

# tBOX100-838-FL

Fanless Embedded System with Intel® Atom® Processor E3845 for Vehicle, Railway and Marine PC

## Features

- CE (Class A), E-Mark, ISO 7637 certified & EN 50155, EN 50121, DNV 2.4 and IEC 60945 compliance
- Intel® Atom® processor E3845 4C@1.91GHz
- DDR3L-1333 4GB memory onboard
- Intelligent power management solution
- Compact size, multiple I/Os, DIN-rail and wall mount
- 1 PCI Express Mini Card slot and 1 SIM card slot



▲ Front view



▲ Rear view



e13/ISO7637



EN50155



IEC60945



Fanless



Ext. Temp



DDR3L



Low Power

## Specifications

Standard Color	Silver	
Construction	Aluminum extrusion and heavy-duty steel, IP40	
CPU	Intel® Atom® processor E3845 (4C@1.91GHz)	
System Memory	DDR3L-1333, 4GB memory onboard	
Chipset	SoC integrated	
BIOS	AMI	
System I/O Outlet	Rear Side	Option #1: 2 x M12 A-coded GbE LAN + 1x M12 DC power input Option #2: 2 x RJ-45 GbE LAN + 1 x Phoenix DC power input (Intel® i210 x2) 4 x Antenna opening
	Front Side	1 x RS-232/422/485 1 x VGA 2 x USB 2.0 1 x Remote switch 1 x Reset button 4 x video-in
Watchdog Timer	255 levels, 1 ~ 255 sec.	
Storage	1 x 2.5" 7/9.5 mm SATA drive	
RAID function	N/A	
Expansion Interface	1 x full-size PCI Express Mini Card slot 1 x SIM card slot	
System Indicator	1 x green LED indicator for system power 1 x green LED indicator for programmable #1 1 x green LED indicator for programmable #2 1 x yellow LED indicator for HDD active 1 x green LED indicator for LAN #1 active 1 x green LED indicator for LAN #2 active	
Power Supply	9 ~ 36 VDC, typical: 12/24 VDC (E-Mark) 14 ~ 32 VDC, typical: 24 VDC (EN 50155)	
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F) with W.T. SSD -25°C ~ +55°C (-13°F ~ +131°F) with W.T. HDD	
Humidity	5% ~ 95%, non-condensing	

Vibration Endurance	2 Grms w/ SSD (5 ~ 500Hz, X, Y, Z direction; random) 1 Grms w/ HDD (5 ~ 500Hz, X, Y, Z direction; random)
Shock	Comply EN 61373 section 10 table 3 category 1 class A and class B up to 5 Grms (30ms, ±X/Y/Z direction)
Dimensions	163.8 mm (6.44") (W) x 108 mm (4.25") (D) x 56.3 mm (2.22") (H)
Weight (net/gross)	0.77 kg (1.69 lb)/1.40 kg (3.09 lb)
Certificate	CE (Class A), E-Mark, ISO 7637 certified & EN 50155, EN 50121, DNV 2.4 and IEC 60945 compliance
EOS support	Windows® 10, WE8S, WES 7, Linux, VxWorks7

## Ordering Information

Standard	
tBOX100-838-FL-E3845-RJ-ACC-DC (P/N: E26N100100)	Fanless vehicle embedded system with Intel® Atom® processor E3845, 4GB RAM, 2 GbE LANs (RJ-45), phoenix DC-in, 1 COM, 5 BNC (4 x video-in/1 x audio-in) and 1 capture card with ACC power setting
tBOX100-838-FL-E3845-24MRDC 2018 Q1 available	Fanless railway embedded system with Intel® Atom® processor E3845, 4GB RAM, 2 GbE LANs (M12), phoenix DC-in, 1 COM, 5 BNC (4 x video-in/1 x audio-in) and 1 capture card

### Optional

2.5" SATA HDD/SSD  
3G/4G module  
Wi-Fi module  
Wi-Fi & bluetooth  
GPS module  
CANbus module

\*Specifications and certifications may vary according to various options.

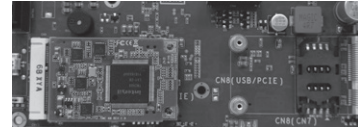
## Expansion & Installation



1 x audio-in + 4 x video-in BNC connector for DVR surveillance system



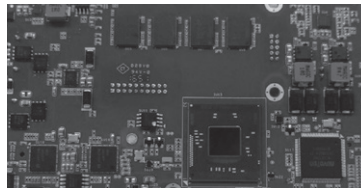
1 x swappable HDD/SSD



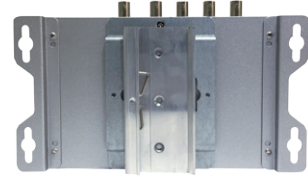
1 x PCI Express Video Capture Card  
1 x PCI Express Mini Card slot + 1 x SIM Card slot



Optional M12 type for DC-in jack and LAN jack



Onboard processor and system memory for great reliability and stability



Wall mount/DIN-rail supported for various applications, without space limitation

## Packing List

- 1 x Quick Manual
- 1 x Driver CD
- 1 x Screws pack
- 4 x Foot pad
- 1 x Wall mount Kit
- 1 x DIN-rail Kit
- 1 x DIO female connector (Optional)

## Power Protection

- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)

### Vehicle Version

- ISO 7637 pulse 1/2/3/4/5a
- Battery protection setting: Low voltage, very low voltage
- Ignition control setting: Low voltage counter, ACC-ON delay, shut down delay

## Dimensions

