

# fitlet3

## Fanless Atom mini-PC for industrial and IoT applications



### Features

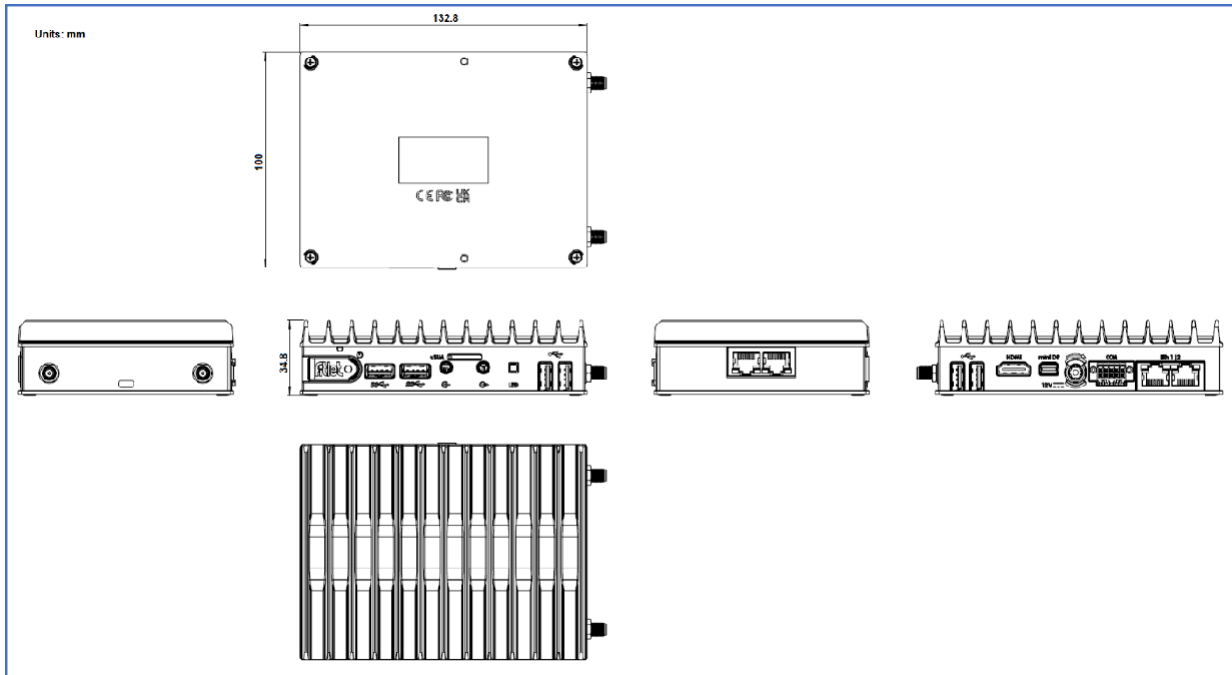
- IOT gateway / Fanless industrial PC
- Intel® Elkhart Lake x6000E Atom processor
- NVMe + SATA storage
- 2x/4x Gigabit LAN
- Optional Wi-Fi/BT + LTE/5G modem
- Optional Isolated serial + GPIO ports
- 9V – 42V DC power input

