

# UST500-517-FL

NEW

Fanless Embedded System with 7th/6th Gen Intel® Core™, Pentium® and Celeron® Processor for Vehicle and Railway PC

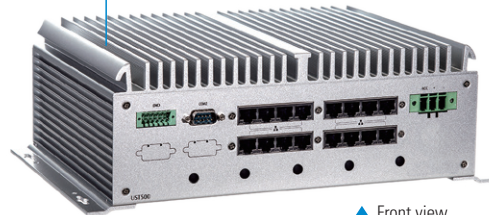
## Features

- CE, FCC certified, E-Mark, EN 50155 compliant
- 7th/6th gen Intel® Core™ & Pentium® processor (LGA1151 up to 65W) with Intel® Q170
- Wide operating temperatures from -40°C to +70°C (\*)
- Up to 16 RJ-45 PoE GbE LAN ports
- 9 to 36VDC power input, ACC ignition supported
- Two/four 2.5" SATA drive, 1 mSATA
- Intelligent solution of vehicle power management (ACC ignition)

\*The CPU loading is applied using Passmark BurnIn Test.

For detail testing criteria, please contact Axiomtek.

16 RJ-45 PoE GbE and 4 SATA version



▲ Front view

4 SATA version



▲ Rear View



## Specifications

Standard Color	Silver				
Construction	Aluminum extrusion and heavy-duty steel, IP40				
CPU	7th gen Intel® Core™, 35W 6th gen Intel® Core™, 35 – 65W Intel® Pentium® 35W Intel® Celeron® 35W				
Chipset	Intel® Q170				
System Memory	2 x DDR4 SO-DIMM slot, up to 64GB				
BIOS	AMI				
System I/O Outlet	<table border="0"> <tr> <td>Rear Side</td> <td>                     1 x 6-in/2-out isolated DIO                      5 x Antenna opening                      1 x DB9 RS-232/422/485                      8/16 x PoE GbE 802.3af/802.3at supported                      - 8 x RJ-45 (with 2 SATA)                      - 16 x RJ-45 (with 4 SATA)                      - 8 x RJ-45, 8 x M12 A coded (with 4 SATA)                      - 8 x M12 A coded (with 4 SATA)                      1 x 3P DC-in                 </td> </tr> <tr> <td>Front Side</td> <td>                     4 x USB 3.0                      1 x VGA, 1 x DVI-D, 1 x HDMI                      1 x reset button, 1 x power button                      2 x external accessible SIM card socket                      2 x 3.5 mm Mic-in/Line-out                      1 x DB9 RS-232/422/485                 </td> </tr> </table>	Rear Side	1 x 6-in/2-out isolated DIO 5 x Antenna opening 1 x DB9 RS-232/422/485 8/16 x PoE GbE 802.3af/802.3at supported - 8 x RJ-45 (with 2 SATA) - 16 x RJ-45 (with 4 SATA) - 8 x RJ-45, 8 x M12 A coded (with 4 SATA) - 8 x M12 A coded (with 4 SATA) 1 x 3P DC-in	Front Side	4 x USB 3.0 1 x VGA, 1 x DVI-D, 1 x HDMI 1 x reset button, 1 x power button 2 x external accessible SIM card socket 2 x 3.5 mm Mic-in/Line-out 1 x DB9 RS-232/422/485
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Watchdog Timer	255 levels, 1 ~ 255 sec.				
Storage	2 x 2.5" 15 mm built-in SATA drive with 2 SATA 4 x 2.5" 15 mm swappable SATA drive with 4 SATA 1 x mSATA (use 1 PCI Express Mini Card slot)				

