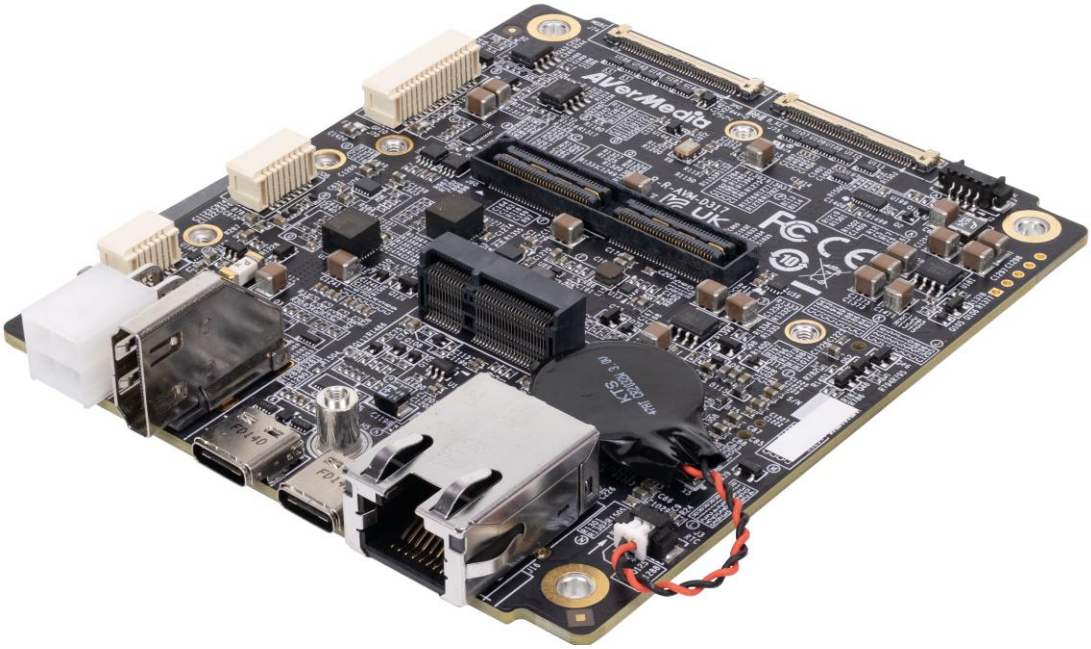
AVerMedia D317

Applies to NVIDIA® Jetson AGX Orin 32G/64G & Industrial Module



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PREFACE

Disclaimer

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Technical Support

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In case the reseller is not able to resolve your problem, our highly capable global technical support team can certainly assist you. Our technical support section is available 24 hours a day and 7 days a week through our website, with the click here. For more contact information, you may find it in the section of AVerMedia Global Offices.

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For more information of our products, pricing, and order placement, please fill in our inquiry form here, we will contact you within 24 hours.

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REVISION HISTORY

Revision	Date	Updates
V0.1	Mar 28, 2025	1st Released
V0.2	July 30, 2025	2nd Released
V0.3	Sep. 11, 2025	Modify Carrier board weight and product warranty
V0.4	Sep. 23, 2025	Add D317+ERMI module connection guide
V0.5	Apr. 09, 2026	Add D317 Connector J74/75 description
V0.6	Oct. 30, 2026	Add D317 and daughter board assembly methods

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Product Warranty

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ESD Warning

Electronic components and circuits are sensitive to Electrostatic Discharge (ESD). When handling any circuit board assemblies including AVerMedia products, it is highly recommended that ESD safety precautions can be observed. ESD safe best practices can include but are not limited to the following ones.

1. Leave the circuit board in the antistatic package until it is ready to be installed.
2. Use a grounded wrist strap when handling the circuit board. At a minimum, you need to touch a grounded metal object to dissipate any static charge, which may be present on you.
3. Avoid handling the circuit board in the carpeted areas.
4. Handle the board by the edges and avoid contact with the components.
5. Only handle the circuit boards in ESD safe areas, which may include ESD floor and/or table mats, wrist strap stations, and ESD safe lab coats.

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Safety Precaution:

1. All cautions and warnings on the device should be noted.
2. For safety consideration, do NOT open the device if not a qualified service stuff.
3. Place the device on a solid surface during installation to prevent falls.
4. Keep the device away from humidity.
5. Do NOT leave this device in an un-controlled environment with temperatures beyond the device's permitted storage temperature to avoid damage.
6. All adaptors and cables supplied by AVerMedia are verified. Do NOT use any others not supplied by AVerMedia to avoid any malfunction or fires.
7. Make sure the power source matches the power rating of the device.
8. Place the power cord where people cannot step on it. Do not put anything on the power cord.
9. Always completely disconnect the power while the device is not used or idle for a long time.
10. Disconnect the device from any AC supply before cleaning. While cleaning, use damp cloth instead of liquid or spray detergents.
11. Make sure the device is installed near a power outlet and easy for accessibility.
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out the heatsink or heat spreader of the device when the system is running.
14. Never pour any liquid into the openings. This could cause fire or electrical shock.
15. The static electricity should be noted while installing any internal components. Consider using a grounding wrist strap and put all electronic parts in static-shielded containers.

If the following situations occur, please contact our service personnel:

(1) The device is dropped or damaged
(2) Damaged power cord or plug
(3) Exposure to moisture
(4) Liquid intrusion into the device
(5) Any obvious signs of damage displayed on the device
(6) The device is not working as expected or in a manner as described in this manual

16. The static electricity should be noted while installing any internal components.

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1. Introduction

AVerMedia AVerMedia D317 includes fully featured carrier board which is all developed for NVIDIA® Jetson AGX Orin 32G/64G & Industrial modules. D317 provide multiple I/O include one HDMI video output, two USB 3.2 ports, one GbE, 30-pin expansion, one M.2 Key E, two M.2 key M.

Operating with NVIDIA® Jetson AGX Orin 32G/64G & Industrial modules and the rich I/O functions, AVerMedia D317 is the perfect choice for high-end performance AI edge computing platform for intelligent video analytics applications.

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2. Feature Description

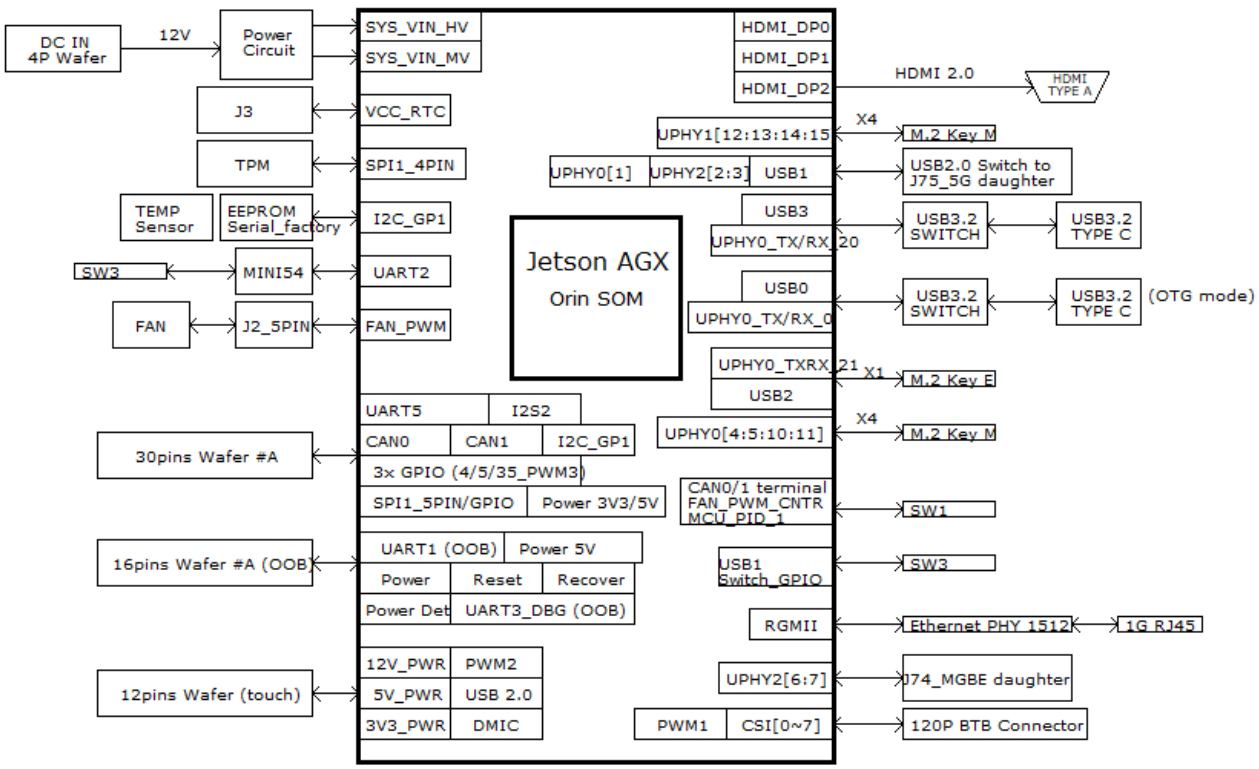
2.1 Specification

Item	Specification
NVIDIA Jetson SoM	NVIDIA® Jetson AGX Orin™ module (32GB or 64GB) & Industrial
Networking	1x GbE RJ-45 1 x M.2. key E 2230 for wifi 6 Customized 2x 10G RJ-45 (via daughter board) Customized 8x PoE (via daughter board) Customized 1x M.2 Key B for 5G connection (via 5G、PoE/5G、USB/5G daughter board)
Display Output	1x HDMI output
Temperature	Operating temperature: -40 to 85°C (carrier board, 32G), -20 to 70°C (with fan, 32G) Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, Non-Condensing
MIPI & SerDes Camera (120-pin)	1x 120pin for GMSL camera board
USB	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) Customized 8x USB3.2 Type-A (via daughter board)
Storage	2x NVMe M.2 Key M 2280 (1x only support S1 Type Top side component SSD_J65)
Expansion Header	30pin header: 1xUART, 1xI2C, 3xGPIO,1xSPI (occupied by TPM), 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: • 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
Power requirement	ATX 4pin, 12V +/- 5% DC Input
Thermal Solution	Fan solution (12V fan wafer)
Buttons	Power and Recovery
RTC Battery	Support RTC Battery and Battery Life Monitoring by MCU

