
reComputer Super User Manual



Introduction

The reComputer Super Series is a compact yet powerful edge AI computer powered by Jetson Orin, delivering up to 157 TOPS with 1.7× higher AI performance than its predecessor. Built for development and production, it features M.2 Key E/M, dual RJ45, Mini-PCIe, 4×USB 3.2, HDMI 2.1, 4×CSI, and CAN, ensuring seamless integration. Pre-installed with JetPack and Linux BSP, it enables seamless deployment.

Supporting LLM & Physical AI frameworks like NVIDIA Isaac, Hugging Face, PyTorch, and ROS2/1, it bridges AI and robotics. With optimized real-time processing, it runs vision AI, transformers, and multimodal models, unlocking advanced AI for edge devices.

Feature

- **Rich Interfaces for Production**

Equipped with M.2 Key M/E, Mini PCIe, 4x USB 3.2, 4x CSI, 2x 1Gbps Ethernet, CAN

- **MAXN Mode to Boost Your Application**

Delivered 34-157 TOPS AI performance, operating temperature from -20℃ to 60℃ at MAXN mode

- **Immediately Go-to-Market**

Pre-installed JetPack on-device, support Super MAXN mode, Linux OS BSP ready

Part list

- Jetson Orin™ NX 16GB/NX 8GB /Nano 8GB/Nano 4GB module x1
- Seeed Carrier Board (reComputer Super J401) x1
- 128GB NVMe SSD x1
- Aluminum Case and Heatsink with Fan x1
- USB Cable; Type A to Type C x1
- User Manual x1

Document History

Version	Date	Editor	Description
V1.0	2025/05/10	Chen Feijun	Initial version

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Chapter 1. Introduction

The user manual contains recommendations, guideline and data sheet for engineers and developers to follow to create modules for the expansion connectors on the reComputer Super J401 carrier board. As well as understand the capabilities of the other dedicated interface connectors and associated power solutions on the platforms.

The reComputer Super J401 carrier board is ideal for software development within the Linux environment, enabling a highly flexible and extensible development platform. Go to [reComputer Super | Seeed Studio Wiki](#) for access to software updates and the developer SDK supporting the OS image and host development platform that you want to use. The developer SDK includes an OS image that you will load onto your Jetson Orin Nano/NX device, supporting documentation, and application demonstration to help you get started. The reComputer Super J401 carrier board supports all the Jetson Orin Nano Series and Jetson Orin NX Series module.

SKU	Product Name	Module
114110311	reComputer Super J3010	Orin Nano 4G
114110312	reComputer Super J3011	Orin Nano 8G
114110313	reComputer Super J4011	Orin NX 8G
114110314	reComputer Super J4012	Orin NX 16G

1.1 Jetson Orin Nano Module Feature List

Table 1. Jetson Orin Nano Module Feature List

	reComputer Super J3010	reComputer Super J3011
Applications Processor(AP)	NVIDIA Orin™ Nano 4GB	NVIDIA Orin™ Nano 8GB
AI Performance	Orin Nano 4GB – 34 TOPS(MAXN/Super)	Orin Nano 8GB – 67 TOPS(MAXN/Super)
GPU	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores
GPU Max Frequency	1020 MHz (MAXN/SUPER)	
CPU	6-core Arm® Cortex®-A78AE	
CPU Max Frequency	1.7 GHz (MAXN_SUPER)	
Memory	4GB 64-bit wide LPDDR5 DRAM(up to 34GB/s; 51 GB/s	8GB 128-bit wide LPDDR5 DRAM(up to 68GB/s; 102 GB/s

	MAXN_SUPER)	MAXN_SUPER)
Power	7W - 10W - 25W	7W - 15W - 25W
Video Encode	1080p30 supported by 1-2 CPU cores	
Video Decode	1x 4K60 (H.265) 2x 4K30 (H.265) 5x 1080p60 (H.265) 11x 1080p30 (H.265)	
CSI camera	Up to 4 cameras (8 via virtual channels***) 8 lanes MIPI CSI-2 D-PHY 2.1 (up to 20Gbps)	
Mechanical	69.6mm x 45mm 260-pin SO-DIMM connector	

1.2 Jetson Orin NX Module Feature List

Table 2. Jetson Orin NX Module Feature List

	reComputer Super J4011	reComputer Super J4012
Applications Processor(AP)	NVIDIA Orin™ NX 8GB	NVIDIA Orin™ NX 16GB
AI Performance	Orin NX 8GB – 117 TOPS(MAXN/Super)	Orin NX 16GB – 157 TOPS(MAXN/Super)
GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
GPU Max Frequency	1173 MHz	
CPU	6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
CPU Max Frequency	2.0 GHz	
DL Accelerator	1 x NVDLA v2.0	2 x NVDLA v2.0
DL Max Frequency	1.23 GHz	
Vision Accelerator	1 x PVA v2.0	
Memory	8GB 128-bit wide LPDDR5 DRAM 102.4 GB/s	16GB 128-bit wide LPDDR5 DRAM 102.4GB/s
Power	10W - 15W - 25W - 40W	10W - 15W - 25W -40W
Video Encode	1x 4K60 (H.265) 3x 4K30 (H.265) 6x 1080p60 (H.265) 12x 1080p30 (H.265)	

Video Decode	1x 8K30 (H.265) 2x 4K60 (H.265) 4x 4K30 (H.265) 9x 1080p60 (H.265) 18x 1080p30 (H.265)
CSI camera	Up to 4 cameras (8 via virtual channels***) 8 lanes MIPI CSI-2 D-PHY 2.1 (up to 20Gbps)
Mechanical	69.6mm x 45mm 260-pin SO-DIMM connector

1.3 Specification

Table 3. reComputer Super Carrier Board Specification

Carrier Board		
Storage	1x M.2 KEY M PCIe (M.2 NVMe 2280 SSD 128G included)	
Networking	M.2 KEY E	1x M.2 Key E for Wi-Fi/Bluetooth module
	Mini PCIe	1x mini-PCIe for LTE 4G module
	Ethernet	2x RJ45 Gigabit Ethernet
I/O	USB	4x USB 3.2 Type-A (5Gbps); 1x USB 2.0 Type-C (Device Mode/Debug);
	Camera	4x mipi CSI(2-lane 15-Pin)
	CAN	1 x CAN(4-Pin Header)
	Display	1x HDMI 2.1
	Fan	1x 4-Pin 1.25mm Fan Connector (5V PWM) 1x 4-Pin 2.54mm Fan Connector (12V PWM)
	Extension Port	1x 40-Pin extension header 1x 12-Pin control and UART header
	RTC	1x RTC 2-pin 1x RTC Socket
	LED	2x LED(PWR and ACT)
	Button	1x PWR 1x RESET
	Switch	1x REC
	Antenna hole	4x Antenna Hole
Power	12-19V 5525 Barrel DC Jack	
Jetpack Version	Jetpack 6	
Mechanical	Dimensions (W x D x H)	130mm x 120mm x 66mm
	Weight	1110g

	Installation	Desk, Wall-mounting
Operating Temperature	-20°C~65°C(25W Mode) -20°C~60°C(40W Mode)	
Warranty	2 Years	
Certification	RoHS, REACH, CE, FCC, UKCA, TELEC, KC, Vibration Test(GB/T 2423)	

1.4 reComputer Super J401 Carrier Board Block Diagram

Figure 1. reComputer Super J401 Carrier Board Block Diagram

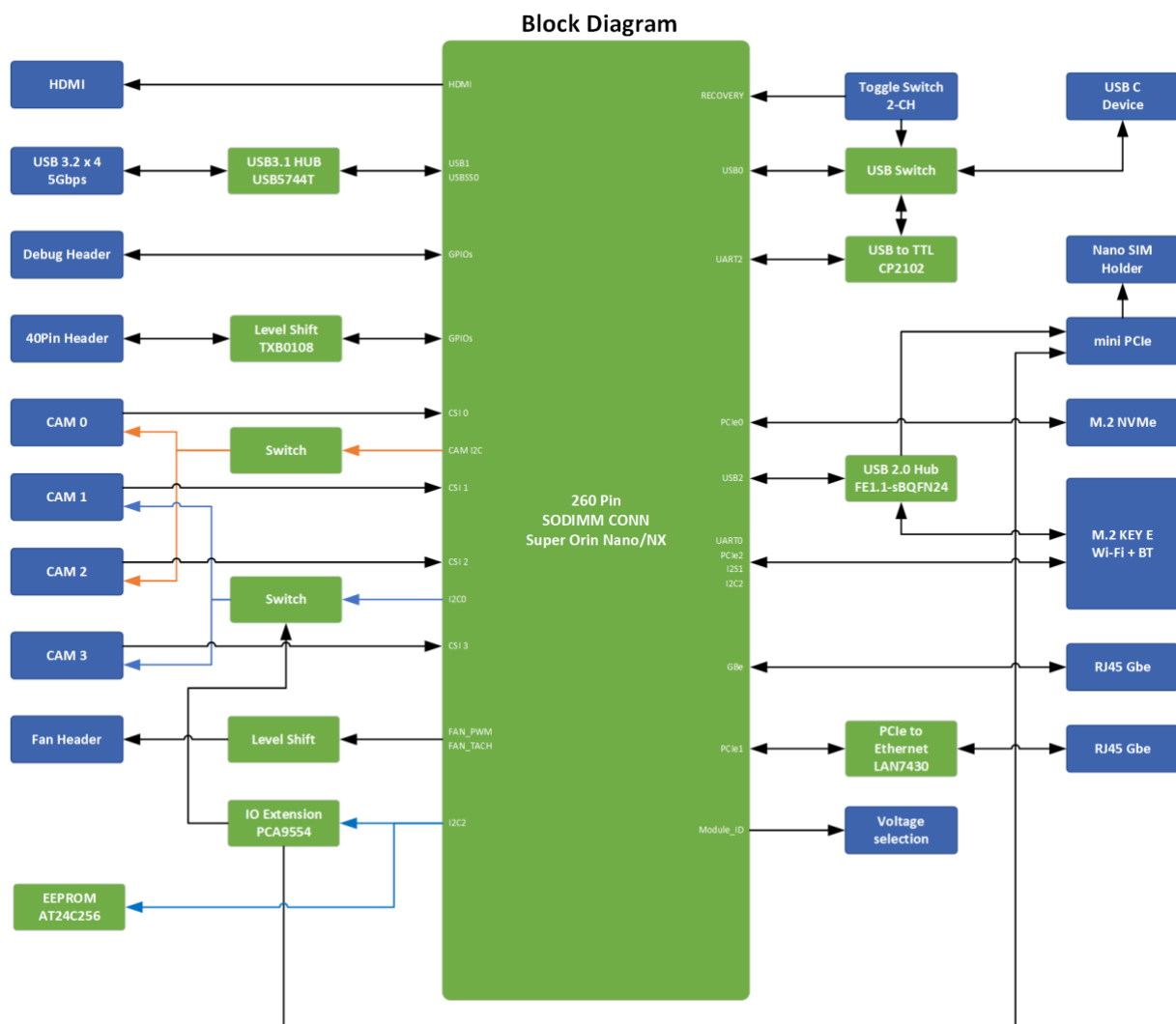


Figure 2. reComputer Super J401 Carrier Board Placement-Top View

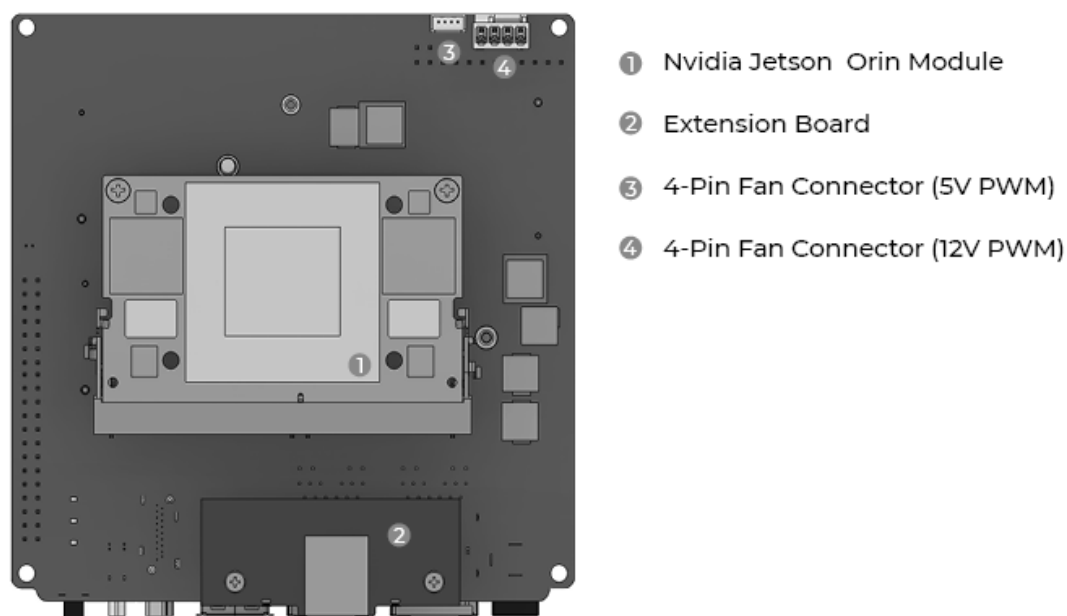


Figure 3. reComputer Super J401 Carrier Board Placement-Bottom View

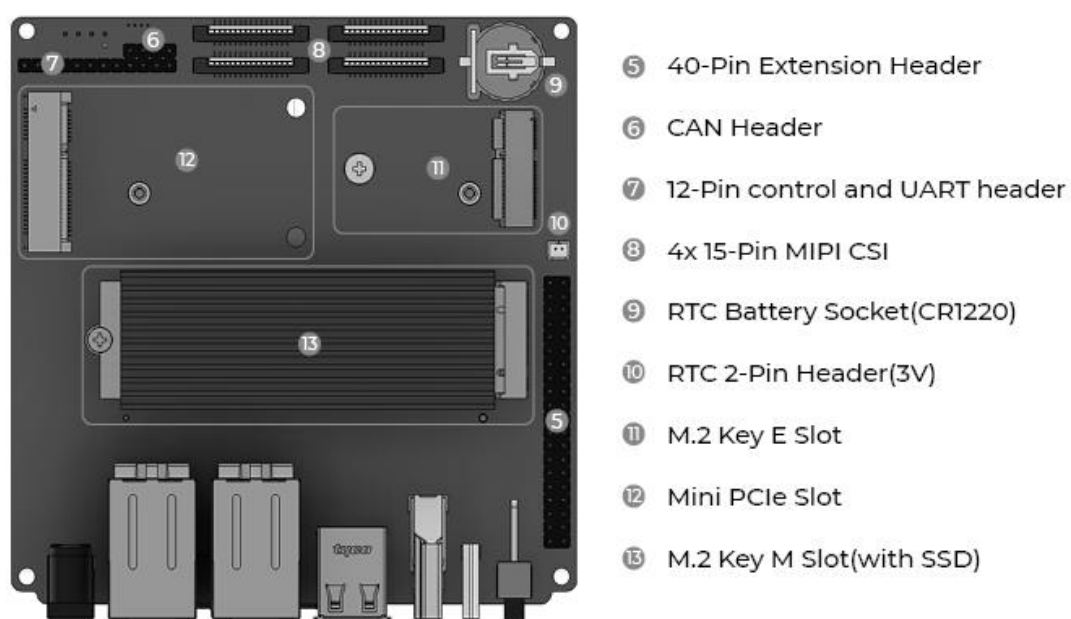


Figure 4. reComputer Super J401 Device Placement-Front View



- | | | |
|------------------|---------------------|-------------------------|
| ① DIP Switch | ④ 4x Type A USB 3.2 | ⑦ SIM Card Slot |
| ② Type C USB 2.0 | ⑤ 2x Pinhole Button | ⑧ 2x RJ45 Ethernet Port |
| ③ HDMI 2.1 | ⑥ 2x LED Indicator | ⑨ Barrel DC Jack 5525 |

