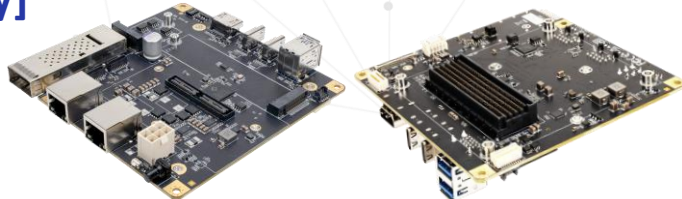


D333 Carrier Board [Preliminary]

NVIDIA® Jetson Thor™

For Humanoid/AMR Applications



Overview

AVerMedia's carrier board D333 is a compact edge super computing design that supports the powerful NVIDIA Jetson T5000™/ Jetson T4000™. This efficient system-on-module (SoM) enables new possibilities for humanoid and AMR applications. It is designed for real-time sensor fusion and ultra-low-latency motion control.

The D333 is well-suited for industrial applications with space constraints and features a rich set of I/O interfaces for rapid AI-based solution development and seamless deployment in demanding business environments.

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 T5000™ / Jetson T4000™
- 2x GbE RJ-45
- 1x QSFP (4x 25 GbE)
- 1x M.2 Key E 2230 for WIFI 6
- 1x M.2. key M 2280 for SSD
- 4x CAN BUS or 4 x PWM
- 1x HDMI 2.0 (3840x2160 at 60Hz)
- 2x USB 3.2 Type-C
- 2x USB 3.2 Type-A
- 1x 120pin for GMSL camera board
- OOB support
- Optional 8x PoE or 8x USB (via daughter board)
- Operating temperature: -40 to 85°C (W/O audio)
- Dimension: W: 120mm x L: 120mm

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	D333
Type	Carrier Board
NVIDIA Module Compatibility	NVIDIA Jetson T5000™ & Jetson T4000™
Networking	• 2x GbE RJ-45 (1x port supports OOB NCSI for optional OOB module) • 1x QSFP (4x 10 GbE for JetPack 7.1 / 4x 25 GbE for JetPack 7.2) • 1 x M.2. key E 2230 for wifi 6
Display Output	1 x HDMI output (3840 x 2160 at 60Hz)
Temperature	Operating temperature: -40 to 85°C (carrier board, W/O audio) Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, Non-Condensing
Camera Inputs	1x 120pin for GMSL camera board
USB	• 1x USB 3.2 Type-C (Data Host-only) • 1x USB 3.2 Type-C for BSP install • 2x USB 3.2 Type-A • Optional 8x USB3.2 Type-A (via daughter board)
Storage	- 1x NVMe M.2 Key M 2280 PCIe x4 Gen5
TPM	TI SLB9672XU2.0 on board
Expansion	• 20pin expansion header-1: 1x I2C, 1x I2S, 1x SPI, 2x GPIO(PWM), 1x UART, +5V output 1A, +3.3V output 1A • 20pin expansion header-2: 4x CAN-FD, 1x I2C, 2x GPIO(PWM), +5V output 1A, +3.3V output 1A • 1x 40pin coaxial connector for PCIe expansion (daughter board 8xPSE or 8xUSB)
GPS	1x internal USB wafer for Optional Dual-RTK GNSS support (via daughter board)
Power requirement	ATX 6pin 12~36V DC Input
Thermal Solution	1x SOM FAN
Buttons	Power and Recovery
LED	1x System Power
OOB	Support RMII & NCSI
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
PCB/Electronics Mechanical Info	• W: 120mm x L: 120mm • Weight: 120g
Certifications	CE, FCC,VCCI, KC (TBA)
Package	1x Carrier Board 1x Adapter 2x GPIO board