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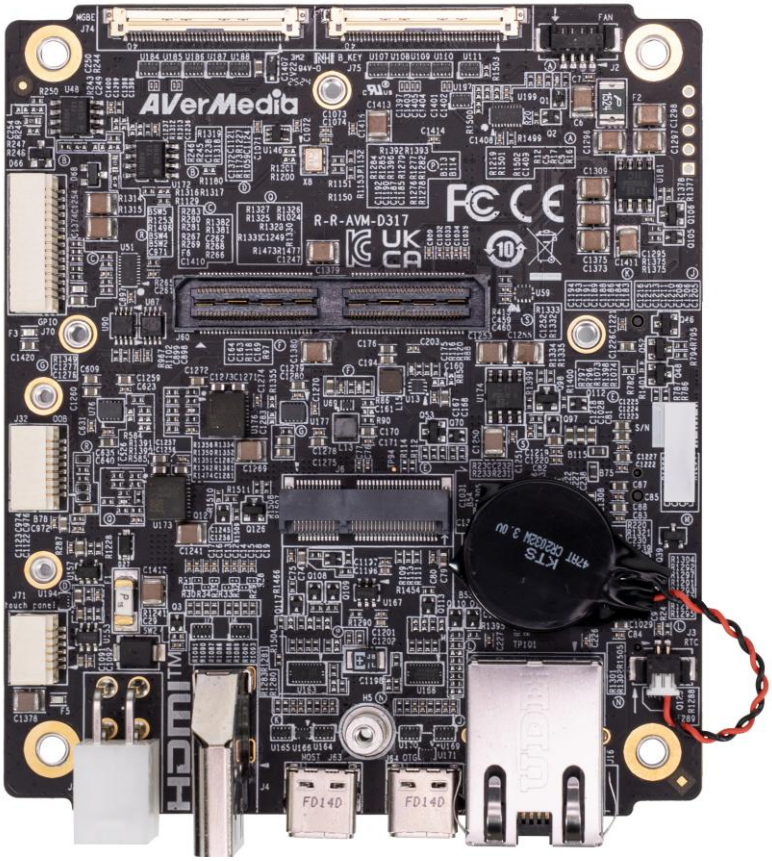
Dimensions	Carrier Board: W: 92mm x L: 107mm Devkit: W: 98mm x L: 110.85mm x H: 63.12 mm Box PC: W: 188mm x L: 137.1mm x H 81mm with bracket
Certifications	KC (TBA: CE, FCC,VCCI)
GPS	Customized Dual-RTK GNSS support (via daughter board)
Sensor	Temperature sensor for PCB top/bot Temperature measure
LED	1x System Power 1x Input Power
Package	1x Carrier board Screws Nuts 1x Engineering kit Screws Nuts

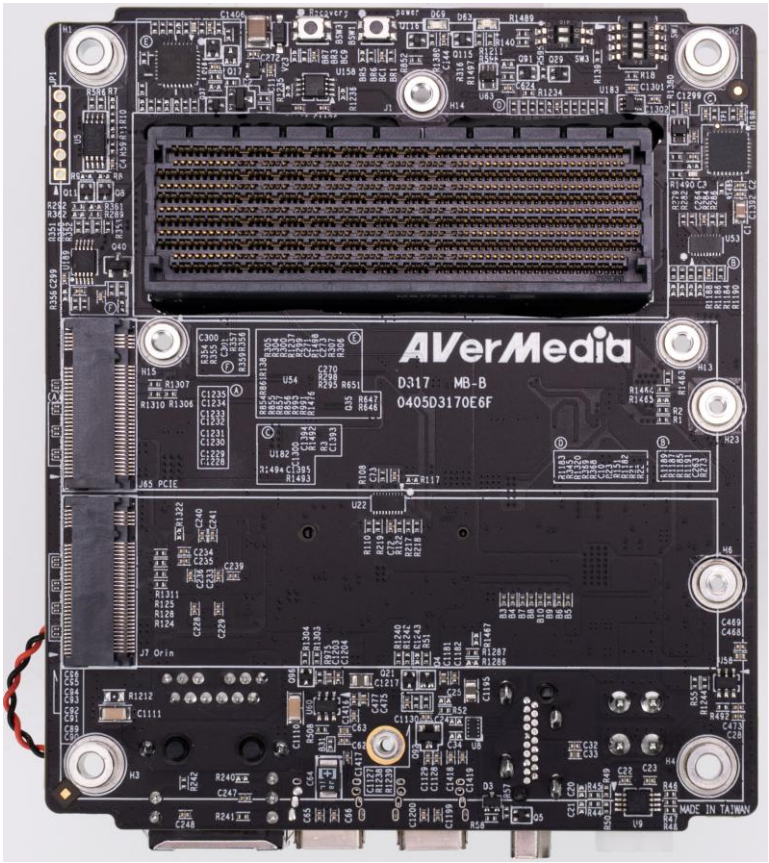
2.2 Block Diagram



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2.3 Front View and Back View of Carrier board

