tBOX312-870-FL
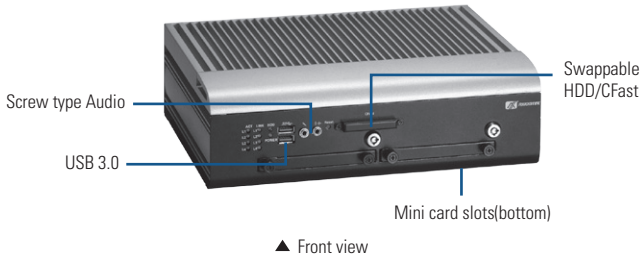
Fanless Embedded System with Intel® 3rd Gen. Core™ i Processor and Intel® QM77 Chipset for Vehicle PC

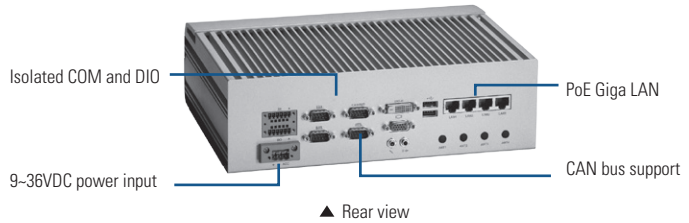**NEW**

Screw type Audio

USB 3.0

Swappable HDD/CFast

Mini card slots(bottom)

▲ Front view

| EN45545 | EN60950 | PoE | Isolation | CAN Bus |
| e13 ISO 7637 | IP40 | Fanless | Extended Temperature | DDR3 |

Features

- 3rd Generation Intel® Core™ i7 up to 2.8 GHz or Intel® Core™ i3 1.6 GHz processor onboard
- Intel® QM77 PCH
- High performance DDR3-1600 4 GB memory onboard
- Fanless operation
- Operating temperature range of -40°C ~ +70°C
- Isolated RS-232/422/485, CAN bus and DIO
- Support USB 3.0 and SATA3
- 2 removable & lockable 2.5" SATA HDD and 1 CFast™
- 3 internal PCI Express Mini Card slot and 1 SIM slot
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- IEEE802.3at PoE Giga LAN

Isolated COM and DIO

9~36VDC power input

PoE Giga LAN

CAN bus support

▲ Rear view

Specifications

Standard Color	Silver-Black
Construction	Aluminum extrusion and heavy-duty steel, IP40
CPU	3rd Generation Intel® Core™ i processor onboard; 3rd Gen. Intel® Core™ i7-3517UE (up to 2.8 GHz) or 3rd Gen. Intel® Core™ i3-3217UE (1.6 GHz)
System Memory	DDR3-1600 4 GB (i7) or 2 GB (i3) DRAM Onboard
Chipset	Intel® QM77
BIOS	AMI UEFI BIOS with OA 3.0 built
System I/O Outlet	4 x 10/100/1000Mbps Ethernet (IEEE802.3at PoE, max 35W) 3 x isolated RS-232/422/485 1 x isolated CAN Bus 1 x isolated DI/DO (4-IN/4-OUT) 2 x USB 2.0 (rear side) 2 x USB 3.0 (front side) 1 x Audio (Mic-in/Line-out) (screw type) 1 x VGA 1 x DVI 1 x VDC power input connector 1 x reset switch 1 x power switch 4 x antenna opening
Watchdog Timer	255 levels, 0 ~ 255 sec.
Storage	2 x 2.5" SATA HDD (Removable and with lock protection) supports RAID 0/1 1 x CFast™
Expansion Interface	3 x PCI Express Mini Card 1 x SIM card slot
System Indicator	1 x green LED for system power on 1 x blue LED for HDD active 1 x green LED for LAN1 link 1 x green/yellow LED for LAN 1 speed 1 x green LED for LAN2 link 1 x green/yellow LED for LAN 2 speed 1 x green LED for LAN3 link 1 x green/yellow LED for LAN 3 speed 1 x green LED for LAN4 link 1 x green/yellow LED for LAN 4 speed
Power Supply	Power input : 9 ~ 36VDC