### Specifications

|                          |  |   |
|--------------------------|--|---|
| CPU                      | Intel® Atom x6425E                                     | 4 Core   Base: 2.0 GHz, Boost: 3.0 GHz   TDP: 12 W  |
|                          | Intel® Celeron J6413                                   | 4 Core   Base: 1.8 GHz, Boost: 3.0 GHz   TDP: 10 W  |
|                          | Intel® Atom x6211E                                     | 2 Core   Base: 1.3 GHz, Boost: 3.0 GHz   TDP: 6 W   |
| Memory                   | Type   | SO-DIMM DDR4 up to 3200MT/s   |
|                          | Max. capacity  | 32 GB   |
| Storage                  | M.2 Key-M  | PCIe x4 / SATA for M.2 NVMe or SATA, size up to 2280  |
|                          | M.2 Key-B  | SATA for M.2 SATA, size up to 2260 (mutual with LTE/5G modem)   |
|                          | 2.5" HDD/SSD   | Optional M.2 to SATA expansion for 2.5" HDD / SSD   |
| Display                  | HDMI   | HDMI 1.4b (up to 3840 x 2160 @ 30Hz)  |
|                          | Mini-Display Port                                      | DP 1.2 (up to 4096 x 2160 @ 60Hz) Dual mode   |
| Ethernet                 | Type   | 2x Gigabit Ethernet on RJ45   |
|                          | Controllers  | Internal MAC with discreet PHY  |
|                          | Speed  | 1 Gbps / 100 Mbps / 10 Mbps   |
|                          | Optional FC3-LAN                                       | Additional 2x GbE LAN on RJ45   |
|                          | Optional FC3-OPLN                                      | Additional 1x GbE LAN on SFP+ for optical LAN   |
| Wireless Connectivity    | Optional FC3-POED                                      | Additional 1x GbE LAN on RJ45 with PoE device capabilities  |
|                          | On-board   | Optional On-board module with Wi-Fi 6E, BT 5.2  |
|                          | M.2 Key-E <sup>1</sup>                                 | For M.2 2230 module with Wi-Fi 6E, BT 5.2   |
| USB                      | M.2 Key-B  | For M.2 LTE/5G modem (mutual with M.2 SATA), w/ micro-SIM tray  |
|                          | USB 2.0  | 4x USB 2.0 on USB Type-A  |
| Serial/GPIO              | USB 3.1  | 2x USB 3.1 on USB Type-A  |
|                          | Type   | Optional terminal block with isolated serial and GPIO, up to 24V  |
|                          | Serial port  | Optional isolated RS-232/422/485  |
| Audio                    | GPIO   | 2x isolated GPI + 2x isolated GPO   |
|                          | Codec  | Optional audio codec  |
| Power                    | Interfaces   | Optional analog output, analog input on 3.5 mm jacks  |
|                          | Input power  | 9V – 42V, up to 36W, DC input supply (The user can use any other approved AC/DC adapter that limited to 9-42Vdc, 36W max) |
|                          | Connector  | 5.5 mm power jack w/ locking  |
|                          | Power supply unit                                      | Including universal AC wall mount power supply (0 - 40°C)   |
| TPM                      | Optional FC3-PoE                                       | Input power by PoE, GbE LAN on RJ45   |
|                          | Internal fTPM  | Intel® PTT  |
| OS support               | Discreet TPM   | Optional discreet TPM 2.0   |
|                          | Windows 10   | Windows 10 IoT Enterprise LTSC 2021 / Windows 10 Pro  |
|                          | Windows 11   | Windows 11 Pro  |
| Operating Environment    | Linux  | Linux Mint / Ubuntu   |
|                          | Commercial temperature                                 | 0°C to 45°C   |
|                          | Extended temperature                                   | -20°C to 70°C   |
|                          | Industrial temperature                                 | -40°C to 85°C   |
| Physical Characteristics | * fitlet3 power supply unit is suitable for up to 40°C |   |
|                          | Humidity   | 5% - 95% non-condensing   |
|                          | Cooling  | Fanless, passive cooling  |
|                          | Dimensions   | 132.8 mm X 100 mm X 34.8 mm   |
| Mounting                 | Weight   | ~ 420 gr.   |
|                          | Mounting   | Side / bottom VESA / DIN Rail mount   |

Note: All specifications are subject to change without notice.