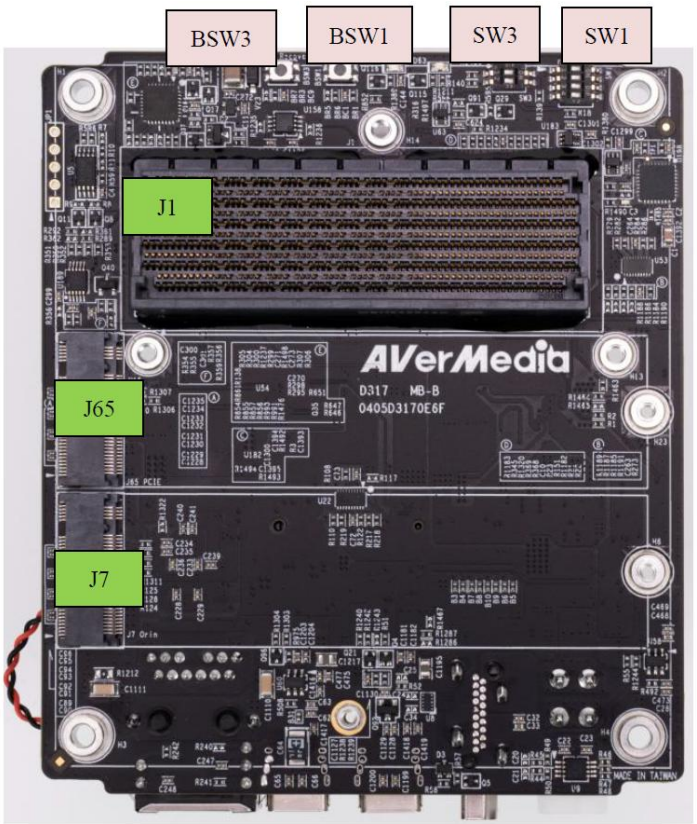




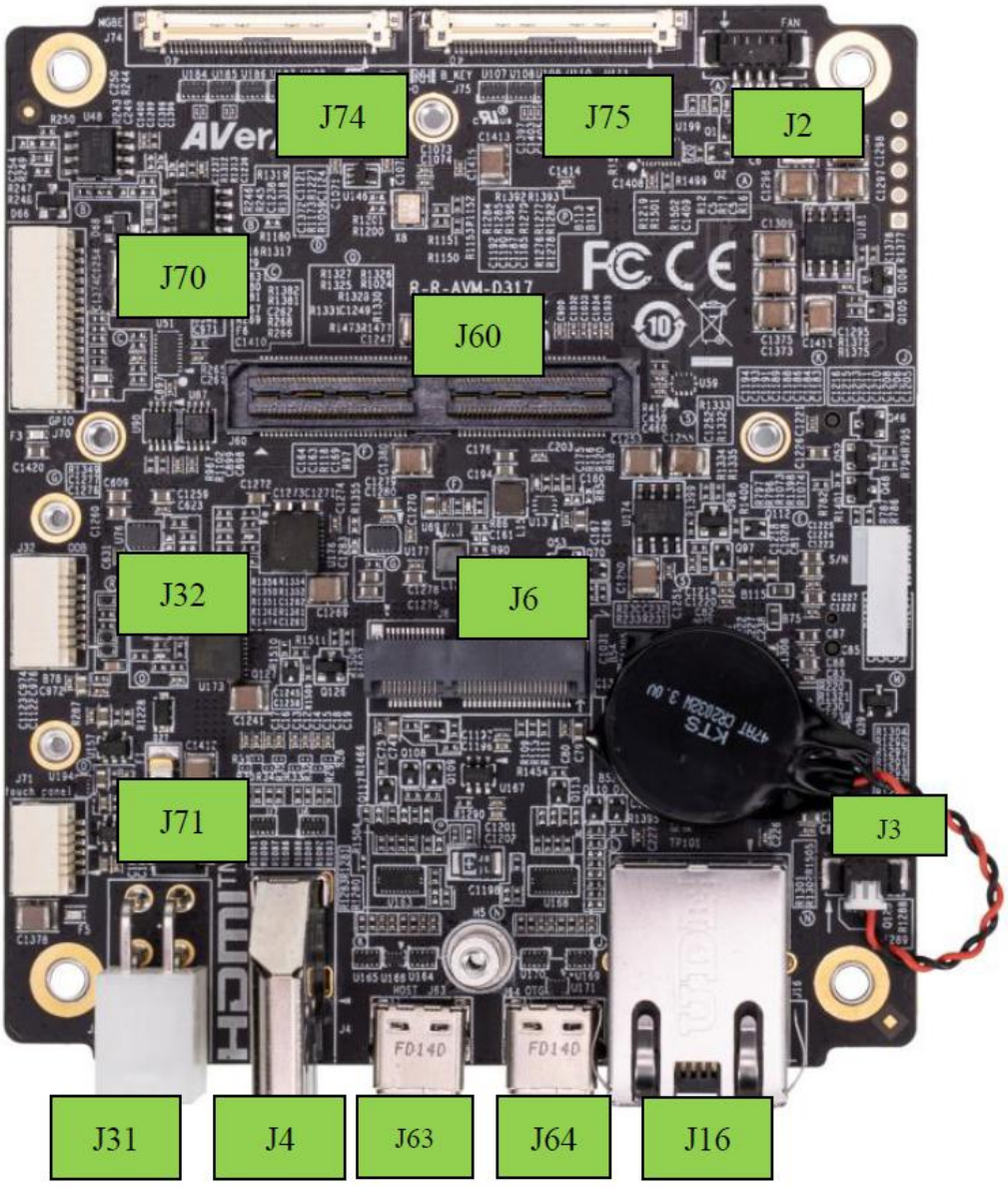
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2.4 Carrier Board Interface

J1	699-pin high-speed/high-density connector
J2	Fan Wafer
J3	External RTC Battery wafer
J4	HDMI output Type-A Vertical Side Connector (Female)
J64	USB 3.2 Gen2 Type C Connector (supports OTG mode)
J6	M.2 E-Key Socket
J7	M.2 M-Key Socket
J65	M.2 M-Key Socket
J63	USB 3.2 Gen2 Type C Connector
J32	16-pin OOB or External Button
J70	30-pin Expansion
J71	12-pin power Output, 1xUSB 2.0, 1xDMIC
J16	Gigabit Ethernet Connector w/LEDs
J31	Input Power – 4.2mm Pitch 90° ATX Power 4P
J60	120-pin high speed board to board connector (to Camera board)
J74	40pin coaxial connector for 10G expansion
J75	40pin coaxial connector for PCIe expansion
J1	699-pin high-speed/high-density connector
J65	M.2 M-Key Socket
J7	M.2 M-Key Socket
SW1	Switch Button
SW3	Switch Button
BSW3	Recovery Button w/o LEDs
BSW1	Power Button w/o LEDs



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2.5 Feature Description

2.5.1 Jetson module Connector

Function	Provide connection with NVIDIA® Jetson™ AGX Xavier™ module	
Location	J1	
Type Description	MOLEX 699pin socket	
Manufacturer and Part Number	MOLEX,203456-0003	
Mating Connector	MOLEX,203456-0003	
Pinout	Please refer to NVIDIA Jetson™ AGX Orin™ and AGX Orin™ System-on-Module datasheet for pinout details.	
Remarks	https://developer.nvidia.com/ embedded/downloads	

2.5.2 Fan Power connector

Function	Fan Power Connector	
Location	J2	
Type Description	WAFER_1*4PIN_1.25 ㎜_90°	
Manufacturer and Part Number	ACES 50271-0040N-001_BLACK	
Mating Connector	ACES 50276-004H0H0-001	
Pinout	Pin # / Description PIN 1 / GND PIN 2 / +12V Power PIN 3 / FAN_TACH PIN 4 / FAN_PWM	
Remarks	None	

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2.5.3 RTC Battery Connector

Function	RTC battery for module	
Location	J3	
Type Description	1.25mm wire-to-board header	
Manufacturer and Part Number	宏致_ACES 50271-00201-001_BLACK	
Mating Connector	Molex, 51021-8602	
Pinout	Pin # / Description PIN1 / GND PIN2 / 3V Power	
Remarks	RTC Battery:, CR2032 3V	

2.5.4 HDMI OUTPUT

Function	HDMI output connector	
Location	J4	
Type Description	HDMI Type-A female connector	
Manufacturer and Part Number	捷湧 EDL TECHNOLOGY CO. HM-FVD480B	
Mating Connector	Any HDMI standard Type-A interface cable or device.	
Pinout	Please refer to HDMI standard.	
Remarks	None	

2.5.5 USB 3.2 Gen 2 Type-C Connector #1 , #2

Function	USB 3.2 Gen 2 Type-C connector #1 #2	
Location	J63/J64	
Type Description	USB 3.2 Gen 2 Type-C female connector	
Manufacturer and Part Number	宏致 ACES 57988-0240D-001	
Mating Connector	Any USB 3.2 Gen 2 standard Type-C interface cable or device.	
Pinout	Please refer to USB 3.2 Gen 2 standard.	
Remarks	None	

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2.5.6 M.2 E key 2230

Function	M.2 E key	
Location	J6	
Type Description	SOCKET_M.2-KEY E_75PIN_90°_SMD	
Manufacturer and Part Number	宏致_ACES 51748-07502-005_P0.5 ㎜-H8.5 ㎜	
Mating Connector	Any M.2 E key 2230 card standard interface device.	
Pinout	Please refer to M.2 E key card standard for the pinout details.	
Remarks	It is not recommended to use at present.	

2.5.7 M.2 M key 2280

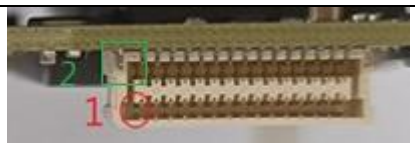
Function	M.2 M key	
Location	J7/J65	
Type Description	SOCKET_M.2-M KEY _75PIN_90°_SMD	
Manufacturer and Part Number	宏致_ACES 51733-06702-012_P0.5 ㎜-H3.05 ㎜	
Mating Connector	Any M.2 M key 2280 card standard interface device.	
Pinout	Please refer to M.2 M key card standard for the pinout details.	
Remarks	None	

2.5.8 Gigabit Ethernet Connector

Function	1Gb single-port Ethernet connector, used to connect to the host system.	
Location	J16	
Type Description	RJ45 with integrated magnetics	
Manufacturer and Part Number	湧德(U.D.Electronic) S26-ZZ-0084_1G-LEFT(G/Y)+RIGHT(Y)-UP	
Mating Connector	Any standard 1Gb Ethernet mating connector can be applicable.	
Pinout	Comply with Ethernet standards.	
Remarks	None	

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2.5.9 30-Pin expansion header

Function	General-purpose input/output	
Location	J70	
Type Description	WAFER_2*15PIN_1 ㎜_90°_SMD	
Manufacturer and Part Number	宏致_ACES 50487-03001-001	
Mating Connector	Aces 50420-030HKH0-001	
Pinout	 1.2 30 Pin Definition	
Remarks	None	

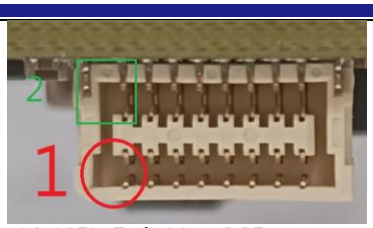
Connector	Module Pin Name	Module Pin#	Description
1			+3V3_SYSTEM-1
2	I2C1_CLK	K5	I2C_GP1_CLK_3V3
3			+3V3_SYSTEM-1
4	I2C1_DAT	L8	I2C_GP1_DAT_3V3
5	GND		GND
6	I2S2_CLK	G4	I2S2_CLK_3V3
7	+5V_SYSTEM-1		+5V_SYSTEM-1
8	I2S2_SDOUT	F5	I2S2_SDOUT_3V3
9	GND		GND
10	I2S2_FS	E4	I2S2_FS_3V3
11	SPI1_CLK	J57	SPI1_SCK_3V3
12	I2S2_DIN	F6	I2S2_SDIN_3V3
13	SPI1_MISO	A56	SPI1_MISO_3V3
14	SPI1_MOSI	D55	SPI1_MOSI_3V3
15	SPI1_CS1_N	B56	SPI1_CS1_3V3
16	SPI1_CS0_N	E55	SPI1_CS0_3V3
17	GND		GND
18	GND		GND
19	CAN1_DOUT	H61	CAN1H
20	CAN0_DOUT	D59	CAN0H
21	CAN1_DIN	B61	CAN1L
22	CAN0_DIN	F58	CAN0L
23	GND		GND
24	GND		GND
25	GPIO05	A59	GPIO5_A59_3V3
26	GPIO35	L50	GPIO35_PWM3_3V3
27	GPIO04	B59	GPIO4_B59_3V3
28	GND		GND
29	UART5_TX	J58	UART5_TX_A
30	UART5_RX	H58	UART5_RX_A

