VBOX-3630R-M12X

Intel® 11th Gen Core™ i7-1185G7E CPU with 4 x LAN In-Vehicle Computer

PATENT No.	PATENT No.
M447854	**M448001**
BUILT-IN BATTERY	THERMAL CO

Features

- Intel® 11th Gen Core™ i7-1185G7E
- 3 x M.2, 2 x mPCIe Slots for Wi-Fi / Dual WWAN / GPS / CAN Expansion
- 1 x 2.5GbE + 3 x GbE LAN Ports with M12 X-coded Connector
- Supports 4 Independent Display Outputs: 2 x HDMI, 1 x DP, 1 x DVI-D
- Isolated DC Input 24 ~ 110VDC for Rolling Stock Applications
- Supports Optional Battery Backup Kit
- EN50155 Certified

intel 11th Gen CORE	24 ~ 110V DC INPUT	4 Display	5G	EN50155

Introduction

VBOX-3630R-M12X is a fanless in-vehicle computer with 5G connectivity. It utilizes Intel® 11th Gen Core™ i7-1185G7E CPU up to 4.4GHz. It features an ultra-compact design measuring 365 x 165 x 55 mm, which can easily fit into restricted spaces. The system can select Dual 5G / LTE, GPS, and Wi-Fi / Bluetooth as robust connectivity by M.2 modules. It is a building-in four independent display outputs, audio line-out, and microphone-in. It is the perfect solution for fleet management, in-vehicle digital signage, and mobile DVR. Furthermore, it features Smarter Vehicle Power Ignition and wireless remote control in various vehicles. VBOX-3630R-M12X can effectively support cars in extreme weather and operating conditions.
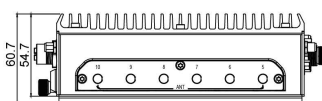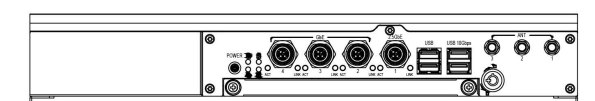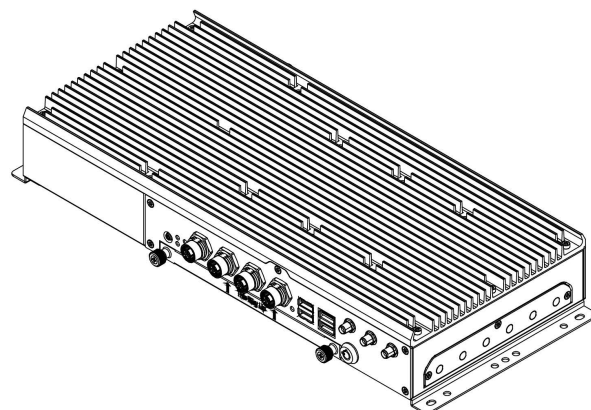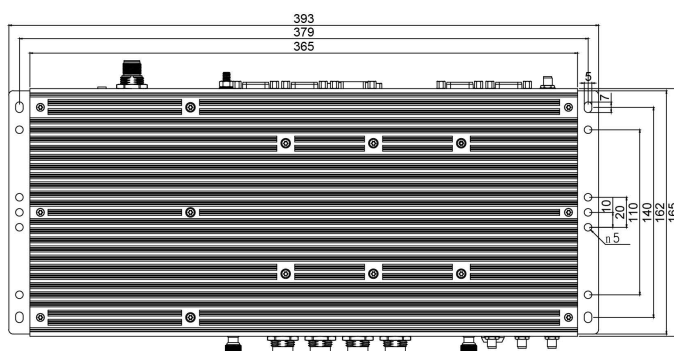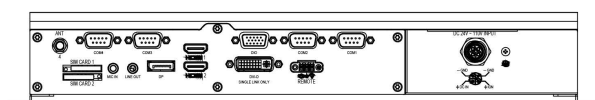
Specifications

