

ABOX-5211(P) Series

10th Gen Intel® Core™ 10-Cores i9-10900TE / 8 x GbE (Optional 8 x PoE) / 2 x DP / 4 x USB 3.2 10Gbps / 4 x USB 3.2 5Gbps
9~60V Input AI Computing

Features

- 10th Gen Intel® 10-Cores i9-10900TE
- 8 x DI, and 4 x DO and 4 x RS-232/422/485
- 3 x M.2 2280 Key M Support NVMe SSD Storage
- 9 ~ 60V DC Power Input
- Operating Temp.: -40~70°C
- 8 x GbE RJ45 (Optional 8 x PoE)



Introduction

The ABOX-5211 Series is powered by the 10th Gen Intel® Core™ i9-10900TE Processor and boasts 8 x DI, 4 x DO, and 4 x RS-232/422/485 support. It is perfect for Industrial IoT deployments, with high-performance computing and real-time capabilities certified by Intel® ESDQ (Edge Software Device Qualification) for Autonomous Mobile Robots (AMR). The Intel® UHD Graphics 630 Graphics and single-side I/O panel design, along with 9~60VDC power input, make it ideal for Factory Automation, Service Robots, Cellular V2X, Smart Retail, and any AIoT/Industry 4.0 applications. Moreover, it is suitable for industrial automation, digital signage, outdoor video surveillance, and AGV/AMR. The ABOX Fanless PC can handle all outdoor digital applications and extreme weather conditions with ease.

