

# VBOX-3210

AMD Merlin Falcon Embedded Platform RX-421BD/ RX-216GD APU with 2 x DP/ 2 x COM/ 5 x GbE/ 4 x POE/ 2 USB3.0/ DC Input 9~48V In-Vehicle Computer



Delay Time



Power Ignition



Wide Range



Wireless



Battery backup

## Features

- AMD Merlin Falcon RX-421BD/RX-216GD
- Wireless support LTE, 3.5G, WLAN, GPS, GSM/ GPRS, Bluetooth
- 5 x GbE w/optional 4 x POE 802.3at
- Input 9-48V with Ignition for Variety Vehicle
- 3 x Mini PCIe card & 1 x M.2 for extension
- 2 x DP, 1 x VGA

Taiwan Patent No. M447854

## System

**CPU** AMD RX-421BD Quad Core 2.1GHz up to 3.4 GHz\*  
AMD RX-216GD Dual Core 1.6GHz up to 3.0 GHz  
(Optional GX-224IJ, GX-215JJ)  
\*Config to 15W

**Memory** 2 x SO-DIMM DDR4 up to 32GB  
(only 1 slot for GX series)

**Graphics** AMD Radeon™ graphics

**ATA** 2 x Serial ATA GEN 3.0

**LAN Chipset** 2 x Intel i210-AT; Ethernet Switch: 1 x Marvell 88E6176

**Watchdog** 1 ~ 255 level reset

## I/O

**Serial Port** 2 x RS232/422/485 (option additional 2 x RS232)

**USB Port** 2 x USB 3.0 ports and 2 x USB2.0 Ports

**LAN** 5 x RJ45 Ports GbE (Optimal for 4 x POE 802.3at/af\*)

**Video Port** 2 x DP, 1 x VGA (only for RX series)

**GPIO Port** 4 In and 4 Out

**Audio** Mic-in/Line-out/Line-in

**Expansion Bus** 3 x Mini-card slots, 1 x M.2 A-E key 2230  
(only for RX series)

**Antenna** 6 x SMA-type External Antenna Connectors

**SIM Card Socket** 2 x SIM Card Sockets Supported Onboard with eject

\* When Power Input  $\geq$  24V, total PoE outputs is 100W max.  
When Power Input < 24V, total PoE output is 60W max.

## Power Requirement

**Power Input** 9V - 48V DC Power Input

**Power Management** Vehicle Power Ignition for Variety Vehicle

**Power Off Control** Power on/off Delay Time Setting by Software

**Battery (UPS)** Internal Battery backup Kit for 10 Mins Operating (Optional)  
**Patent No. : M447854 - Build-in Battery**

## Storage

**Type** 1 x 2.5" Drive Bay for SATA Type Hard Disk Drive/SSD  
1 x Cfast slot

## Software

**Operating System** WES 7, Windows 10, Linux Ubuntu 16.04

## Environmental

**Operating Temp.** -40 ~ 70°C (w/SSD)

**Storage Temp.** -40 ~ 85°C

**Relative Humidity** 5 ~ 95% (non-condensing)

**Vibration(random)** IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis with SSD

**Vibration Operating** MIL-STD-810G, Method 514.6, Procedure I, Category 4

**Shock** Operating: MIL-STD-810G, Method 516.6, Procedure I,  
Trucks and semi-trailers=15G (11ms) with SSD

**Certifications** CE, FCC Class A, E13

## Mechanical

**Construction** Aluminum Alloy

**Mounting** Wall-mount, Din Rail Mounting kit  
(Optional Internal Battery backup Kit)

**Weight** 1405g

**Dimensions** 240 x 161 x 85 mm

## Ordering Information

**Part Number** VBOX-3210-R421 (w/RX-421BD)  
VBOX-3210-R216 (w/RX-216GD)

**Description** AMD R-Series APU W / 2 x DP / 2 x COM / 5 x GbE / 4 x POE  
/ 2 x USB 3.0 / DC Input 9~48V In-Vehicle Computer

**State of Origin** Made in Taiwan