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2.5.10 OOB board connector

Function	Connector of OOB board	
Location	J32	
Type Description	WAFER_2*8PIN_1 ㎜_90° _SMD	
Manufacturer and Part Number	宏致 ACES 50487-01601-001	
Mating Connector	宏致 ACES 50420-016HKH0-001	

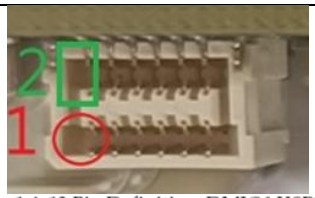
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Pinout	 1.3 16 Pin Definition_OOB Connector / Module Pin Name / Module Pin# / Description 1 / / / +5V_MINI_A 2 / GND / / GND 3 / / / /POWER_BTN 4 / / / /POWER_BTN 5 / / / OOB_RST 6 / / / LED_- 7 / / / +5V_SYSTEM_PG 8 / / / +3V3_SYSTEM-1 9 / UART1_TX / K53 / UART1_TXD_OOB 10 / GND / / GND 11 / UART1_RX / K54 / UART1_RXD_OOB 12 / SYS_RESET_N / L60 / /RESET_IN 13 / UART3_TX_DEBUG / H62 / UART3_TXD_OOB 14 / GND / / GND 15 / UART3_RX_DEBUG / K60 / UART3_RXD_OOB 16 / FORCE_RECOVERY_N / L10 / /FORCE_RECOVERY
Remarks	None

2.5.11 DMIC&USB2 connector

Function	Connector of DMI&USB2 connector
Location	J71
Type Description	WAFER_2*6PIN_1 ㎜_90° _SMD
Manufacturer and Part Number	宏致 ACES 50487-01201-001
Mating Connector	宏致 ACES 50420-012HKH0-001



Pinout	 1.4 12 Pin Definition_DMIC&USB2 Connector / Module Pin Name / Module Pin# / Description 1 / / / +12V_GMSL 2 / GPIO8 / B62 / DMIC_DAT_3V3 3 / GND / / GND 4 / GPIO9 / C61 / DMIC_CLK_3V3 5 / GPIO27 / H52 / GPIO27_PWM2_40PIN_3V3 6 / / / +3V3_DMIC 7 / GND / / GND 8 / GND / / GND 9 / GND / / GND 10 / USB1_N / C10 / IO_DN 11 / / / +5V_SYSTEM-1_LS 12 / USB1_P / C11 / IO_DP
Remarks	None

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2.5.12 ATX 4P

Function	ATX 4P
Location	J31
Type Description	WAFER_2*2PIN_4.2 ㎜_90°_DIP
Manufacturer and Part Number	燦達 Jiont Tech C4255WR-2X02PN2NT1N00B
Mating Connector	Follow ATX 4pin power standard
Pinout	Pin Number / Description 1 GND 2 GND 3 12V Power 4 12V Power
Remarks	None





2.5.13 Board to board connector (to Camera board)

Function	Board to board connector
Location	J60
Type Description	WAFER_2*60PIN_0.5 ㎜ _180°_SMD
Manufacturer and Part Number	SAMTEC QSH-060-01-L-D-A-K-TR BTB-RECEPTACLE
Mating Connector	SAMTEC QTH-060-03-H-A-D BTB-PLUG QTH-060-04-H-A-D BTB-PLUG
Pinout	Comply with NVIDIA Devkit pinout.
Remarks	None



2.5.14 Switch Button

Function	Switch Button
Location	SW1, SW3
Type Description	4 SPST DIP switch
Manufacturer and Part Number	圜達 DIPTRONICS IN OFF-SWITCHING 0.025A/24VDC
Pinout	SW1 Pin # / Description 1 OFF=>Auto Power ON=>Button Power



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<table>
<tr><td></td><td>
<table>
<tr><td>2</td><td>OFF=>FAN PWM
ON=>FAN Always</td></tr>
<tr><td>3</td><td>OFF=>CAN0 W/O Terminal ON=>CAN0 W/ Terminal</td></tr>
<tr><td>4</td><td>OFF=>CAN1 W/O Terminal ON=>CAN1 W/ Terminal</td></tr>
</table>
SW3
<table>
<tr><td>Pin #</td><td>Description</td></tr>
<tr><td>1</td><td>OFF=>Auto Power on
ON=>Always Power mode</td></tr>
<tr><td>2</td><td>OFF=>USB1 connect to J75
ON=>USB1 connect to J71</td></tr>
</table>
</td></tr>
<tr><td>Note</td><td>NA</td></tr>
</table>

2.5.15 Power &Recovery Button

Function	Power & Recovery control button	
Location	BSW1, BSW3	
Type Description	Button	
Manufacturer and Part Number	冠泰 Champway 12VDC/0.05A-160G-H1.8 ㎜ -BLACK	
Pinout	N/A	
Note	None	

2.5.16 Expansion 40pin coaxial

Function	Expansion 40pin coaxial	
Location	J74 J75	
Type Description	WAFER_40PIN_0.5 ㎜_90° _SMD	
Manufacturer and Part Number	I-PEX 20455-040E-12	
Pinout	J74 D317-TG 10G Ethernet Board J75 D317-USB board or D317-POE board	
Remarks	None	

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Other Switches and Jumpers

Other switches and jumpers listed on the board but not mentioned in this manual are reserved for internal use by AVerMedia. They are not open to the client application.

3. Installation

- Check and ensure all external system power supplies are turned off.
- Connect the power cord to CB/devkit/Box PC DC in jack or ATX 4pin
- Connect the USB Type-C cable to CB/devkit/Box PC connector.
- Press and hold on the Recover button
- Plug in AC power

(Since the DCINJACK is slightly tight, be careful not to shake it when inserting the CB/devkit/Box PC)

- **Installation Notice: 40-pin Coaxial Cable Connection Procedure**

  To avoid hardware damage, follow the steps below when connecting the 40-pin coaxial cable to the motherboard (D317) and daughter board:

1. **Motherboard Side (D317)**
   Connect one end of the cable to the motherboard connector. Ensure the red wire aligns with the **Pin 1 arrow indicator**, then fully insert and secure the locking mechanism.
2. **Daughter Board Side**
   Connect the other end to the daughter board connector and ensure it is fully inserted and secured.

Note: Do not connect or disconnect the cable while the system is powered on.

3.1 BSP Setup Instructions

BSP (board support package) file: AVERMEDIA_JETPACK-R1.*.*.*.*.*_desktop.tar.gz for D317AO
If you want to get the BSP download link, please contact AVerMedia FAE.

Default login username/password of the BSP is nvidia/nvidia

If you have difficulties to access the BSP download link, please visit AVerMedia website at https://www.avermedia.com/professional/download, or contact technical support at https://www.avermedia.com/professional/technical_support or e-mail us at eusupport@avermedia.com for further assistance.

BSP Installation steps for NVIDIA Jetson board: (Important Note: Please backup your personal files before re-flashing BSP)
After you download the BSP file and put the file in a Linux PC, please refer to the steps below to re-flash BSP.

1. Let the JETSON AGX Orin initiate recovery mode.
You have to keep pressing “Recovery” button and then power on the NVIDIA Jetson board to initiate recovery mode.

When connecting a NVIDIA Jetson board to a Linux PC via a USB Type-C to USB cable, you can check kernel messages with `dmesg` command in the Linux PC.
Once you see similar messages as below, it means that the NVIDIA Jetson board is in the recovery mode.
[24685.229129] usb 1-7: Product: APX
[24685.229132] usb 1-7: Manufacturer: NVIDIA Corp

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2. Using the commands below in the Linux PC to start re-flashing BSP.

# sudo is required to extract BSP
$ sudo tar zxvf AVERMEDIA_JETPACK-R1.*.*.*.*.*_desktop.tar.gz
$ cd JetPack_*.**_desktop/Linux_for_Tegra
$ installation steps: refer to AVERMEDIA_JETPACK-R1.*.*.*.*.*_ReleaseNote.txt

4. Software

This section describes BSP's features for D317AO

1. Support optional M.2 WI-FI/Bluetooth modules (Intel® Wireless-AX210), the manager UI of AX210 WiFi/Bluetooth is located on the upper-right corner of Ubuntu desktop. It can be also controlled by nmcli/bluetoothctl in command line.

2. Power Mode

   Power mode can be modified by the UI on the upper-right corner of Ubuntu or the following commands.

```
# get current power mode
$ sudo nvpmodel -q
# setup power mode
# where <x> is power mode number, please refer to
https://docs.nvidia.com/jetson/archives/r36.4.3/DeveloperGuide/SD/PlatformPowerAndPerformance/JetsonOrinNanoSeriesJetsonOrinNxSeriesAndJetsonAgxOrinSeries.html#supported-modes-and-power-efficiency for more information
$ sudo nvpmodel -m <x>
```

   * Current default power mode:

   D317AO: MODE 30W (2)

3. RTC Battery

   The following command can get RTC battery voltage.

```
$ sudo avt_tool -a | grep -oP "AIN5.*\[\K[^\]]*"
```

4. Fan Speed

   The following commands can get PWM fan information.

```
# get current speed setting of PWM Fan (0 ~ 255)
$ cat /sys/devices/platform/pwm-fan/hwmon/hwmon<x>/pwm1

# get Fan RPM value
 $ cat /sys/class/hwmon/hwmon<y>/rpm

* Where <x> and <y> are dynamic hwmon indexes.
```

5. CAN Bus (removed to daughter board)

6. Camera (removed to daughter board)

7. GPIO usage

   (1) Locate the GPIO Pin:

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Use the gpiofind command to determine the pin's location in the system. For example,

to locate the SODIMM Pin 99, which corresponds to PX.04, execute:

$ sudo gpiofind PX.04

This command will return the GPIO chip and offset. For example, it might return gpiochip0 118, indicating that PX.04 is at offset 118 on gpiochip0

(2) Set the GPIO Pin Voltage:

Set High Voltage: To set the pin to a high voltage (logic level 1), use the following command:

$ sudo gpioset --mode=wait 0 118=1

Set Low Voltage: To set the pin to a low voltage (logic level 0), use this command:

$ sudo gpioset --mode=wait 0 118=0

For L4T (Linux for Tegra) BSP support and the other software support associated with NVIDIA® Jetson AGX Orin, please visit AVerMedia website to contact our technical support function. (https://www.avermedia.com/tw/support/contact)

5. Force Recovery Mode

USB Type-C port (J64) of D317 can be used to re-program NVIDIA® Jetson AGX Orin by using the other host system running NVIDIA Jetpack, as the procedure described below.

