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A	Version	Change Log					Page	Index
	Ver 1.0.0	First release					1	COVER PAGE
	Ver 1.0.1	Thay IC nguồn MP9486 Sửa lỗi GPS không nạp được MCU (thêm cut-off GPS) Thêm 2 kênh OUTPUT có thể thay thế 2 kênh INPUT đang có					2	BLOCK DIAGRAM
	Ver 2.0	Thay module ==> dùng cặp A7670E + L76-L Sử dụng antenna 25x25x4					3	.....
B	Ver 3.0	Thay MCU STM => GD Sửa chân BOOT					4	.....
	Ver 4.0	Thay MCU + Module GSM + Moduyle GPS => Open MCU A7672S Anten GSM 2 Option: Anten PCB và Aten rời					5	.....
	VNGS01 V1.0	OpenMCU:    - Thay đổi Pin I/O: OMCU_ALT1 (26 => 21), OMCU_ALT2 (35 => 26), BUZZER (48 => 47), OMCU_AIR (36 => 35), OMCU_DOOR (44=> 36), EN_RFID (47 => 44), OMCU_MEM_CS (53 => 48), OMCU_RFID_CS (12 => 66)  - Bỏ Pin I/O: NETLIGHT (52), SWITCH PWKEY  - Thêm Pin I/O: I/O xác định phiên bản HW1: PIN 67, 68 (mức 0)  - Bỏ LNA anten GPS  - Thay cặp trở ADC_POWER_IN  - Thay khay SIM (MUP-C792 => MUP_C7803)  - Thêm trở treo đầu ra IC Logic (TXD1, TXD2, SPI_MOSI, SPI_CLK)					6	.....
		RFID: Sửa lỗi khi chuyển sang SPI bị lỗi					7	.....
C		MOTION: Bỏ sung cảm biến gia tốc KXTJ3-1057 (OP)					8	.....
		PERIPHERAL: - Thay cặp trở phân áp ADC_5V  - Sửa ALT  - Thay trở hạn dòng cho Led (1K => 120R)					9	.....
	VNGS01 V1.1	SIM Socket:    Thay Socket SIM (C7803 => C7801-2)					10	.....
	VNGS02 V1.2	Nạp:    Thêm Micro USB + Công tắc Boot Anten: Thêm mạch LNA Anten GPS; Bỏ Anten PCB GSM trên mạch Đổi cặp UART giữa cổng DB9 và cổng MX3.0					11	.....
D	VNGS01 V1.3	Thay đổi Max232 sang Transistor  Thay đổi tụ TanT sang Alu  Thay đổi Buzzer cắm sang dán  Thay đổi cổng nạp sang Testpoint(Via)					12	.....
							13	.....
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Nguồn có vấn đề

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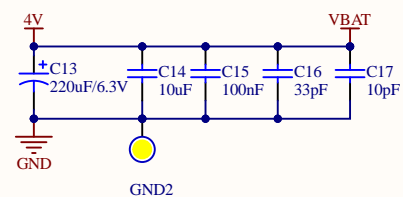
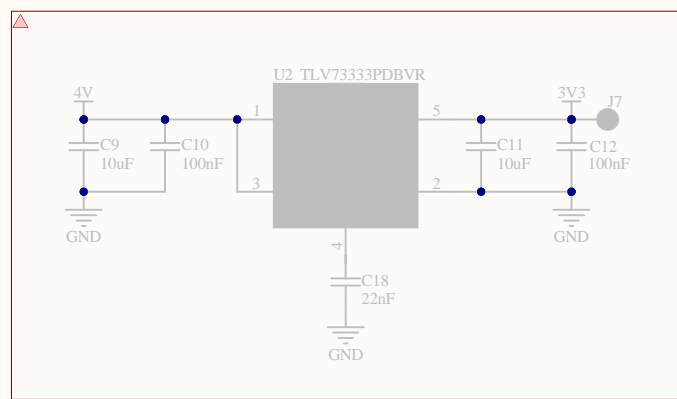
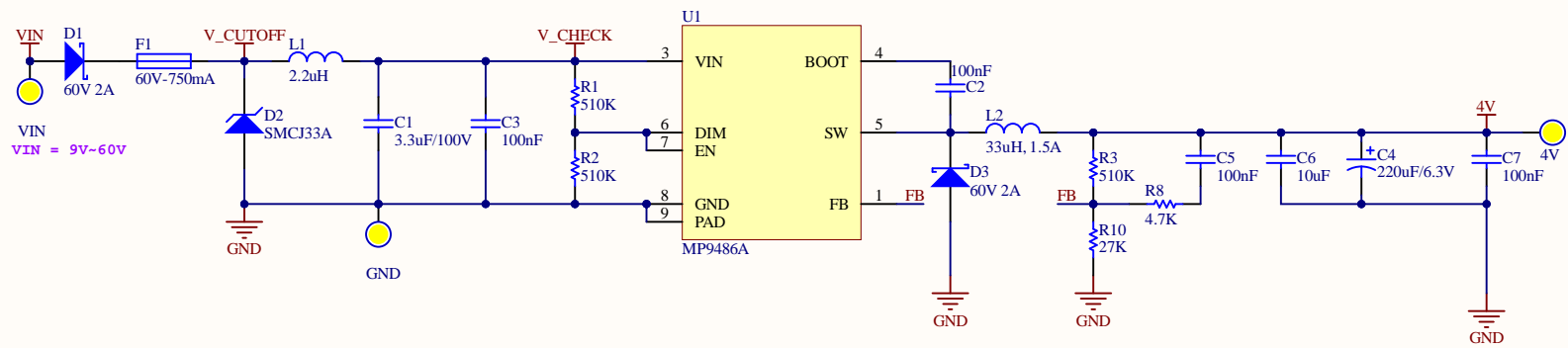
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# VNETGPS

