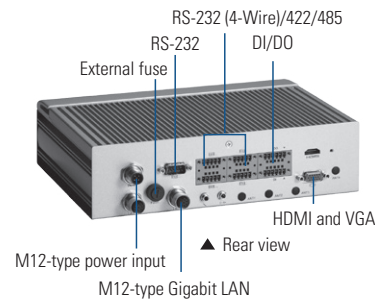
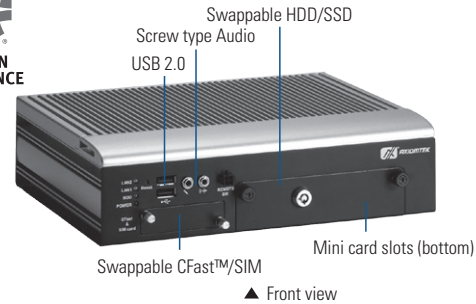


# tBOX323-835-FL

Fanless Embedded System with Intel® Atom™ Processor E3845 Quad Core™ (1.91 GHz) for Railway PC

## Features

- EN 50155, EN 50121 certified and EN 45545-2 compliance
- Fanless operation and wide temperature range from -40°C to +70°C (EN 50155 class TX)
- Intel® Atom™ Bay E3845 4C@1.91GHz
- DDR3L-1333 4GB memory onboard
- Isolated RS-232 (4-Wire)/422/485 and DIO
- Lockable M12 LAN and power connector
- USB 2.0 and SATA2
- 24V/110VDC input (optional)
- Suspension 2.5" SATA HDD and 1 CFast™/mSATA
- Internal 4 PCIe Mini Card slot and SIM slot



## Specifications

Standard Color	Silver-Black				
Construction	Aluminum extrusion and heavy-duty steel				
CPU	Intel® Atom™ processor E3845 (4C@1.91GHz)				
System Memory	DDR3L-1333, 4GB memory				
Chipset	SoC integrated				
BIOS	AMI				
System I/O Outlet	<table border="0"> <tr> <td>Rear Side</td> <td>           2 x GbE LAN (M12 A-coded)            4 x Isolated RS-232 (4-Wire)/422/485 (terminal)            1 x RS-232 (DB9)            1 x Isolated DI/DO (6-in/2-out)            2 x Audio (mic-in/line-out, screw type)            1 x HDMI            1 x VGA            1 x VDC power input (M12 A-coded)            4 x Antenna Opening            1 x Fuse         </td> </tr> <tr> <td>Front Side</td> <td>           2 x USB 2.0            1 x Audio (mic-in/line-out, screw type)            1 x Reset switch            1 x Remote power switch            1 x 2.5" SATA drive tray            1 x CFast™ slot + 2 x SIM card sockets         </td> </tr> </table>	Rear Side	2 x GbE LAN (M12 A-coded) 4 x Isolated RS-232 (4-Wire)/422/485 (terminal) 1 x RS-232 (DB9) 1 x Isolated DI/DO (6-in/2-out) 2 x Audio (mic-in/line-out, screw type) 1 x HDMI 1 x VGA 1 x VDC power input (M12 A-coded) 4 x Antenna Opening 1 x Fuse	Front Side	2 x USB 2.0 1 x Audio (mic-in/line-out, screw type) 1 x Reset switch 1 x Remote power switch 1 x 2.5" SATA drive tray 1 x CFast™ slot + 2 x SIM card sockets
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Front Side	2 x USB 2.0 1 x Audio (mic-in/line-out, screw type) 1 x Reset switch 1 x Remote power switch 1 x 2.5" SATA drive tray 1 x CFast™ slot + 2 x SIM card sockets				
Watchdog Timer	255 levels, 0 ~ 255 seconds/minutes				
Storage	1 x 2.5" SATA HDD (suspension designed, HDD height support 7/9.5/12.5/15 mm) 1 x CFast™/ 1 x mSATA				
Expansion Interface	3 x PCIe Mini card with 2 x SIM slots (two front accessible)				
System Indicator	1 x green LED for HDD active 1 x yellow LED for LAN1 active 1 x yellow LED for LAN2 active 1 x red LED for Power				
Power Supply	Power input: 12 ~ 32 VDC, typical 24 VDC 77 ~ 137.5 VDC, typical 110 VDC				
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F) with W.T. SSD -25°C ~ +55°C (-13°F ~ +131°F) with W.T. HDD				
Humidity	5% ~ 95%, non-condensing				

Vibration Endurance	3 Grms with SSD & CFast™ (5 ~ 500Hz, X, Y, Z direction; Random) (IEC 60068-2-34) 2 Grms with 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 5Grms (30ms, ±X/Y/Z direction)
Dimensions	244 mm (9.6") (W) x 180.5 mm (7.1") (D) x 65.1 mm (2.56") (H)
Weight (net/gross)	3 kg (6.61 lb)/3.8 kg (8.38 lb)
Certificate	CE, EN 50155, EN 50121, EN 45545-2 compliance
EOS support	Windows® 10, WEBS, WES 7, Linux

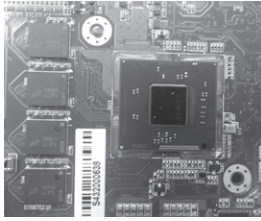
## Ordering Information

Standard	
tBOX323-835-FL-DC (P/N: E26N323100)	Fanless railway embedded system with Intel® Atom™ E3845 (4C@1.91 GHz), 4GB DDR3-1333, 2 GbE LANs (M12), 1 RS-232, 4 isolated RS-422/485 and CFast™
tBOX323-835-FL-110VDC (P/N: E26N323102)	Fanless railway embedded system with Intel® Atom™ E3845 (4C@1.91 GHz), 4GB DDR3-1333, 2 GbE LANs (M12), 1 RS-232, 4 isolated RS-422/485, and CFast™, 110VDC input

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

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

## Expansion & Installation



Onboard Intel® Atom™ Bay Trail-I (E3845, 4C@ 1.91 GHz) processor and 4GB DDR3L-1333 DRAM



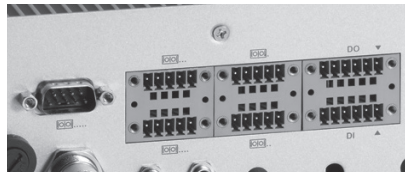
Removable CFast™, SIM slot and suspension  
2.5" SATA HDD/SSD



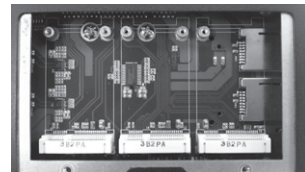
M12 railway power input and two Gigabit LAN connectors



HDMI and VGA display



RS-232 (4-Wire)/422/485 and DIO ports



3 PCIe Mini Card slots and  
2 SIM slots

## 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

