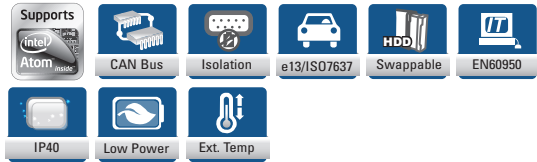
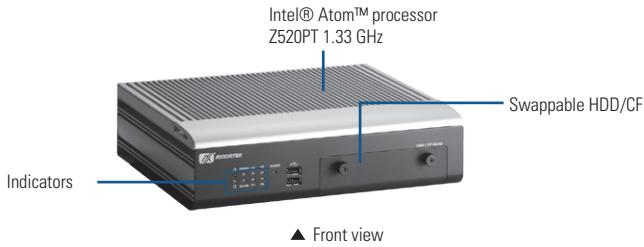


tBOX311-820-FL

Fanless Embedded System with Intel® Atom™ Processor Z520PT 1.33 GHz for Vehicle PC

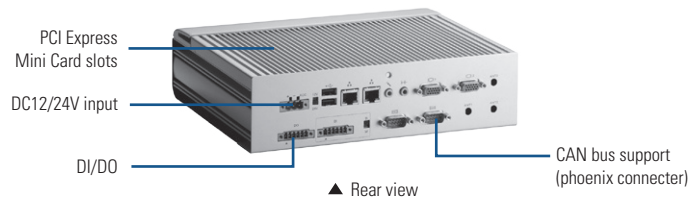


Specifications

Standard Color	Silver-Black				
Construction	Aluminum extrusion and heavy-duty steel				
CPU	Intel® Atom™ processor Z520PT 1.33 GHz onboard				
System Memory	1 x 200-pin DDR2 SO-DIMM max. up to 2 GB				
Chipset	Intel® US15WPT				
BIOS	AMI				
System I/O Outlet	<table border="0"> <tr> <td>Rear Side</td> <td> 2 x GbE LAN 1 x isolated RS-232/422/485 1 x isolated DI/DO (4-in/4-out) 1 isolated CAN Bus (optional RS-232/422/485) 2 x USB 2.0 2 x audio (mic-in/line-out) 2 x VGA 1 x VDC power input 1 x 12V/24V DC input switch 3 x antenna opening </td> </tr> <tr> <td>Front Side</td> <td> 2 x USB 2.0 1 x reset switch 1 x 2.5" SATA drive trays </td> </tr> </table>	Rear Side	2 x GbE LAN 1 x isolated RS-232/422/485 1 x isolated DI/DO (4-in/4-out) 1 isolated CAN Bus (optional RS-232/422/485) 2 x USB 2.0 2 x audio (mic-in/line-out) 2 x VGA 1 x VDC power input 1 x 12V/24V DC input switch 3 x antenna opening	Front Side	2 x USB 2.0 1 x reset switch 1 x 2.5" SATA drive trays
Rear Side	2 x GbE LAN 1 x isolated RS-232/422/485 1 x isolated DI/DO (4-in/4-out) 1 isolated CAN Bus (optional RS-232/422/485) 2 x USB 2.0 2 x audio (mic-in/line-out) 2 x VGA 1 x VDC power input 1 x 12V/24V DC input switch 3 x antenna opening				
Front Side	2 x USB 2.0 1 x reset switch 1 x 2.5" SATA drive trays				
Watchdog Timer	255 levels, 0 ~ 255 sec./min.				
Storage	1 x 2.5" SATA HDD drive bay 1 x CompactFlash™				
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 red LED for HDD active 1 x green LED for WWAN 1 x programmable LED (P1-P4)				
Power Supply	DC12V mode: Operating voltage: DC9 ~ 16V Start voltage: DC12V or higher DC24V mode: Operating voltage: DC18 ~ 32V Start voltage: DC24V or higher				
Power Consumption	1.7A @ 12V 0.9A @ 24V				
Operating Temperature	-40°C ~ +65°C (-40°F ~ +149°F) (with 1.33 GHz CPU, W.T. HDD)				
Storage Temperature	-40°C ~ +80°C (-4°F ~ +176°F)				
Humidity	10% ~ 90% , non-condensing				
Vibration Endurance	2 Grms with CF (5-500Hz, X, Y, Z directions)				

Features

- eMark, ISO7637 certificates
- Intel® Atom™ processor Z520PT 1.33 GHz
- Intel® US15WPT
- Fanless with operating temperature range of -40°C ~ +65°C
- 1 isolated RS-232/422/485 and 1 isolated CAN bus (optional for RS-232/422/485)
- High performance DDR2-667 SODIMM max. up to 2 GB
- One 2.5" swappable SATA drive bay and 1 CompactFlash™ slot
- 3 internal PCI Express Mini Card slots with 1 SIM slot