## VNGS01 V1.32 (12/07/2023)

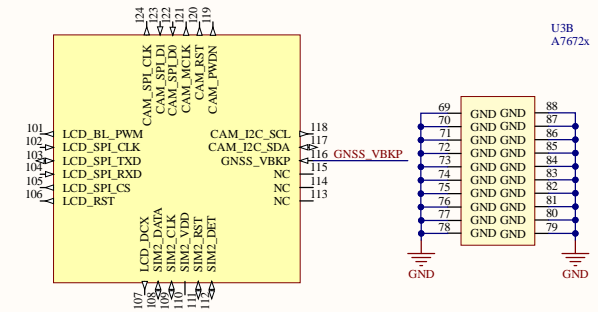
### POWER DC



The schematic diagram illustrates the internal components and connections of the U3A A7672s module. The central component is the U3A A7672s chip, which is connected to various external components and interfaces.

**Internal Components and Connections:**

- Power and Ground:**
  - VDD\_1V8:** Connected to pin 14 of the U3A A7672s chip. A 100nF capacitor (C21) is connected between VDD\_1V8 and GND.
  - GND:** Multiple ground connections are shown throughout the module.
- LEDs and Buttons:**
  - LED GSM:** Connected to pin 4.
  - LED MEM:** Connected to pin 5.
  - USB\_BOOT:** Connected to pin 6.
  - LED GPS:** Connected to pin 7.
  - LED DRI:** Connected to pin 8.
  - OMCU\_TXD1:** Connected to pin 9.
  - OMCU\_RXD1:** Connected to pin 10.
  - SPI\_CLK:** Connected to pin 11.
  - SPI\_CS:** Connected to pin 12.
  - SPI\_MOSI:** Connected to pin 13.
  - SPI\_MISO:** Connected to pin 14.
  - PWRKEY:** Connected to pin 1.
  - DTR:** Connected to pin 3.
  - RI:** Connected to pin 4.
  - DCD:** Connected to pin 5.
  - BOOT:** Connected to pin 6.
  - CTS:** Connected to pin 7.
  - RTS:** Connected to pin 8.
  - TXD:** Connected to pin 9.
  - RXD:** Connected to pin 10.
  - SPI\_CLK:** Connected to pin 11.
  - SPI\_CS:** Connected to pin 12.
  - SPI\_MOSI:** Connected to pin 13.
  - SPI\_MISO:** Connected to pin 14.
  - VDD\_1V8:** Connected to pin 15.
  - RESET:** Connected to pin 16.
  - GND:** Connected to pin 17.
- Communication and Data:**
  - OMCU\_TXD1:** Connected to pin 9.
  - OMCU\_RXD1:** Connected to pin 10.
  - SPI\_CLK:** Connected to pin 11.
  - SPI\_CS:** Connected to pin 12.
  - SPI\_MOSI:** Connected to pin 13.
  - SPI\_MISO:** Connected to pin 14.
  - VDD\_1V8:** Connected to pin 15.
  - RESET:** Connected to pin 16.
  - GND:** Connected to pin 17.
  - OMCU\_TXD2:** Connected to pin 21.
  - OMCU\_RXD2:** Connected to pin 22.
  - VBUS:** Connected to pin 23.
  - OMCU\_POWER\_IN:** Connected to pin 24.
  - OMCU\_POWER\_OUT:** Connected to pin 25.
  - USB\_P:** Connected to pin 26.
  - USB\_N:** Connected to pin 27.
  - SIM\_VDD:** Connected to pin 30.
  - SIM\_DATA:** Connected to pin 31.
  - SIM\_CLK:** Connected to pin 32.
  - SIM\_RST:** Connected to pin 33.
  - SIM\_DET:** Connected to pin 34.
  - BT\_ANT:** Connected to pin 35.
  - GND:** Connected to pin 36.
  - OMCU\_TXD3:** Connected to pin 41.
  - OMCU\_RXD3:** Connected to pin 42.
  - VBUS:** Connected to pin 43.
  - OMCU\_POWER\_IN:** Connected to pin 44.
  - OMCU\_POWER\_OUT:** Connected to pin 45.
  - USB\_P:** Connected to pin 46.
  - USB\_N:** Connected to pin 47.
  - SIM\_VDD:** Connected to pin 50.
  - SIM\_DATA:** Connected to pin 51.
  - SIM\_CLK:** Connected to pin 52.
  - SIM\_RST:** Connected to pin 53.
  - SIM\_DET:** Connected to pin 54.
  - BT\_ANT:** Connected to pin 55.
  - GND:** Connected to pin 56.
- External Components:**
  - C21:** 100nF capacitor connected between VDD\_1V8 and GND.
  - C27:** 100nF capacitor connected between VDD\_1V8 and GND.
  - C54:** 100nF capacitor connected between VDD\_1V8 and GND.
  - R57:** 10K resistor connected between VDD\_1V8 and GND.
  - R4:** 10K resistor connected between VDD\_1V8 and GND.
  - R5:** 10K resistor connected between VDD\_1V8 and GND.
  - C19:** 100nF capacitor connected between VDD\_1V8 and GND.



