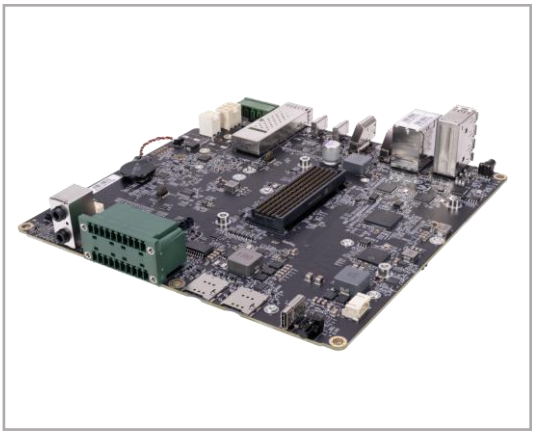
D331 Carrier Board



Feature

- Embedded NVIDIA Jetson T5000 / Jetson T4000
- 2x GbE RJ-45
- 1x QSFP (4x 10 GbE for T5000, 3x 10 GbE for T4000)
- 1x M.2 Key E 2230 for WIFI 6
- 1x M.2 Key B 3042/3052 for 4G/5G
- 2x M.2. key M 2280 for SSD
- 1x mPCIe for GNSS, 4x CAN BUS & 4 x PWM
- 2x HDMI 2.0 (3840x2160 at 60Hz)
- 4x USB 3.2 Type-A
- 1x 120pin for GMSL camera board

Specifications

Model	D331
NVIDIA Module Compatibility	NVIDIA Jetson T5000 & Jetson T4000
Networking	2x GbE RJ-45 (1 × port supports OOB NCSI for optional OOB module) 1x QSFP (4 x 10 GbE for T5000, 3 x 10 GbE for T4000) 1 x M.2. key E 2230 for Wi-Fi 6 1x M.2 Key B 3042/3052 for 4G/5G
SIM Slot	2 × SIM slots for 4G/5G module; dual SIM capability depends on the installed cellular module
Display Output	2 x HDMI output (3840 x 2160 at 60Hz)
Temperature	Operating temperature: -40 to 85°C (carrier board, W/O audio) Operating temperature: -25 to 85°C (carrier board, W/ 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 2.0 Type-C for BSP install 1x USB 3.2 Type-C (usage limitations apply; refer to User Manual for details) 4x USB 3.2 Type-A (5Gbps x2 ; 10Gbps x2) Optional 8x USB3.2 Type-A (via daughter board)
Audio	2x 3.5mm phone jack for Mic in & line out.
Storage	2x NVMe M.2 Key M 2280 1x NVMe M.2 Key M 2280 PCIe Gen4 x2 (8xPoE, 8xUSB board, either one) 1x NVMe M.2 Key M 2280 PCIe Gen4 x4
TPM	Infineon SLB9672XU2.0 on board
Expansion	2x10 Euro Terminal Block 1x CAN-FD (Isolated 3KV), 3x CAN-FD with Transceiver, +5V output 1A , +3.3V output 1A,UART, I2C (Isolation, Support for T5000 only) 20pin expansion header-1:1x5V(Maximum 1A), 1x3.3V(Maximum 1A) power Output, UARTH1, I2C, GPO(4), GPI(5), PWM(2) 20pin expansion header-2:1x5V(Maximum 1A), 1x3.3V(Maximum 1A) power Output, UARTH2, I2C, GPO(4), GPI(5), PWM(2) 2x 5-pin JTAG connector 1x 40pin coaxial connector for PCIe expansion (daughter board 8xPSE/8xUSB)
GPS	1x mPCIe for Optional Dual-RTK GNSS support (via daughter board)
Sensor	Temperature sensor for PCB top/bot Temperature measure

All specifications are subject to change without prior notice.

©2026 by AVerMedia Technologies, Inc. All rights reserved.
No part of this document may be reproduced or transmitted in any form, or by any means (Electronic, mechanical, photocopy, recording, or otherwise) without prior written permission of AVerMedia Technologies. Information in this document is subject to change without notice. **Made in Taiwan.**

