FleetPC-12B

Intel® 11th Gen Core™ 1185G7E CPU 2x LAN/ 2x HDMI/ 1x DVI/ 2x COM/ DC 9-60V Input In-Vehicle Computer

Features

- Intel® 11th Gen Core™ i7-1185G7E
- 3 x M.2 & 2 x mPCIe Slots for WWAN / Wi-Fi / SSD /GPS / CAN Expansion
- 9V - 60VDC Wide Power Input
- Smart Vehicle Power Management
- 2 x RS-232/422/485 Serial Port
- 4 x DI / 4 x DO / 2 x Analog Input

Introduction

The VBOX-3122 Series is a robust line of in-vehicle computers designed for high-performance and reliable operation in challenging mobile environments. Powered by the Intel® 11th Gen Core™ i7-1185G7E CPU, these systems are equipped to handle demanding applications with ease. Key features include a wide range power input (9V-60VDC), intelligent vehicle power ignition, and an array of communication interfaces. With expansion slots supporting WWAN, Wi-Fi, GPS, and CAN modules, the series ensures seamless wireless connectivity. Two RS-232/422/485 serial ports, four digital inputs/outputs, and two analog inputs provide versatile interfacing options. Additionally, the system offers multiple video outputs with 2 HDMI and 1 DVI ports. The VBOX-3122 Series, engineered for the diverse needs of modern vehicular systems, is a testament to the convergence of advanced computing technology with rugged, mobile applications.
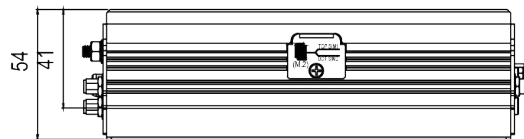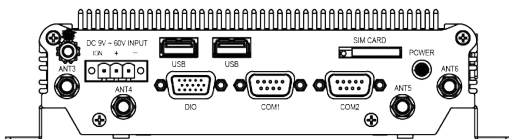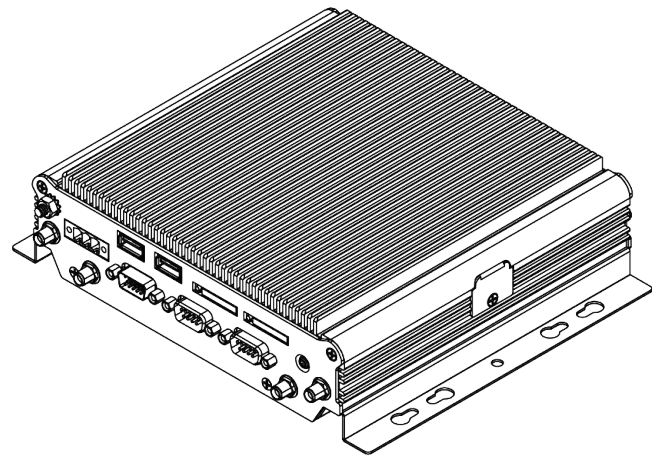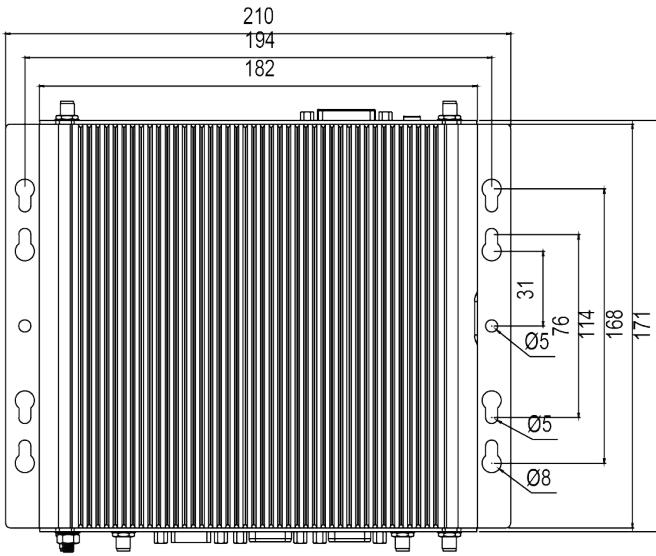
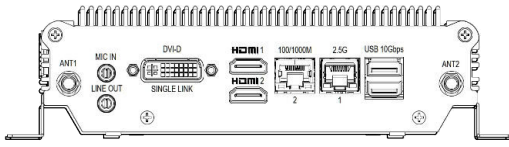## Specifications

