

# SB-226-1J64

Industrial Fanless Rugged Controller w/ Intel® Elkhart Lake Celeron® J6412 Processor



## Features

- Intel® Celeron® J6412 CPU Elkhart Lake (2.0 GHz/2.6GHz)
- 1 x SDRAM DDR4 3200 MHz (max. 32G)
- Support 2 Gigabit LAN
- Support M.2 SSD, MiniPCIE, mSATA
- Support Wide DC input 12~36V
- Support Over-voltage and Reserved Power Insertion Protection



HDMI



Over-voltage  
Protection



USB 3.1



-20~60°C



Wide Voltage  
Range



Reversed  
Power Insertion  
Protection

## System

|                |                                                                |
|----------------|----------------------------------------------------------------|
| CPU            | Intel® Celeron® J6412 CPU Elkhart Lake (2.0 GHz/2.6GHz)        |
| Memory         | 1 x DDR4 SO-DIMM socket, supporting 3200 MHz SDRAM up to 32GB  |
| Chipset        | Integrated in CPU                                              |
| Graphics       | Intel® UHD Graphics for 10 <sup>th</sup> Gen Intel® processors |
| LAN Chipset    | 2 x Intel® I210-AT GbE Controllers                             |
| Watchdog Timer | 1~255 levels reset                                             |

## Storage

|        |                                                                                            |
|--------|--------------------------------------------------------------------------------------------|
| Device | 1 x M.2 M Key 2242 slot (SATA signal)<br>1 x MiniPCle slot for mSATA<br>*CTOS is available |
|--------|--------------------------------------------------------------------------------------------|

## Audio

|      |                                                        |
|------|--------------------------------------------------------|
| Type | 1 x Audio (Line-out & Mic-in)<br>(Chipset ALC888S/897) |
|------|--------------------------------------------------------|

## Power System

|             |                                    |
|-------------|------------------------------------|
| Power Input | 12-36V DC, 2-pin phoenix connector |
|-------------|------------------------------------|

## OS

|                             |
|-----------------------------|
| Windows 10/11, Ubuntu 22.04 |
|-----------------------------|

## Qualification

|               |         |
|---------------|---------|
| Certification | CE, FCC |
|---------------|---------|

## External I/O

|              |                                                                                                        |
|--------------|--------------------------------------------------------------------------------------------------------|
| Serial Ports | 1 x RS232/422/485<br>(default RS232) with auto flow control<br>4 x RS485 ± 2KV protection<br>1 x RS232 |
| USB Ports    | 4 x USB3.1<br>2 x USB 2.0 (optional by internal)                                                       |
| LAN          | 2 x RJ45                                                                                               |
| Video Ports  | 1 x HDMI<br>(Max Resolution: 4096x2160@60Hz)                                                           |

|              |                                                            |
|--------------|------------------------------------------------------------|
| Power Button | 1 x Power button w/LED                                     |
| GPIO         | 1 x 4bit programmable GPIO<br>(3.3V default / 5V optional) |

## Internal I/O

|                |                                      |
|----------------|--------------------------------------|
| Expansion Slot | 1 x full-size MiniPCle slot          |
| SIM Card       | 1 x SIM Card socket for 3G/4G module |

