

ABOX-5222(P) Series

Powered by Intel® Core™ Series 2 Processor — High-Performance, Low-Profile Edge AI Computer



- Intel® Core™ Series 2 Processor
- High Performance, Low Profile: Engineered for Peak Performance Density at the Edge
- 6 x 2.5GbE with PoE+ Option: Simplified Connection to Edge Devices
- 8 x USB 3.2 Gen 2: High-Speed Plug and Play Interface

Specifications

System

Processor

- Intel® Core™ 7 251TE
- Intel® Core™ 5 211TE
- Intel® Core™ 3 201TE

Graphics

- Processor-integrated GPU — Intel® UHD Graphics 770

Chipset

- H610E

Memory

- 2 x DDR5-5600 SO-DIMM up to 96 GB

Security

- TPM 2.0

Watchdog

- Auto reset for unresponsive system (custom 1-255 sec/min settings in BIOS)

Power

Power Input

- DC 9-60V (nominal power input DC 12V/24V/48V) via 5-pin terminal block

Power Protection

- OCP, OVP, surge protection, reversed polarity protection

Power Management

- Ignition detection, Smart Power Management

RTC Battery

- High-capacity coin cell battery for RTC

Software

Operating System

- Windows 11 IoT Enterprise LTSC
- Ubuntu 22.04 LTS

Interface

Video

- 1 x HDMI® up to 3840 x 2160 @ 60Hz as specified in HDMI 2.0b
- 1 x DP++ up to 7680 x 4320 @ 60Hz

Audio

- 1 x Line-out, 1 x Mic-in

Ethernet

- 6 x 2.5GbE (Intel I226-LM) via RJ-45 (optional PoE+)
- * PoE supports 25.5W per port with total power budget: 120W

USB

- 8 x USB 3.2 Gen 2

DIO

- 8 x DI (DC 9-60V), 4 x DO (DC 5V/100mA)

COM

- 2 x RS-232/422/485 (optional 6 x RS-232/422/485)

Environmental

Operating Temp.

- -40°C ~ 70°C (-40°F ~ 158°F) with 0.6 m/s airflow
- *Operating temperature varies by accessories installed.

Storage Temp.

- -40°C ~ 80°C (-40°F ~ 176°F)

Relative Humidity

- 10% RH ~ 90% RH (non-condensing)

Vibration

- IEC 60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
- MIL-STD-810H, Method 514.8, Procedure I, Category 4

Shock

- MIL-STD-810H, Method 516.8, Procedure I, trucks and semi-trailers=15G (11ms)

Certification / Compliance

- CE, FCC Class A, UKCA, E-Mark, IEC 62368-1

Mechanical

Construction

- Aluminum alloy

Antenna

- 7 x SMA connector mounting hole

Mounting

- Wall mounting

Net Weight

- 3.50 kg (7.72 lb)

Dimensions (L x W x H)

- 242 x 240 x 70 mm (9.53 x 9.45 x 2.76 in.) w/ mounting brackets
- 210 x 240 x 65 mm (8.27 x 9.45 x 2.56 in.) w/o mounting brackets

Internal Expansion

M.2

- 1 x M.2 3042/3052 Key B for WWAN w/ dual SIM support
- 1 x M.2 2242 Key B for GNSS or CAN FD
- 1 x M.2 2230 Key E for Wi-Fi/BT

* Thermal solution is required for M.2 5G module.