System

CPU	Intel® 11th Gen Core™ i7-1185G7E up to 2.8 GHz*
	Intel® 11th Gen Core™ i5-1145G7E up to 2.6 GHz*
	Intel® 11th Gen Core™ i3-1115G4E up to 3.0 GHz*
	Intel® Celeron® 6305E 1.8 GHz
	*CPU TDP is configured at 15W as the default setting.
Memory	1 x DDR4-3200 SO-DIMM up to 32 GB
Graphics	Intel® Iris® Xe / UHD Graphics (for Celeron® 6305E only)
Network	1 x Intel® 2.5GbE supports vPro for Core i5 & i7 SKU 1 x Intel® Gigabit Ethernet
Watchdog	1 ~ 255 Level Reset
Security	TPM 2.0

I/O

Serial Port	2 x RS-232/422/485
USB Port	2 x USB 3.2 Gen 2, 2 x USB 2.0
Ethernet	2 x RJ-45 Ports for 1 x 2.5GbE and 1 x GbE
Video Port	2 x HDMI 2.0b, 1 x DVI-D *Only supports Single-Link DVI-D cables
GPIO Port	4 x DI (9~60V) / 4 x DO (5V / 100mA) 2 x Analog Input (0~60V w/0.5V accuracy)
Audio	1 x MIC-in, 1 x Line-out
Expansion Bus	1 x M.2 3042/52 Key B Slot w/ 2 x SIM Card Sockets for WWAN expansion 1 x M.2 2230 Key E slot for Wi-Fi/BT module 1 x mPCIe Full-size slot supports USB 3.0 and USB 2.0 w/ SIM card slot 1 x mPCIe Full-size Slot supports PCIe 3.0 x1 and USB 2.0
Antenna	6 x Pre-cut Hole for External SMA Antenna

Software

Operating System	Windows 10/11 IoT 64-bit, Ubuntu 20.04/22.04 LTS 64-bit

Environmental

Operating Temp.	-40 ~ 70ºC (with SSD), ambient w/ 0.6m/s airflow
Storage Temp.	-40 ~ 80ºC
Relative Humidity	10% RH – 90% RH (non-condensing)
Vibration (with SSD)	IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
	MIL-STD-810G, Method 514.6, Procedure I, Cat.4, DUT Operating
Shock	MIL-STD-810G, Method 516.6, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD, DUT Operating
Certifications / Approvals	CE, FCC Class A, E-Mark

Storage

Type	1 x SATA Connector for 2.5" SATA HDD/SSD
	1 x M.2 2280 Key M for NVMe SSD

Power Requirement

Power Input	DC 9 - 60V Input
Power Mgmt.	Ignition Management for Variety Vehicle
Power Off Control	Power off delay time setting by BIOS and SINTRONES utility
UPS (Optional)	Internal battery Kit for about 10 mins operating *UPS backup time varies depending on actual overall system power consumption. *Operating temperature will be 0~55°C with the battery kit. **Patent No. : M447854 - Build-in Battery**

Mechanical

Construction	Aluminum Alloy
Mounting	Wall-mount, VESA-mount, Din Rail Mounting Kit
Weight	1,800g
Dimensions	210 x 171 x 54 mm (w/ mounting kit)

All specifications are subject to change without notice.

Dimensions

Unit : mm

Ordering Information

Part Number	VBOX-3122-zz zz=i7=Core™ i7-1185G7E, zz=i5=Core™ i5-1145G7E, zz=i3=Core™ i3-1115G4E; zz=C1=Celeron® 6305E
Description	Intel® 11th Gen Core™ i7 / i5 / i3 / Celeron® Processor with 2 x LAN/ 2 x HDMI/ 1 x DVI/ 2 x COM/ DC IN 9-60V In-Vehicle Computer
State of Origin	Made in Taiwan

Optional Accessories

DRAM	DDR4 SO-DIMM 3200 4GB~32GB (-40~85°C)
SATA SSD	2.5 Inch SATA SSD TLC 128GB~1TB (-40~85°C) M.2 2280 Key M NVMe 256 GB~1 TB TLC (-40~85°C)
Wi-Fi / BT Module	M.2 2230 Key A+E Wi-Fi 6 + Bluetooth 5.2 module
WWAN Modem	M.2 3042/52 5G/LTE modem
GPS	mPCIe GPS module
CAN Bus	mPCIe CAN module
Battery Backup Kit	BAT-3000 kit 1150mAH 3S1P Battery kit (-10~60°C for Discharge)

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