Pin configuration diagram for the e-SIM module (U2). The module has pins 1 through 9. Pin 1 is connected to GND. Pin 2 is NC. Pin 3 is labeled E\_DATA. Pin 4 is NC. Pin 5 is NC. Pin 6 is labeled E\_CLK. Pin 7 is labeled E\_RST. Pin 8 is labeled E\_VCC. Pin 9 is connected to GND. The module also has internal labels VCC, EXP, and GND.

ADC\_POWER\_IN: PIN(25)  
 ADC Res: 0 - 1V8  
 Max input voltage: 50V

V\_CHECK

R12  
 100K (150K)

ADC\_POWER\_IN

R16  
 4.7K

C30  
 100nF

GND

To OMCU:  
BUZZER: PIN(47)

1V8

3V3

3V3

10K

10K

10K

1V8

10K

1

14

2

13

3

12

4

11

5

10

6

9

7

8

TXS0104EPWR

OMCU\_RFID\_CS

RFID\_CS

OMCU\_SPL\_MISO

SPL\_MISO

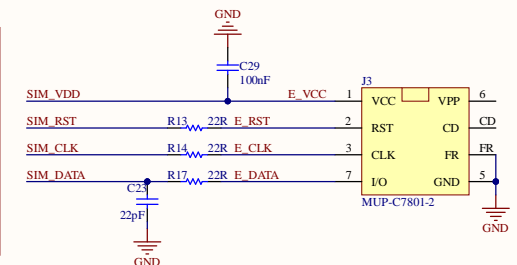
OMCU\_SPL\_MOSI

SPL\_MOSI

OMCU\_SPL\_CLK

SPL\_CLK

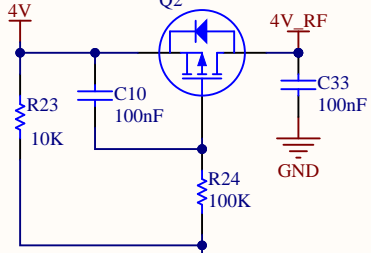
GND



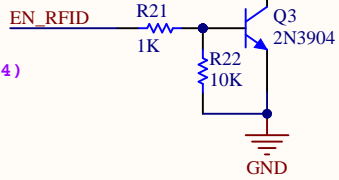
**RIFD**

IRLML6402

Q2



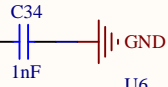
To OMCU:  
EN\_RFID: PIN(44)



