

# UBX-310

## Intelligent Compact Fanless BOX PC



DeviceOn/iService

### Features

- Equipped with DeviceOn/iService software remote device management
- Embedded in Intel Bay Trail J1900/Skylake Core i3/i5 processor
- Compact design with 45mm in height
- Easy/quick installation for additional peripherals and expanded modular
- Support 1 x 2.5" SATA HDD Bay and 1 mSATA
- Multiple IO ports is suitable for variety of applications.
- Lockable DC jack design
- Support wall/VESA mount
- Supports WISE-PaaS/RMM and Embedded Software APIs



### Introduction

UBX-310, an intelligent, fanless embedded system powered by Intel® Celeron™ J1900/Skylake Core i3/i5 low power processor with multiple I/O interface. Fanless design can provide the user quiet operation environment and reduce the failure rate. These low-power platforms provide energy-efficient and environmentally responsible solutions, compact and fanless design and serve applications targeted at factory automation, machine automation, retail, kiosks, and self-service applications.

Moreover, UBX-310 is equipped with Advantech's DeviceOn/iService software, which is a next-generation unified device management solution based on the WISE-DeviceOn platform. With support for batch operations and multi-device control, DeviceOn/iService enables easy device configuration and deployment for convenient remote device management

### Specifications

|                        |  | UBX-310D-LOBOE   | UBX-310D-FOBOE | UBX-310F-I3B00   | UBX-310F-I5B00                            |
|------------------------|--|--|----------------|--|---|
| Processor              | CPU  | Baytrail J1900   |                | Core i3-6100U  | Core i5-6300U                             |
|                        | Max Speed  | 2.0GHZ, Turbe Boost up to 2.42GHZ                                  |                | 2.3GHZ   | 2.4GHZ                                    |
| Memory                 | Technology   | Single channel DDR3L 1333 MHz SDRAM                                |                |  | Single channel DDR4 2133 MHz SDRAM        |
|                        | Max Capacity   | Up to 8GB  |                |  | Up to 16GB                                |
|                        | Socket   | 1 x 204-pin SO-DIMM  |                |  | 1 x 260-pin SO-DIMM                       |
| Graphic                | Capacity   | Integrated Intel® HD Graphics Engine                               |                |  |   |
|                        | HDMI   | Max. resolution 1920 x 1200 @ 60 Hz                                |                |  | Max. resolution 3840 x 2160 @30Hz         |
|                        | VGA  | Up to SXGA 2560 x 1600 @ 60 Hz                                     |                |  | Up to SXGA 2048 x 1152 @ 60 Hz            |
| Ethernet               | Interface  | 10/100/1000 Mbps   |                |  | 10/100/1000 Mbps                          |
|                        | Controller   | Realtek RTL8111E GbE LAN   |                |  | I219LM/I211AT GbE LAN                     |
| Audio                  | Interface  | Realtek ALC269   |                |  | Realtek ALC892                            |
| Front IO               | USB2.0   | 1  | 1              | 1  |   |
|                        | USB3.0   | NA   | 1              | NA   |   |
|                        | Serial   | NA   | 3              | NA   |   |
| Rear IO                | VGA  | 1  |                | 1  |   |
|                        | HDMI   | 1  |                | 1  |   |
|                        | RJ-45  | 1  |                | 2  |   |
|                        | USB  | 4 x USB2.0   |                | 4 x USB3.0, 2 x USB2.0   |   |
|                        | Serial   | 3, COM3 support 5V/12V power by order                              |                | 4, COM1&COM2 support 5V/12V Power, COM2 support RS232/422/485 by order |   |
|                        | LPT  | 1  |                | NA   |   |
|                        | RJ11   | 1, cash drawer default 24V   |                | 1, cash drawer default 12V   |   |
|                        | Audio  | 1 x Line-out, 1 x Mic-in   |                | 1 x Line-out, 1 x Mic-in   |   |
| DC Jack                | 1  |  | 1              |  |   |
| Expansion              | Mini PCIe  | 1 x F/S MiniPCIe   |                | 2 x F/S MiniPCIe   |   |
| Storage                | SATA3.0  | 1 x 2.5-inch SATA 2.0 HDD/SSD (7mm height)                         |                |  | 1 x 2.5-inch SATA3.0 HDD/SSD (7mm height) |
|                        | mSATA  | 1  |                |  | 2   |
| Power                  | Requirement  | ATX Mode, AC to DC, DC 12V/5A, 60W                                 |                |  |   |
| Miscellaneous          | Dimension (L x W x H)                                    | 245 x 185 x 45 mm  |                |  |   |
|                        | Weight   | 2.0kg  |                |  |   |
| Mounting Mode          | Accessories  | Wall /VESA mount   |                |  |   |
| Software               | OS   | Win7, Win10, POSReady7, Linux                                      |                |  |   |
| Environment            | Operating Temperature                                    | 0 ~ 40 °C  |                |  |   |
|                        | Storage Temperature                                      | -40 ~ 85 °C (-40 ~ 185 °F)   |                |  |   |
|                        | Relative Humidity  | 90% @ 40 °C (non-condensing)                                       |                |  |   |
|                        | Vibration during operation                               | With HDD:0.5Grms, IEC 60068-2-64, random 5-500HZ, 3 axes, 1hr/axis |                |  |   |
| Shock during operation | With HDD:10 G, IEC 60068-2-27, half sine, 11 ms duration |  |                |  |   |
| Certification          |  | CCC/BSMI/CE/FCC/UL/CB  |                |  |   |