1. Before you start
   - Please make sure to use a Linux host PC with Ubuntu 22.04 or 20.04 operating system.
   - Please use a native setup (no virtual machine) installation file in the following steps.
   - You will also need a high-quality standard USB Type C connector.
   - Download installation file from Avermedia.
2. Connect carrier board to host PC
3. Connect the system to the Linux FDhost PC. Please use a USB Type C cable (J64 on the carrier board).
4. After connecting to the host PC powering up the system. The system will detect the host PC and automatically enter the flashing state (also called force recovery mode).
5. Check that the connection is established with the lsusb command. You should find one entry with Nvidia Corp. as highlighted below.
6. Flashing of system
   - Use the flash cmd script in the extracted bootloader folder to transfer the software into the Jetson compute module and flash it.
   - Please connect a monitor to the system. After the flashing process has completed the should automatically boot and show the Ubuntu desktop.
   - You now have a functioning system ready for your needs.

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6. Power Consumption

Item Description	Power Consumption
Theoretical Maximum System Power Consumption	● Power Consumption of D317-32G: 11.5W(*1) to 46W (*2) *1: The condition is Normal Mode and connected to SSD-500G*2/ WIFI (Intel AX210) *2: The condition is Full Loading Mode and connected SSD-500G*2/ WIFI (Intel AX210)
Typical System Power Consumption	The power consumption under the normal operating mode depends on the application software running with NVIDIA® Jetson AGX Orin

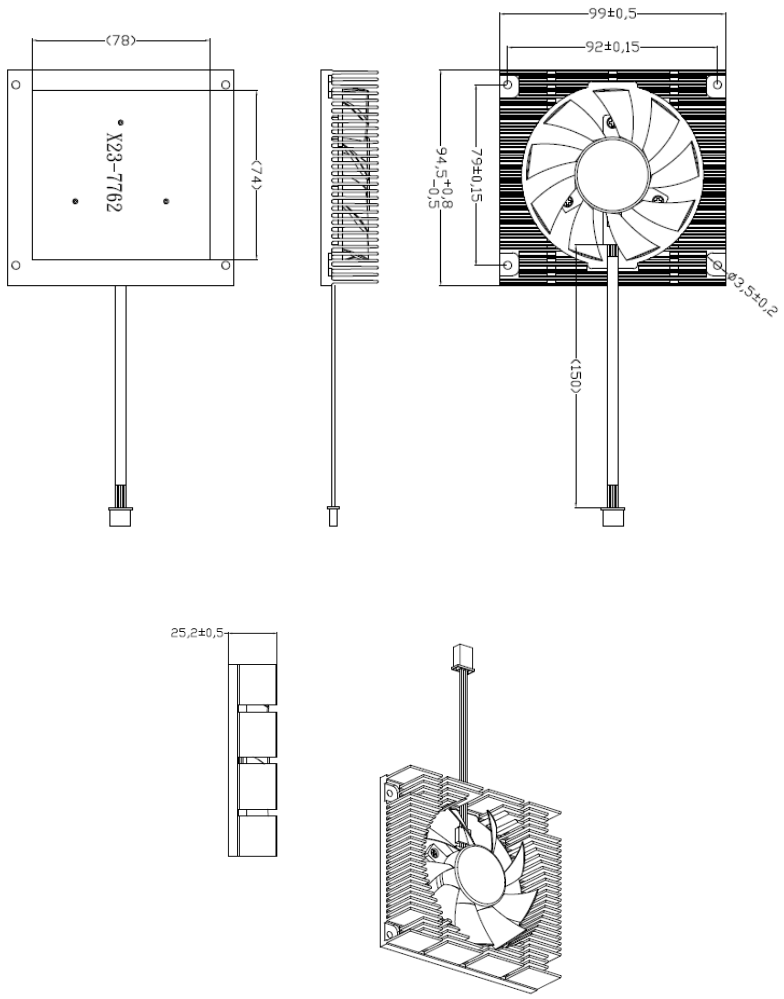
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7. Accessory Drawings

7.1 Fan Module / Adapter / Power Cord (Original)

Fan Module for AGX Orin

- Rated Voltage: 12V
- Operating Voltage Range: 11.4V~12.6V
- Rated Speed: 4200±10% RPM (Testing Speed After Continuous 3Minute Operation at Ambient Temperature Of 25℃)
- Life Expectancy: 50,000hours at 40℃ (5 TO 90% RH)
- Bearing Type: Two Ball

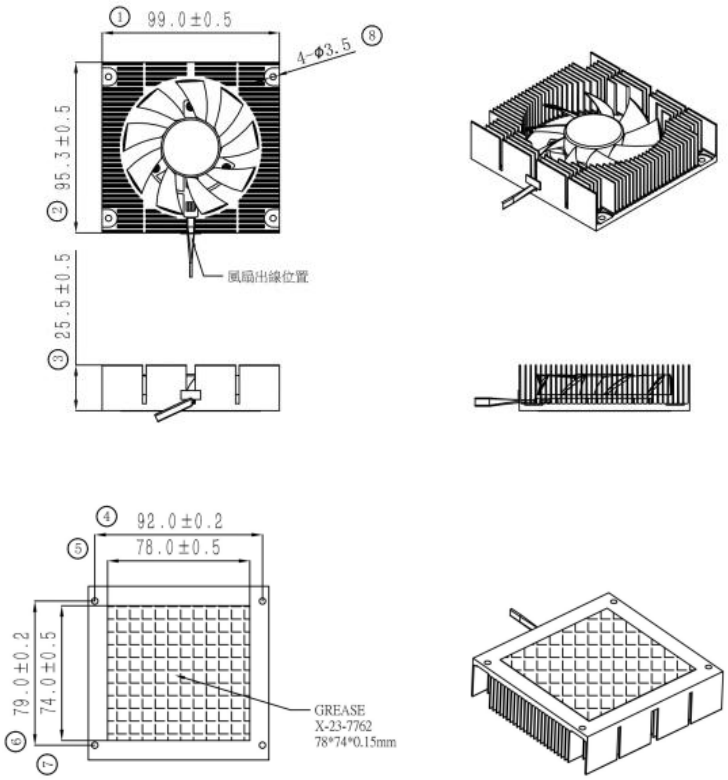


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7.2 Fan Module / Adapter / Power Cord (PCN20230906-1)

Fan Module for AGX Orin

- Rated Voltage: 12V
- Operating Voltage Range: 11.4V~12.6V
- Rated Speed: 4200±10% RPM (Testing Speed After Continuous 3Minute Operation at Ambient Temperature Of 25℃)
- Life Expectancy: 50,000hours at 40℃ (5 TO 90% RH)
- Bearing Type: Two Ball

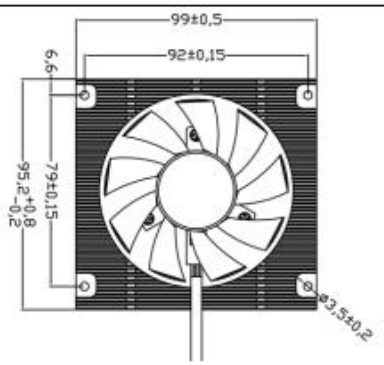


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Table1:

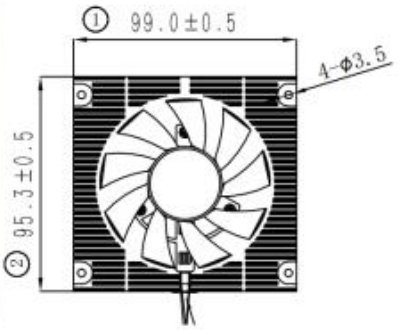
1st source thermal module	Vendor A
2nd source thermal module	Vendor B