4V\_RF

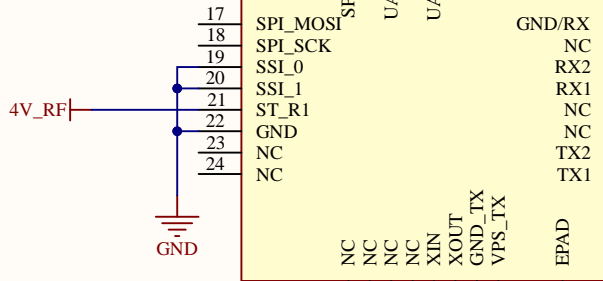
UART\_TX2

UART\_RX2



U6  
CR95HF

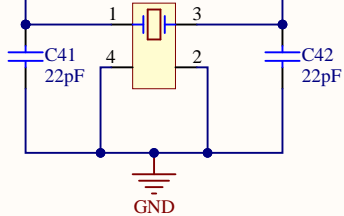
PIN 19,20: LOW: UART



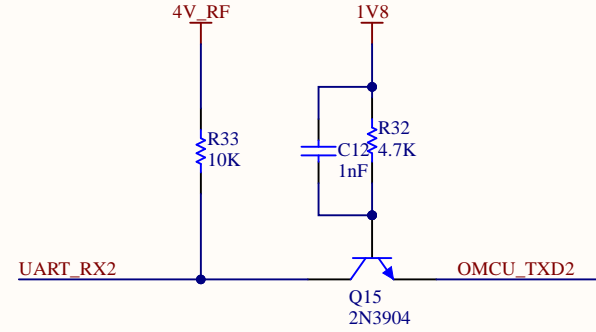
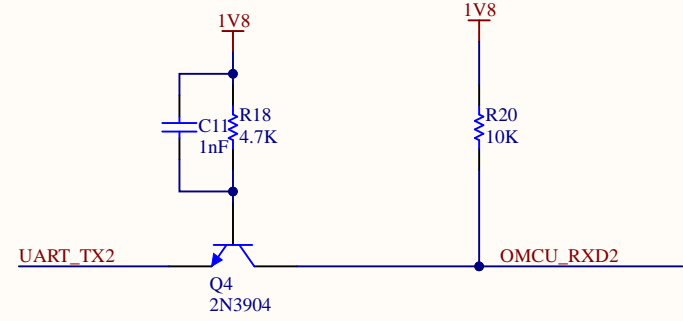
GND

X1

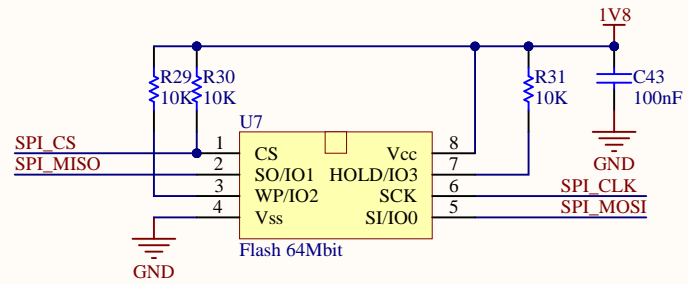
Crystal 27.12MHz



GND

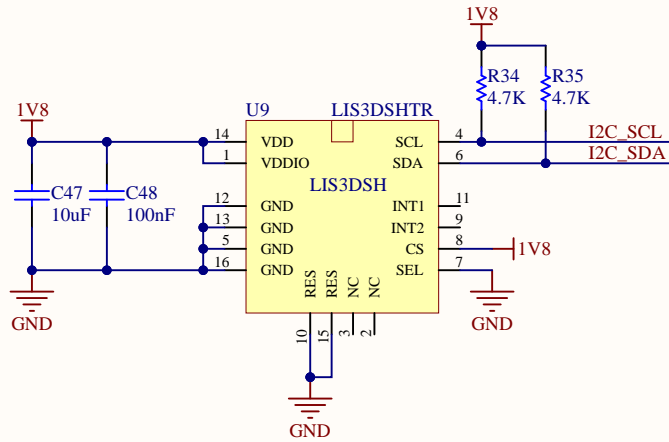
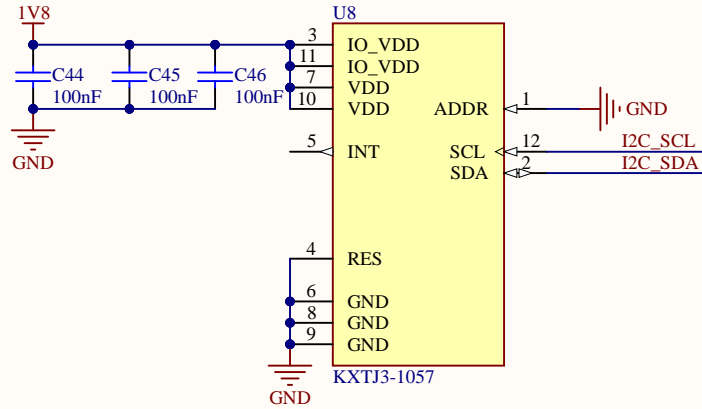