Notes : UBX-310 doesn't support WIFI and BT function in Europe Area.

## Specifications (Cont.)

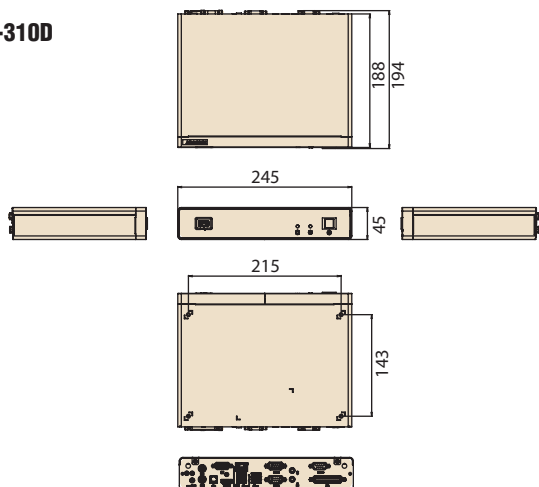
|   |  |            |
|---|--|------------|
| DeviceOn/iService<br>Remote Device Management | Operating System                         | Windows 10 |
|   | Common Controls (Reboot, Shutdown)       | ✓          |
|   | Remote desktop                           | ✓ (VNC)    |
|   | Device-Specific Controls(Audio controls) | ✓          |
|   | Connection Status                        | ✓          |
|   | Hardware Status                          | ✓          |
|   | Hard Disk Status                         | ✓          |
|   | Batch Operation Support                  | ✓          |
|   | OTA Storage Management                   | FTP        |
|   | OTA Software Updates                     | ✓          |
|   | Software Watchlist                       | ✓          |
|   | Software Start/Stop                      | ✓          |
| Peripherals Watchlist                         | ✓  |            |

Note: DeviceOn/iService software must be downloaded from the Advantech website at <https://www.advantech.com/search?q=DeviceOn%2FiService&st=support&ssl=Utility>