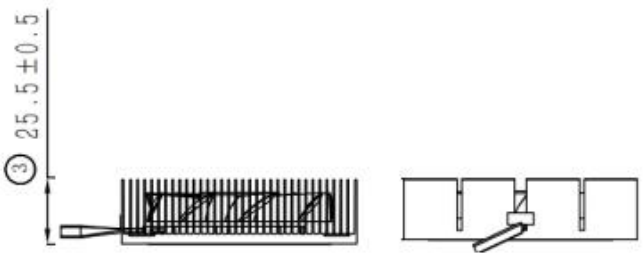






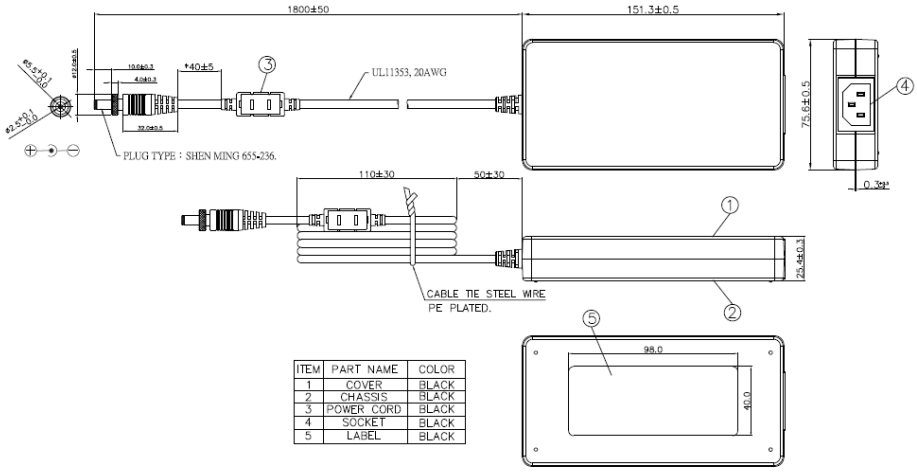






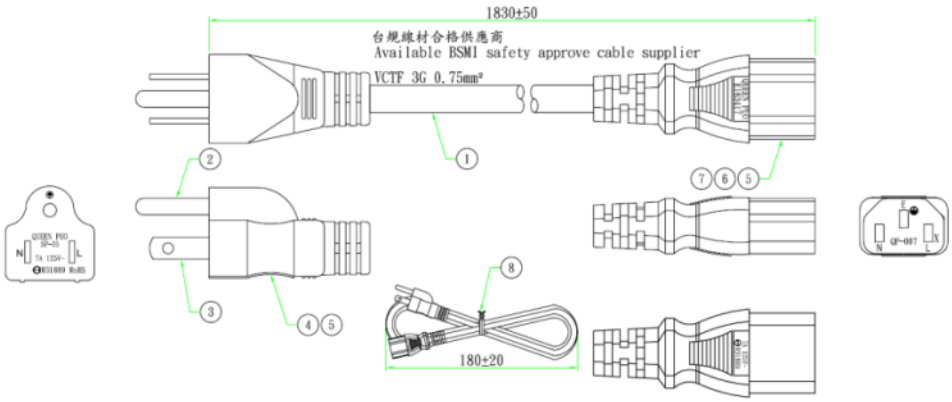
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Power Adapter 041318GOUANL

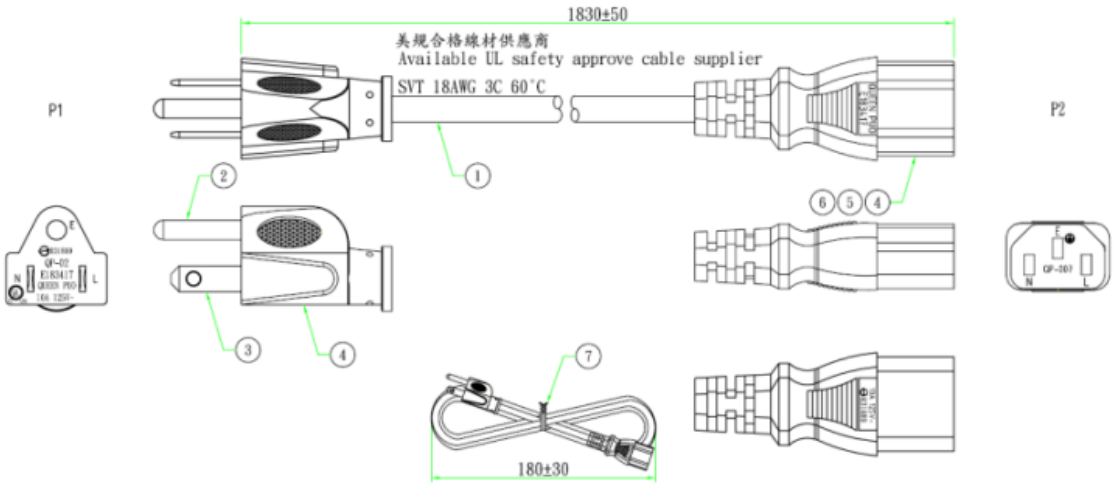


ITEM	PART NAME	COLOR
1	COVER	BLACK
2	CHASSIS	BLACK
3	POWER CORD	BLACK
4	SOCKET	BLACK
5	LABEL	BLACK

64APOWERBRX-IPD (TW version)

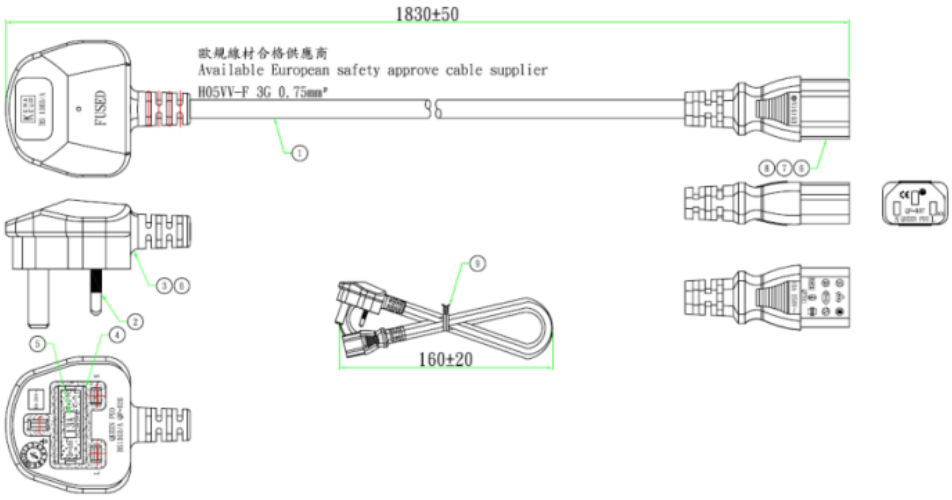


064APOWERBR2-IPD (US version)

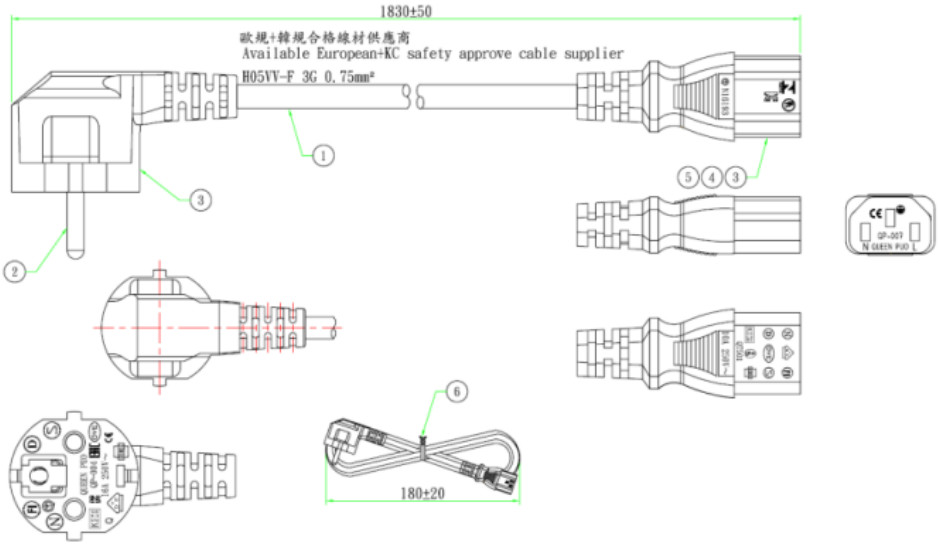


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064APOWERBRW-IPD (UK version)

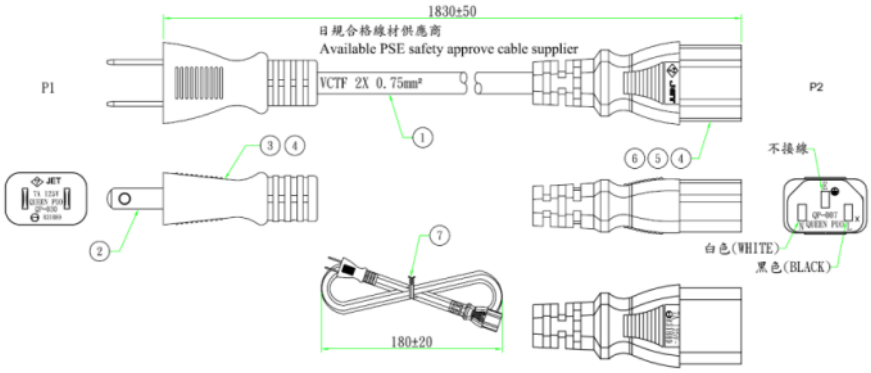


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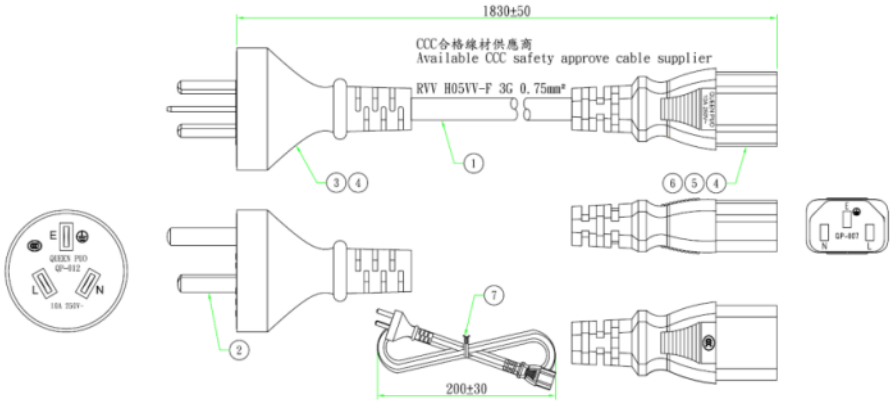