## Dimensions



## Interfaces

| Location        | Connector                        | Interface  |  |  |
|-----------------|----------------------------------|--|--|--|
| Front Panel     | 2x USB Type-A                    | 2x USB 2.0   |  |  |
|                 | 1x HDMI                          | HDMI 1.4b (up to 3840 x 2160 @ 30Hz)                         |  |  |
|                 | 1x mini-DP                       | DP 1.2 (up to 4096 x 2160 @ 60Hz) Dual mode                  |  |  |
|                 | 1x 5.5 mm power jack             | 9V – 42V DC power input                                      |  |  |
|                 | 1x terminal block (Optional)     | Isolated RS-232/422/485 + 2x GPI + 2x GPO                    |  |  |
|                 | 2x RJ45                          | 2x 10/100/1000 Mbps Ethernet                                 |  |  |
| Rear Panel      | Power button                     | On/Off push button w/ power LED                              |  |  |
|                 | 2x USB Type-A                    | 2x USB 3.1   |  |  |
|                 | 2x 3.5 mm jacks (Optional)       | Analog output, analog input audio                            |  |  |
|                 | Micro-SIM tray                   | Micro-SIM Tray for M.2 LTE/5G modem                          |  |  |
|                 | LED                              | Debug/programmable LED                                       |  |  |
| Right Panel     | 2x USB Type-A                    | 2x USB 2.0   |  |  |
| Right Panel     | 2x SMA (Optional)                | 2x SMA antennas for Wi-Fi/BT or cellular modem               |  |  |
| Left Panel      | FACET card connectors (Optional) | Ethernet, serial, etc. from FACET expansion card             |  |  |
| Left Panel      | 2x SMA (Optional)                | 2x SMA antennas for Wi-Fi/BT or cellular modem               |  |  |
| Location        | Connector                        | Form factor  | Interface  | Usage                                      |
| Internal Top    | SO-DIMM                          | DDR4 SO-DIMM   | DDR4   | DDR4 module                                |
| Internal Bottom | M.2 Key-M                        | M.2 up to 2280 or<br>Optional 2.5" SATA storage <sup>1</sup> | PCIe Gen 3 x4 / SATA   | - NVMe/SATA storage<br>- M.2 PCIe x1x HDMI |
|                 |                                  | M.2 Key-B  | M.2 Up to 3060 or<br>Optional 2.5" SATA storage <sup>1</sup> | PCIe Gen 3 x1 /SATA<br>USB 2.0             |
|                 | M.2 Key-E                        | M.2 2230 or<br>FACET expansion card <sup>2</sup>             | PCIe Gen 3 x2<br>USB 2.0                                     | - Wi-Fi/BT module<br>- FACET card          |

Notes:

- Up to 1 unit of 2.5" SATA storage expansion (EB-M2SATA) is possible
- FACET expansion card and Wi-Fi/BT card are mutually exclusive. For Wi-Fi/BT on systems with FACET cards, an onboard WiFi/BT module must be selected. The onboard Wi-Fi/BT module is not functional with FC3-LAN installed.

## Expansion boards

| Name      | Description                                      | Compatible connector           |
|-----------|--|--------------------------------|
| FC3-LAN   | 2x GbE LAN on RJ45                               | M.2 Key-E (FACET) <sup>1</sup> |
| FC3-POED  | GbE LAN PoE device on RJ45                       | M.2 Key-E (FACET) <sup>1</sup> |
| FC3-OPLN  | GbE on SFP+ for optic LAN                        | M.2 Key-E (FACET) <sup>1</sup> |
| EB-M2SATA | SATA expansion for 2.5" HDD / SSD <sup>2,3</sup> | M.2 Key-M or M.2 Key-B         |

Notes:

1. FACET expansion card and Wi-Fi/BT card are mutually exclusive. For Wi-Fi/BT on systems with FACET cards, an onboard WiFi/BT module must be selected.
2. Up to 1 unit of EB-M2SATA is possible, and up to two storage devices in total.
3. EB-M2SATA expansion requires deep bottom that will enlarge the fitlet3 size.
4. FC3-LAN and Wi-Fi module are mutually exclusive. For Wi-Fi functionality with FC3-LAN, an external Wi-Fi dongle may be used

## Optional accessories

| Name               | Description   |
|--------------------|---|
| FITLET3-ACC-PSU    | Universal power supply unit (one unit is included in fitlet3 package) |
| FITLET3-ACC-BRKT   | VESA mounting bracket   |
| FITLET3-ACC-DIN    | DIN rail mounting kit   |
| FITLET3-ACC-DINSD  | Side DIN rail mounting kit  |
| FITLET3-ACC-POWBTN | Remote power button with LED with 25cm wire                           |

Download the latest version of this document at [www.fit-iot.com](http://www.fit-iot.com)

For ordering information and additional technical information visit [www.fit-iot.com](http://www.fit-iot.com)