# BPC Train-A4770

ALPTECH
Computer for Industry

## Fanless In-Vehicle Surveillance with Intel® Core i7-3517UE Processor

### Features

- **Fanless and rugged design**
- Build-in Intel® Core™ i7-3517UE 1.7G Hz Processor
- Wide Range DC Power Input (9~36V)
- Support Smart Ignition for vehicle
- Power on/off delay and low voltage protection
- 4-channel POE
- Mini PCIe expansion slots with 2*SIM holders for LTE and HSUPA
- Removable two 2.5" SSD trays
- $12V_{DC}$ output

## System

| | |
|---|---|
| **CPU** | Soldered onboard Intel® Core™ i7-3517UE 1.7GHz Processor |
| **Memory** | 1 x 204-pin SO-DIMM sockets, supporting DDR3 1333/1600 MHz, up to 8GB SDRAM |
| **Chipset** | Intel® QM77 |
| **Graphics** | Integrated Intel® HD Graphics 4000 |
| **SATA** | 1 x Serial ATA port with 300MB/s HDD transfer rate |
| | 2 x Serial ATA ports with 600MB/s HDD transfer rate |
| **Connectivity** | GPS module(ublox Neo-6) (optional) |
| | 802.11 b/g/n Wireless LAN Mini-card (optional) |
| | HSUPA (3.75G) Mini-card (optional) |
| | LTE (4G) Mini-card (optional) |
| **LAN Chipset** | 1 x Intel® 82579LM Gigabit Ethernet controller |
| | 5 x Intel® i210IT Gigabit Ethernet controller |
| **Watchdog Timer** | 1~255 levels reset |

## I/O

| | |
|---|---|
| **Serial Port** | 1 x RS-232 and 1 x RS-232/422/485 with DB-9 male connector, isolation protection |
| **USB Port** | 4 x USB 3.0 ports with type A connector |
| **LAN** | 2 x RJ-45 ports for Gigabit Ethernet |
| **Video Port** | 1 x DB-15 female connector for Analog RGB |
| | 1 x DVI-D female connector for Digital Video output |
| **Digital I/O** | 1 x 10-bit digital I/O (4 in/4 out), isolation protection |
| **Antenna** | 6 x SMA-Female connectors' holes for external antennas (for LTE, WiFi/Bluetooth, HSUPA & GPS) |
| **Audio** | Mic-in/ Line-out |
| **Expansion Bus** | 1 x Mini-PCIe slot for optional WiFi/Bluetooth module |
| | 1 x Mini-PCIe slot interconnected with SIM card socket for optional LTE module |
| | 1 x Mini-PCIe slot interconnected with SIM card socket for optional HSUPA module |
| | 2 x SIM sockets (outside accessible) |
| **VDC Output** | 1 x $12V_{DC}$ output |

## Environmental

| | |
|---|---|
| **Operating Temp.** | -20 ~ 55°C (-4 ~131°F ), ambient w/ air flow |
| **Storage Temp.** | -40 ~ 80°C (-40 ~ 185°F) |
| **Relative Humidity** | 10 ~ 90% @ 55°C (non-condensing) |
| **Vibration** | 3Grms/5~500Hz/random operation, with SSD |
| **Shock** | Operating 40G (11ms), Non-operating 60G with SSD |

## Qualification

| | |
|---|---|
| **Certification** | CE, FCC Class B, e1 Mark |

## Power Requirement

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|---|---|
| **Power Input** | DC 9~36V input, w/ 3-pin terminal block |
| **Power Consumption** | Max. 90W |
| **Power Management** | Power on/off delay |

## Storage

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|---|---|
| **Type** | 2 x 2.5" removable drive bays for SATA SSD |
| | 1 x mSATA |

## Mechanical

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|---|---|
| **Construction** | Aluminum alloy |
| **Mounting** | Support wall-mount |
| **Weight** | 4.65 Kg (10.25 lb) |
| **Dimensions (W x D x H)** | 260(L) x180(W) x 80(H) mm |

## OS Support

Windows Embedded Standard 7 / 8 / 10 / Ubuntu

## Ordering Information

| | |
|---|---|
| **Train-A4770** | Vehicle Barebone System w/ Intel® Core™ i7-3517UE, w/o memory and storage |
| **Train-A4700-16S4G** | Vehicle BOX System w/ Intel® Core™ i7-3517UE, w/ 16GB mSATA and 4GB memory |