System

CPU	Intel® 11th Gen Core™ i7-1185G7E 1.8GHz up to 4.4 GHz Intel® 11th Gen Core™ i5-1145G7E 1.5GHz up to 4.1 GHz Intel® 11th Gen Core™ i3-1115G4E 2.2GHz up to 3.9 GHz Intel® Celeron® 6305E up to 1.8GHz
Memory	2x DDR4-3200 SO-DIMM Up to 64 GB
LAN	1 x Intel® 2.5GbE Supports 10/100/1000/2500BASE-T
	3 x Intel® Gigabit Ethernet
Watchdog	Watchdog Timer Support, Offer 1 – 255 Step
TPM Version	2.0

I/O

USB	2 x USB 3.2 Gen 2 (10 Gbps)
	2 x USB 2.0
LAN	4 x M12 X-coded (1 x 2.5GbE, 3 x GbE) 60W PoE Power Budget
DIO	6 x DI (5~60V) and 4 x DO (5V/100mA) 2 x DC Output (12V/1A)
Audio	1 x LINE-Out and 1 x MIC-In (1 x LINE-In for Option)
Video	2 x HDMI, 1 x DP, 1 x DVI-D* (Supports 4 Independent Display) *Single Link cable only
Expansion Bus	2 x mPCIe *One is shared with M.2 Key B
	1 x M.2 2230 Key E, 2 x M.2 3042/52 Key B
Antenna	10 x Pre-cut Holes for External SMA Antenna
SIM Card Socket	2 x SIM Card Sockets Supported Onboard with Eject
Serial Port	4 x RS-232/422/485 (Auto Direction Control)

Storage

Type	2 x 2.5" Drive Bay for SATA Type HDD/SSD Support RAID 0, 1 1 x M.2 2280 Key M for NVMe SSD

Software

Operating System	Windows 10 IoT LTSC (64-bit), Windows 11 IoT (64-bit) Linux Ubuntu 20.04.6 LTS (64-bit), 22.04 LTS (64-bit)

Graphics

Graphics	Intel® Iris® Xe Graphics / Intel® UHD Graphics
Resolution	Max Resolution (HDMI 2.0b) : 4096 x 2304@60Hz
	Max Resolution (DP) : 4096 x 2304@60Hz

Environmental

Operating Temp.	-40 ~ 70ºC, ambient w/ 0.6m/s airflow Patent No. M448011-Thermal Cooling
Storage Temp.	-40 ~ 85ºC
Relative Humidity	10% ~ 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, Operating
Shock	Operating: MIL-STD-810G, Method 514.6, Procedure I, Trucks and semi-trailers 15G (11ms with SSD)
Certifications	CE, FCC Class A, EN50155, EN45545-2 (R25)

Power Requirement

Power Input	Isolated DC Input 24-110VDC for Rolling Stock
Power Protection	Automatics Recovery Short Circuit Protection
Power Mgmt.	Power Ignition for Vehicles
Power Off Control	Power Off Delay Time Setting by Software
UPS	Optional Battery Kit for 10 Mins Operating (Operating Temp. 0~60°C) *UPS backup time varies depending on actual overall system power consumption. **Patent No. : M447854 - Build-in Battery**

Mechanical

Construction	Aluminum Alloy
Mounting	Wall-mount
Weight	3,800g (Barebone)
Dimensions	365(L) x 165(W) x 55(H) mm

All specifications are subject to change without notice.

Dimensions

Unit : mm

Ordering Information

Part Number	VBOX-3630Rx-M12X-zz (x=P=w/PoE, PoE Only Available for i7 and i5 Models) (zz=i7=i7-1185G7E, zz=i5=i5-1145G7E, zz=i3=i3-1115G4E, zz=C1=6305E)
Description	11th Gen Intel® Core™ Processor i7-1185G7E CPU with 4 x LAN On-Board Computer
State of Origin	Made in Taiwan

Optional Accessories

DRAM	DDR4 SO-DIMM 3200 8GB~32GB (-40~85°C)
SSD	2.5 inch SATA SSD TLC 64GB~1TB (-40~85°C) M.2 2280 NVMe 256GB~1TB TLC (-40~85°C)
Wi-Fi Module	M.2 2230 Wi-Fi 6 + Bluetooth 5.2 Module
WWAN Modem	M.2 3042/52 5G / LTE Modem
GPS	mPCIe GPS Module
CAN Bus	mPCIe CAN Bus Module
Battery Backup Kit	BAT-3630 Kit, 2,350mAh 3S1P Battery Kit (0~60°C)

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