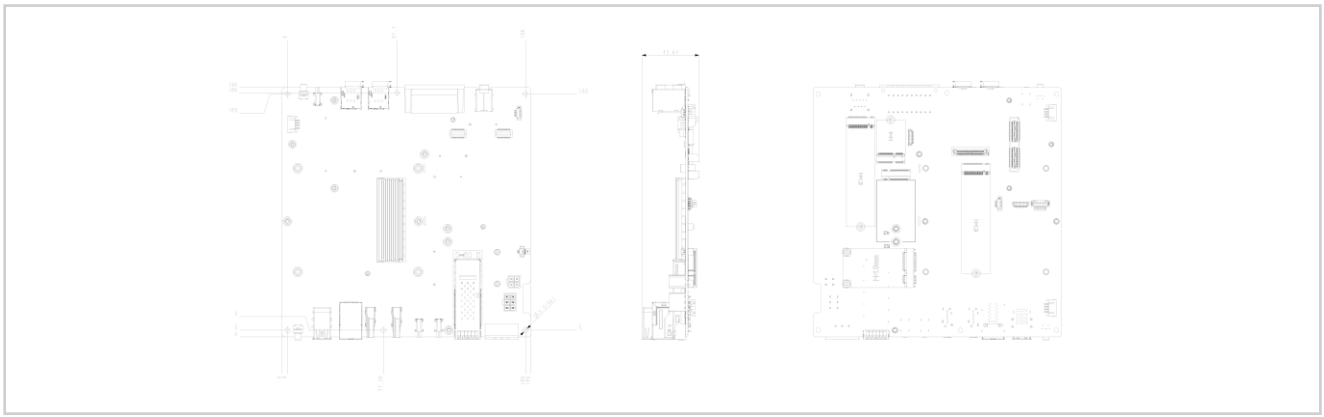
Specifications

PCB/Electronics Mechanical Info	90mm (L) x 56mm (W) x 30.7mm (H) (Stacking with SOM)
Power requirement	Terminal block 3Pin & Mini-fit 6pin (Internal) 9~36V DC Input, 90~180W (36V absolute maximum), DC IN terminal block: 10A Max, ATX 6pin: 10A MaxACC IN / IGN Control (ACC optional, via switch) USB-C 9V~28V 40W-130W Note: If there is more than one power supply (e.g., Terminal block or USB Type-C) connected, then the USB PD Controller (CYPD8225) will let the first power supply through, also known as First come first serve.
Thermal Solution	1x SOM FAN (Box PC or Devkit) 2x Chassis Fan (Box PC, 12V fan wafer)
Buttons	Power and Recovery
LED	1x System Power 1x Input Power
MISC	1x Mini-fit 4Pin DC output for PSE expansion (Pass-through 10A) 1x DC output wafer (9~12V) for GMSL 1x USB-C for Debug_UART (Share with OOB) DIP Switch for function controlAT/ATX Mode selectACC Enable / Ignore ACC for Development (default)
RTC Battery	Support RTC battery and Battery Life Monitoring by MCU
PCB/Electronics Mechanical Info	W: 190mm x L: 190mm Weight: 250g
Certifications	CE, FCC,VCCI, KC
Package	1x Carrier board 2x GPIO Board 1x 240W Power Adapter (without Power cord) Screws Nuts

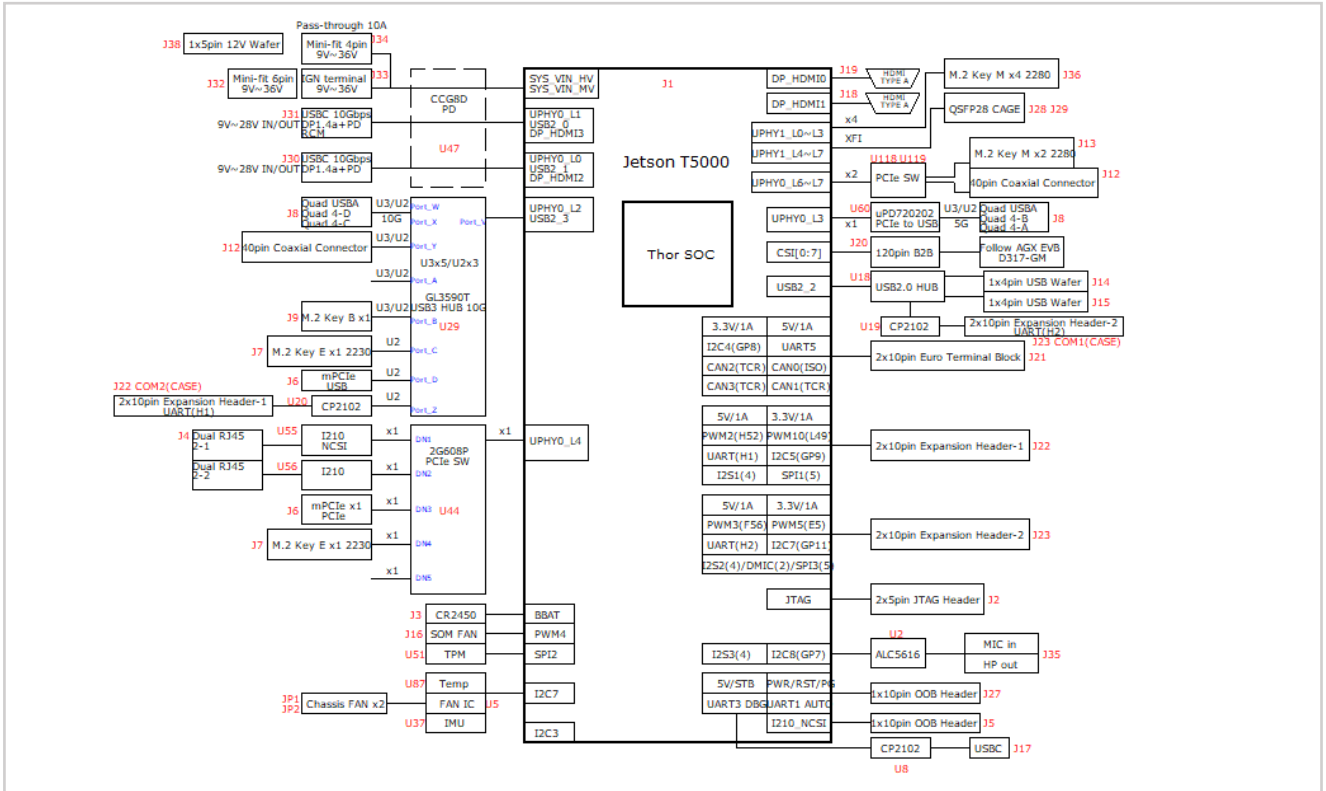
All specifications are subject to change without prior notice.