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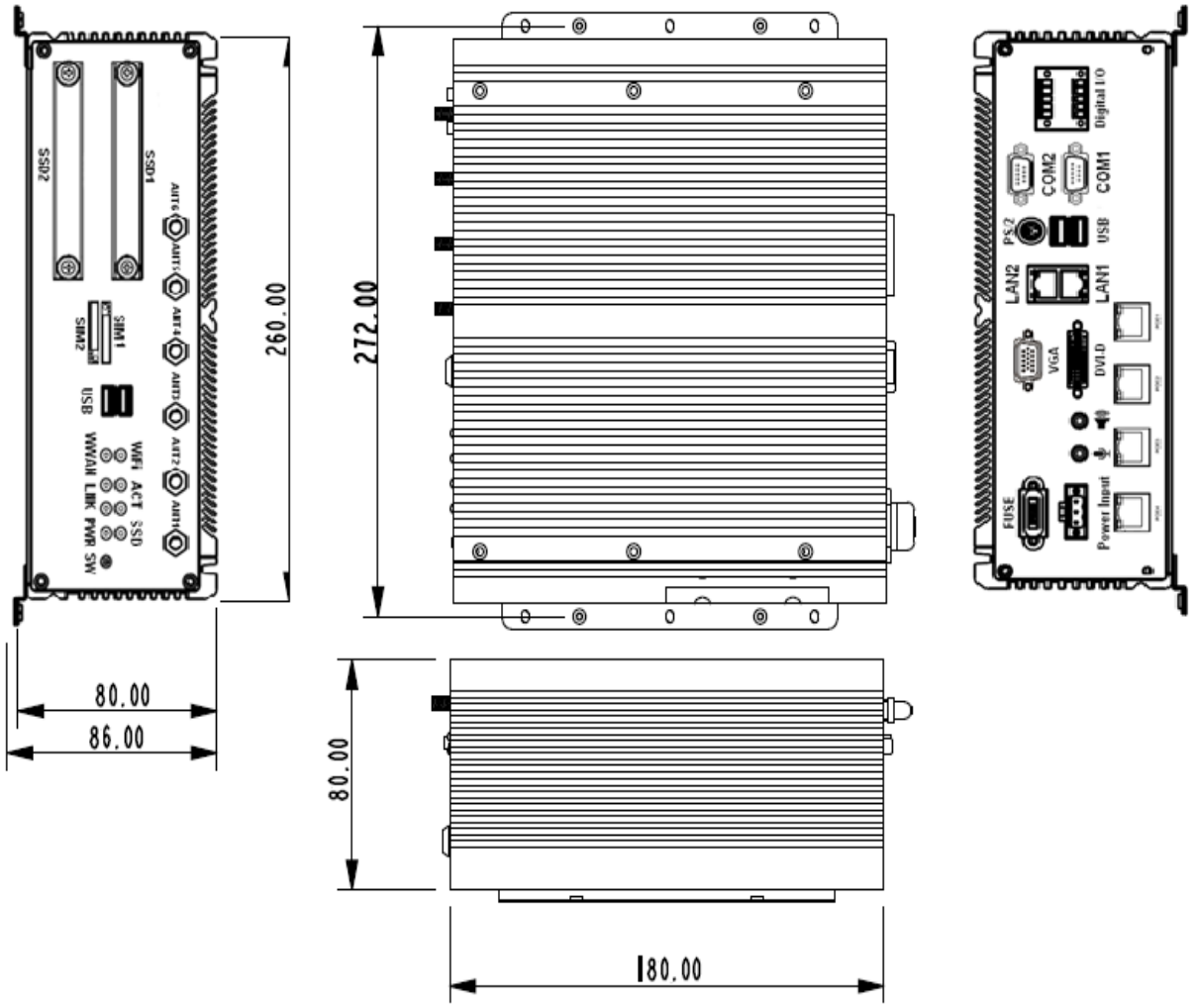
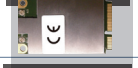
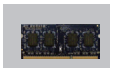
## Dimensions




## Optional Accessory

| | | |
|---|---|---|
| **PAC-P120W-FSP** | 19V/5.96A 120W AC/DC adapter kit | |

## Optional Configuration (CTOS* Kit)

| | | |
|---|---|---|
| **SSD-25032** | Memoright 2.5” 32GB SATAII SSD kit | |
| **SSD-25016** | Memoright 2.5” 16GB SATAII SSD kit | |
| **WIFI-IN1350** | Intel® Centrino® Advanced-N 6205 WiFi module w/ 20cm & 30cm internal wires | |
| **HSPA-SI1400** | HSUPA 3.75G module kit & internal wire |  |
| **ANT-D11** | 1 x WiFi Dual-band 2.4G/5G antenna | |
| **ANT-H11** | 1 x 2dBi HSUPA antenna | |
| **2GB SO-DIMM** | Industrial DDR3-1333 2GB SDRAM |  |
| **4GB SO-DIMM** | Industrial DDR3-1333 4GB SDRAM | |

**CTOS means Configure-to-Order Service.*

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