Mini PCIe

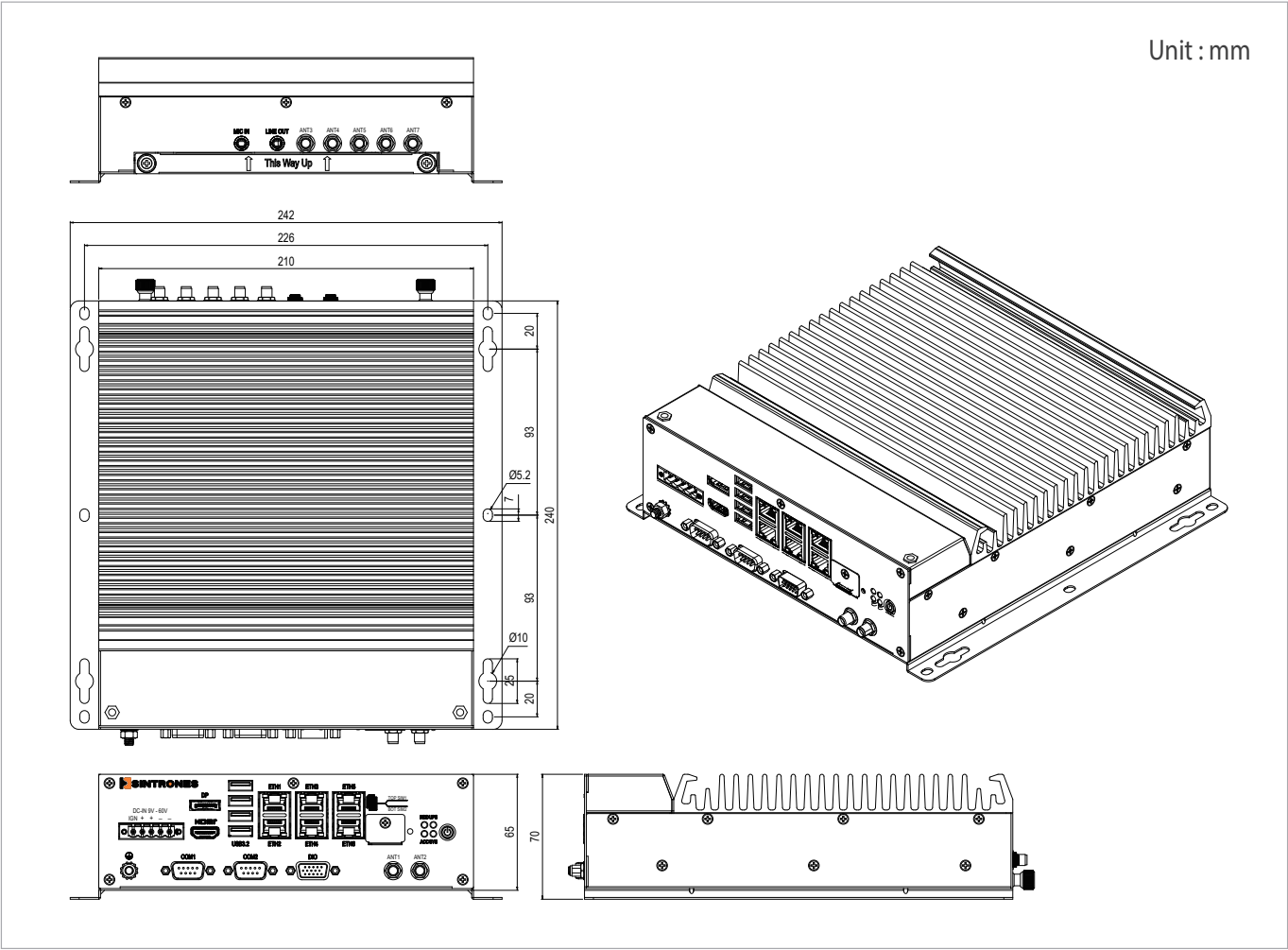
- 1 x Mini PCIe (full-size w/ USB 2.0 only)

Storage

Type

- 1 x M.2 2280 Key B for SATA SSD
- 1 x Removable tray for 2 x 2.5" SATA SSD

Dimensions



Ordering Information

Model Number	ABOX-5222(P)-zzzzz (P= w/ PoE, zzzzz=251TE=Intel® Core™ 7 251TE, zzzzz=211TE=Intel® Core™ 5 211TE, zzzzz=201TE=Intel® Core™ 3 201TE)
Description	Powered by Intel® Core™ Series 2 Processor — High-Performance, Low-Profile Edge AI Computer
State of Origin	Made in Taiwan

Optional Accessories

Memory	DDR5-5600 SO-DIMM, 8 GB to 48 GB, -40°C ~ 85°C
Storage	M.2 2280 Key B-M SATA SSD w/ thermal kit, -40°C ~ 85°C 2.5" SATA SSD, -40°C ~ 85°C
Wi-Fi	M.2 2230 Key A-E Wi-Fi module, -40°C ~ 85°C
WWAN	M.2 3042/3052 Key B WWAN module w/ thermal kit, -40°C ~ 85°C
GNSS	M.2 2242 Key B GNSS module, -40°C ~ 85°C Mini PCIe GNSS module, -40°C ~ 85°C
CAN Bus	M.2 2242 Key B CAN FD module, -40°C ~ 85°C Mini PCIe CAN module, -40°C ~ 85°C
Power Adapter	AC/DC 100-240V/24V 280W C14 bare wire power adapter