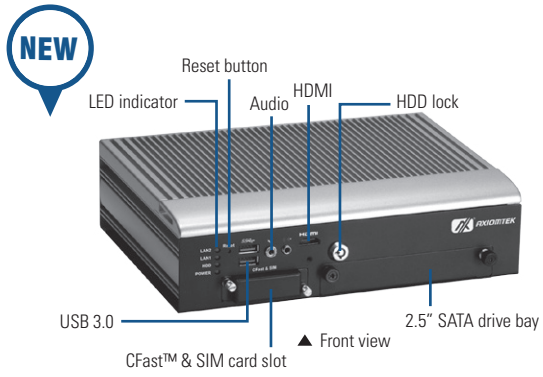
tBOX322-882-FL

Fanless Embedded System with 4th/5th Generation Intel® Core™ Processor for Railway PC

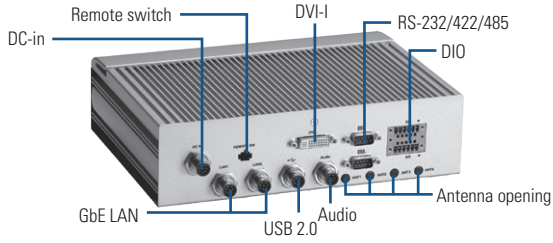


Specifications

Standard Color	Silver-Black	
Construction	Aluminum extrusion and heavy-duty steel, IP40	
CPU	4th Generation Intel® Core™ processor ; 4th Gen. Intel® Core™ i7-4650U (1.7 GHz up to 3.3 GHz) or 4th Gen. Intel® Core™ i3-4010U (1.7 GHz) 5th Generation Intel® Core™ processor ; 5th Gen. Intel® Core™ i7-5650U (2.2 GHz up to 3.2 GHz) or 5th Gen. Intel® Core™ i3-5010U (2.1 GHz)	
System Memory	DDR3L-1600 4 GB or 8 GB DRAM *8GB only comes with 5th Gen. Intel® Core™ i7-5650U	
Chipset	SoC integrated	
BIOS	AMI UEFI BIOS with OA 3.0 built	
System I/O Outlet	Rear Side	2 x GbE LAN (M12 A-coded) 2 x isolated RS-232/422/485 1 x isolated DI/DO (6-in/2-out) 1 x USB 2.0 (M12 A-coded) 1 x audio (mic-in/line-out, M12 D-coded) 1 x DVI-I 1 x VDC power input (M12 A-coded) 1 x remote power switch 4 x antenna opening 1 x power switch
	Front Side	2 x USB 3.0 2 x audio (mic-in/line-out, screw type) 1 x HDMI 1 x reset switch 1 x 2.5" SATA drive tray 1 x CFast™ slot + 2x SIM card sockets
Watchdog Timer	255 levels, 0 ~ 255 sec.	
Storage	1 x 2.5" SATA HDD (Removable and with lock protection) 1 x CFast™	
Expansion Interface	3 x PCI Express Mini Card 2 x SIM card slots	
System Indicator	1 x green LED for system power on 1 x green LED for HDD active 1 x green LED for LAN1 link 1 x green LED for LAN2 link	
Power Supply	Power input : 14VDC ~ 32VDC (isolation) Typical : 24VDC	
Power Consumption	1.8A @ 24V	
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F) W/T SSD -25°C ~ +55°C (-13°F ~ +131°F) W/T HDD	

Features

- EN50155, EN50121 certificates
- Fanless with operating temperature range of -40°C ~ +70°C (EN50155 class TX)
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- 4th/5th Generation Intel® Core™ i7 or Core™ i3 processor (Haswell/Broadwell)
- High performance DDR3L-1600 4 GB/8 GB memory
- Isolated RS-232/422/485 and DIO ports
- Supports USB 3.0 and SATA3 interface
- 1 removable & lockable 2.5" SATA HDD and 1 CFast™
- 3 internal PCI Express Mini Card slot and 2 SIM slots
- Lockable I/O interface and M12 type LAN, audio, power and USB connector
- Suspension designed for HDD



Storage Temperature	-40°C ~ +80°C (-40°F ~ +176°F)
Humidity	5% ~ 95%, non-condensing
Vibration Endurance	3 Grms with SSD or CFast™ (5-500Hz, X, Y, Z directions) 2 Grms with HDD (5-500Hz, X, Y, Z directions)
Dimensions	244 mm (9.6") (W) x 180.5 mm (7.1") (D) x 65.1 mm (2.56") (H)
Weight (net/gross)	2.94 kg (6.48 lb)/ 3.94 kg (8.68 lb)
Certificate	CE (Class A), EN50155, EN50121, EN45545-2, EN60950-1 compliance
EOS Support	WE8S, WES 7, Linux