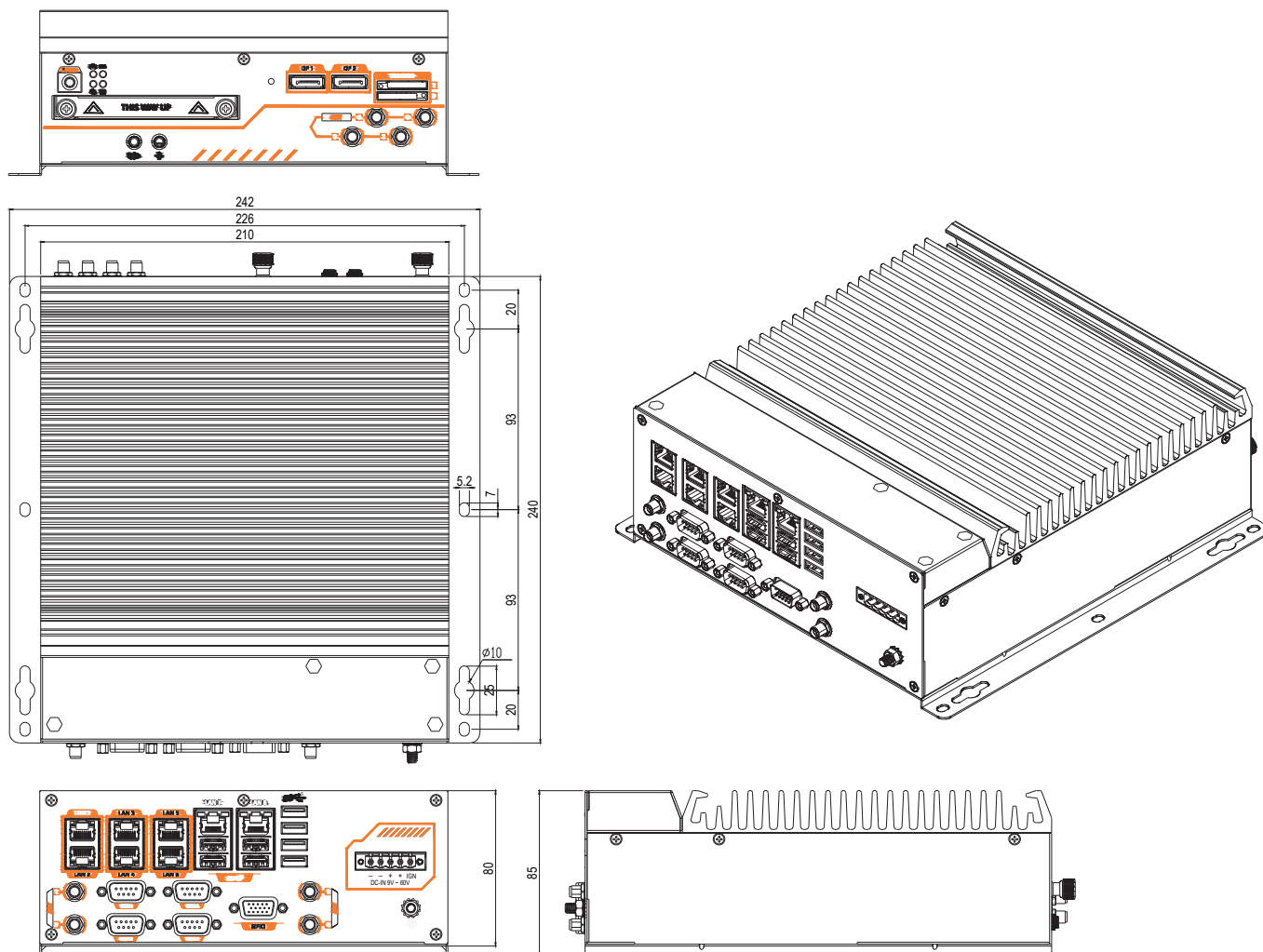
Specifications

| System | |
|---------------|---|
| CPU | 10th Gen Intel® Core™ i9-10900TE (20M Cache 2.0GHz up to 4.5GHz) |
| | 10th Gen Intel® Core™ i7-10700TE (16M Cache 2.0GHz up to 4.4GHz) |
| | 10th Gen Intel® Core™ i5-10500TE (12M Cache 2.3GHz up to 3.7GHz) |
| | 10th Gen Intel® Core™ i3-10100TE (6M Cache 2.3GHz up to 3.6GHz) |
| | Intel® Celeron® G5900TE (2M Cache 3.0GHz) |
| Chipset | Q470E |
| Memory | 2 x DDR4 3200MHz SO-DIMM up to 64GB |
| LAN Chipset | 7 x Intel i210-AT and 1 x i219LM (support iAMT) Gb/s Ethernet Controllers Onboard Support PXE and WOL |
| Watchdog | 1 ~ 255 Level Reset |
| TPM | 2.0 |
| I/O | |
| Serial Port | 4 x RS 232/422/485 |
| USB Port | 4 x USB 3.2 10Gbps and 4 x USB 3.2 5Gbps |
| LAN | 8 x RJ45 Ports for GbE (Optional 8 x PoE Total Max.120W) |
| Video Port | 2 x DP |
| DIO Port | 8 x DI (5~60VDC) and 4 x DO (5VDC, 100mA) |
| Audio | 1 x Line-out and 1 x Mic-in |
| Expansion Bus | 1 x M.2 B Key 3042/3052 for WWAN (USB3.0) w/ Dual SIM Slot |
| | 1x M.2 A-E Key 2230 Slot for Wi-Fi (PCIe + USB) |
| | 2 x Full Mini-PCIe Slots (Support DIP Switch Enabled/Disabled SMBus Interface) |
| Mechanical | |
| Construction | Aluminum Extrusion with Steel Chassis |
| Mounting | Wall-mount |
| Weight | 3680g (Barebone) |
| Dimensions | 240(L) x 242(W) x 85(H)mm with Wall-mount |

| Storage | |
|---------------------------|--|
| Type | 1 x 2.5" Drive Bay for SATA Type HDD/SSD (Rear Panel) 3 x M.2 M Key 2280 PCIe 4x Supported * Thermal heatsink is required for M.2 storage. Please contact sales window for more information. |
| Graphics | |
| CPU Built-in Graphics | Intel® UHD Graphics 630 for i9/i7/i5/i3 Intel® UHD Graphics 610 for G5900TE Max Resolution (DP 1.2) : 4096 x 2340 @ 60Hz |
| Software | |
| Operating System | Windows 10 64bit, Ubuntu 20.04 64bit |
| Environmental | |
| Operating Temp. | -40°C ~ 70°C w/0.6 m/s airflow *Operating temp. varies by accessories installed. |
| Storage Temp. | -40°C ~ 80°C |
| Relative Humidity | 10% RH – 90% RH (non-condensing) |
| Vibration (with SSD) | IEC60068-2-64, Random, 2.5G@5~500Hz, 1hr/axis MIL-STD-810G, Method 514.6, Procedure I, Cat.4, Operating |
| Shock | Operating: MIL-STD-810G, Method 516.6, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD |
| Certifications | CE, FCC Class A, E-Mark |
| Power Requirement | |
| Power Input | 9~60VDC Power Input |
| Power Protection | Automatic Recovery Short Circuit Protection |
| Power Mgmt. | Vehicle Power Ignition for Variety Vehicle |
| Power Off Control | Power off Delay Time Setting by BIOS and Software |
| Battery Backup (Optional) | Internal Battery Kit for 10 Minutes Operating Patent No. : M447854 - Build-In Battery P/N: BAT-5200 kit, Operating Temp. Charging 0 ~45°C, Discharging -20~60°C. *UPS backup time varies depending on actual overall system power consumption, and battery self-depletion is an inevitable characteristic. |

Dimensions

Unit : mm



Ordering Information

| | |
|------------------------|--|
| Model Number | ABOX-5211x-yy (x= P= w/PoE, x= Empty= w/o PoE, yy= i9= i9-10900TE, yy= i7= i7-10700TE, yy= i5= i5-10500TE, yy= i3= i3-10100TE, yy= C1= G5900TE) |
| Description | 10th Gen Intel® 10 Cores i9-10900TE / 8 x GbE (Optional 8 x PoE) / 2 x DP / 4 x USB 3.2 10Gbps / 4 x USB 3.2 5Gbps / 9-60V Input AI Computing |
| State of Origin | Made in Taiwan |

Optional Accessories

| | |
|---------------------------|---|
| DRAM | DDR4-3200 MHz SO-DIMM, 4GB~32GB, -40~85°C |
| SSD | M.2 2280 B-M key NVMe TLC -40~85°C 64GB~1TB w/ Heatsink M.2 2280 B-M key SATA TLC -40~85°C 64GB~1TB w/ Heatsink 2.5 inch SATA TLC -40~85°C 64GB~2TB |
| AI | M.2 AI Acceleration Module |
| Wi-Fi | M.2 2230 A-E key 802.11 a/b/g/n/ac, Wi-Fi 6E |
| Modem | M.2 3042 B key 5G & LTE Module |
| GPS | MiniPCIe GPS Module |
| CANBUS | MiniPCIe CANBUS Module |
| Battery Backup Kit | BAT-5200 Battery Kit, 5200mAh, Charge 0~45°C, Discharge -20~60°C |
| Power adapter | AC/DC 24V Power Adapter |

All specifications are subject to change without notice.