# **ABOX-5000**

Taiwan Patent No. M447854

Intel 6th/7th-Gen Quad Core Xeon/ Core i7/i5/i3 CPU w/ 4 x GbE/ 4 x ISO COM/ 2 x DP/VGA/ 4 USB 3.0 Fast Expansible Slot 9-36V Fanless Computer

#### **Features**

- Intel® 6th/7th-Gen Quad Core Xeon/Core i7 LGA1151 CPU
- 4 x RS-232/422/485 with 1.5KVrms isolated
- 8 x GPI and 4 x GPO with 1.5KVrms isolated
- 4 x GbE LAN (optional for 4 x PoE and additional 4 x GbE / PoE)
- Dual Hot Swappable SATA Storage
- 9-36V DC input and operating Temp.: -40 ~ 70°C
- Fast Expansible Slot support PCI-E, USB, SMBus, GPIO and SATA













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Introduction

The ABOX-5000 Fanless Box Computers are designed for multiple applications of industrial usage such us industrial control unit and intelligent / automatic factory. It is poared by Intel® 6th-Gen Skylake Core i7/i5/i3 CPU with 4 GbE/ 4 ISO COM/ 2 DP/ VGA/ 4 USB 3.0/ Fast Expansible Slot/ 9-36V. ABOX-5000 was designed for multiple applications of industrial usage such us industrial control unit, mining machines and intelligent / automatic factory. In addition, the Fast Expansible Slot enhanced the expansible interfaces with mini PCIe slot, USB ports, SM Bus, GPIO Ports, PoE Ports and SATA slots. As for the power management, it has power protection with automatics recovery short circuit protection and vehicle power ignition for variety vehicle.

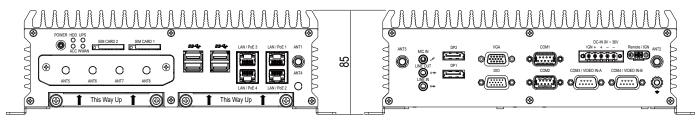
### **Specifications**

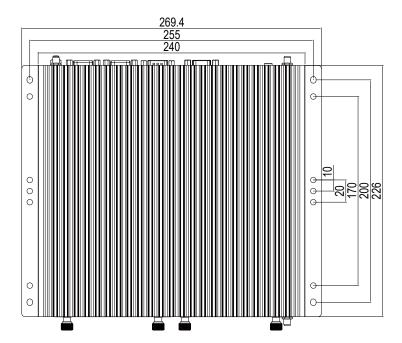
System		
CPU	Intel Xeon E3-1268L v5 (8M, cache 2.4~3.4GHz)	
	Intel Gen6 Core i7-6700TE (8M Cache 2.4GHz up to 3.4GHz)	
	Intel Gen6 Core i5-6500TE (6M Cache 2.3GHz up to 3.3GHz)	
	Intel Gen6 Core i3-6100TE (4M Cache 2.7GHz)	
Memory	2 x DDR4 2133 MHz SO-DIMM up to 32GB	
Chipset	Intel Q170 for Intel 6th-Gen Skylake-S Core-i series	
	Intel C236 for Xeon Quad Core E3-1268L v5 (optional)	
LAN Chipset	5 x Intel i210-AT and 1 x i219LM (iAMT9.5 w/ i5, i7 only) Gb/s Ethernet Controllers Onboard Support PXE and WOL	
Watchdog	1 ~ 255 Level Reset	
TPM	2.0	
1/0		
Serial Port	4 x RS 232/422/485 w/1.5KVrms isolation (Auto Direction Control)	
USB Port	4 x USB 3.0 Ports	
LAN	4 x RJ45 Ports for GbE (Optional for 4 x POE 15.4W per port)	
Video Port	2 x Display Port and 1 x VGA Port (Triple Independent Display)	
DIO Port	8 x GPI and 4 x GPO connector w/1.5KVrms isolation	
Audio	1 x Line-out and 1 x Mic-in (Line-in Optional)	
Expansion Bus	3 Full and 1 Half Mini-PCle Slot (2 x SIM Card Socket for 3G/LTE)	
FES Expansion	Support PCI-E Bus, USB Bus, SMBus, GPIO and SATA Bus (Customized for Customer without NRE charge)	
Graphics		
	Intel® HD Graphics 530	
Graphics	DirectX Video Acceleration (DXVA) for Accelerating Video Processing - Full AVC/VC1/MPEG2 HW Decode Supports DirectX 11/10.1/10/9 and OpenGL 4.0	
Resolution	Max Resolution (HDMI1.4) : 4096x2304@24Hz	
Resolution	Max Resolution (DP): 4096x2304@60Hz	

Software	Software		
Operating System	Win 10, Ubuntu 16.04 64bit		
Environmental			
Operating Temp.	-40°C ~ 70°C (Default CPU 35Watt) , ambient w/ 0.6m/s airflow		
Storage Temp.	-40°C ~ 80°C		
Relative Humidity	10% RH – 90% RH (non-condensing)		
Vibration	IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis		
(with SSD)	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, E13		
Storage			
Tuno	2 x 2.5" Drive Bay for SATA Type HDD/SSD RAID 0, 1, 5		
Туре	1 x SATA DOM		
Power Requirement			
Power Input	9V - 36V DC Power Input		
Power Protection	Automatics 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 (UPS)	Internal Battery Kit for 10 Mins Operating (Optional)  Patent No.: M447854 - Build-in Battery		
Mechanical	Mechanical		
Construction	Aluminum Alloy		
Mounting	Wall-mount		
Weight	3860g (Barebone)		
Dimensions	240(L) x 226(W) x 79(H) mm		

#### **Dimensions**

Unit: mm







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## **Ordering Information**

Part Number	ABOX-5000P-i7 Optional for i5/i3/C1 (with PoE)
	ABOX-5000-i7 Optional for i5/i3/C1
Description	Intel 6th/7th-Gen Quad Core Xeon/ Core i7/i5/i3 CPU w/ 4 GbE/4 ISO COM/ 2 DP/ VGA/ 4 USB 3.0 Fast Expansible Slot/9-36V Fanless Computer
State of Origin	Made in Taiwan

## **Optional Accessories**

DRAM	SO-DIMM max.DDR4-2133,4GB~32GB,0~70°C/-40~85°C
SATA SSD	2.5inch MLC/TLC 64GB~1TB 0~70°C/-40~85°C
SATA DOM	MLC 8G~128GB, 0~70C/-40~85C
Wifi	Wifi miniPCle half size card 802.3a/b/g/n/ac
Modem	LTE miniPCle card
GPS	GPS miniPCle card
CANBUS	CANBUS miniPCle card
Extension for 3 x MINI-PCIe	FES-1 kit, 3 x Moden miniPCle w/ 6*SIM cards
Extension for 4 x GbE	FES-4L kit, 4 x GeE LAN
Battery backup kit	BAT-5000 kit, 2300mA/h, -30~60°C, discharge -20~60°C, operating about 10 mins.
Power adapter	AC/DC 220W/24V power adaper