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064APOWERBSL (JP version)



064APOWERBR4-IPD (CN version)



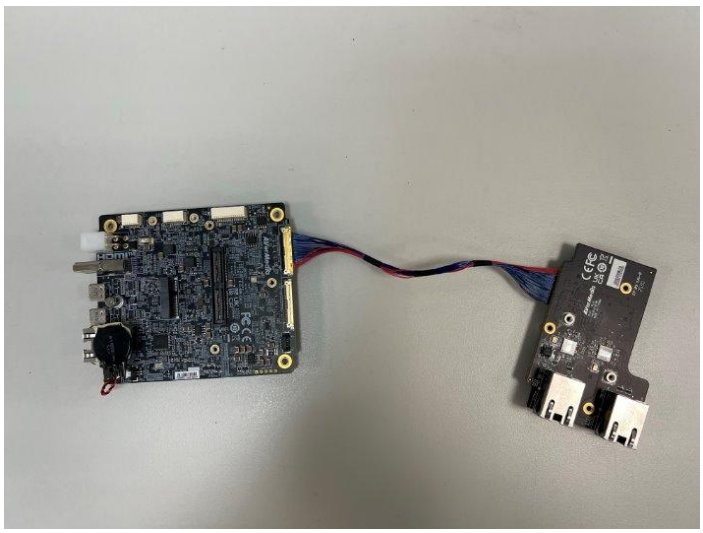
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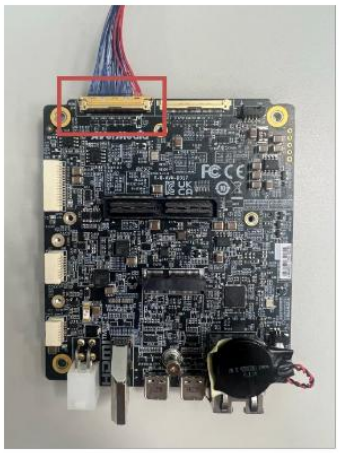
8. D317 (AGX Orin) and Daughter Board Connection Methods

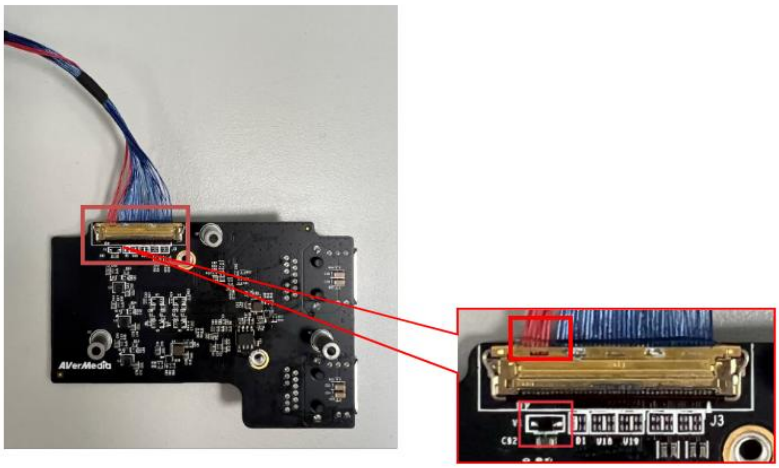
8.1 D317 + 10G Board

Please refer to [10G Board | AVerMedia]

Connect 10G Board with J74: Input Power – 4.2mm Pitch 90° ATX Power 4P



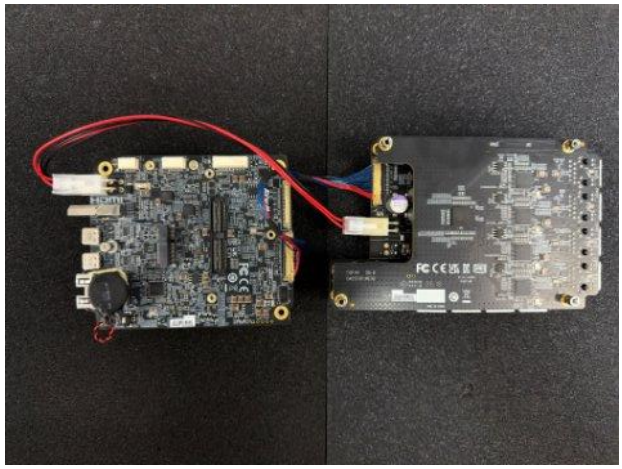




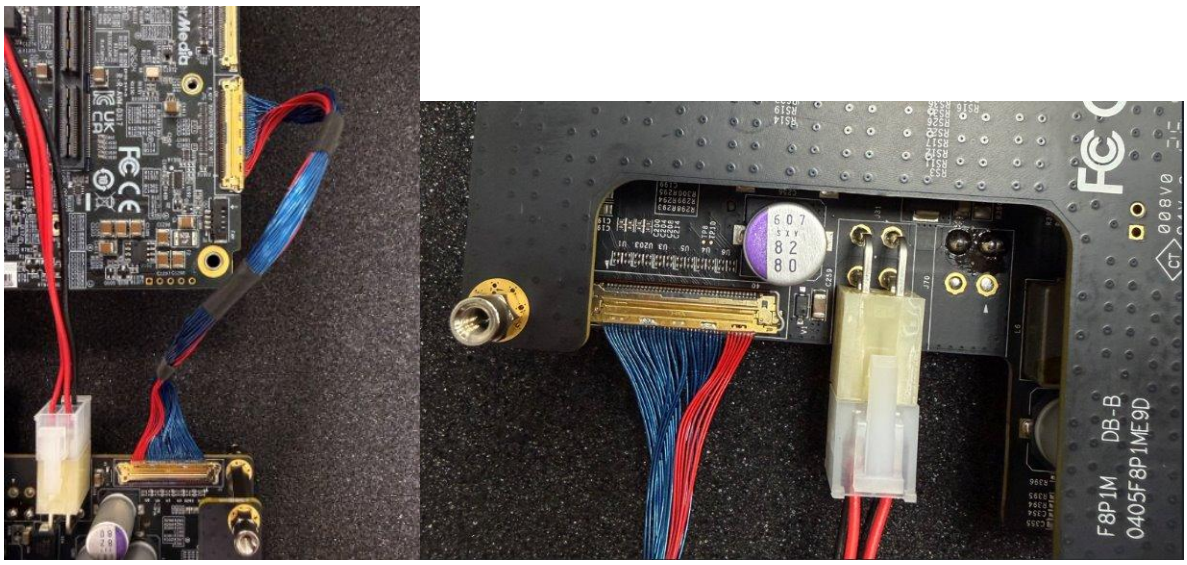
8.2 D317 + 8x PoE F8P1M board (PSE)

Please refer to [8x PoE Board | AVerMedia]

Connect 8x PoE board with J31: Input Power – 4.2mm Pitch 90° ATX Power 4P & J74: Input Power – 4.2mm Pitch 90° ATX Power 4P