Chapter 2. Carrier Board Interfaces

Table 4. Interfaces List

Port type	Port Name	Layout Number
USB Type-C Ports	USB 2.0 Type-C	J1
2 x USB Type-A	USB 3.2 Type-A	J4
Switch	REC & Debug	SW3
HDMI	Display	J5
USB3.2/RJ45	USB3.2 & 1000M ETH0	J3
USB3.2/RJ45	USB3.2 & 1000M ETH1	J8
Barrel DC Jack	DC12-19V	J2
40-Pin Expansion Header	40-Pin	J10
M.2 Key M slot	M.2 Key M(NVMe)	J18
M.2 Key E slot	M.2 Key E	J20
Mini PCIe Slot	Mini PCIe	J26
RTC Socket	RTC 3V	J19
RTC 2-Pin header	RTC 3V	J14
4 x 15-Pin mipi CSI	CAM0	J12
	CAM1	J9
	CAM2	J24
	CAM3	J23
4-Pin CAN header	CAN	J15
12-Pin control and UART header	12-Pin expansion header	J22
5V Fan 4-Pin JST 1.25mm	5V Fan	J13
12V Fan 4-Pin SH 2.56mm	12V Fan	J6
260-pin SO-DIMM connector	Module Connector	J11
Expansion board header	SIM card expansion board header	J21

Legend	Ground	Power	Reserved
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2.1 USB Ports

The carrier board supports several USB Connectors. There are 4x USB 3.2 Type A connectors with 5Gbps speed for Host mode only. And 1x USB 2.0 Type-C Connector supports Debug and Device Mode (including USB Force Recovery) switched by a REC switch.

Table 5. USB List

Carrier Board			
1 x	USB 2.0 Type-C	Device Mode/Debug	J1
2 x	USB 3.2 Type-A	Host Mode	J4
1 x	USB 3.2 Type-A	Host Mode	J3
1 x	USB 3.2 Type-A	Host Mode	J8

Table 6. USB 2.0 Type C Connector Pin Description - J1

Pin #	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir
A4/B9 A9/B4	GPI000 (USB_VUSB_EN0)	87	USB0_VBUS_DET*	VBUS Supply	Power
A5	-	-	DAT_CC1	-	-
B5	-	-	DAT_CC2	-	-
A7 B7	USB1_D_N	115	USB1_AP_N	Orin Module USB1 2.0	Bidir
A6 B6	USB1_D_P	117	USB1_AP_P	Data/Debug UART2	
A8	-	-	-	-	-
B8	-	-	-	-	-
A1/B12 A12/B1	-	-	-	Ground	Ground
Note:					
In the Type/Dir column, Output is to USB connectors. Input is from USB connectors. Bidir is for bidirectional signals.					

Table 7. USB 3.2 Type A Connector Pin Description - J4

Pin #	Module Name	Pin	Module Pin #	Net Name2	Usage/Description	Type/Dir
USB 3.2 Type A (2)						
1	-	-	-	-	VBUS Supply1	Power
2	USB1_D_N	115	HUB_HSD4_	USB 2.0 #4		Bidir

			N	Data from Hub	
3	USB1_D_P	117	HUB_HSD4_P		
4	-	-		Ground	Ground
5	USBSS_RX_N	161	HUB_SSRX4_N	USB3.2 Receive #4 Data from Hub	Input
6	USBSS_RX_P	163	HUB_SSRX4_P		
7	-	-	-	Ground	Ground
8	USBSS_TX_N	166	HUB_SSTX4_N	USB3.2 Transmit #4 Data from Hub	Output
9	USBSS_RX_P	168	HUB_SSTX4_P		
USB 3.2 Type A (1)					
10	-	-	-	VBUS Supply1	Power
11	USB1_D_N	115	HUB_HSD4_N	USB 2.0 #4 Data from Hub	Bidir
12	USB1_D_P	117	HUB_HSD4_P		
13	-	-		Ground	Ground
14	USBSS_RX_N	161	HUB_SSRX4_N	USB3.2 Receive #4 Data from Hub	Input
15	USBSS_RX_P	163	HUB_SSRX4_P		
16	-	-	-	Ground	Ground
17	USBSS_TX_N	166	HUB_SSTX4_N	USB3.2 Transmit #4 Data from Hub	Output
18	USBSS_RX_P	168	HUB_SSTX4_P		
Note: 1.The Type A is 5Gbps for all USB ports, and only supports USB Host, not Device mode. 2.The upper and lower USB ports share a current-limiting IC, with a total power supply capacity of 2.1A maximum output current(single can also be 2.1A). If over 2.4A, it will enter the over-current protection state. 3.The ports are hot-swappable					

Table 8. USB 3.2 Type A Connector Pin Description - J3/J8

Pin #	Module Name	Pin	Module Pin #	Net Name2	Usage/Description	Type/Dir
USB 3.2 Type A (2)						
U1	-	-	-	-	VBUS Supply1	Power

U2	USB1_D_N	115	HUB_HSD4_N	USB 2.0 #4 Data from Hub	Bidir
U3	USB1_D_P	117	HUB_HSD4_P		
U4	-	-		Ground	Ground
U5	USBSS_RX_N	161	HUB_SSRX4_N	USB3.2 Receive #4 Data from Hub	Input
U6	USBSS_RX_P	163	HUB_SSRX4_P		
U7	-	-	-	Ground	Ground
U8	USBSS_TX_N	166	HUB_SSTX4_N	USB3.2 Transmit #4 Data from Hub	Output
U9	USBSS_TX_P	168	HUB_SSTX4_P		

2.2 Switch and Type C USB 2.0

Table 9. Switch Function List

Mode	REC Switch	Operation Description	Status
Recovery Mode	ON	power on device after turning on REC button	Device will enter force recovery mode. Can flash the device via Type C USB 2.0 port.
Debug Mode	OFF	power on device before turning off REC button	The Type C USB 2.0 port will enter device mode. Can read the device log from this port
Configure Mode	OFF	After flashing OS, power on device after turning off REC button	Wait about 10s after power on, will enter to configuration page.

