

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 x 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 x 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	TI 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.

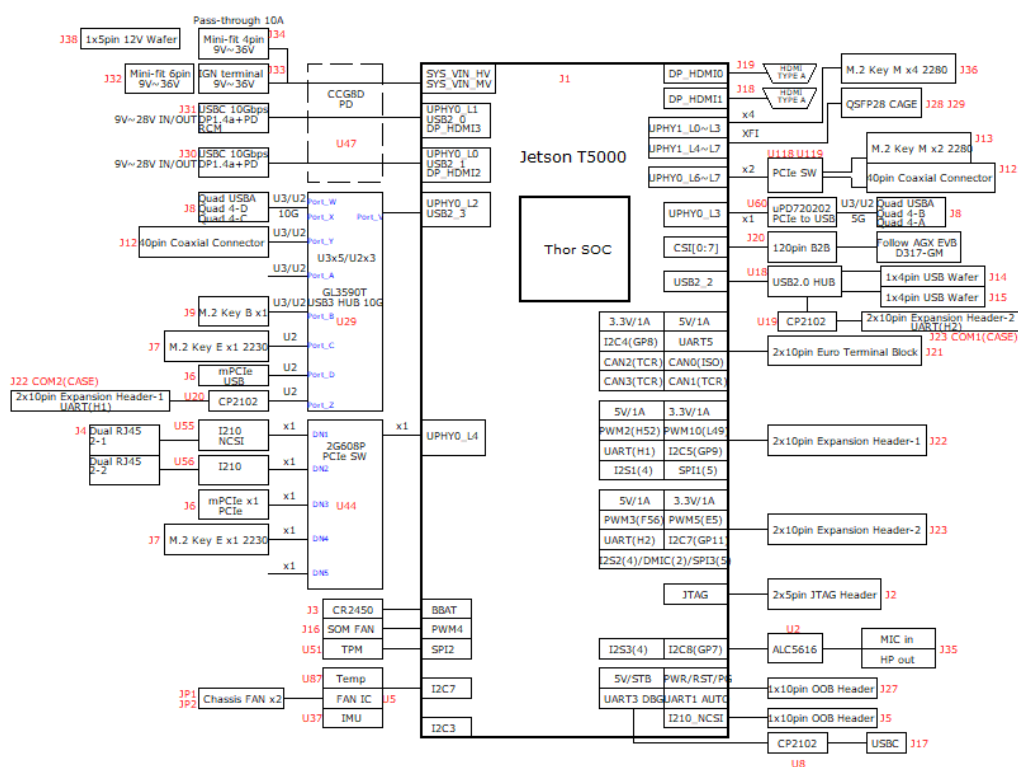
Specifications

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 / IG N 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 Con troller (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

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Dimensions (190 x 190 x 43.64 mm)

Block Diagram



Ordering information

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