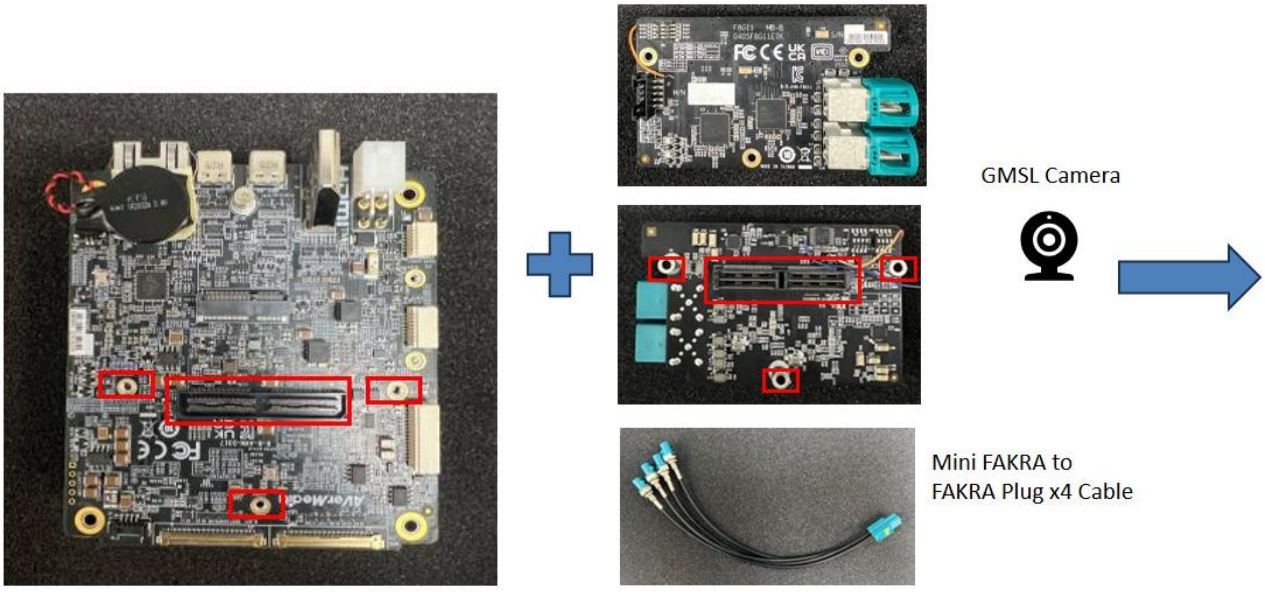
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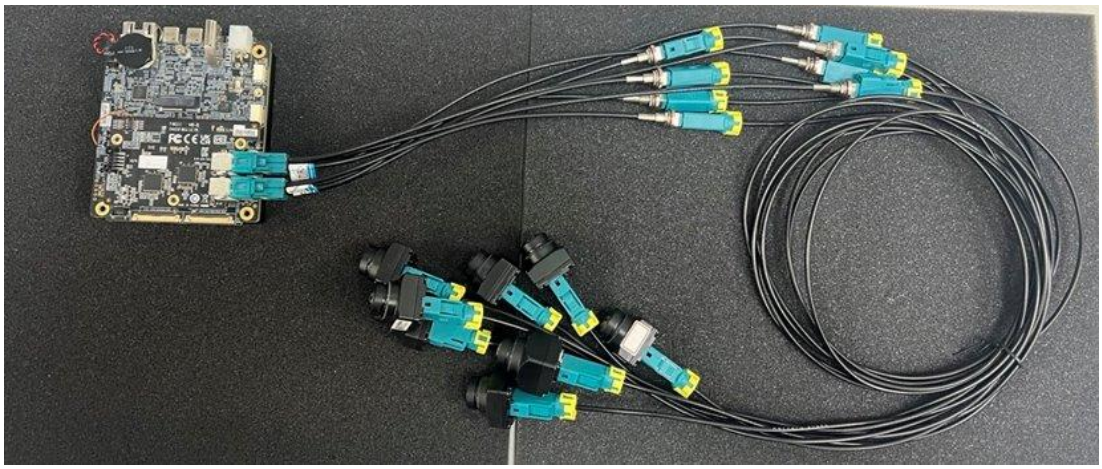


8.3 D317 + GMSL Board

Please refer to [GMSL Board | AVerMedia]

Connect GMSL board with J60: 120-pin high speed board to board connector (to Camera board)



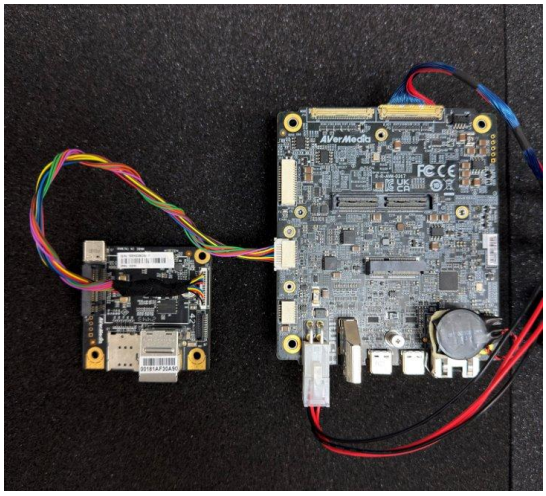


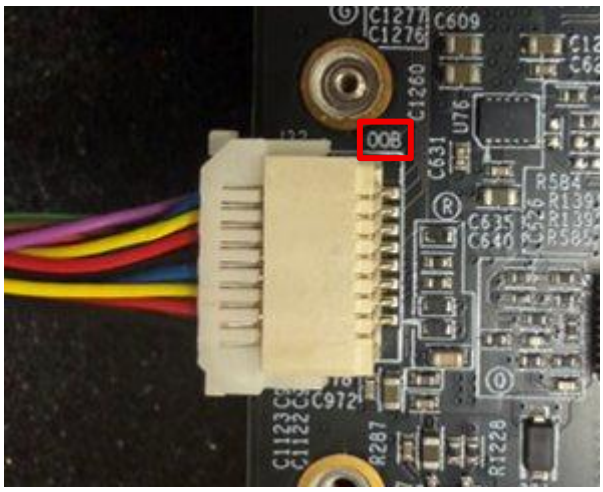
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8.4 D317 + ERMI Module (OOB)

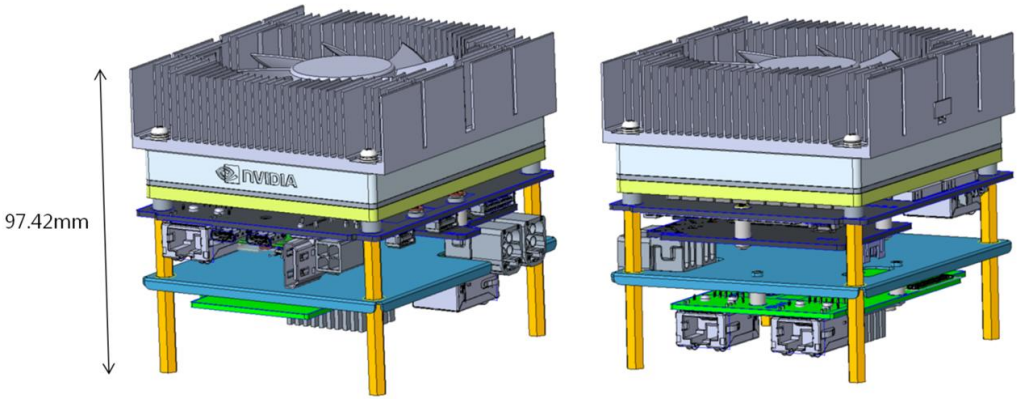
Please refer to [ERMI Module | AVerMedia]

Connect GMSL board with J32: 16-pin OOB or External Button



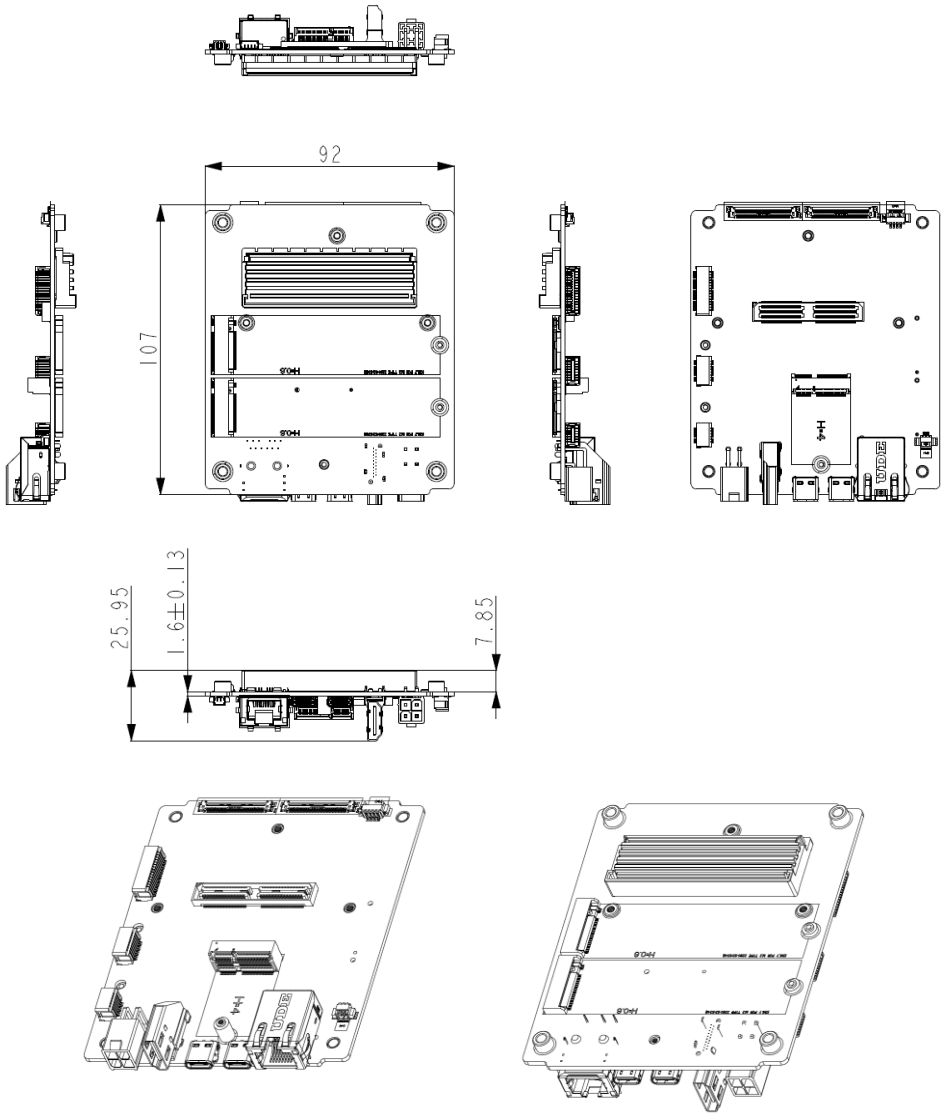


8.5 D317 + SOM + fan module + 10G board + GMSL board



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9. D317AO (2D Drawing)



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