● Recovery Mode

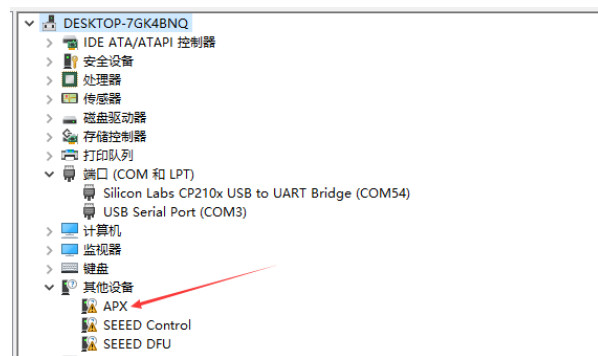
Host computer: Linux system

Once enter the recovery mode, the device will be recognized as USB device, named 0955:xxxx NVIDIA Corp. APX.

```
seeed@seeed-Default:~/mfi_recomputer-orin-j401-orin-nano4g$ lsusb
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 001 Device 005: ID 8087:0aaa Intel Corp. Bluetooth 9460/9560 Jefferson Peak (JfP)
Bus 001 Device 004: ID 04e2:1414 Exar Corp.
Bus 001 Device 003: ID 0bda:0129 Realtek Semiconductor Corp. RTS5129 Card Reader Controller
Bus 001 Device 008: ID 0955:7628 NVIDIA Corp. APX
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```

Host computer: Windows system

Once enter the recovery mode, the device will be recognized as Serial device, named APX.



● Debug Mode

Connect the device to Host Computer while turn off the REC button, the reComputer Super will enter debug mode.

Open a serial debugging tool, select the corresponding serial port and set the baudrate as 115200. Debug log will be printed.

2.3 Gigabit Ethernet

There are 2 RJ45 Gigabit Ethernet on carrier board supported 10/100/1000M. ETH0 is the native Ethernet port, and the other one ETH1 is converted from PCIe.

Name	Type	Speeds	Layout Number
ETH0	Jetson native Gigabit Ethernet	10/100/1000 Mbit/s	J3
ETH1	Converted from PCIe	10/100/1000 Mbit/s	J8

Table 10. Ethernet RJ45 Connector Pin Description - J3

Pin #	Module Name	Pin #	Module Pin #	Net Name	Usage/Description	Type/Dir
11	GBE_MDIO_P	186		GBE_MDIO_P	Gigabit Ethernet MDI 0+	Bidir
10	GBE_MDIO_N	184		GBE_MDIO_N	Gigabit Ethernet MDI 0-	Bidir
3	GBE_MDII_P	192		GBE_MDII_P	Gigabit Ethernet MDI 1+	Bidir
12	-	-	-	-	MCT	-
6	-	-	-	-	MCT	-
1					MCT	
7					MCT	
4	GBE_MDII_N	190		GBE_MDII_N	Gigabit Ethernet MDI 1-	Bidir
3	GBE_MDI2_P	198		GBE_MDI2_P	Gigabit Ethernet MDI 2+	Bidir
2	GBE_MDI2_N	196		GBE_MDI2_N	Gigabit Ethernet MDI 2-	Bidir
8	GBE_MDI3_P	204		GBE_MDI3_P	Gigabit Ethernet MDI 3+	Bidir
9	GBE_MDI3_N	202		GBE_MDI3_N	Gigabit Ethernet MDI 3-	Bidir
16	-	-	-	-	Green LED Anode	Input
15	GBE_LED_LINK	188		GBE_LED_LINK	Green LED Cathode. On for 1000Mbps link. Off for 10/100Mbps.	Output
14					Yellow LED Anode	Input
13	GBE_LED_ACT	194		GBE_LED_ACT	Yellow LED Cathode. On indicates activity	Output
19	-	-	-	-	Shield Ground	Ground
20						

Note:

1. Gigabit Ethernet (10/100/1000M)

2. Normal working condition: Green LED: always on, Yellow LED: flashing

Table 11. Ethernet RJ45 Connector Pin Description - J8

Pin #	Module Name	Pin #	Module Pin #	Net Name	Usage/Description	Type/Dir
11	ETH_MDII_P			ETH_MDII_P	Gigabit Ethernet MDI 0+	Bidir

10	ETH_MD1_N		ETH_MD1_N	Gigabit Ethernet MDI 0-	Bidir
3	ETH_MD2_P		ETH_MD2_P	Gigabit Ethernet MDI 1+	Bidir
12	-	-	-	MCT	-
6	-	-	-	MCT	-
1				MCT	
7				MCT	
4	ETH_MD2_N		ETH_MD2_N	Gigabit Ethernet MDI 1-	Bidir
3	ETH_MD3_P		ETH_MD3_P	Gigabit Ethernet MDI 2+	Bidir
2	ETH_MD3_N		ETH_MD3_N	Gigabit Ethernet MDI 2-	Bidir
8	ETH_MD4_P		ETH_MD4_P	Gigabit Ethernet MDI 3+	Bidir
9	ETH_MD4_N		ETH_MD4_N	Gigabit Ethernet MDI 3-	Bidir
16	-	-	-	Green LED Anode	Input
15	GBE_LED_LINK		GBE_LED_LINK	Green LED Cathode. On for 1000Mbps link. Off for 10/100Mbps.	Output
14				Yellow LED Anode	Input
13	GBE_LED_ACT		GBE_LED_ACT	Yellow LED Cathode. On indicates activity	Output
19	-	-	-	Shield Ground	Ground
20					

Note:

1. Gigabit Ethernet (10/100/1000M)
2. This network port is connected to the PCIe-to-Ethernet chip which is not built into the Orin module.
3. Normal working condition: Green LED: always on, Yellow LED: flashing

2.4 Display Port-HDMI 2.1

The reComputer Super features a native HDMI interface from Jetson, supporting up to 4K @ 60 fps video output.

Table 12. HDMI Connector Pin Description - J5

Pin #	Module Name	Module Pin #	Net Name	Usage/Description	Type/Dir
1	DPI_TXD0_P	65	HDMI_TXD2_P	HDMI Transmit Data 2+	Output
2	-	-		Ground	Ground
3	DPI_TXD0_N	63	HDMI_TXD2_N	HDMI Transmit Data 2-	Output
4	DPI_TXD1_P	71	HDMI_TXD1_P	HDMI Transmit Data 1+	Output
5	-	-		Ground	Ground
6	DPI_TXD1_N	69	HDMI_TXD1_N	HDMI Transmit Data 1-	Output
7	DPI_TXD2_P	77	HDMI_TXD0_P	HDMI Transmit Data 0+	Output
8	-	-		Ground	Ground
9	DPI_TXD2_N	75	HDMI_TXD0_N	HDMI Transmit Data 0-	Output
10	DPI_TXD3_P	83	HDMI_TXC_P	HDMI Transmit Clock+	Output
11	-	-		Ground	Ground
12	DPI_TXD3_N	81	HDMI_TXC_N	HDMI Transmit Clock-	Output
13	HDMI_CEC	94	HDMI_CEC	HDMI CEC	Bidir
14	-	-		Unused	Unused
15	DPI_AUX_P	100	HDMI_DDC_SCL	HDMI DDC Clock	Output /OD
16	DPI_AUX_N	98	HDMI_DDC_SDA	HDMI DDC Data	Bidir/OD
17	-	-		Ground	Ground
18	-	-		HDMI 5V Power	Power
19	DPI_HPD	96	HDMI_HPD	HDMI Hot Plug Detect	Input
Note: 1.HDMI 2.1 2.Hot-swappable 3.Can be connected to 4K resolution HDMI display					

2.5 M.2 Key M slot

Table 13. M.2 Key M slot Pin Description - J21

Pin #	Module Name	Pin	Module Pin #	Usage/Description	Type/Dir Default
1	-	-	-	Ground	Ground
3	-	-	-	Ground	Ground
5	PCIE0_RX3_N	155	155	PCIe IF #0 Lane 3 Receive	Input
7	PCIE0_RX3_P	157	157		
9	-	-	-	Ground	Ground
11	PCIE0_TX3_N	154	154	PCIe IF #0 Lane 3 Transmit	Output
13	PCIE0_TX3_P	156	156		
15	-	-	-	Ground	Ground
17	PCIE0_RX2_N	149	149	PCIe IF #0 Lane 2 Receive	Input
19	PCIE0_RX2_P	151	151		
21	-	-	-	Ground	Ground
23	PCIE0_TX2_N	148	148	PCIe IF #0 Lane 2 Transmit	Output
25	PCIE0_TX2_P	150	150		
27	-	-	-	Ground	Ground
29	PCIE0_RX1_N	137	137	PCIe IF #0 Lane 1 Receive	Input
31	PCIE0_RX1_P	139	139		
33	-	-	-	Ground	Ground
35	PCIE0_TX1_N	140	140	PCIe IF #0 Lane 1 Transmit	Output
37	PCIE0_TX1_P	142	142		
39	-	-	-	Ground	Ground
41	PCIE0_RX0_N	131	131	PCIe IF #0 Lane 0 Receive	Input
43	PCIE0_RX0_P	133	133		
45	-	-	-	Ground	Ground
47	PCIE0_TX0_N	134	134	PCIe IF #0 Lane 0 Transmit	Output
49	PCIE0_TX0_P	136	136		
51	-	-	-	Ground	Ground
53	PCIE0_CLK_N	160	160	PCIe IF #0 Reference Clock	Output
55	PCIE0_CLK_P	162	162		
57	-	-	-	Ground	Ground
59	-	-	-	Unused (Key)	Unused
61					
63					
65					
67	-	-	-	Unused	Unused
69					
71	-	-	-	Ground	Ground
73	-	-	-	Ground	Ground

Pin #	Module Name	Pin	Module Pin #	Usage/Description	Type/Dir Default
2	-	-	-	Main 3.3V Supply	Power
4	-	-	-	Main 3.3V Supply	Power
6	-	-	-	Unused	Unused
8	-	-	-	Unused	Unused
10	-	-	-	Unused	Unused
12	-	-	-	Main 3.3V Supply	Power
14	-	-	-	Main 3.3V Supply	Power
16	-	-	-	Main 3.3V Supply	Power
18	-	-	-	Main 3.3V Supply	Power
20	-	-	-	Unused	Unused
22	-	-	-	Unused	Unused
24	-	-	-	Unused	Unused
26	-	-	-	Unused	Unused
28	-	-	-	Unused	Unused
30	-	-	-	Unused	Unused
32	-	-	-	Unused	Unused
34	-	-	-	Unused	Unused
36	-	-	-	Unused	Unused
38	-	-	-	Unused	Unused
40	I2C2_SCL	232	232	General I2C #2 (optional)	Bidir/OD, 1.8V
42	I2C2_SDA	234	234	General I2C #2 (optional)	Bidir/OD, 1.8V
44	SDMMC_DAT1	221	221	M.2 Key M Alert	Output, 1.8V
46	-	-	-	Unused	Unused
48	-	-	-	Unused	Unused
50	PCIE0_RST*	181	181	PCIe IF #0 Reset	Output, 3.3V
52	PCIE0_CLKREQ*	180	180	PCIe IF #0 Clock Request	Input, 3.3V
54	PCIE_WAKE*	179	179	PCIe Wake (Level Shifted from 3.3V to 1.8V)	Input, 3.3V
56	-	-	-	Unused	Unused
58	-	-	-	Unused	Unused
60	-	-	-	Unused (Key)	Unused (Key)
62	-	-	-	Unused (Key)	Unused (Key)
64	-	-	-	Unused (Key)	Unused (Key)
66	-	-	-	Unused (Key)	Unused (Key)
68	-	-	-	32KHz Suspend Clock	Output, 3.3V
70	-	-	-	Main 3.3V Supply	Power
72	-	-	-	Main 3.3V Supply	Power
74	-	-	-	Main 3.3V Supply	Power

Note:

For NVMe SSD, 2280.

Support PCIe Gen4.0.

2.6 M.2 Key E slot

Figure 5. Pinout of M.2 Key E slot

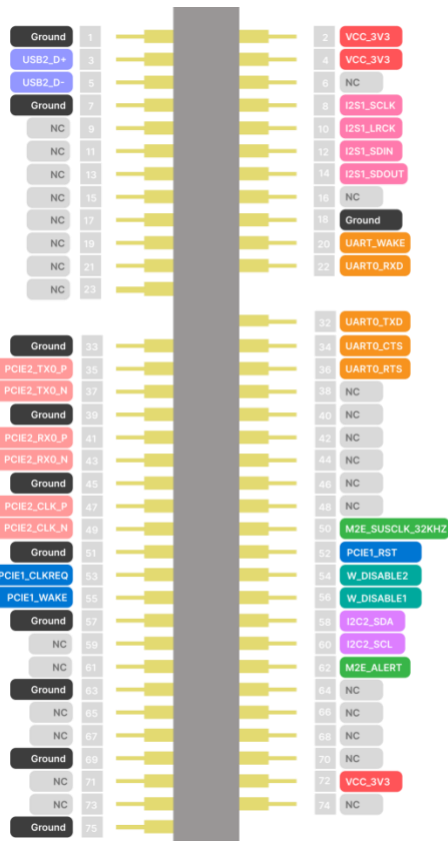


Table 14. M.2 Key E slot Pin Description - J20

Pin #	Module Pin Name	Module Pin #	Usage/Description	Type/Dir
1	Ground	-	Ground	Ground
3	USB2_D+	123	USB 2.0 Data	Bidir
5	USB2_D-	121		
7	Ground	-	Ground	Ground
9	-	-	Unused	Unused
11				
13				
15				
17				
19				
21				
23				
33	Ground	-	Ground	Ground
35	PCI2_TX0_P	174	PCIe #2 Transmit Lane0	Output
37	PCI2_TX0_N	172		
39	Ground	-	Ground	Ground

41	PCIE2_RX0_N	169	PCIe #2 Receive Lane0	Input
43	PCIE2_RX0_P	167		
45	Ground	-	Ground	Ground
47	PCIE2_CLK_N	175	PCIe #2 Reference clock	Output
49	PCIE2_CLK_P	173		
51	Ground	-	Ground	Ground
53	PCIE2_CLKREQ*	182	PCIe #2 Clock Request	Bidir, 3.3V
55	PCIE_WAKE*	179	PCIe Wake	Input, 3.3V
57	Ground	-	Ground	Ground
59	-	-	Unused	Unused
61				
63	Ground	-	Ground	Ground
65	-	-	Unused	Unused
67				
69	Ground	-	Ground	Ground
71	-	-	Unused	Unused
73				
75	Ground	-	Ground	Ground

Pin #	Module Pin Name	Module Pin #	Usage/Description	Type/Dir
2	VDD_3V3	-	Main 3.3V Supply	Power
4				
6	-	-	Unused	Unused
8	I2S1_SCLK	226	I2S #1 Clock	Bidir, 1.8V
10	I2S1_LRCK	224	I2S #1 Left/Right Clock	Bidir, 1.8V
12	I2S1_SDIN	222	I2S #1 Data In	Input, 1.8V
14	I2S1_SDOUT	220	I2S #1 Data Out	Output, 1.8V
16	-	-	Unused	Unused
18	-	-	Ground	Ground
20	UART_WAKE	124	Bluetooth #2 Wake AP	Input, 3.3V
22	UART0_RXD	101	UART #0 Receive	Input, 1.8V
32	UART0_TXD	99	UART #0 Transmit	Output, 1.8V
34	UART0_CTS*	105	UART #0 Clear to Send	Input, 1.8V
36	UART0_RTS*	103	UART #0 Request to Send	Output, 1.8V
38	-	-	Unused	Unused
40				
42				
44				
46				
48				
50	M2E_SUSCLK_32K HZ	210	Suspend Clock(32KHz)	Output, 3.3V

52	PCI_E1_RST*	183	PCIe #0 Reset	Output, 3.3V
54	W_DISABLE2			
56	W_DISABLE1			