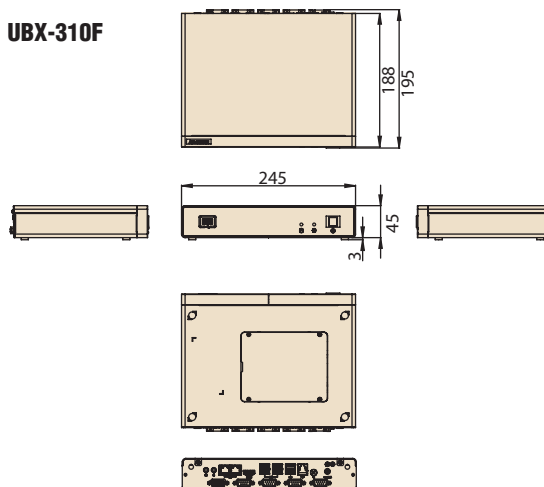
## Dimensions

Unit: mm

UBX-310D

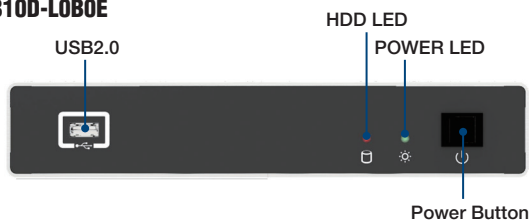


UBX-310F

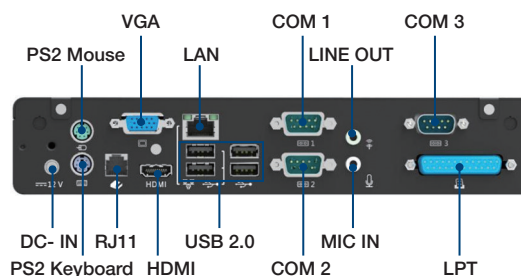
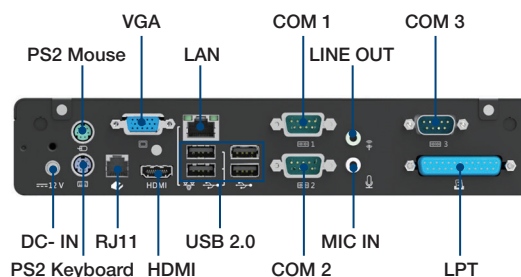
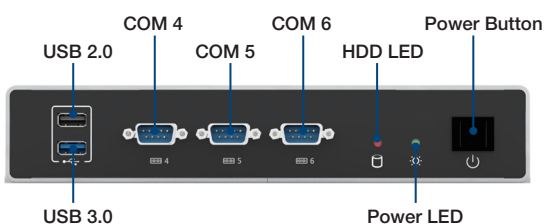


## Fully- Integrated I/O

UBX-310D-LOB0E

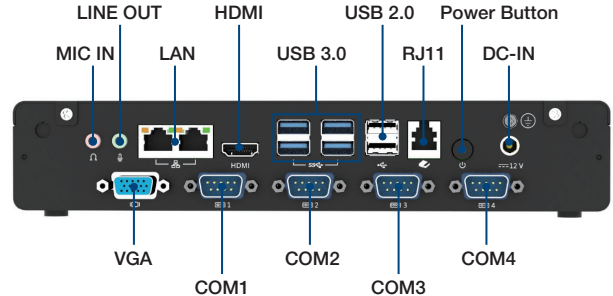


UBX-310D-F0B0E



## Fully- Integrated I/O

### UBX-310F



## Ordering Information

| PN             | Description  |
|----------------|--|
| UBX-310D-LOB0E | Intel Baytrail J1900 Fanless Mini Box PC w/o RAM and Storage                                 |
| UBX-310D-F0B0E | Intel Baytrail J1900 Fanless Mini Box PC with extended IO configuration, w/o RAM and Storage |
| UBX-310D-LOU0E | Intel Baytrail J1900 Fanless Mini Box PC w/o RAM and Storage, special for USA                |
| UBX-310F-I3B00 | Intel Skylake Core i3 6100U Fanless Mini Box PC w/o RAM and Storage                          |
| UBX-310F-I5B00 | Intel Skylake Core i5 6300U, Fanless Mini PC w/o RAM and Storage                             |