Ordering Information

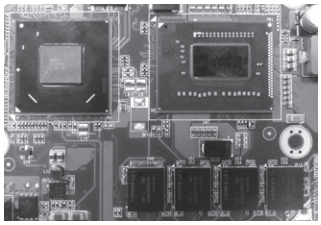
Standard	
tBOX322-882-FL-i7-DC	Fanless embedded system with 4th Generation Intel® Core™ i7 processor, 4 GB DDR3-1600, 2 GbE LAN (M12), 2 isolated COM, CFast™
tBOX322-882-FL-i3-DC	Fanless embedded system with 4th Generation Intel® Core™ i3 processor, 4 GB DDR3-1600, 2 GbE LAN (M12), 2 isolated COM, CFast™
tBOX322-882-FL-i7-5650U-DC	Fanless embedded system with 5th Generation Intel® Core™ i7 processor, 8 GB DDR3-1600, 2 GbE LAN (M12), 2 isolated COM, CFast™
tBOX322-882-FL-i3-5010U-DC	Fanless embedded system with 5th Generation Intel® Core™ i3 processor, 4 GB DDR3-1600, 2 GbE LAN (M12), 2 isolated COM, CFast™

Optional	
2.5" SATA HDD/SSD	16 GB or above
CFast™	1 GB or above
3G module	
Wi-Fi module	
Wi-Fi Bluetooth	
GPS module	
M12 Gigabit LAN cable	
M12 power cable	
M12 USB cable	
M12 audio cable	
Remote switch cable	

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

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

Expansion & Installation

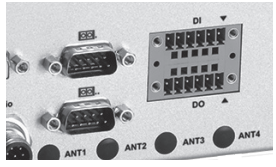


Onboard 4th/5th Gen. Intel® Core™ CPU and 4 GB/ 8 GB DDR3L-1600 DRAM

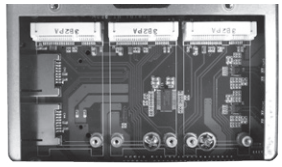
Swappable and lockable SATA3 HDD/SSD, Audio jack, USB 3.0 and CFast™

M12 type for Gigabit LAN, USB 2.0 and audio ports

M12 type power connector and remote switch connector



Isolated RS-232/422/485 and DIO ports



3 x Mini Card slots with 2 x SIM slot

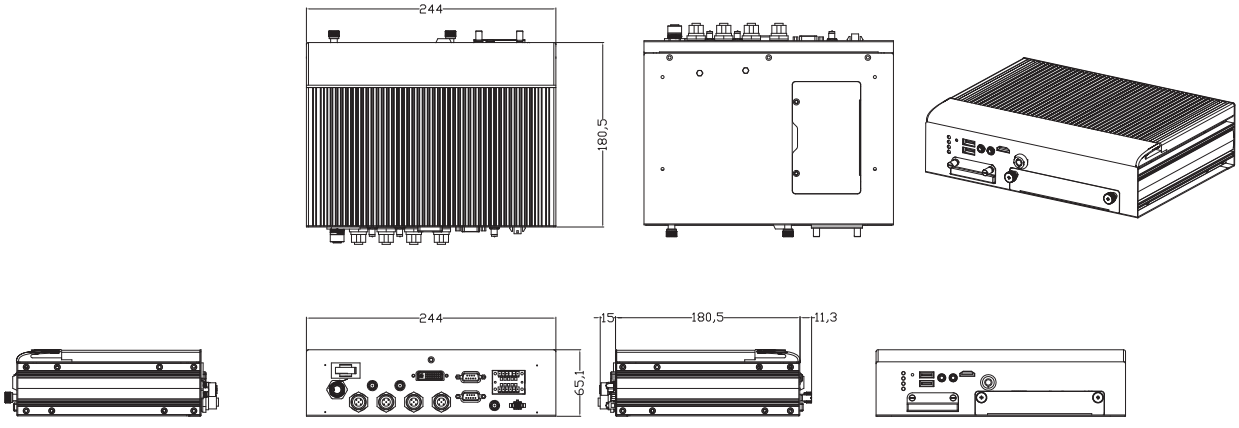
Packing List

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)

Dimensions



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