58	I2C2_SDA	234	General I2C #2(optional)	Bidir/OD, 1.8V
60	I2C2_SCL	232		
62	M2E_ALERT	212	M.2 Key E Connector Alert	Input, 1.8V
64	-	-	Unused	Unused
66				
68				
70				
72	VDD_3V3	-	Main 3.3V Supply	Power
74				

Note:
Support Wi-Fi/Bluetooth module

2.7 Mini PCIe

Figure 6. Pinout of Mini PCIe slot

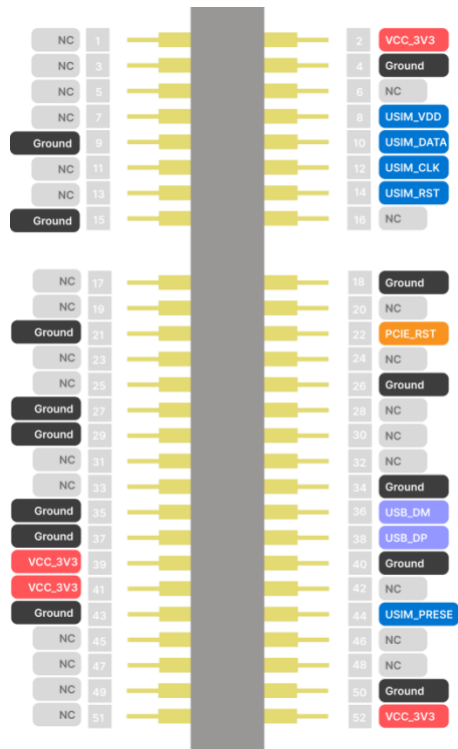


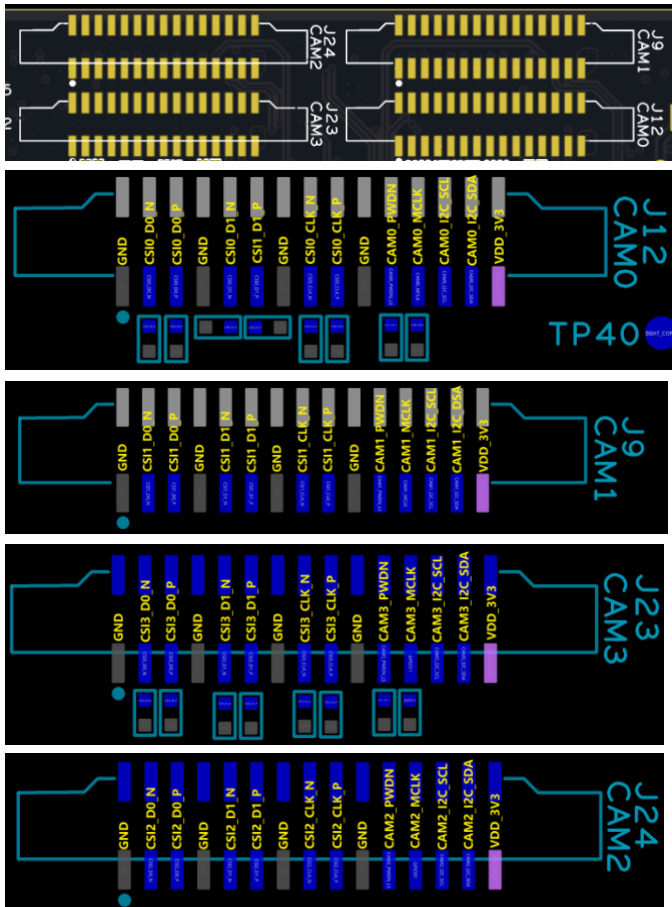
Table 15. Mini PCIe slot Pin Description - J4

Pin#	Module Pin Name	Module Pin #	Usage/Description	Type/Dir Default
1				
2	VCC_3.3V	—	Main 3.3v Supply	Power
3	—	—		
4	Ground	—	Ground	Ground
5	—	—		
6	—	—		
7	—	—		
8	USIM_VDD	—	SIM_PWR	
9	Ground	—	Ground	Ground
10	USIM_DATA	—	SIM_DATA	
11	—	—		
12	USIM_CLK	—	SIM_CLK	
13	—	—		
14	USIM_RST	—	SIM_RST	
15	Ground	—	Ground	Ground
16	—	—		
17	—	—		
18	Ground	—	Ground	Ground
19	—	—		

20	—	—		
21	Ground	—	Ground	Ground
22	PCIE_RST	218	PCIE_RST	Input,3.3v,Default Low,Active High
23	—	—		
24	—	—		
25	—	—		
26	Ground	—	Ground	Ground
27	Ground	—	Ground	Ground
28	—	—		
29	Ground	—	Ground	Ground
30	—	—		
31	—	—		
32	—	—		
33	—	—		
34	Ground	—	Ground	Ground
35	Ground	—	Ground	Ground
36	USB_DM	—	USB_DM	
37	Ground	—	Ground	Ground
38	USB_DP	—	USB_DP	
39	VCC_3.3V	—	Main 3.3v Supply	Power
40	Ground	—	Ground	Ground
41	VCC_3.3V	—	Main 3.3v Supply	Power
42		—		
43	Ground	—	Ground	Ground
44	USIM_PRESENCE	—	USIM_PRESE	
45	—	—		
46	—	—		
47	—	—		
48	—	—		
49	—	—		
50	Ground	—	Ground	Ground
51	—	—		
52	VCC_3.3V	—	Main 3.3v Supply	Power
Note: For 4G LTE module(need to purchase additionally).				

2.8 Camera Connector(CSI)

Figure 7. Pinout of MIPI CSI connector



There are 4 x mipi 15pin CSI connectors.

Note. Please pay attention to the interface sequence of the CSI interface. Hot plugging is prohibited, and the interface sequence should be consistent with that of the camera.

Table 16. CSI interfaces List

Carrier Board	
CSIO	J12
CSI1	J9
CSI2	J24
CSI3	J23

Table 17. CSIO Pin Description - J12

Pin#	Module Pin Name	Usage/Description	Type/Dir Default
1	-	Ground	Ground
2	CSIO_DO_N	CSIO Data 0	Input
3	CSIO_DO_P		
4	-	Ground	Ground

5	CSI0_D1_N	CSI0 Data 1	Input
6	CSI0_D1_P		
7	-	Ground	Ground
8	CSI0_CLK_N	CSI0 Clock	Input
9	CSI0_CLK_P		
10	-	Ground	Ground
11	CAM0_PWDN	Camera #0 Power-down	Output
12	CAM0_MCLK	Camera #0 Master Clock	Output
13	CAM0_I2C_SCL	Camera I2C. 2.2kΩ pull-ups on module. 2.2kΩ pull-ups on the carrier board. The module CAM_I2C pins connect to an I2C mux. The camera connector #1 receives the I2C from the mux(1 st output). The I2C signals on the camera side of the mux have 47kΩ pull-ups.	Output
14	CAM0_I2C_SDA		Bidir
15	-	+3.3V	Power
16	-	Unused	-
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

Table 18. CSI1 Pin Description - J9

Pin#	Module Pin Name	Usage/Description	Type/Dir Default
1	-	Ground	Ground
2	CSI1_D0_N	CSI1 Data 0	Input
3	CSI1_D0_P		
4	-	Ground	Ground
5	CSI1_D1_N	CSI1 Data 1	Input
6	CSI1_D1_P		
7	-	Ground	Ground

8	CSI1_CLK_N	CSI1 Clock	Input
9	CSI1_CLK_P		
10	-	Ground	Ground
11	CAM1_PWDN	Camera #1 Power-down	Output
12	CAM1_MCLK	Camera #1 Master Clock	Output
13	CAM1_I2C_SCL	ID_I2C. 2.2kΩ pull-ups on module.	Output
14	CAM1_I2C_SDA	2.2kΩpull-ups on the carrier board. The module ID_I2C pins connect to an I2C mux. The camera connector #1 receives the I2C from the mux(1 st output). The I2C signals on the camera side of the mux have 47kΩ pull-ups.	Bidir
15	-	+3.3V	Power
16	-	Unused	-
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

Table 19. CSI2 Pin Description - J24

Pin#	Module Pin Name	Usage/Description	Type/Dir Default
1	-	Ground	Ground
2	CSI2_D0_N	CSI2 Data 0	Input
3	CSI2_D0_P		
4	-	Ground	Ground
5	CSI2_D1_N	CSI2 Data 1	Input
6	CSI2_D1_P		
7	-	Ground	Ground
8	CSI2_CLK_N	CSI2 Clock	Input
9	CSI2_CLK_P		
10	-	Ground	Ground
11	CAM1_PWDN	Camera #2Power-down	Output

12	CAM2_MCLK	Camera #2 Master Clock. Share with 40 PIN Header's GPIO5	Output
13	CAM2_I2C_SCL	Camera I2C. 2.2kΩ pull-ups on module. 2.2kΩ pull-ups on the carrier board. The module CAM_I2C pins connect to an I2C mux. The camera connector #1 receives the I2C from the mux(1 st output). The I2C signals on the camera side of the mux have 47kΩ pull-ups.	Output
14	CAM2_I2C_SDA		Bidir
15	-	+3.3V	Power
16	-	Unused	-
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

Table 20. CSI3 Pin Description - J23

Pin#	Module Pin Name	Usage/Description	Type/Dir Default
1	-	Ground	Ground
2	CSI3_D0_N	CSI3 Data 0	Input
3	CSI3_D0_P		
4	-	Ground	Ground
5	CSI3_D1_N	CSI3 Data 1	Input
6	CSI3_D1_P		
7	-	Ground	Ground
8	CSI3_CLK_N	CSI3 Clock	Input
9	CSI3_CLK_P		
10	-	Ground	Ground
11	CAM3_PWDN	Camera #3 Power-down	Output
12	CAM3_MCLK	Camera #3 Master Clock	Output
13	CAM3_I2C_SCL	ID_I2C. 2.2kΩ pull-ups on module.	Output
14	CAM3_I2C_SDA	2.2kΩ pull-ups on the carrier board.	Bidir

		The module ID_I2C pins connect to an I2C mux. The camera connector #1 receives the I2C from the mux(1 st output). The I2C signals on the camera side of the mux have 47k Ω pull-ups.	
15	-	+3.3V	Power
16	-	Unused	-
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

2.9 40-Pin Expansion Header

Figure 8. Pinout of 40-Pin Header

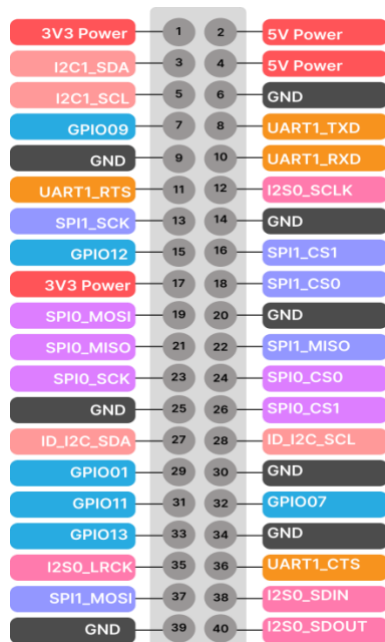


Table 21. 40-Pin Expansion Header Pin Description - J10

Pin #	Module Pin Name	Module Pin #	SoC Pin name	Usage/Description	Alternative Functionality
1	-	-	-	Main 3.3V Supply	-
2	-	-	-	Main 5.0V Supply	-
3	I2C1_SDA	191	DP_AUX_CH3_N	I2C #1 Data	-
4	-	-	-	Main 5.0V Supply	-
5	I2C1_SCL	189	DP_AUX_CH3_P	I2C #1 Clock	-
6	-	-	-	Ground	-
7	GPIO09	211	AUD_MCLK	GPIO	Audio Master Clock
8	UART1_TX D	203	UART1_TX	UART #1 Transmit	GPIO
9	-	-	-	Ground	-
10	UART1_RX D	205	UART1_RX	UART #1 Receive	GPIO
11	UART1_RT S*	207	UART1_RTS	GPIO	UART #2 Request to Send
12	I2S0_SCL K	199	DAP5_SCLK	GPIO	Audio I2S #0 Clock
13	SPI1_SCK	106	SPI3_SCK	GPIO	SPI #1 Shift

					Clock
14	-	-	-	Ground	-
15	GPIO12	218	TOUCH_CLK	GPIO	-
16	SPI1_CS1*	112	SPI3_CS1	GPIO	SPI #1 Chip Select #1
17	-	-	-	Main 3.3V Supply	-
18	SPI1_CS10*	110	SPI3_CS1	GPIO	SPI #0 Chip Select #0
19	SPI0_MOSI	89	SPI1_MOSI	GPIO	SPI #0 Master Out/Slave In
20	-	-	-	Ground	-
21	SPI0_MISO	93	SPI1_MISO	GPIO	SPI #0 Master In/Slave Out
22	SPI1_MISO	108	SPI3_MISO	GPIO	SPI #1 Master In/Slave Out
23	SPI0_SCK	91	SPI1_SCK	GPIO	SPI #0 Shift Clock
24	SPI0_CS0*	95	SPI1_CS0	GPIO	SPI #0 Chip Select #0
25	-	-	-	Ground	-
26	SPI0_CS1*	97	SPI1_CS1	GPIO	SPI #0 Chip Select #1
27	I2C0_SDA	187	GEN2_I2C_SDA	I2C #0 Data	GPIO
28	I2C0_SCL	185	GEN2_I2C_SCL	I2C #0 Clock	GPIO
29	GPIO01	118	SOC_GPIO41	GPIO	General Purpose Clock #0
30	-	-	-	Ground	-
31	GPIO11	216	SOC_GPIO42	GPIO	General Purpose Clock #1
32	GPIO07	206	SOC_GPIO44	GPIO	PWM
33	GPIO13	228	SOC_GPIO54	GPIO	PWM
34	-	-	-	Ground	-
35	I2S0_FS	197	DAP5_FS	GPIO	Audio I2S #0 Field Select
36	UART1_CTS*	209	UART1_CTS	GPIO	UART #1 Clear to Send
37	SPI1_MOSI	104	SPI3_MOSI	GPIO	SPI #1 Master Out/Slave In
38	I2S0_DIN	195	DAP5_DIN	GPIO	Audio I2S #0 Data in
39	-	-	-	Ground	-
40	I2S0_DOU	193	DAP5_DOUT	GPIO	Audio I2S #0

	T				Data Out
--	---	--	--	--	----------

Pin #	Type/Dir	Pin Drive or Power Pin Max Current	SoC GPIO Port #	Power-on Default	PU/PD Module	on	Notes
1	Power(input)	1A	-	-	-		1
2	Power(input/output)	1A	-	-	-		1
3	Bidir OD	±2mA	-	z	2.2KΩ PU		2
4	Power	1A	-	-	-		-
5	Bidir OD	±2mA	-	z	2.2KΩ PU		2
6	Ground	-	-	-	-		-
7	Bidir/Output	±20μA	PS.04	pd			3
8	Output/Bidir	±20μA	PR.02	pd			3
9	Ground	-	-	-	-		-
10	Input/Bidir	±20μA	PR.03	pu			3
11	Bidir/Output	±20μA	PR.04	pd			3
12	Bidir	±20μA	PT.05	pd			3
13	Bidir/Output	±20μA	PY.00	pd			3
14	Ground	-	-	-	-		-
15	Bidir	±20μA	PCC.04	pd			3
16	Bidir/Output	±20μA	PY.04	pd			3
17	Power	1A	-	-	-		-
18	Bidir/Output	±20μA	PY.03	pu			3
19	Bidir/Output	±20μA	PZ.05	pd			3
20	Ground	-	-	-	-		-
21	Bidir/Input	±20μA	PZ.04	pd			3
22	Bidir/Input	±20μA	PY.01	pd			3
23	Bidir/Output	±20μA	PZ.03	Pd			3
24	Bidir/Output	±20μA	PZ.06	pu			3

25	Ground	-	-	-	-	-
26	Bidir/Output	$\pm 20\mu\text{A}$	PZ.07	pu		3
27	Bidir OD/Bidir	$\pm 2\text{mA}$	PDD.00	z	2.2K Ω PU	2
28	Bidir OD/Bidir	$\pm 2\text{mA}$	PCC.07	z	2.2K Ω PU	2
29	Bidir/Output	$\pm 20\mu\text{A}$	PQ.05	pd		3
30	Ground	-	-	-	-	-
31	Bidir/Output	$\pm 20\mu\text{A}$	PQ.06	pd		3
32	Bidir/Output	$\pm 20\mu\text{A}$	PR.00	pd		3
33	Bidir/Output	$\pm 20\mu\text{A}$	PN.01	pd		3
34	Ground	-	-	-	-	-
35	Bidir	$\pm 20\mu\text{A}$	PU.00	pd		3
36	Bidir/Input	$\pm 20\mu\text{A}$	PR.05	pd		3
37	Bidir/Output	$\pm 20\mu\text{A}$	PY.02	pd		3
38	Bidir/Input	$\pm 20\mu\text{A}$	PT.07	pd		3
39	Ground	-	-	-	-	-
40	Bidir/Output	$\pm 20\mu\text{A}$	PT.06	pd		3

Note:

1.Compatible with Raspberry Pi 40pin GPIO.

2.5V pin: can supply 1A continuously.

3.3.3V pin: can supply 1A continuously.

4.All GPIOs on the 40pin header undergo level shifting via the TXB0108 chip. However, this chip has very weak drive capability. If an external pull-up resistor is required, please use a resistor with a value of at least 100 k Ω .

2.10 REC Switch Header

Table 22. REC switch Header Pin Description - J15

Pin #	Module Name	Pin #	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	-	-	-		PC_LED-: Connects to LED Cathode to indicate System Sleep/Wake up(Off when system in sleep mode)	Input, 5V