## Accessory

| Accessory               | Part Number                          | Description  |
|-------------------------|--------------------------------------|--|
| Memory                  | AQD-D3L8GR16-SG                      | 8G R-DDR3-1600 1.35V&1.5V 512X8 SAM  |
|                         | AQD-D3L4GR16-SG                      | 4G R-DDR3-1600 1.35V&1.5V 512X8 SAM  |
|                         | AQD-D4U4GR24-SG                      | 4G R-DDR4-2400 1.2V 512X8 SAM  |
|                         | AQD-D4U8GR24-SE                      | 8G R-DDR4-2400 1.2V1GX8 SAM  |
|                         | AQD-D4U16R24-SE                      | 16G R-DDR4-2400 1.2V 1GX8 SAM  |
| Storage                 | SQF-S25M4-64G-SBC                    | SQF 2.5" SATA SSD 640 64G MLC (0-70°C)   |
|                         | SQF-S25M4-128G-SBC                   | SQF 2.5" SATA SSD 640 128G MLC (0-70°C)  |
|                         | SQF-S25M4-256G-SBC                   | SQF 2.5" SATA SSD 640 256G MLC (0-70°C)  |
|                         | SQF-S25V2-64G-SBC                    | SQF 2.5" SATA SSD 640 64G 3D TLC (BiCS3) (0-70°C)                                |
|                         | SQF-S25V2-128G-SBC                   | SQF 2.5" SATA SSD 640 128G 3D TLC (BiCS3) (0-70°C)                               |
|                         | SQF-S25V4-256G-SBC                   | SQF 2.5" SATA SSD 640 256G 3D TLC (BiCS3) (0-70°C)                               |
|                         | SQF-S25V2-64GCSBC                    | SQF 2.5" SATA SSD 640-C 64G 3D TLC (BiCS4) (0-70°C)                              |
|                         | SQF-S25V2-128GCSBC                   | SQF 2.5" SATA SSD 640-C 128G 3D TLC (BiCS4) (0-70°C)                             |
|                         | SQF-S25V2-256GCSBC                   | SQF 2.5" SATA SSD 640-C 256G 3D TLC (BiCS4) (0-70°C)                             |
|                         | 96ND500G-ST-SG5KA1                   | SEAGATE 500G 2.5" SATAIII 5KRPM 16M(G)24*7                                       |
| SQF-SMSM4-64G-S9C       | SQF MSATA 630 64G MLC (0-70°C)       |  |
| SQF-SMSM4-32G-S9C       | SQF MSATA 630 32G MLC (0-70°C)       |  |
| Wifi Module             | EWM-W157H01E                         | 802.11 a/b/g/n/ac, Realtek RTL8821AE, WiFi 1T1R, BT4.0, Half-size Mini PCIe Card |
|                         | 1750005885*2                         | WiFi Coaxial Cable, 230 mm   |
|                         | 1750002842*2                         | WiFi 2.4 GHz and 5 GHz dipole Antenna  |
|                         | 1930003278*1                         | Screw M2*3L F/S D=3.5 H=0.8 + ST BNi NK  |
|                         | 9656EWMG00E                          | Half-size to Full-size Mini PCIe Bracket Pack                                    |
|                         | 1750008717-01*2                      | Dipole Ant. D.B 2.4/5G WIFI 3dBi SMA/M-R BLK(outer antenna)                      |
| Power Cord              | 96CB-POWER-B-1.8MA                   | Power Cord(China), 3P 1.8M, BK(CCC)  |
|                         | 17AP164900518011                     | Power Cord CEE 7/16+C13 10A/16A 250V L1.8M(CE)                                   |
|                         | 1700013977                           | Power Cord 10A 250V 3P 180/90 CCC 200cm(CCC)                                     |
|                         | 1702002600                           | Power Cord 3P UL/CSA 10A 125V 1.83M 180D(USA)                                    |
|                         | 1702002605                           | Power Cord 2P FRANCE 10A 250V 1.83M 90D(EU)                                      |
|                         | 1700001714                           | Power Cord BSMI 3P 7A 125V 18AWG 180CM(BSMI)                                     |
|                         | 1700000237                           | Power Cord 3P PSE 12A 125V 1.83M(Japan)  |
| 1700018704              | Power Cord BSI 3P 10A 250V 180cm(UK) |  |
| Mount Kit               | HIP-33B-MOUNT1E                      | VESA MOUNT for UBX-310   |
| Windows OS for UBX-310F | 2070015073                           | Image POSReady7 UBX-310F V1.00 3MUI 64Bit  |
|                         | 2070015074                           | Image WIN7PSP1 UBX-310F V1.00 3MUI 64Bit   |
|                         | 2070015075                           | Img WIN10 LTSB-G(1315) UBX-310F V1.00 3MUI 64Bit                                 |
| Windows OS for UBX-310D | 2070014259                           | Image PODREADY7 UBX-310D V1.00 ENG CHS 32Bit                                     |
|                         | 2070014374                           | Image WES7P UBX-310D V1.00 ENG CHS 64Bit   |
|                         | 2070014375                           | Image WES7P UBX-310D V1.00 ENG CHS 32Bit   |
|                         | 2070014571                           | img Win7Pro UBX-310D X32 V1.0 SimpChn (ChinaBP)                                  |
|                         | 2070015072                           | Image WES7P UBX-310D V1.00 3MUI 64Bit  |
|                         | 20708WX6ES0006                       | Img WIN10 LTSB-G-U UBX-310D V1.00 7MUI 64Bit                                     |
|                         | 20708WX9ES0028                       | Img WIN10 LTSC-9-U-E UBX-310D V1.00 7MUI 64bit                                   |

