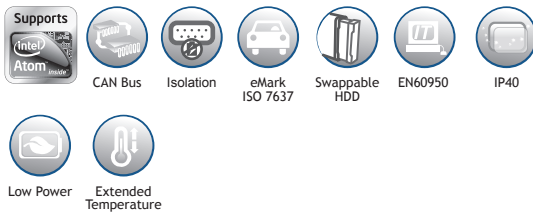


# tBOX311-820-FL

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



▲ Front view

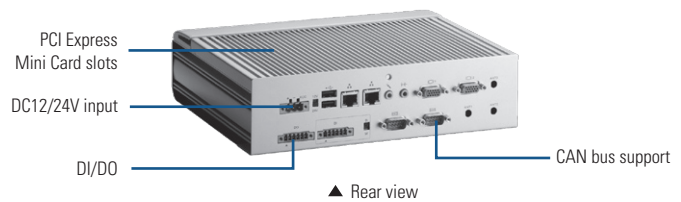


## Specifications

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	1 x isolated RS-232/422/485 (COM 1) 1 x isolated CAN bus (optional RS-232/422/485) 2 x VGA 1 x Audio (Mic-in/Line-out) 2 x 10/100/1000Mbps Ethernet 4 x USB 2.0 1 x VDC power input connector 1 x DI/DO power input connector (4-IN/4-OUT) 1 x dry/wet switch 1 x 12V/24V switch 1 x reset switch 3 x antenna opening
Watchdog Timer	255 levels, 0 ~ 255 sec.
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 green LEO for WLAN 4 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°C ~ +149°C) (with 1.33 GHz CPU, W.T. HDD)
Storage Temperature	-40°C ~ +80°C (-4°C ~ +176°C)
Humidity	10% ~ 90% , non-condensing
Vibration Endurance	2 Grms with CF (5-500Hz, X, Y, Z directions)
Dimensions	244 mm (9.6") (W) x 185.4 mm (7.3") (D) x 70.4 mm (2.77") (H)

## Features

- Intel® Atom™ processor Z520PT 1.33 GHz onboard
- Intel® US15WPT chipset
- Fanless operation
- 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 one CompactFlash™ slot
- 3 internal PCI Express Mini Card slots with one SIM slot



▲ Rear view

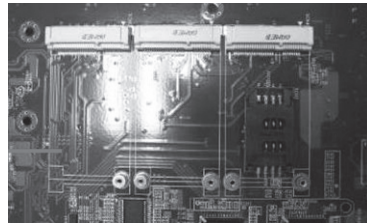
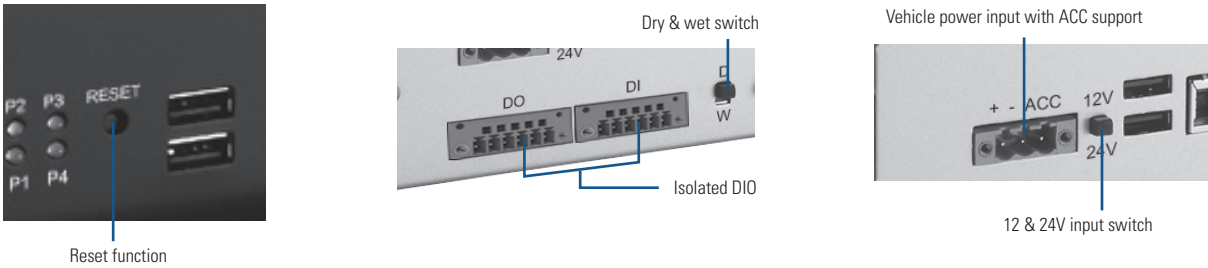
Weight (net/gross)	2.5 kg (5.5 lb)/3.5 kg (7.7 lb)
Certification	CE, e13, ISO7637, EN60950 compliance
EOS Support	XPE, WinCE, Linux

## Ordering Information

Standard	
tBOX311-820-FL1.33G-CAN	Fanless embedded system with Intel® Atom™ Z520PT 1.33 GHz processor, 2 VGA, CF & HDD support, 2 10/100/1000Mbps, 1 RS-232/422/485, 1 CAN and 4 USB
tBOX311-820-FL1.33G-COM	Fanless embedded system with Intel® Atom™ Z520PT 1.33 GHz processor, 2 VGA, CF & HDD support, 2 10/100/1000Mbps, 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	826K3101010E
Wifi module	826K3101050E
Wifi+Bluetooth	826K3101060E
GPS module	82606200270E
Graphic accelerator codec	826K3101070E

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

## Expansion & Installation



3 x Mini Card with SIM



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