2	-	-	-		PC_LED+: Connects to LED Anode (see above)	Output
3	UART2_RXD(DEBUG)	238		UART2_RXD	UART #2 Receive	Input, 3.3V
4	UART2_TXD(DEBUG)	236		UART2_TXD	UART #2 Transmit	Output, 3.3V
5	-	-	-		AC OK: Connect pins 5 and 6 to disable Auto-Power-On and require power button press.	Input, 3.3V
6	-	-	-		Auto Power-on disable: Pulled to GND. See Pin 5.	NaN
7	-	-	-		Ground	Ground
8	SYS_RESET*	239		SYS_RESET	Temporarily connect pins 7 and 8 to reset system.	Input, 1.8V
9	-	-	-		Ground	Ground
10	FORCE_RECOVERY*	214		FORCE_RECOVERY*	Connect pins 9 and 10 during power-on to put system	Input, 1.8V

				in USB Force Recovery mode.	
11	-	-		Ground	Ground
12	SLEEP/WAKE*	240	PWR_BTN*	Connect pins 11 and 12 to initiate power-on if Auto-Power-On disabled (Pins 5 and 6 connected).	Input, 5V
Note: In the Type/Dir column, Output is to button header. Input is from button header. Bidir is for bidirectional signals.					

2.11 5V Fan Connector



Table 23. 5V Fan Header Pin Description - J13

Pin #	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	-			Ground	Ground
2	-			Main 5.0v Supply	Power
3	GPIO08(SDMMC_CD)	208	FAN_TACH	Fan Tachometer signal	Input, 5V
4	GPIO14(PWM)	230	FAN_PWM	Fan Pulse Width Modulation signal	Output, 5V

Note:

- 1.CPU on the SoM can control the fan automatically, fan turns on automatically when the temperature is too high.
- 2.Connect 4Pin 5V fan, you can control the fan speed, and detect the speed.

2.12 12V Fan Connector



Table 24. 12V Fan Header Pin Description - J6

Pin #	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	-			Ground	Ground
2	-			Main 12v Supply	Power
3	GPIO08(SDMMC_CD)	208	FAN_TACH	Fan Tachometer signal	Input, 5V
4	GPIO14(PWM)	230	FAN_PWM	Fan Pulse Width Modulation signal	Output, 5V

Note:

1.CPU on the SoM can control the fan automatically, fan turns on automatically when the temperature is too high.

2.Connect 4Pin 12V fan, you can control the fan speed, and detect the speed.

2.13 CAN Bus Header



Table 25. CAN Bus Header Pin Description - J16

Pin#	Module Name	Pin	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	CAN_TX		145	CAN_TX	CAN Bus transmit	Output,3.3v
2	CAN_RX		143	CAN_RX	CAN Bus receive	Input,3.3v
3	-		-	GND	Ground	Ground
4	-		-		Main 3.3V Supply	Power

Note:

1. The CAN signal is led directly from the SOM and is TTL/CMOS level, a non-standard CAN differential signal that requires the addition of a CAN transceiver.

2. Support CAN FD Frame formats

2.14 RTC Battery Back-up Coin Cell Holder/2-Pin Connector

Interface	Description	Layout Number
Connect 3V button battery, 1.25MM pitch, 2Pin	clock can be timed and saved in case of power failure	J19
Connect 3V button cell, CR1220	clock can be timed and saved in case of power failure	J14
RTC: selects one of them to use.		

Table 26. RTC Battery Socket Pin Description -J19

Pin#	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	-			Ground	Ground
2	PMIC_BBAT	235	BBAT	Power Management IC (PMIC) real-time clock battery back-up. Optionally used to provide backup power for the Real-Time-Clock (RTC). Charging is disabled on the hardware and non-rechargeable battery should be used by default.	Power

Table 27. RTC 2-Pin Header Pin Description -J14

Pin#	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	-			Ground	Ground
2	PMIC_BBAT	235	BBAT	Power Management IC (PMIC) real-time clock battery back-up. Optionally used to provide backup power for the Real-Time-Clock (RTC). Charging is disabled on the hardware and non-rechargeable battery should be used by default.	Power

2.15 12-Pin control and UART header

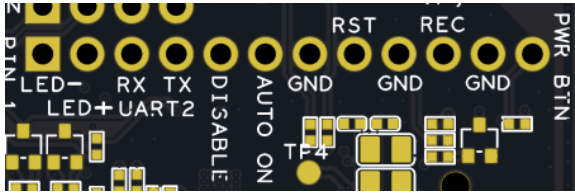


Figure 9. Pinout of 12-Pin Header

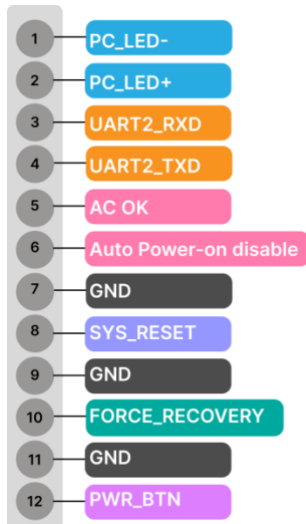


Table 28. 12-Pin Header Description -J2

Pin#	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	PC_LED-	-	-	PC_LED-: Connects to LED Cathode to indicate System Sleep/Wake up(Off when system in sleep mode)	Input, 5V
2	PC_LED+			PC_LED+: Connects to LED Anode (see above)	Output
3	UART2_RXD		UART2_RXD	UART #2 Receive	Input, 3.3V
4	UART2_TXD		UART2_TXD	UART #2 Transmit	Output, 3.3V
5	AC OK			Connect pins 5 and 6 to disable Auto-Power-On and require power button press.	Input, 3.3V
6	Auto Power-on disable			Auto Power-on disable: Pulled to GND. See Pin 5.	NaN

7	GND			GND	
8	SYS_RESET		SYS_RESET	Temporarily connect pins 7 and 8 to reset system.	Input, 1.8V
9	GND			GND	
10	FORCE_RECOVERY*		FORCE_RECOVERY*	Connect pins 9 and 10 during power-on to put system in USB	Input, 1.8V
11	GND			GND	
12	SLEEP/WAKE*		PWR_BTN*	Connect pins 11 and 12 to initiate power-on if Auto-Power-On disabled (Pins 5 and 6 connected).	Input, 5V

2.16 DC Power Jack

Table 29. DC Power Jack Pin Description -J2

Pin#	Module Pin Name	Module Pin #	Net Name	Usage/Description	Type/Dir Default
1	-	-	-	Main DC input supplying DC jack input (12-19V)	Power
2	-	-	-	Ground	Ground
Note: When the input power supply voltage exceeds about 22.5V, it will shut down the board to protect the board and power will be completely shut off to the board.					

2.17 LED indicator

Table 30. LED Indicators Function List

LED Indicator	Color	Status	Description
PWR	Green	On	The device has been connected to power.
		Off	The device is not connected to power.
ACT	Green	Flash	will flash to signify SSD access.

2.18 Button

Table 31. Pinhole Button Function List

Button	Pin#	Corresponding signal name	Pin Type	Description
PWR	240	SLEEP/WAKE*	CMOS-5V	Configure system to enter sleep mode for pressing button to initiate power-on if Auto-Power-On disabled, Long press for 10 seconds.
RESET	239	SYS_RESET*	Open Drain, 1.8V	When the power level is low, the module will be reset. When the power supply to the module is complete, raise the level to enable the power supply of the carrier board. Press it once.

Chapter 3. Mechanical Specification

Figure 10. Orthographic view of reComputer Super

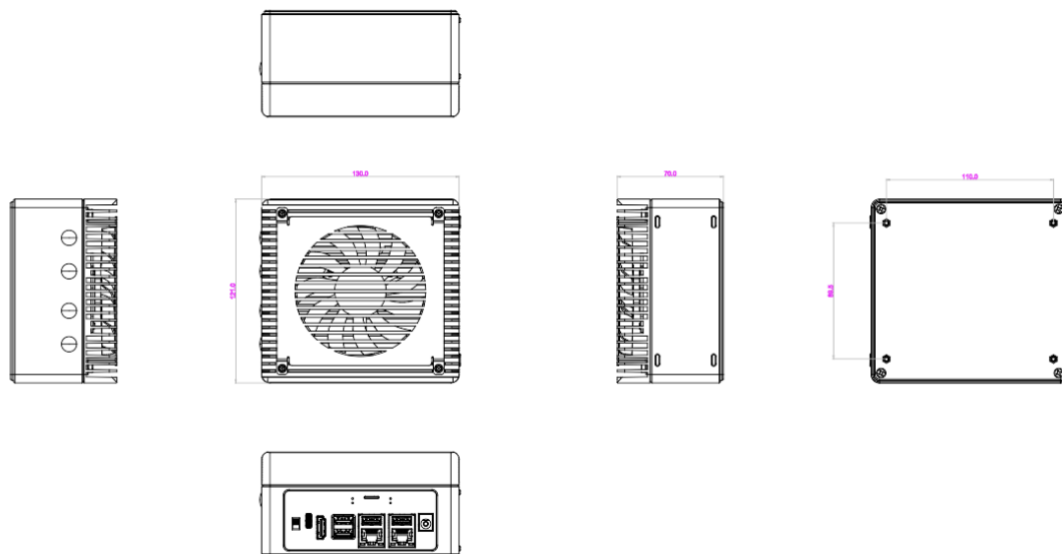
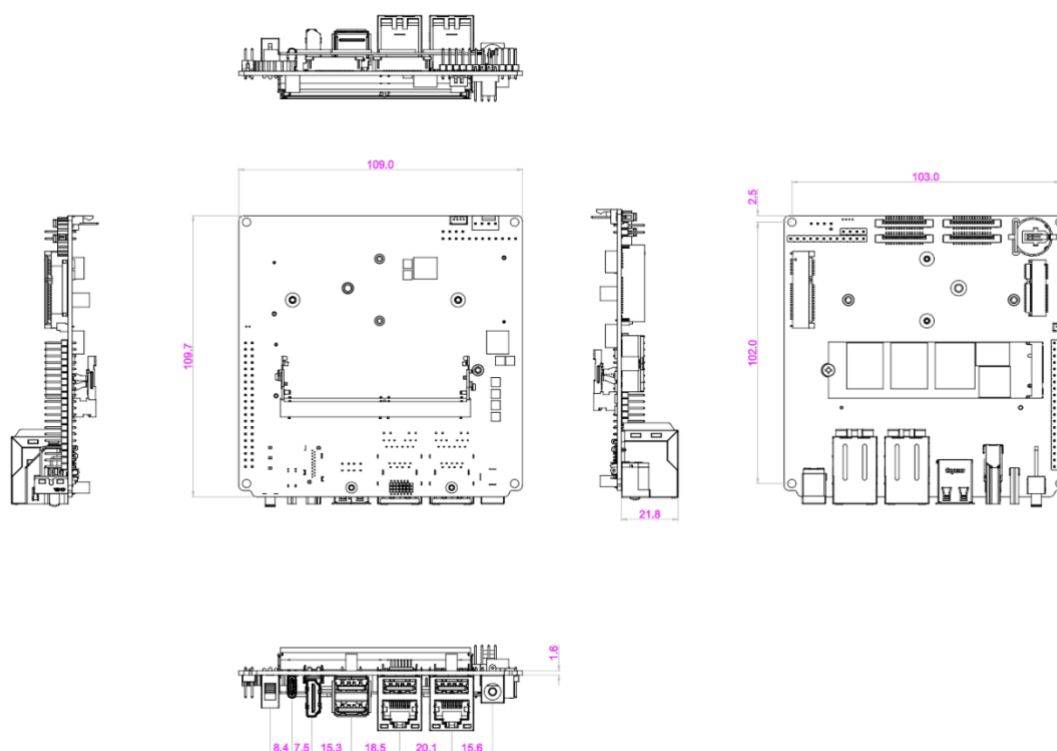
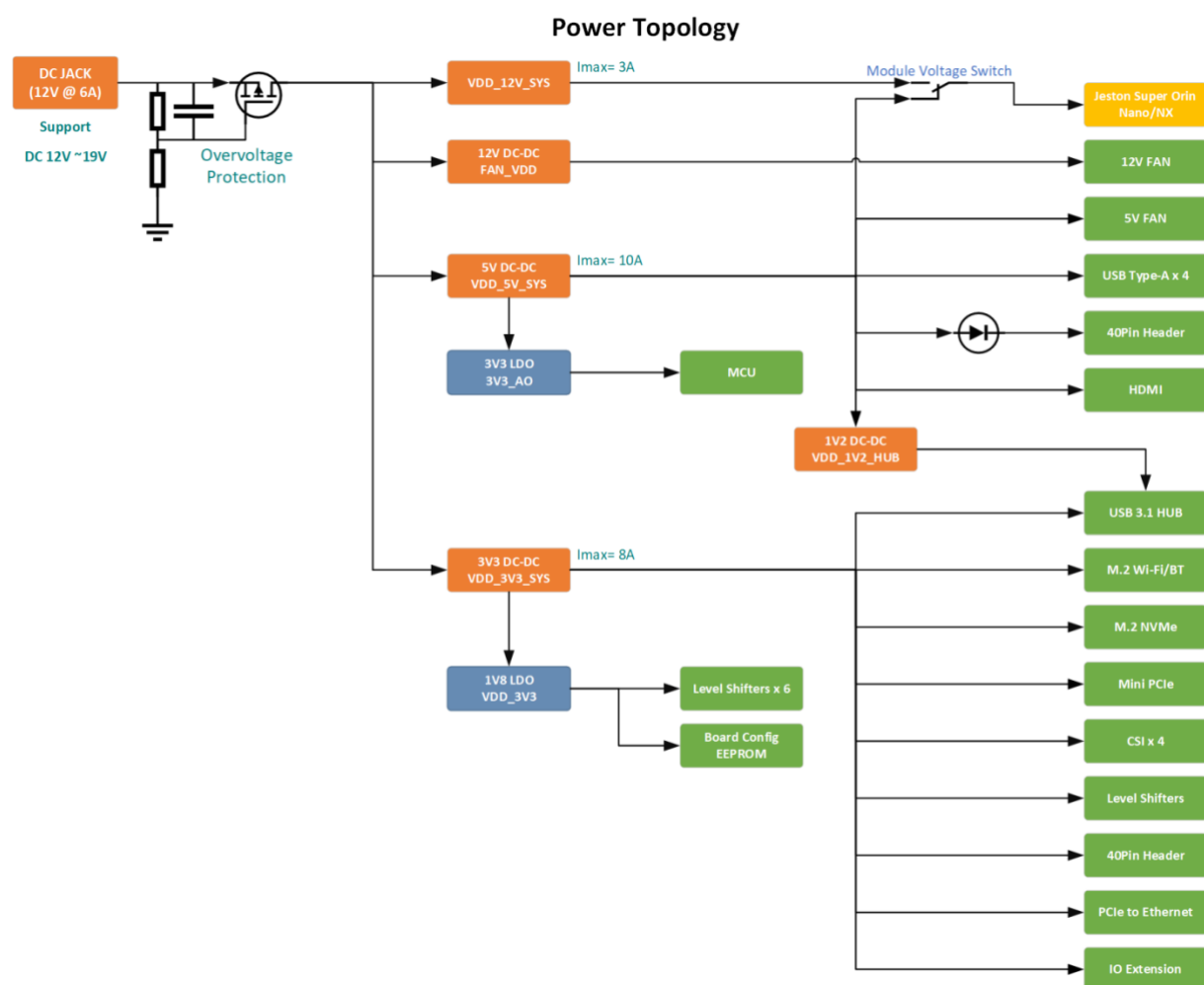


Figure 11. Orthographic view of reComputer Super J401 PCBA



Chapter 4. Power Diagram

Figure 12. Power Diagram



Chapter 5. Environmental and Mechanical Screening

Table 32. Environment Testing

Test	Conditions	Results
Temperature Humidity Biased	65°C / 85% RH, 168 hours, Power ON	Pass
Operational Low Temp	-20°C, 24 hours, Full load operation	Pass
Operational High Temp	65°C, 4.5 hours, Full load operation, 25W mode; 60°C, 4.5 hours, Full load operation, 40W mode	Pass
Connector Insertion Cycling	Insert/Withdraw SD card and connector, 30 cycles	Pass
Random Vibration - 2G Non-Op	5-500 Hz, 2 Grms, 1 hour/axis, 3 axes total, non-operational	
Random Vibration - 1G Op	10-500 Hz, 1 Grms, 30 min/axis, 3 axes total, operational	

Chapter 6. Storage and Handling

Table 33. Storage Parameter List

Parameter	Description
Storage temperature	-40°C ~80°C
Storage humidity	95%RH
Storage life	2 years from Seeed shipment date to customers

Chapter 7. Configuring System

JetPack 6.2 is the latest production release of JetPack 6 until May 2025. This release includes Jetson Linux 36.4.3, featuring the Linux Kernel 5.15 and an Ubuntu 22.04-based root file system. The Jetson AI stack packaged with JetPack 6.2 includes CUDA 12.6, TensorRT 10.3, cuDNN 9.3, VPI 3.2, DLA 3.1, and DLFW 24.0. JetPack 6.2 supports new high-power Super Mode for NVIDIA Jetson Orin Nano and Jetson Orin NX production modules. With Super Modes, the Jetson Orin NX series achieves up to a 70% increase in AI TOPS, while the Jetson Orin Nano series delivers comparable AI TOPS improvements alongside a 50% boost in memory bandwidth. The improved performance delivers up to 2x higher generative AI inference performance on Jetson Orin modules. Learn more about performance boots with JetPack 6.2 in our latest [blog](#).

Note: To use the compute stack of JetPack 6.2 on Jetson Linux 36.3, please refer to the [NVIDIA JetPack SDK documentation](#).

7.1 Flashing OS

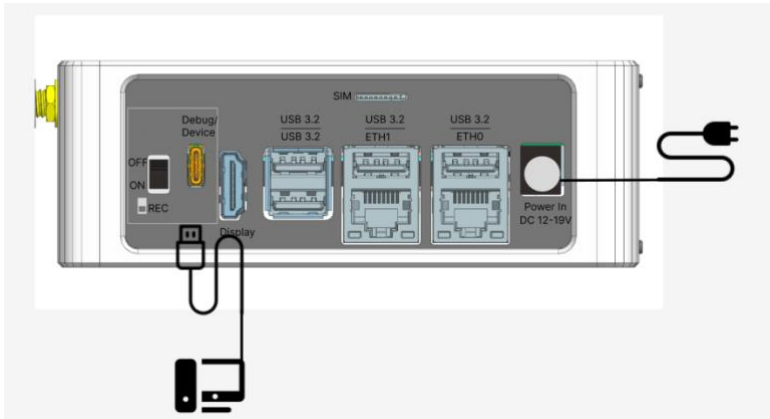
Prerequisites

- Host Computer with appropriate Ubuntu and Jetpack version
- reComputer Super J3010/J3011/J4011/J4012
- USB Type-C data transmission cable
- Download the OS image from https://wiki.seeedstudio.com/recomputer_jetson_super_getting_started/ to your host computer

Jetpack Version	Ubuntu Version(Host Computer)		
	18.04	20.04	22.04
JetPack 5.x	✓	✓	
JetPack 6.x		✓	✓

Note.

1. Please prepare the flashing environment referring to the following list with correct Ubuntu Version and Jetpack version of Host Computer(Virtual Machine is not recommended).
2. Please refer to https://wiki.seeedstudio.com/recomputer_jetson_super_getting_started/ for the custom jetpack BSP that Seeed Studio released.



Step 1. Switch the REC switch button to turn `ON` Recovery mode.

Step 2. Power On the reComputer Super with the recommended power adapter.

Step 3. Connect the reComputer Super to the host computer via Type-C USB 2.0 Port located next to the REC button.

Step 4. Then you are able to find the reComputer device on your host computer in USB device mode.