Power Consumption	1.8A @ 24V (without PoE) PoE power output max 30W
Operating Temperature	-40°C ~ +70°C (-40°C ~ +158°C) W/T SSD -25°C ~ +55°C (-13°C ~ +131°C) W/T HDD
Storage Temperature	-40°C ~ +80°C (-40°C ~ +176°C)
Humidity	10% ~ 90%, non-condensing
Vibration Endurance	5 Grms w/ CFast (5-500Hz, X, Y, Z directions) 1 Grms w/ HDD (5-500Hz, X, Y, Z directions)
Dimensions	288 mm (11.33") (W) x 211 mm (8.3") (D) x 85.7 mm (3.37") (H)
Weight (net/gross)	5.5 kg (12.12 lb)/6.5 kg (14.33 lb)
Certification	CE (Class A), e13, ISO7637, EN60950 compliance
EOS Support	WES 8, WES 7, Windows® 7/8, Linux

*XPE: Windows XP Embedded

Ordering Information
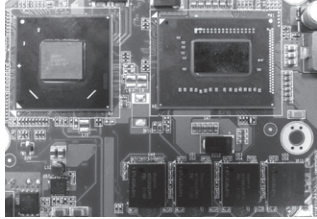
Standard

tBOX312-870-FL-i7-DC	Fanless Embedded System with 3rd Generation Intel® Core™ i7 processor, 4 GB DDR3-1600, 4 10/100/1000Mbps PoE Ethernet, 3 isolated COM, CFast™, 1 isolated CAN bus
tBOX312-870-FL-i3-DC	Fanless Embedded System with 3rd Generation Intel® Core™ i3 processor, 2GB DDR3-1600, 4 10/100/1000Mbps PoE Ethernet, 3 isolated COM, CFast™, 1 isolated CAN bus

Optional

2.5' SATA HDD/SSD	16 GB or above
CFast™	1 GB or above
3G module	
Wifi module	
Wifi+Bluetooth	
GPS module	

*Specifications and certifications are based on options and may vary.

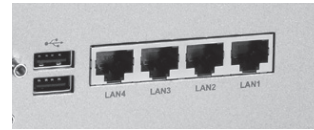* All specifications and photos are subject to change without notice.
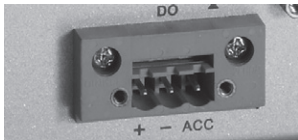
Expansion & Installation

Onboard 3rd Gen. Intel® Core™ i7 or i3 processor and
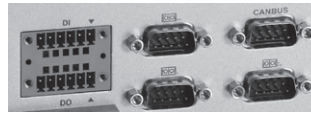4 GB or 2 GB DDR3-1600 DRAM

Swappable and Lockable SATA3 HDD/SSD, Audio
jack, USB3.0 and CFast

IEEE802.3at PoE Giga LAN

Vehicle power input with ACC support

Isolated RS-232/422/485, CAN bus and DIO
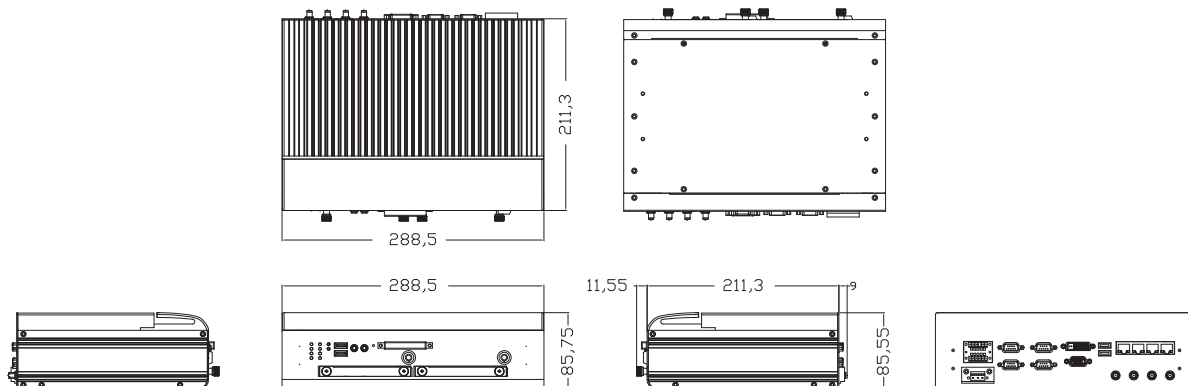

3 Mini Card with 1 SIM slot

Packing List

1 x quick manual
1 x driver CD
1 x screw pack
4 x foot pad
1 x wall-mount kit

Power Protection

DC Version
SCP (short circuit protection)
OVP (over voltage protection)
UVP (under voltage protection)
ISO7637 pulse 1/29/39/3b/4/5a

Dimensions

* All specifications and photos are subject to change without notice.
© 2013 Axiomtek Co., Ltd. All rights reserved.

axiomtek.com