## Mechanical

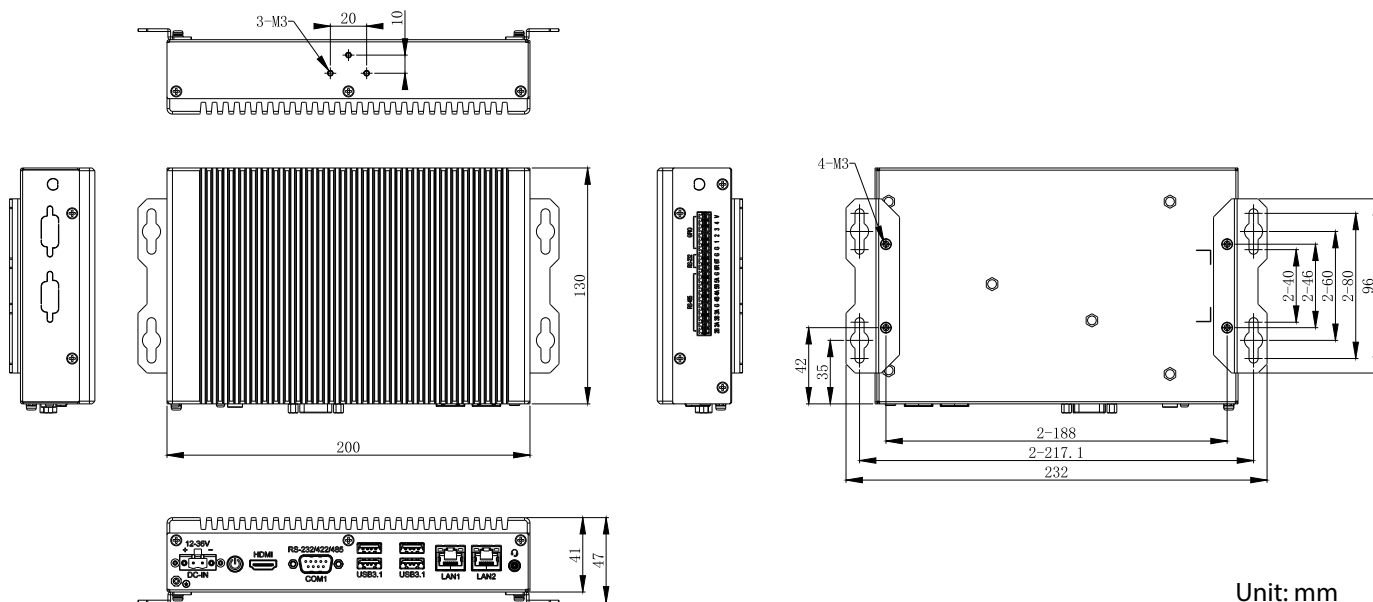
|              |                                             |
|--------------|---------------------------------------------|
| Construction | Aluminum alloy                              |
| Mounting     | Desk-mount, Wall-mount, DIN Rail (optional) |
| Dimension    | 200 x 130 x 41 mm                           |
| Weight       | 1.5kg                                       |

## Environmental

|                    |                                                                |
|--------------------|----------------------------------------------------------------|
| Operating Temp.    | -20 ~ 60°C (-4 ~ 140°F),<br>ambient w/ air flow (WT RAM & SSD) |
| Storage Temp.      | -40 ~ 85°C (-40 ~ 185°F)                                       |
| Operating Humidity | 5 ~ 95% @ 40°C (non-condensing)                                |
| Vibration          | 5~500Hz, 2Grms operation                                       |
| Shock              | Operation: 10G@11ms<br>Non-operation: 30G@11ms                 |

\*CTOS means Configure-to-Order Service.

## Dimensions



Unit: mm

### Packing List

|                       |                                      |
|-----------------------|--------------------------------------|
| SB-226-1J64           | 1 pcs BOX PC                         |
| Thermal PAD           | 1 pcs for Memory, 1 pcs for M.2 2242 |
| 2-pin terminal block  | 1 pcs 5mm for Power-input            |
| DIP-19 Terminal block | 1 pcs for serial & GPIO ports        |
| Wall-mount bracket    | 2 pcs                                |
| Screw Package         | 1 pcs                                |

### Ordering Information

|                         |                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| SB-226-1J64             | Barebone Fanless System with Intel® Celeron Elkhart Lake J6412 , 2 x LAN, 6 x COM, 4 x USB(up to 6), 1 x HDMI, DC12-36V power input                       |
| SB-226-1J64-R4S128      | Fanless System with commercial 4GB RAM & 128GB SSD, Intel® Celeron Elkhart Lake J6412, 2 x LAN, 6 x COM, 4 x USB(up to 6), 1 x HDMI, DC12-36V power input |
| SB-226-1J64-R8S128      | Fanless System with commercial 8GB RAM & 128GB SSD, Intel® Celeron Elkhart Lake J6412, 2 x LAN, 6 x COM, 4 x USB(up to 6), 1 x HDMI, DC12-36V power input |
| SPA BOX PC DIN RAIL KIT | DIN Rail Bracket w/Screw, 35mm W25, 25X47.8mm                                                                                                             |
| PAC-60W-FSP-SPA-US R1.0 | AC/DC Adapter Kit (w/ UKCA), 12V, 60W, 2 WIRE w/ US POWER CORD                                                                                            |
| PAC-60W-FSP-SPA-EU R1.0 | AC/DC Adapter Kit (w/ UKCA), 12V, 60W, 2 WIRE w/ EU POWER CORD                                                                                            |
| PAC-60W-FSP-SPA-UK R1.0 | AC/DC Adapter Kit (w/ UKCA), 12V, 60W, 2 WIRE w/ UK POWER CORD                                                                                            |
| PAC-60W-FSP-SPA-IN R1.0 | AC/DC Adapter Kit (w/ UKCA), 12V, 60W, 2 WIRE w/ IN POWER CORD                                                                                            |
| PAC-60W-FSP-SPA-JP R1.0 | AC/DC Adapter Kit (w/ UKCA), 12V, 60W, 2 WIRE w/ JP POWER CORD                                                                                            |