```
(base) youjiang-ws@youjiangws-MS-7C94:~/Jetpack/super_j4011/jp6.2$ lsusb
Bus 006 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 005 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 004 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 001 Device 004: ID 1462:7c94 Micro Star International MYSTIC LIGHT
Bus 001 Device 005: ID 8087:0029 Intel Corp. AX200 Bluetooth
Bus 001 Device 003: ID 05e3:0608 Genesys Logic, Inc. Hub
Bus 001 Device 049: ID 0955:7423 NVIDIA Corp. APX
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```

For Orin NX 16GB: 0955:7323 NVidia Corp. APX

For Orin NX 8GB: 0955:7423 NVidia Corp. APX

For Orin Nano 8GB: 0955:7523 NVidia Corp. APX

For Orin Nano 4GB: 0955:7623 NVidia Corp. APX

Step 5. Extract the OS image file you downloaded

```
sudo tar xpf mfi_XXXX.tar.gz
# For example: sudo tar xpf mfi_recomputer-super-orin-nx-8g-j401-6.2-
36.4.3-2025-04-01.tar.gz
```

Step 6. Navigate to the unzipped directory and execute the following command to flash jetpack system to the NVMeSSD:

```
cd mfi_XXXX
# For example: cd mfi_recomputer-super-orin-j401
sudo ./tools/kernel_flash/l4t_initrd_flash.sh --flash-only --massflash 1 --
network usb0 --showlogs
```

You will see the following output if the flashing process is successful.

```
[ 252]: l4t_flash_from_kernel: Successfully flash the external device
[ 252]: l4t_flash_from_kernel: Flashing success
[ 252]: l4t_flash_from_kernel: The device size indicated in the partition layout xml is smaller than the actual size. This utility will try to fix the GPT.
Flash is successful
Reboot device
Cleaning up...
Log is saved to Linux_for_Tegra/initrdlog/flash_1-6_0_20250415-170526.log
```

7.2 System Configuration via USB 2.0 device mode

- Step 1. After flashing OS, turn `OFF` the REC button, then repower the reComputer Super.
- Step 2. Connect a USB Type-C cable between DEVICE port and the a host PC.
- Step 3. Connect to Jetson device via host computer's serial terminal (115200 baud).
- Step 4. Wait about 10 more seconds, will show up the configuration interface.
- Step 5. Setting the User Name and Password by yourself.

```
[ 24.421998] Please complete system configuration setup on the serial port provided by Jetson's USB device mode connection. e.g. /dev/ttyUSBx where x can 0, 1, 2 etc.
System Configuration

License For Customer Use of NVIDIA Software
Welcome to Jetson Initial Configuration
<Ok>
```

- Step 6. Then you are able to ssh the device for remote control.

Note.

1. If the host cannot recognize the COM port, install the serial driver by following [this document](#).

7.3 GPIO Mapping

Install `gpio` package

```
sudo apt-get install gpio
gpioinfo
```

7.4 USB Read/Write Speed

Make sure that the USB devices (such as USB flash drives and external hard drives) are correctly connected to the USB interfaces of the reComputer Super, and that the devices are powered on.

- Read:

```
# check the USB device name as sda
sudo dd if=/dev/sda of=/dev/null bs=1024M count=5 iflag=direct
```

- Write:

```
sudo dd if=/dev/zero of=/dev/sda bs=1024M count=5 conv=fdatasync
```

7.5 EEPROM

- Get the EEPROM address:

```
seeed@seeed-desktop:~$ sudo dmesg | grep at24
[ 8.190237] at24 0-0050: 256 byte 24c02 EEPROM, read-only
[ 8.190632] at24 0-0057: 32768 byte 24c256 EEPROM, writable, 8 bytes/write
```

- Read Speed:

```
sudo dd if=/sys/class/i2c-dev/i2c-0/device/0-0057/eeprom of=/dev/null
bs=10k count=10000 iflag=fullblock
```

- Write Speed:

```
sudo dd if=/dev/zero of=/sys/class/i2c-dev/i2c-0/device/0-0057/eeprom
bs=10k count=10000 iflag=fullblock
```

```
seeed@seeed-desktop:~$ sudo dd if=/sys/class/i2c-dev/i2c-0/device/0-0057/eeprom of=/dev/null bs=10k count=
10000 iflag=fullblock
3+1 records in
3+1 records out
32768 bytes (33 kB, 32 KiB) copied, 0.895144 s, 36.6 kB/s
seeed@seeed-desktop:~$ sudo dd if=/dev/zero of=/sys/class/i2c-dev/i2c-0/device/0-0057/eeprom bs=10k count=
10000 iflag=fullblock
dd: error writing '/sys/class/i2c-dev/i2c-0/device/0-0057/eeprom': File too large
4+0 records in
3+0 records out
32768 bytes (33 kB, 32 KiB) copied, 19.7994 s, 1.7 kB/s
```

7.6 Wi-Fi/Bluetooth Scanning

Connect to wireless module to M.2 Key E slot, and connect the RF cable and antenna, for example, RTL8822CE Wireless NIC Kits or AW-CB375NF Wireless NIC kits.

PCIE —> Wi-Fi

```
# check for wireless interface name
iw dev

# replace "wlp7p1s0" with the interface name
# fill in the SSID of wireless network
sudo iwlist wlp7p1s0 scan | grep "SSID"
sudo nmcli device wifi connect "wifi_name" password "wifi_password" ifname
wlp7p1s0
```

USB —> BlueTooth

```
# scan available bluetooth
bluetoothctl
scan on
```

7.7 Mini-PCle Testing

Connect to LTE 4G module, RF cable and antennas to mini-PCle slot.

```
sudo apt install minicom
sudo minicom -D /dev/ttyUSB3 -b 115200
```

```
Welcome to minicom 2.8

OPTIONS: I18n
Port /dev/ttyUSB3, 09:22:58

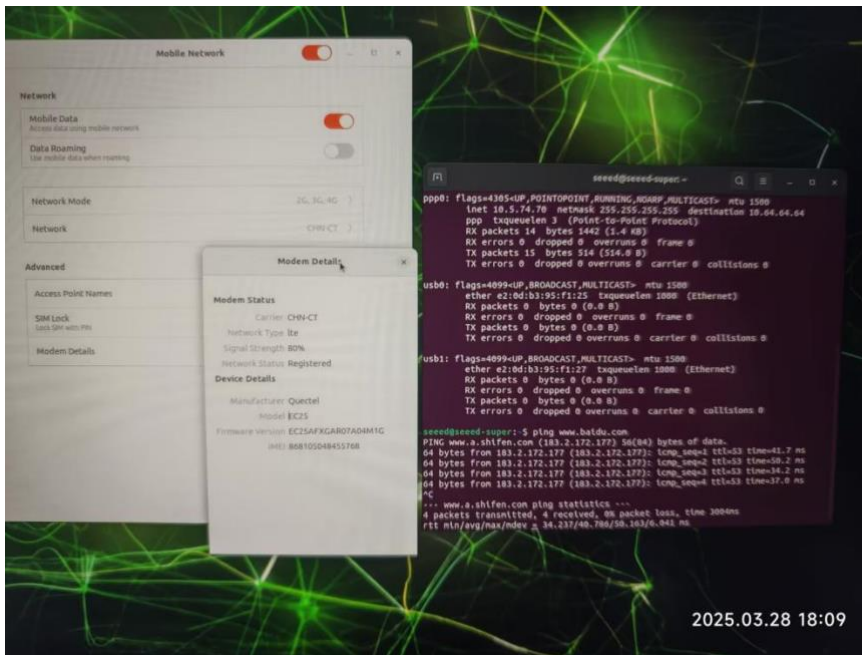
Press CTRL-A Z for help on special keys

AT
OK
ATI
Quectel
EG25
Revision: EG25GLGAR07A02M1G
OK
```

Insert SIM card to sim card slot

```
AT+CCID
+CCID: 89860495102180649802
OK
```

Check 4G mobile network usage:



7.8 SSD Card Testing

The read and write speed of SSD card depends on the type and capacity of the SSD card. If you need a higher read and write speed, please use an SSD card with a larger capacity and better performance.