©2026 by AVerMedia Technologies, Inc. All rights reserved.
No part of this document may be reproduced or transmitted in any form, or by any means (Electronic, mechanical, photocopy, recording, or otherwise) without prior written permission of AVerMedia Technologies. Information in this document is subject to change without notice. **Made in Taiwan.**

Dimensions (190 x 190 x 43.64 mm)



Block Diagram



©2026 by AVerMedia Technologies, Inc. All rights reserved.
No part of this document may be reproduced or transmitted in any form, or by any means (Electronic, mechanical, photocopy, recording, or otherwise) without prior written permission of AVerMedia Technologies. Information in this document is subject to change without notice. **Made in Taiwan.**

Ordering information

Model Name	Part Number	Description
D331	61D3310001AK	Carrier Board only, with 240W Adapter without Power Cord.

Packing List

Part Number	Description	Quantity	Notes
065AMC421ACG	PLUG_TERMINAL BLOCK_1*10PIN	2	-
041318GOYAN3	@ADAPT_AC/DC_100~240V_24V_10.41A_TB3P/F	1	-
041318GOZAN4	@ADAPT_AC/DC_100~240V_24V_12.75A_ATX6P/F	1	If use 8x POE board, please choose this.

Optional Accessory

Item	Part Number	Product Name	Type	Description
1	61D317USB1AJ	USB board	Board	Support 8xUSB port and 1xM.2 Key B for 4G/5G Module
2	61F8P1M001AB	PoE board	Board	Support 8xPoE port and 1xM.2 Key B for 4G/5G Module
3	51D331RS01AD	Serial & DIO Expansion Board	Board	RS232/422/485 and 4DIDO
4	61D1350001AK	RTK GNSS module	Board	U-blox ZED-F9P+F9H
5	61D317OB01AK	ERMI module	Board	Support Out-Of-Band (OOB) remote device management
6	61D317GM01AF	GMSL Board	Board	Support 8x GMSL camera via mini fakra cable
7	60D3170001AB	Mini FAKRA cable	Cable	Support standard FAKRA x4 for connecting to GMSL board
8	51D115SEX1AJ	5G daughter board	Board	Support 1xM.2. M key for SSD and 1xM.2 B key for 4G/5G
9	0700WLAN0AWX	Wi-Fi 6E AX210 set	Board	Wi-Fi 6E-intel AX210 (include 1xcable and 2xantennas)
10	60D3150000AE	4G set	Board	Quectel EM05_LTE Cat 4 M.2 Module+2xCable+2xAntenna
11	60D3150001AD	5G set	Board	Quectel RM520N Series_5G Sub-6 GHz M.2 Module+4xCable+4xAntenna
12	064APOWERB32 064APOWERB3X	Power Cord (JP)	Cable	Support Jetson Thor Power Cord
13	064APOWERBR2-IPD	Power Cord (USA)	Cable	Support Jetson Thor Power Cord
14	064APOWERBRX-IPD	Power Cord (TW)	Cable	Support Jetson Thor Power Cord
15	064APOWERBR4-IPD	Power Cord (CN)	Cable	Support Jetson Thor Power Cord
16	064APOWERBR5-IPD	Power Cord (KR/EU)	Cable	Support Jetson Thor Power Cord
17	064APOWERBRV-IPD	Power Cord (AU)	Cable	Support Jetson Thor Power Cord
18	064APOWERBRW-IPD	Power Cord (UK)	Cable	Support Jetson Thor Power Cord

©2026 by AVerMedia Technologies, Inc. All rights reserved.
No part of this document may be reproduced or transmitted in any form, or by any means (Electronic, mechanical, photocopy, recording, or otherwise) without prior written permission of AVerMedia Technologies. Information in this document is subject to change without notice. **Made in Taiwan.**