RAID Function	Intel® RAID 0/1/5/10
Expansion Interface	2 x full-size & 2 x half-size PCI Express Mini Card slot 2 x external accessible SIM Card slot
LED indicator	1 x system power 1 x HDD active 2 x programmable
PoE Power	802.3 af/802.3at supported, 16-port PoE power output 120W (default), maximum 200W (BIOS setting)
Power Supply	DC-input: 9 ~ 36 VDC, ACC ignition, typical 24 VDC
Power Consumption	24VDC @9.09A
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F) with W.T. SSD
Humidity	10% ~ 95%, non-condensing
Vibration Endurance (operational)	3 Grms w/ SSD (5 ~ 500 Hz, X/Y/Z direction; random)
Dimensions	280 mm (11.02") (W) x 210.5 mm (8.27") (D) x 70 mm (2.76") (H) with 2 SATA (internal accessible), w/o wall-mount 280 mm (11.02") (W) x 210.5 mm (8.27") (D) x 99.2 mm (3.91") (H) with 4 SATA with wall-mount
Weight (net/gross)	4.92 kg (10.85 lb)/5.75 kg (12.68 lb)
Certificate	CE, FCC certified, E-Mark, EN 50155 compliant
EOS support	Windows® 7, Windows® 8, Windows® 10, Linux *Windows® 7/8 only available for Skylake processor (6th gen)

## Ordering Information

Standard	
UST500-517-FL-16RJ-4SATA-TDC E274500100	Fanless embedded system with 6/7th gen Intel® desktop processor (LGA1151), Q170, VGA, DVI-D, HDMI, 6-in/2-out DIO, 2 COM, 4 USB 3.0, 16 RJ-45 PoE GbE LAN, 4 SATA drive and ACC ignition
UST500-517-FL-8RJ8M12-4SATA-TDC E274500101	Fanless embedded system with 6/7th gen Intel® desktop processor (LGA1151), Q170, VGA, DVI-D, HDMI, 6-in/2-out DIO, 2 COM, 4 USB 3.0, 8 RJ-45 PoE GbE LAN, 8 M12 A-coded PoE GbE LAN, 4 SATA drive and ACC ignition
UST500-517-FL-8M12-4SATA-TDC E274500102	Fanless embedded system with 6/7th gen Intel® desktop processor (LGA1151), Q170, VGA, DVI-D, HDMI, 6-in/2-out DIO, 2 COM, 4 USB 3.0, 8 M12 A-coded PoE GbE LAN, 4 SATA drive and ACC ignition
UST500-517-FL-8RJ-2SATA-TDC 2018 Q4 available	Fanless embedded system with 6/7th gen Intel® desktop processor (LGA1151), Q170, VGA, DVI-D, HDMI, 6-in/2-out DIO, 2 COM, 4 USB 3.0, 8 RJ-45 PoE GbE LAN, 2 SATA drive and ACC ignition

\*TDC: Terminal Block DC-IN connector, Vehicle&Railway SKU, DC voltage input

Optional	
2.5" SATA HDD/SSD	128GB or above
mSATA	128GB
DDR4 SO-DIMM	4GB ~ 32GB
826N3230140E	3G/GPS module
826K6600090E	Wi-Fi/Bluetooth module
594N3202730E	LAN cable (M12-A male 8P to RJ-45)

## Power Protection

SCP (short circuit protection)  
 OVP (over voltage protection)  
 UVP (under voltage protection)  
 RVP (reverse voltage protection)

### Vehicle Version

ISO 7637-2 pulse 1/2/3/4  
 Setting for battery protection: Low voltage or very low voltage  
 Setting for ignition control: Low voltage counter, ACC-ON delay or shut down delay

## Packing List

- 1 x UST500-517-FL system unit
- 1 x Quick installation guide
- 1 x DVD (for drivers and manual)
- 1 x CPU grease
- 1 x Audio cable fixed
- 1 x HDMI cable fixed
- 3 x Cable fixed screws
- 3 x Cable tie
- 16 x HDD screws
- 1 x Terminal block
- 1 x Programming DI/DO connector
- 1 x Wall mount kit
- 4 x Wall mount kit screw (round head)
- 8 x Mini Card slot screw

## Dimensions