- Write speed test:

create a new file then write in:

```
sudo sh -c 'mkdir -p /home/seeed/ssd && touch /home/seeed/ssd/test'
sudo dd if=/dev/zero of=/home/seeed/ssd/test bs=1024M count=5 conv=fdatasync
```

- read speed test:

```
sudo dd if=/home/seeed/ssd/test of=/dev/null bs=1024M count=5 iflag=direct
```

```
seeed@seeed-desktop:~$ sudo dd if=/dev/zero of=/home/seeed/ssd/test bs=1024M count=5 conv=fdatasync
5+0 records in
5+0 records out
5368709120 bytes (5.4 GB, 5.0 GiB) copied, 10.3201 s, 520 MB/s
seeed@seeed-desktop:~$ sudo dd if=/home/seeed/ssd/test of=/dev/null bs=1024M count=5 iflag=direct
5+0 records in
5+0 records out
5368709120 bytes (5.4 GB, 5.0 GiB) copied, 5.48336 s, 979 MB/s
```

7.9 MAC address of Ethernet

- Write static MAC address to device:

You are allowed to write the Ethernet MAC address to device via the python script. Once restart the system, the MAC address is fixed and led of RJ45 port will light up.

[gen_flash_mac.py](#)

```
python gen_flash_mac.py 0x11
# the following parameter is a random hexadecimal number
```

If the MAC address is not written, the J8 Ethernet port indicator will not light up. Moreover, the MAC address of this Ethernet port is random every time it starts up.

- Read MAC address from device:

Method 1: via `ifconfig`

```
sudo apt install net-tools
ifconfig
```

```
seeed@seeed-desktop:~$ ifconfig
enP1p1s0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether 46:40:11:00:23:d7 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enP8p1s0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether 3c:6d:66:11:81:66 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 250 base 0x5000

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 3029 bytes 218971 (218.9 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 3029 bytes 218971 (218.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wLP7p1s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.49.115 netmask 255.255.255.0 broadcast 192.168.49.255
    inet6 fe80::fca0:2438:aed1:f08 prefixlen 64 scopeid 0x20<link>
    ether 54:ef:33:9b:92:b9 txqueuelen 1000 (Ethernet)
    RX packets 297042 bytes 1135054411 (1.1 GB)
    RX errors 0 dropped 486 overruns 0 frame 0
    TX packets 96867 bytes 10733167 (10.7 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Method 2: via `ip addr` (Primitive command on linux)

```
ip addr show
```

```
seeed@seeed-desktop:~$ ip addr show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enP1p1s0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000
    link/ether 46:40:11:00:23:d7 brd ff:ff:ff:ff:ff:ff
3: enP8p1s0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc mq state DOWN group default qlen 1000
    link/ether 3c:6d:66:11:81:66 brd ff:ff:ff:ff:ff:ff
4: wLP7p1s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 54:ef:33:9b:92:b9 brd ff:ff:ff:ff:ff:ff
    inet 192.168.49.115/24 brd 192.168.49.255 scope global dynamic noprefixroute wLP7p1s0
        valid_lft 27954sec preferred_lft 27954sec
    inet6 fe80::fca0:2438:aed1:f08/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
5: can0: <NOARP,ECHO> mtu 16 qdisc noop state DOWN group default qlen 10
    link/can
```

7.10 Ethernet Testing

- Send:

```
iperf3 -c 'ip address' -R
```

```
seeed@seeed-super:~$ iperf3 -c 192.168.254.100 -R
Connecting to host 192.168.254.100, port 5201
Reverse mode, remote host 192.168.254.100 is sending
[ 5] local 192.168.254.113 port 53828 connected to 192.168.254.100 port 5201
[ ID] Interval           Transfer     Bitrate
[ 5] 0.00-1.00      sec    112 MBytes  941 Mbits/sec
[ 5] 1.00-2.00      sec    112 MBytes  942 Mbits/sec
[ 5] 2.00-3.00      sec    112 MBytes  942 Mbits/sec
[ 5] 3.00-4.00      sec    112 MBytes  942 Mbits/sec
[ 5] 4.00-5.00      sec    112 MBytes  942 Mbits/sec
[ 5] 5.00-6.00      sec    112 MBytes  942 Mbits/sec
[ 5] 6.00-7.00      sec    112 MBytes  942 Mbits/sec
[ 5] 7.00-8.00      sec    112 MBytes  942 Mbits/sec
[ 5] 8.00-9.00      sec    112 MBytes  942 Mbits/sec
[ 5] 9.00-10.00     sec    112 MBytes  942 Mbits/sec
-----
[ ID] Interval           Transfer     Bitrate      Retr      sender
[ 5] 0.00-10.04      sec    1.10 GBytes  940 Mbits/sec    0      receiver
[ 5] 0.00-10.00      sec    1.10 GBytes  942 Mbits/sec
iperf Done.
seeed@seeed-super:~$
```

- Receive:

```
iperf3 -c 'ip address'
```

```

seed@seed-super:~$ iperf3 -c 192.168.254.100
Connecting to host 192.168.254.100, port 5201
[ 5] local 192.168.254.113 port 56936 connected to 192.168.254.100 port 5201
[ ID] Interval           Transfer     Bitrate        Retr  Cwnd
[ 5] 0.00-1.00      sec    113 MBytes  945 Mbits/sec    0   379 KBytes
[ 5] 1.00-2.00      sec    111 MBytes  934 Mbits/sec    0   379 KBytes
[ 5] 2.00-3.00      sec    111 MBytes  928 Mbits/sec    0   379 KBytes
[ 5] 3.00-4.00      sec    111 MBytes  934 Mbits/sec    0   379 KBytes
[ 5] 4.00-5.00      sec    111 MBytes  928 Mbits/sec    0   379 KBytes
[ 5] 5.00-6.00      sec    110 MBytes  923 Mbits/sec    0   379 KBytes
[ 5] 6.00-7.00      sec    111 MBytes  933 Mbits/sec    0   379 KBytes
[ 5] 7.00-8.00      sec    112 MBytes  936 Mbits/sec    0   399 KBytes
[ 5] 8.00-9.00      sec    111 MBytes  935 Mbits/sec    0   399 KBytes
[ 5] 9.00-10.00     sec    111 MBytes  929 Mbits/sec    0   399 KBytes
- - - - -
[ ID] Interval           Transfer     Bitrate        Retr
[ 5] 0.00-10.00      sec    1.09 GBytes  932 Mbits/sec    0
[ 5] 0.00-10.04      sec    1.08 GBytes  927 Mbits/sec
                                     sender
                                     receiver

iperf Done.

```

7.11 CSI Testing

There are 4 CSI mipi connectors. Can change the id from 0-3 to turn on each camera.

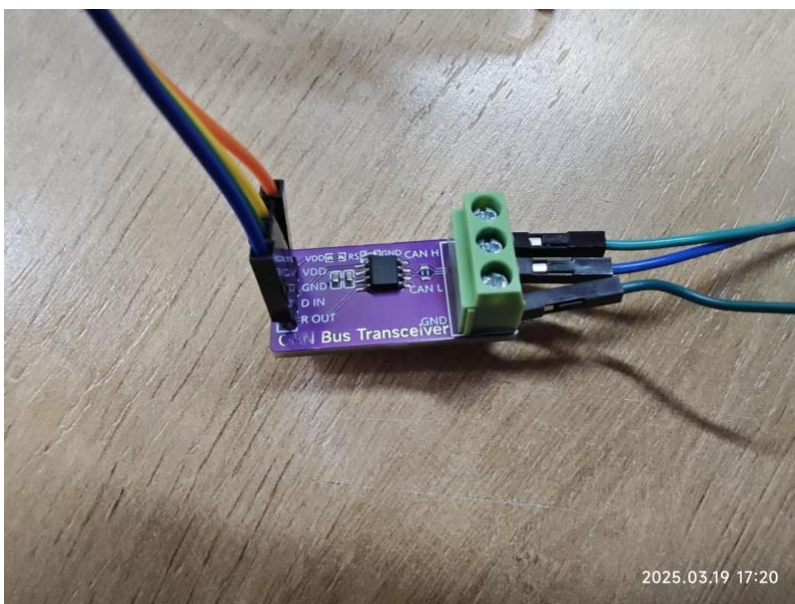
```
nvgstcapture-1.0 --sensor-id=0
```

Note: Two fans use the same PWM signal control pin.

7.12 CAN Communication Test

CAN Tool: [CAN.zip](#)

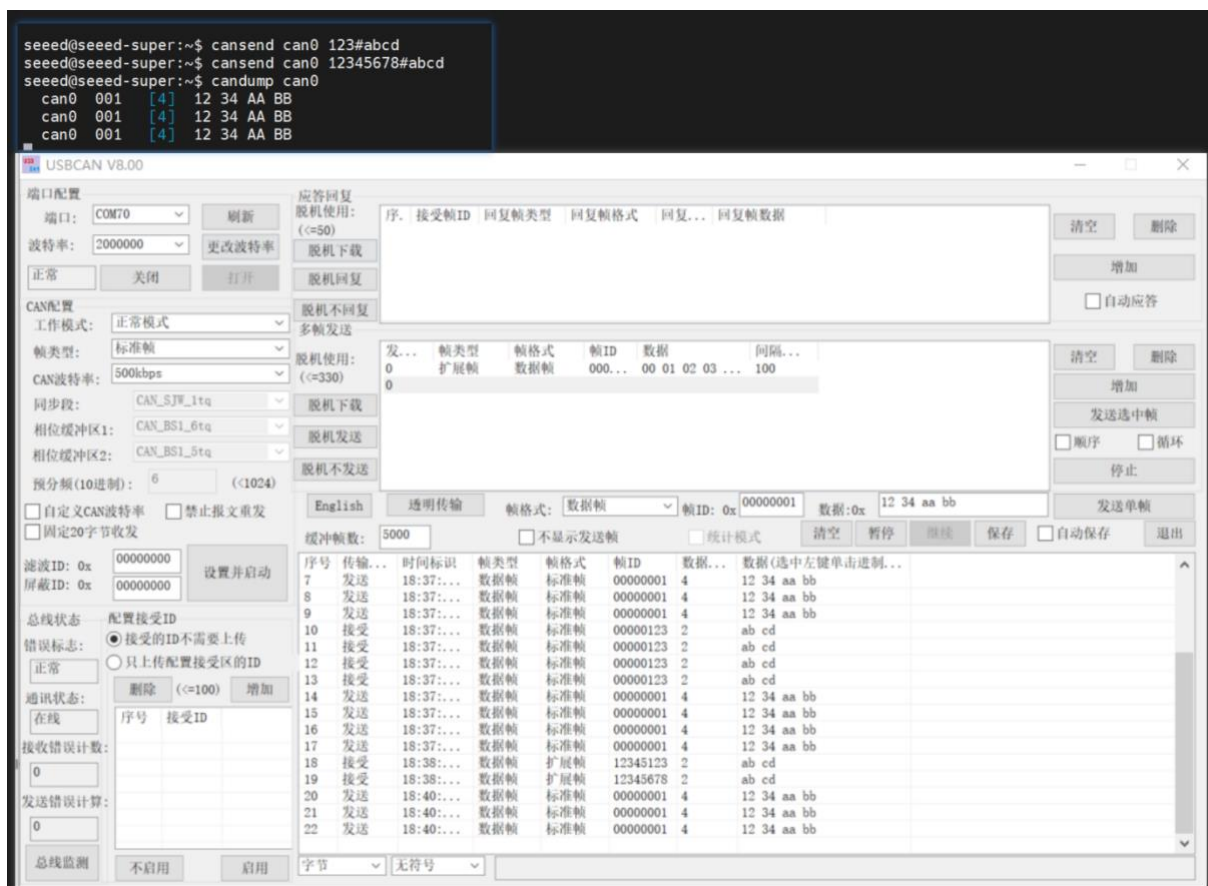
The CAN bus with 3.3V CMOS level is a non - differential signal. Note the connection sequence (R OUT <-> RX, D IN <-> TX), and then convert it to CAN_L and CAN_H through the CAN bus transceiver.



Enable Communication:

```
sudo ip link set can0 type can bitrate 500000
sudo ip link set can0 up
# receive
candump can0
# send
cansend can0 123#abcdabcd
```

result:



7.13 RTC

When reading the RTC (Real-Time Clock) time, it is necessary to disconnect from the network or turn off the network time synchronization to test the accuracy of the RTC timing.

```
cat /sys/devices/platform/bpmp/bpmp\:i2c/i2c-4/4-003c/nvvr-s-pseq-rtc/rtc/rtc0/time
```

```
seed@seed-super:~/re-computer_orin/scripts/log$ cat /sys/devices/platform/bpmp/bpmp\i2c/i2c-4/4-003c/nvhrs-pseq-rtc/rtc/rtc0/time
07:45:03
seed@seed-super:~/re-computer_orin/scripts/log$
Network error: Software caused connection abort

Last login: Mon Mar 10 15:28:29 2025 from 192.168.254.202
seed@seed-super:~$ cat /sys/devices/platform/bpmp/bpmp\i2c/i2c-4/4-003c/nvhrs-pseq-rtc/rtc/rtc0/time
07:50:20
```

7.14 Fan

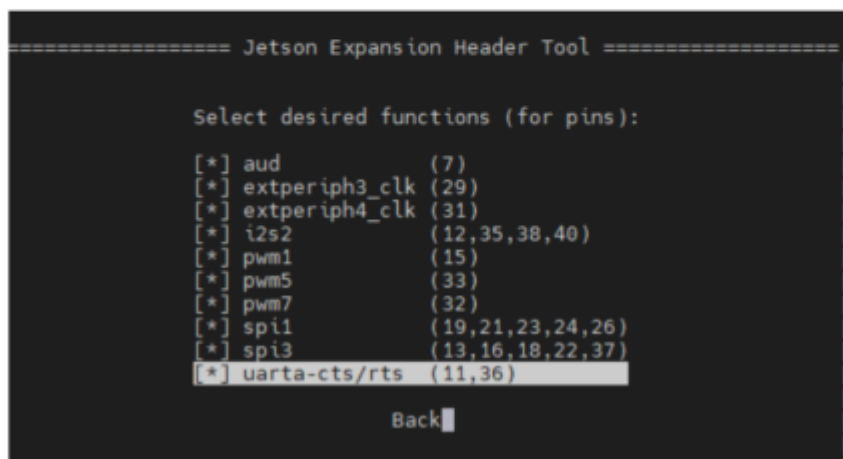
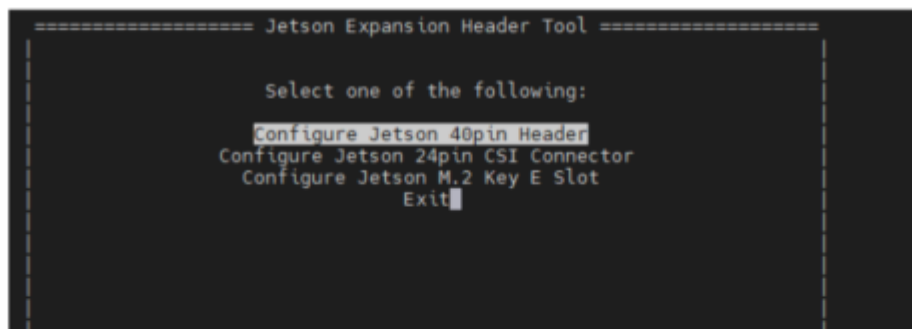
Control the PWM Fan via the following command:

```
# switch to root account
sudo -i
# write 100 to PWM control for setting fan speed
echo 100 > /sys/bus/platform/devices/pwm-fan/hwmon/hwmon1/pwm1
```

7.15 40-Pin extension header

Enable 40-Pin Header function, then save and reboot the system

```
sudo /opt/nvidia/jetson-io/jetson-io.py
```



```
#!/bin/bash

# GPIO control script
# Usage:
# gpio_ctrl.sh <pin_name> <command>
# Command statement:
# get - read the current level state
# set - set as high level
# clear - set as low level

# parameter validation
if [ $# -ne 2 ]; then
    echo "usage: $0 <pin_name> <command>"
    echo "Command:"
    echo " get - read the current level state"
    echo " set - set as high level"
    echo " clear - set as low level"
    exit 1
fi

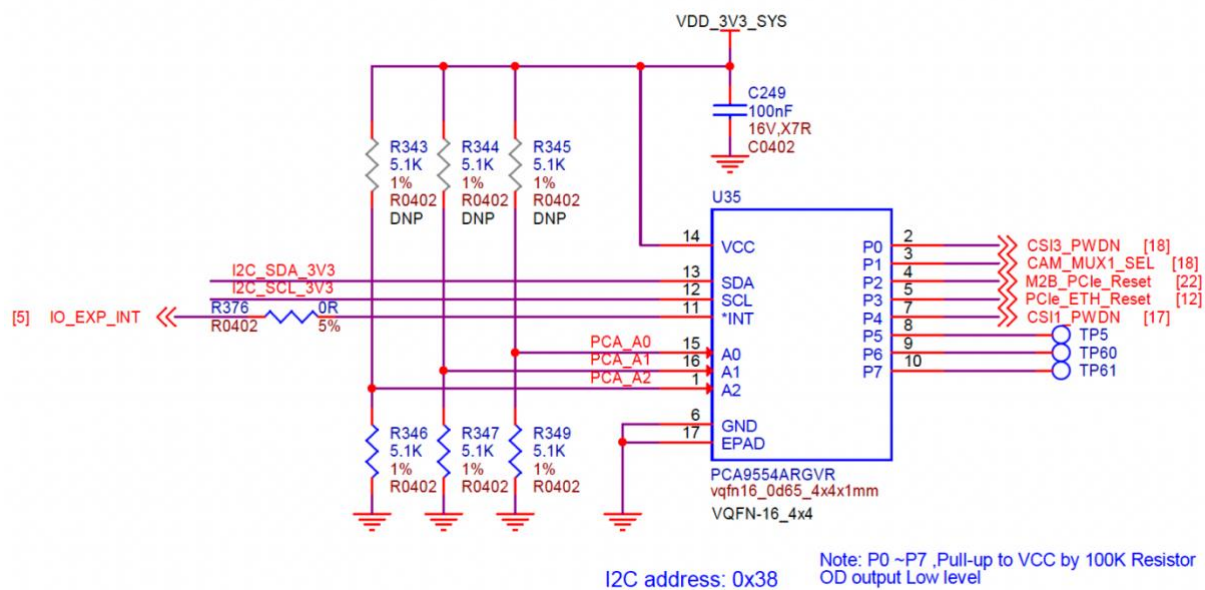
# mapping result
PIN_NAME=$1
COMMAND=$2

# mapping GPIO
GPIO_INFO=$(gpiofind "$PIN_NAME" 2>/dev/null)
if [ -z "$GPIO_INFO" ]; then
    echo "Hardware warning: cannot find GPIO $PIN_NAME"
    exit 1
fi

# Parameter decomposition
GPIO_CHIP=$(echo "$GPIO_INFO" | cut -d' ' -f1 | tr -d 'gpiochip')
GPIO_OFFSET=$(echo "$GPIO_INFO" | awk '{print $2}')
```

```
# Operation
case $COMMAND in
    "get")
        gpioget $GPIO_CHIP $GPIO_OFFSET
        ;;
    "set")
        echo "Set $PIN_NAME as High level..."
        gpioset --mode=wait $GPIO_CHIP $GPIO_OFFSET=1
        ;;
    "clear")
        echo "Set $PIN_NAME as Low level..."
        gpioset --mode=wait $GPIO_CHIP $GPIO_OFFSET=0
        ;;
    *)
        echo "Operation exception: The instruction is invalid. Please use
get/set/clear. "
        exit 1
        ;;
esac
```

7.16 IO expansion chip GPIO Mapping and Testing



- Detect the PVA9554A IO expansion chip

```
sudo i2cdetect -r -y 0
```

```
seeed@seeed-desktop:~$ sudo /opt/nvidia/jetson-io/jetson-io.py
[sudo] password for seeed:
seeed@seeed-desktop:~$ sudo i2cdetect -r -y 0
      0  1  2  3  4  5  6  7  8  9  a  b  c  d  e  f
00:  -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
10:  -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
20:  -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
30:  -- -- -- -- -- -- -- -- UU -- -- -- -- -- --
40:  -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
50:  UU -- -- -- -- -- -- -- UU -- -- -- -- -- --
60:  -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
70:  -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
```

- Control the port

```
# mapping gpiochip2
gpioinfo gpiochip2
# set as high or low
gpioset gpiochip2 x=1/0
```

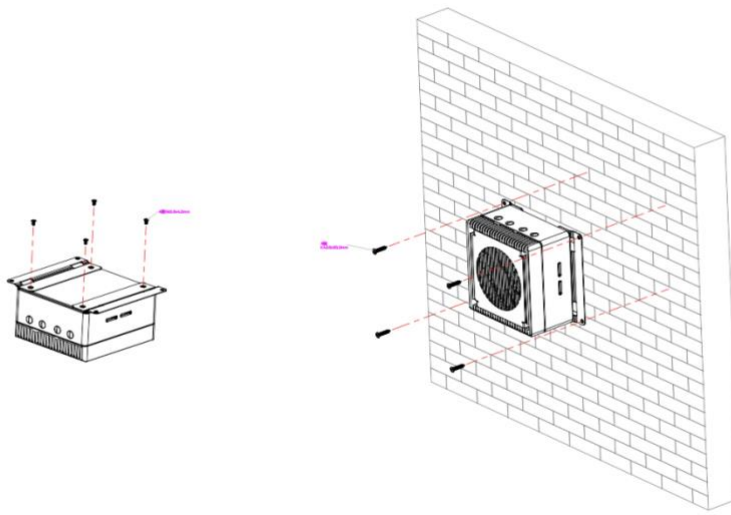
```
seeed@seeed-desktop:~$ gpioinfo gpiochip2
gpiochip2 - 8 lines:
   line   0: "CSI3_PWDN"          unused  input  active-high
   line   1: "CAM_MUX1_SEL"      "mux"   output active-high [used]
   line   2: "M2B_PCIe_Reset"    unused  input  active-high
   line   3: "PCIe_ETH_Reset"     unused  input  active-high
   line   4: "CSI1_PWDN"          unused  input  active-high
   line   5: "not_used"           unused  input  active-high
   line   6: "not_used"           unused  input  active-high
   line   7: "not_used"           unused  input  active-high
```

Expansion IO signal name	Command	get result
CSI3_PWDN	gpioset 20=0	Occupied by the kernel
CAM_MUX1_SEL	gpioset 21=0	pull up by system default
M2B_PCIe_Reset	gpioset 22=0	ok
PCIe_ETH_Reset	gpioset 23=0	ok
CSI1_PWDN	gpioset 24=0	Occupied by the kernel

Chapter 8. Mounting Guide

Purchase an additional mounting panel and fix it on the screw holes behind the reComputer Super.

Figure 13. Wall Mounting Installation Illustration



Chapter 9. Accessories List

Table 34. Accessories List

Interface	Product Name	SKU	Link	Remark
M.2 Key M Slot	128GB NVMe M.2 PCIe Gen3x4 2280 Internal SSD	112990226	Click to Purchase	Industrial M.2 NVMe 2280 SSD 128G included
	256GB NVMe M.2 PCIe Gen3x4 2280 Internal SSD	112990246	Click to Purchase	
	512GB NVMe M.2 PCIe Gen3x4 2280 Internal SSD	112990247	Click to Purchase	
	1TB NVMe M.2 PCIe Gen3x4 2280 Internal SSD	112990267	Click to Purchase	
	2TB NVMe M.2 PCIe Gen3x4 2280 Internal SSD	114993467	Click to Purchase	
M.2 Key E Slot	RTL8822CE Wireless NIC Kits	E24121001	Click to Purchase	
Mini-PCle	LTE Cat 4 EC25-AFXGA-mini-PCle Module - for North American	113991134	Click to Purchase	
	LTE Cat 4 EC25-EUXGR-mini-PCle Module - for EMEA and Thai	113991135	Click to Purchase	
	LTE Cat 4 EC25-AUXGR-mini-PCle Module - for Australia	113991174	Click to Purchase	
	LTE Cat 4 EC25-EFA-mini-PCle Module - for Thai	113991214	Click to Purchase	
	LTE Cat 4 EC25-EMGA-mini-PCle Module - for Malaysia	113991234	Click to Purchase	
	LTE Cat 4 EC25-JFA-mini-PCle	113991296	Click to Purchase	
	4G Antenna Kit for 4G module	110061502	Click to Purchase	Used together with module for 4G wireless capability
	GPS Antenna Kit for EC25 4G Module	110061521	Click to Purchase	Used together with module for GPS capability
Power Adapter	Power Adapter (3P-Black-19V-4.74A)	313080684	Click to Purchase	For Orin NX module
	Power Adapter (3P-Black-12V-5A)	313080482		For Orin Nano module
Power Cord	AC Power Cord - Type C5 US	313990332	Click to Purchase	

	AC Power Cord - Type C5 UK	313990328	Click to Purchase	
	AC Power Cord - Type C5 JP	106990469	Click to Purchase	
	AC Power Cord -Type C5 EU	106990468	Click to Purchase	
	AC Power Cord - Type C5 CN	106990470	Click to Purchase	
Mounting	Panel Metal Rack Mount Holder for reComputer Jetson	323030949		For Panel Mounting
Analyzer/Adapter	CH340G USB to Serial (TTL) Module&Adapter	317990026	Click to Purchase	
USB	RPLiDAR S2 Low Cost 360° Laser Range Scanner - 30M Range	114992738	Click to Purchase	Compatible with a variety of USB devices
	RPLiDAR A3M1 360° Laser Scanner Kit - 25M Range	110991068	Click to Purchase	
	RPLiDAR A1M8-R6 360° Laser Scanner Kit - 12M Range	114992561	Click to Purchase	
	RPLiDAR C1M1-R2 Portable ToF Laser Scanner Kit - 12M Range	101090061	Click to Purchase	
	ReSpeaker USB Mic Array	107990193	Click to Purchase	
Mipi CSI	IMX219-130 8MP Camera with 130° FOV	114992262	Click to Purchase	
	IMX219-200 8MP Camera with 200° FOV	114992265	Click to Purchase	
	IMX219-160IR 8MP Camera with 160° FOV	114992264	Click to Purchase	
	IMX477R - Raspberry Pi HQ Camera	114993032	Click to Purchase	
	IMX708 - Raspberry Pi Camera Module 3 NoIR	114993029	Click to Purchase	
	OV5647-62 FOV Camera Module	114110129	Click to Purchase	
	OV5647-75 FOV Camera Module	114110127	Click to Purchase	

Chapter 10. Warranty & Support

10.1 Warranty

1. From the date of sale, the company provides 24 months free warranty for the products.
2. Warranty coverage is limited to products purchased from the official Seeed Studio website or authorized distributors. Customers need to keep receipts and purchase vouchers.
3. The products to be repaired shall be properly packaged and transported, and the customer shall be responsible for any loss or damage during transportation.
4. During the warranty period, the freight and maintenance costs arising from product quality failures shall be borne by Seeed Studio. If the warranty period exceeds 24 months, Seeed Studio will charge the fee for replacing parts according to the product failure, and the freight is borne by the user.
5. During the free warranty period, in case of any of the following events, Seeed Studio has the right to refuse service or charge materials and service fees at its discretion.

Product failure or damage caused by improper use by users.

The product label is damaged and the product information cannot be identified.

Even within the warranty period, if the product has functional issues or is difficult to repair due to improper customer use, unauthorized disassembly or modification, poor operating environment, improper maintenance, accidents, or other reasons. Seeed Studio reserves the right to make judgments on the above situations and collect maintenance fees.

Other unavoidable external factors cause product failure and damage.

The above warranty regulations are only applicable to the above Seeed Studio reComputer Super series, other products are not applicable!

10.2 Support

Quick start guide:

https://wiki.seeedstudio.com/recomputer_jetson_super_getting_started/

Tech support email:

If you encounter any issues while deploying or testing, please don't hesitate to contact our technical support team at techsupport@seeed.io, or refer to our online knowledge base, <https://wiki.seeedstudio.com>.

Customized service email:

For further information about customizations, welcome you to directly reach out at edge@seeed.cc, we will provide prompt reply.

Discord:

Discord community:

Welcome to join our official community, where you can exchange product-related questions and get relevant support.

<https://discord.seeed.cc>



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