Notes : Can support Ubuntu 18.04 or higher by request

## Mounting Kit

| Mounting   | Part Number      | Description                              |
|------------|------------------|--|
| Wall Mount | 1960073138N101*2 | VESA SUPPORT FOR UBX-310D(BLACK 7C)      |
|            | 1930030500*4     | S/S D=5.0 H=1 120°(2+) M3*5L ST Ni       |
|            | 1950020055N001*1 | VESA BRACKET ASSY FOR UBX-310D(BLACK 7C) |
| VESA Mount | 1960073138N101*2 | VESA SUPPORT FOR UBX-310D(BLACK 7C)      |
|            | 1930030500*8     | S/S D=5.0 H=1 120°(2+) M3*5L ST Ni       |

# DeviceOn/iService

## Unified Remote Device Management Software



### Features

- Supports Advantech devices equipped with Windows, Android, and Linux OS
- Flexible device, location, user, and permissions management
- Enables remote monitoring and control of hardware, software, and peripherals
- Supports over-the-air (OTA) firmware and software updates
- Ensures quick, easy, and secure device onboarding
- RESTful APIs for third-party system integration

### Introduction

Advantech's DeviceOn/iService is a next-generation unified device management solution based on the WISE-DeviceOn platform. Designed to enable centralized monitoring and remote management, DeviceOn/iService supports Advantech devices equipped with Windows, Linux, or Android operating systems. The software also supports the management of applications and integrated peripherals, such as a barcode scanner, card reader, camera, and printer. Users can remotely access and control connected devices, take screenshots, rollout OTA upgrades, and use remote desktop capabilities for troubleshooting from any location at any time. Moreover, DeviceOn/iService supports batch operations to facilitate the management of multiple devices simultaneously for easy and convenient device configuration and deployment.

### Total Management



#### Devices & Hardware

- Windows, Linux, Android
- Hardware, storage, battery



#### Software & Peripherals

- Software monitoring & access
- Screens, USB devices, printers



#### Open for Expansion

- Peripheral integration
- Open APIs for integration

### Remote Access



#### Real-Time Monitoring

- Connection/hardware status
- Software/peripheral status
- Failure notifications



#### Remote Controls

- Power controls
- Audio, backlight controls
- Software controls



#### Troubleshooting

- Screenshots
- Remote desktop support

### Operational Efficiency



#### OTA updates

- System/software updates
- File repository management
- App store



#### Batch Controls

- 1-to-many batch reboot, etc.
- Time-saving tasks



#### Setup Booster

- Software/peripheral watchlist
- Roles, rule templates

Note: Some functions may vary according to the product

### System Architecture