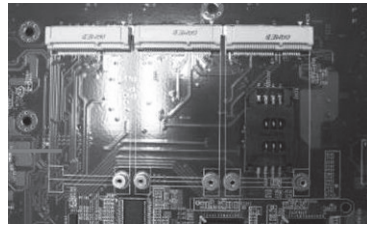
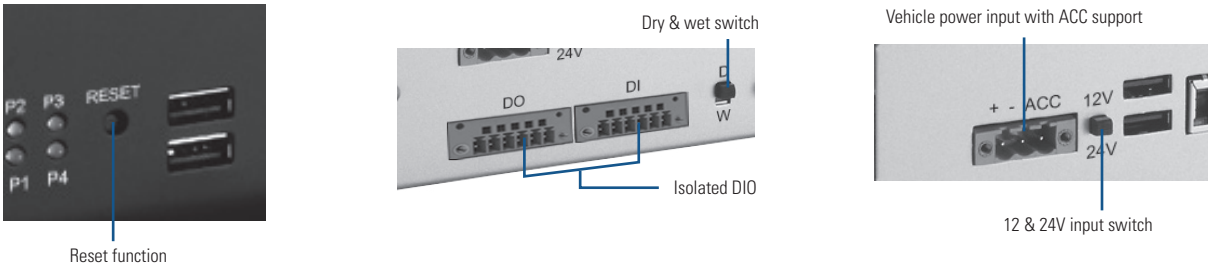
Dimensions	244 mm (9.6") (W) x 185.4 mm (7.3") (D) x 70.4 mm (2.77") (H)
Weight (net/gross)	2.5 kg (5.5 lb)/3.5 kg (7.7 lb)
Certificate	CE, e13, ISO7637, EN60950 compliance
EOS Support	XPE, WinCE, Linux

Ordering Information

Standard	
tBOX311-820-FL1.33G-CAN	Fanless vehicle embedded system with Intel® Atom™ Z520PT 1.33 GHz processor, 2 VGA, CFast & HDD support, 2 GbE LAN, 1 RS-232/422/485, 1 CAN and 4 USB
tBOX311-820-FL1.33G-COM	Fanless vehicle embedded system with Intel® Atom™ Z520PT 1.33 GHz processor, 2 VGA, CFast & HDD support, 2 GbE LAN, 2 RS-232/422/485 and 4 USB
Optional	
2.5" SATA HDD	40 GB or above
DDR2 SODIMM	512 MB or above
CompactFlash™	1 GB or above
3G module	
Wi-Fi module	
Wi-Fi Bluetooth	
GPS module	
Graphic accelerator codec	

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

Expansion & Installation



3 x Mini Card with SIM



Intel® Z520PT with US15WPT supports wide temperature of -40°C ~ +70°C

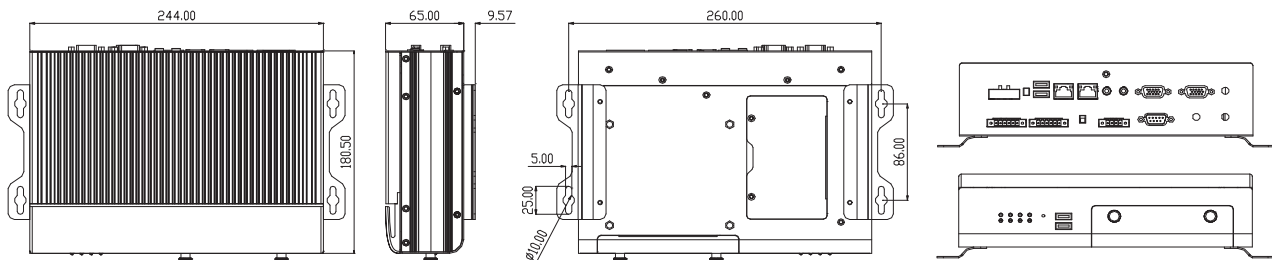
Ordering Information

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 4 x HDD anti-vibration damper
- 1 x wallmount Kit

Power Protection

- DC Version**
- ISO7637 pulse1/2a/3a/3b/4/5a
 - OVP (over voltage protection)
 - UVP (under voltage protection)
 - OCP (over current protection)
 - OTP (over temperature protection)
 - OPP (over power protection)
 - OLD (over load protection)
 - SCP (short circuit protection)
 - Reverse protection
 - Battery-low protection

Dimensions



Overview

Embedded Systems

2 Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories