D315AOB-1 [Preliminary]

Applies to NVIDIA® Jetson AGX Orin (32GB / 64GB)
& AGX Orin Industrial module

For AMRs / Smart Security / Smart Inspection Applications

Overview

AVerMedia BOX PC D315AOB-1 built with NVIDIA® Jetson AGX Orin & AGX Orin Industrial module , which brings next-level AI performance and power-efficient capability for all autonomous machines. This optional SoM makes advanced analytics possible while providing the ability to handle a host of other embedded IoT applications.

D315AOB-1 includes a 120-pin high-speed connector for connecting MIPI SerDes cameras, which can fulfill the demand for AMRs. In addition, a sufficient Ethernet bandwidth with 10G is excellent for applying smart security, enabling dozens of IP cameras to stream simultaneously. The connector for the 10GigE Vision Camera is also great for smart inspection. Lastly, with its compact size, D315AOB-1 furnishes a PCIe slot for multi-function expansion and excellent compatibility with 5G and Wi-Fi 6.

Enterprise-Leading Features

- 1x M.2 B key for 4G & 5G, 1x M.2. E key for Wi-Fi 6E and 1x M.2. M key for SSD and capture
- 120-pin highspeed connector for MIPI SerDes cameras, such as GMSL2/FPD-link III/V-by-One® HS, to deploy in AMRs application
- 1x GbE & 1x 10G RJ-45 ethernet for dozens of IP cameras streaming simultaneously in smart security application
- 10GigE Vision camera connector for smart inspection and 1x PCIe slot for multi-function expansion
- Operating temperature: -25°C ~ 65°C
- Dimension: 181.5mm (W) x 137mm (L) x 88mm (H) (with mounting hole)

The AVerMedia Advantage

Video Processing Technology

Flexibility & Reliability

Dedicated After-Sales Support

AVerMedia understands that each business has a unique set of requirements that requires professional expertise and support. With AVerMedia, you are guaranteed to work with a proven global leader in video processing technology (200+ video capturing & streaming patents) with decades of experience processing multiple video signals for countless award-winning products.

A global leader that supports businesses of all sizes with comprehensive customization services (i.e., HW/PCB/BSP/etc.), flexible MoQ while ensuring a high-quality design and stable product. And for projects requiring additional security, we can provide customizable encryption hardware to support your privacy needs.

By partnering with us, a dedicated NVIDIA® ELITE Partner, our support-driven team offers prompt after-sales support so that your company stays focused on what matters most, customer acquisition.

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Specifications

Model	D315AOB-1
Type	BOX PC
NVIDIA GPU SoC Module Compatibility	NVIDIA® Jetson AGX Orin (32GB / 64GB) & AGX Orin Industrial module
Networking	• 1x GbE RJ-45 • 1x 10G RJ-45
Display Output	1x HDMI output
Temperature	• Operating temperature -25°C~65°C • Storage temperature -40°C ~ 85°C • Relative humidity 40 °C @ 95%, Non-Condensing
MIPI Camera Inputs (Internal)	GMSL2/FPD-link III/V-by-One® HS (STURDeCAM20 optional)
USB	• 1x USB 2.0 Micro-B for recovery • 2x USB 2.0 Type-A • 2x USB 3.2 Type-A
Storage	1x micro-SD card slot
Expansion Header	• 40-pin (UART, SPI, CAN, I2C, I2S, GPIOs) • 1x M.2 B key (for 4G LTE module or 5G module) • 1x M.2 E key (for Wi-Fi 6E) • 1x M.2 M key (for SSD or AVerMedia capture card: CN311-H, CN312SW, CN312MW) • 1x Micro SIM socket • 1x PCIe x16 (only support x8 PCIe lanes) • 1x CAN bus with transceiver • 120-pin (for MIPI SerDes) • OOB support (optional)

Power requirement	Voltage	DC 12V~54V
	Current	DC in JACK on board: 7A Max ATX 4pin: 10.8A Max

Power Cord	US/JP/EU/UK/TW/AU/CN
Thermal Solution	Fan
Buttons	Power and Recovery
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
PCB/Electronics Mechanical Info	181.5mm (W) x 137mm (L) x 88mm (H) (with mounting hole) Weight: 1.5kg
Certifications	CE, FCC, KC

Optional Accessories

Wi-Fi Module	M.2 E key 2230	Intel® Wireless-AC 9260、Intel® Wi-Fi 6E AX210		
SSD	M.2 M key 2280	256GB		
Capture Card	M.2 M key 2280	CN312MW	1x SDI; 1x HDMI	2Kp60 in (SDI), 1920 x 1200p60 in (HDMI), 1080p out
	M.2 M key 2280	CN312SW	2x SDI	2Kp60 in - 1080p out
	M.2 M key 2280	CN311-H	1x HDMI	4096 x 2160p30 in and out
4G LTE Cat4	M.2 B key 3042	Quectel EM05-G		
5G	M.2 B key 3052	Quectel RM520N-GL		

RoHS 2 COMPLIANT

*All specifications are subject to change without prior notice.