# FLASH



# MOTION

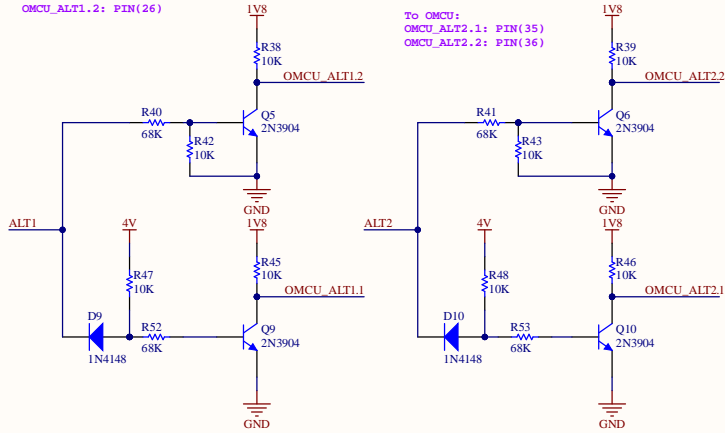
Option





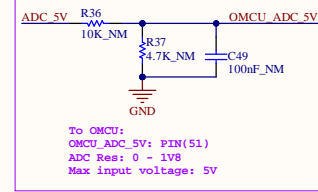
## PERIPHERAL

To OMCU:  
OMCU\_ALT1.1: PIN(21)  
OMCU\_ALT1.2: PIN(26)



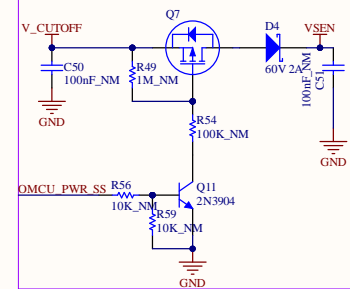
To OMCU:  
OMCU\_ALT2.1: PIN(35)  
OMCU\_ALT2.2: PIN(36)

Option

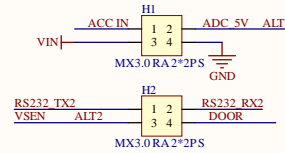


To OMCU:  
OMCU\_ADC\_5V: PIN(51)  
ADC Res: 0 - 1V8  
Max input voltage: 5V

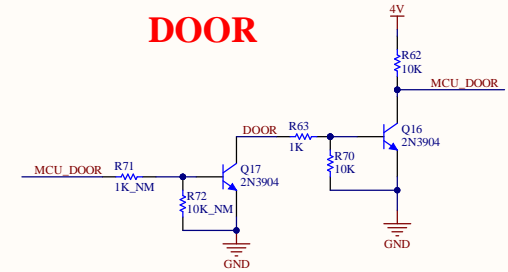
Option



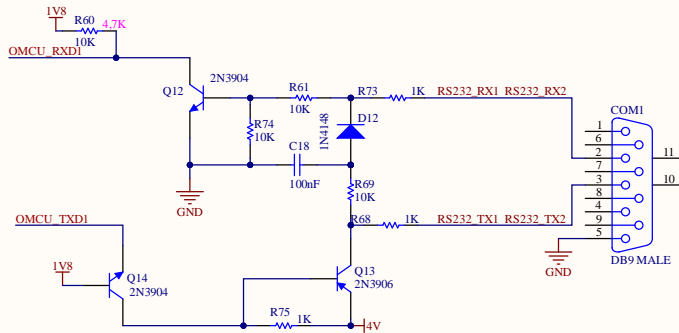
## CONNECTER



## DOOR

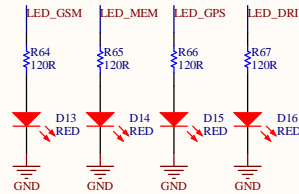


## RS232

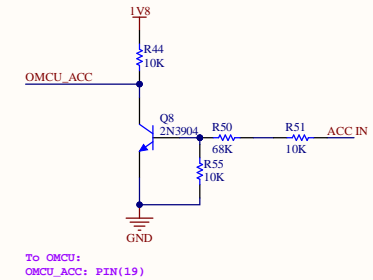


## DISPLAY LED

To OMCU:  
LED\_GSM: PIN(4)  
LED\_MEM: PIN(5)  
LED\_GPS: PIN(7)  
LED\_DRI: PIN(8)



## ACC



To OMCU:  
OMCU\_ACC: PIN(19)