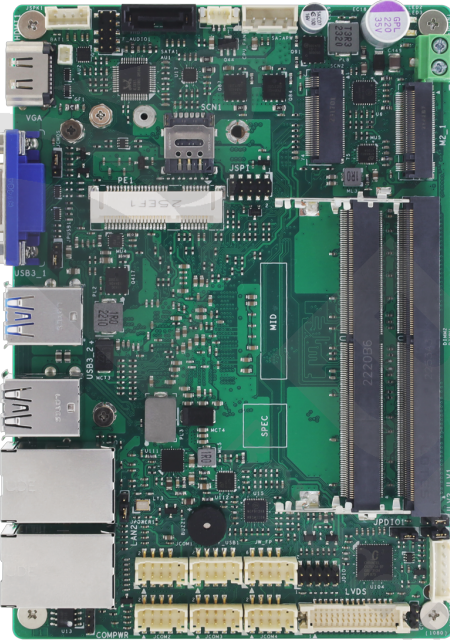


# BIELK-PAT Industrial PC



- Intel® Elkhart Lake Processor J6412/x6413E (x6413E support wide range temperature)
- Supports triple display: LVDS(eDP), 1xHDMI, 1x VGA
- Support 2 x DDR4 3200 MHz SO-DIMM, up to 32GB
- Support M.2 Hailo-8™ AI Accelerator, up to 26 TOPS (option)
- 2 x Intel i226 2.5GbE LAN
- 2 x USB3.2 Gen1, 4 x USB2.0
- 2 x RS232/422/485, 2 x RS232
- 1x M.2 B key 3042/3052 support USB3.2+PCIe3.0 x1 w/ SIM slot for 4G/5G module
- 1x M.2 M key 2242/2280 support PCIe3.0 x2/ SATA for NVMe/ SATA storage
- 1x Mini PCIe, support PCIe3.0x1 +USB2.0 for WIFI/BT module
- Support wide range temperature -40 ~ 85 degree C
- DC\_IN 9~24V

## Specification

|                |   |
|----------------|---|
| CPU SUPPORT    | Intel® Elkhart Lake Processor<br>Celeron J6412<br>Atom x6413E (wide range temperature support)  |
| MEMORY         | 2 x DDR4-3200 MHz SO-DIMM Slot, up to 32G   |
| EXPANSION SLOT | 1 x M.2 B key 3042/3052 support PCIe3.0 x1 + USB3.2 w/ SIM slot for 4G/5G module<br>1 x M.2 M Key 2242/2280 support PCIe3.0 x2/ SATA for NVMe/ SATA storage<br>1 x Mini PCIe support PCIe3.0 x1 +USB2.0 for WIFI/BT module              |
| GRAPHICS       | Intel® Integrated Graphics, support triple display<br>- 1 x HDMI 2.0 connector (4096x2160@60Hz)<br>- 1 x VGA connector (1920x1200 @60Hz, not support wide temperature)<br>- 1x LVDS/eDP (1920x1200 @60Hz, LVDS/eDP switch mode by BIOS) |
| AUDIO          | Audio Codec: ALC897 + ALC105, support 4 ohm 2W amplifier ( not support wide temperature)  |
| LAN            | Dual 2.5GbE LAN<br>2 x Intel i226-V<br>2 x Intel i226-IT opt for wide range temperature   |
| SUPER I/O CHIP | ITE IT8786  |

|              |   |
|--------------|---|
| REAR I/O     | <p>1 x HDMI connector<br/> 1 x VGA connector<br/> 2 x USB2.0 Type A connector<br/> 2 x USB3.2 Gen1 Type A connector<br/> 2 x RJ45 connectors, support 2.5G</p>  |
| INTERNAL I/O | <p>Expansion slots:<br/> - 1 x M.2 M key<br/> - 1 x M.2 B key w/ SIM Slot<br/> - 1 x Mini PCIe<br/> SATA:<br/> - 1 x SATA3 7pin connector<br/> - 1 x 1*4 pin SATA power box header<br/> Display:<br/> - 1 x 2*15 pin LVDS/eDP box header (share with the same connector, LVDS/eDP switch mode by BIOS)<br/> - 1 x 1*6 pin LCD backlight control box header<br/> - 1 x 1*3 pin LCD power select header (3.3V/5V, default is 3.3V)<br/> - 1 x 1*3 pin LCD backlight control power select header (5V/12V, default is 12V)<br/> Audio: ( not support wide range temperature)<br/> - 1 x 2*4 pin header for MIC-in, Line-out<br/> - 1 x 1*4 pin box header for 4 ohm 2W amplifier speaker<br/> USB:<br/> - 1 x 2*5 pin box header, support 2 x USB2.0<br/> Power:<br/> - 1 x 1*2 pin phoenix connector , support DC-IN 9~24V<br/> Serial Port:<br/> - 2 x 2*5 pin RS232/422/485 box header (COM1/COM2)<br/> - 2 x 2*5 pin RS232 box header (COM3/COM4)<br/> - 2 x 1*3 pin COM1/COM2 power select header (NC/5V/12V, default is NC)<br/> Others:<br/> - 1 x buzzer ( not support wide range temperature)<br/> - 1 x 2*5 8-bit DIO pin header<br/> - 1 x 1*3 pin CPU Fan header<br/> - 1 x 1*3 pin clear CMOS header<br/> - 1 x 1*3 pin DIO power select header (3.3V/5V, default is 5V)<br/> - 1 x 1*3 pin USB3_1 power select header( 5V/5VSB, default is 5VSB)<br/> - 1 x 2*5 front panel box header<br/> - 2 x Power LED onboard for APCI power status<br/> - 1 x 1*3 AT/ATX mode switch pin header (default is ATX)</p> |
| DIMENSION    | 148 x 102 x 1.6 mm  |
| ENVIRONMENT  | <p>0°C ~ 60°C Humidity : 5% ~ 90%<br/> Wide range temperature: -40°C ~ 85°C Humidity : 5% ~ 90% (opt)</p>   |
| OS SUPPORT   | <p>Support Windows 10 IoT Enterprise 2019(1809)/ 21H2<br/> Support Ubuntu 20.04</p>   |

\*The specification and pictures are subject to change without notice and the package contents may differ by area or your motherboard version!