

D317AO Engineering kit [Preliminary]

NVIDIA® Jetson AGX Orin module

For AMR Applications



Overview

AVerMedia's carrier board D317 equips powerful NVIDIA® Jetson AGX Orin module. This efficient system-on-module (SoM) opens new worlds of embedded IoT applications with full analytic capabilities.

D317 is designed for the industry applications with spatial concern and feature a rich assortment of I/O ports for rapid AI-based solution development and seamless deployment as required by demanding business applications.

AVerMedia supports businesses of all sizes and offers customizable BSP services, flexible MoQ, in addition to NVIDIA's JetPack™ SDK.

Enterprise-Leading Features

- Embedded NVIDIA® Jetson AGX Orin module
- 1x GbE RJ-45
- 1x M.2 Key E 2230 for WIFI 6
- 1x HDMI 2.0 (3840x2160 at 60Hz)
- 1x 120pin for GMSL camera board
- 1x USB 3.2 Type-C for BSP install
- Optional 2x 10G RJ-45 (via daughter board)
- Optional 8x PoE (via daughter board)
- Optional 1x M.2 Key B for 5G connection (via daughter board)
- Operating temperature: -40 to 85°C (carrier board) (TBD)
- Dimension: W: 92mm x L: 107mm (TBD)

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.

Specifications

Model	D317AO
Type	Engineering kit
NVIDIA Module Compatibility	NVIDIA® Jetson AGX Orin module
Networking	<ul style="list-style-type: none"> • 1x GbE RJ-45 • 1 x M.2. key E 2230 for wifi 6 • Optional 2x 10G RJ-45 (via daughter board) (TBD) • Optional 8x PoE (via daughter board) (TBD) • Optional 1x M.2 Key B for 5G connection (via 5G 、 PoE/5G 、 USB/5G daughter board) (TBD)
Display Output	1 x HDMI output 3840 x 2160 at 60Hz
Temperature	Operating temperature: -40 to 85°C (carrier board), -20 to 70°C (with fan) (TBD) Storage temperature -40°C ~ 85°C (TBD) Relative humidity 40 °C @ 95%, Non-Condensing
Camera Inputs	1x 120pin for GMSL camera board
USB	<ul style="list-style-type: none"> • 1x USB 3.2 Type-C for BSP install (supports OTG mode,when using with PoE/5G daughter board or USB/5G daughter board ,the USB 3.2 OTG port becomes USB 2.0) • 1x USB 3.2 Type-C (host mode only) • Optional 8x USB3.2 Type-A (via daughter board) (TBD)
Storage	2x NVMe M.2 Key M 2280 (1x only support S1 Type Top side component SSD)
Expansion Header	<ul style="list-style-type: none"> • 30pin header: 1xUART, 1xI2C, 3xGPIO,1xSPI, 2xCAN BUS, 1xI2S, 5V(Maximum 0.7A), 3.3V(Maximum 0.7A) • 12pin header: 1x12V(Maximum 0.7A), 1x5V(Maximum 1A), 1x3.3V(Maximum 1A) power Output, 1xUSB 2.0, 1xDMIC • 16pin wafer for OOB or External Button: <ul style="list-style-type: none"> -OOB*: 1xUART, 1xDebug UART, 1xPower button, 1xReset button, 1x Power detect (via out-of-band management module) -External Buttons: 1xPower Button, 1xReset button, 1xRecovery button, 1xPWR_LED (via external button cable) • 40pin coaxial connector for 10G expansion • 40pin coaxial connector for PCIe expansion
GPS	Optional Dual-RTK GNSS support (via daughter board)
Sensor	Temperature sensor for PCB top/bot Temperature measure
Power requirement	ATX 4pin ,12V +/- 5% DC Input

* For details, please refer to the ["Accessory-OOB module"](#) webpage.



*All specifications are subject to change without prior notice.



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Power Cord	US/JP/EU/UK/TW/AU/CN
Thermal Solution	Fan solution (12V fan wafer)
Buttons	Power and Recovery
LED	1x system power 1x input power
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
PCB/Electronics Mechanical Info	<ul style="list-style-type: none"> W: 92mm x L: 107mm (TBD) Weight: 1kg (TBD)
Certifications	CE, FCC, VCCI, KC (TBD)
Package	1x Carrier board Screws Nuts

Ordering Information

Model	SKU Number	Description
D317AO	D317AO-001	Engineering kit



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Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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