
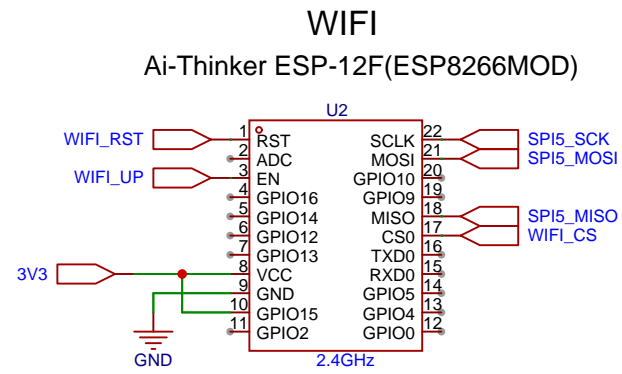


Schematic	STM32MP135 Dev Board			Update Date	2024-06-06
Page	MYC-YF135			Create Date	2024-06-06
				Part Number	JLCPCB-002
Drawn	EasyEDA	STM32MP135 Dev Board			
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USB POWER AND DEBUG

The diagram illustrates the electrical connections for a USB Type-C 16PIN connector (labeled TYPE-C 16PIN 2MD(073)). The connector pins are numbered 1 through 14. The connections are as follows:

- Pin 14 (SHELL):** Connected to PGND.
- Pin 13 (SHELL):** Connected to PGND.
- Pin 12 (GND):** Connected to GND.
- Pin 11 (GND):** Connected to GND.
- Pin 10 (VBUS):** Labeled "VBUS supplies Power Path Management IC". Connected to a VBUS trace, which then goes to a 5K1 resistor (R7) to GND.
- Pin 9 (CC2):** Connected to GND.
- Pin 8 (SBU1):** Connected to GND.
- Pin 7 (DP2):** Connected to GND.
- Pin 6 (DN1):** Connected to GND.
- Pin 5 (DP1):** Connected to GND.
- Pin 4 (DN2):** Connected to GND.
- Pin 3 (CC1):** Connected to GND.
- Pin 2 (SBU2):** Connected to GND.
- Pin 1 (VBUS):** Connected to a VBUS trace, which then goes to a 5K1 resistor (R8) to GND.
- Pin 0 (GND):** Connected to GND.

The circuit also includes two ESD protection diodes (U3 and U4, ESD5451N) connected to PGND. A TP22EUSB30DRTR-TP transceiver is connected to the VBUS trace and the GND pin of the connector. The transceiver has pins labeled D-, D+, D-, and D+, and a GND pin connected to PGND.

Resistors R9 and R10 (27R) are connected between the VBUS trace and the USB IN+ and USB IN- pins, respectively. A 5K1 resistor (R8) is connected between the VBUS trace and the GND pin of the connector.

SERIAL TO USB

The diagram illustrates the internal connections of an FT232RL (FT231XS-R) IC, which is a serial-to-USB converter. The IC is shown with its pins and connections to a USB and a UART.

IC Pinout and Connections:

- Pin 13:** 3V3OUT, connected to +5V.
- Pin 12:** USBDM, connected to USB_IN-.
- Pin 11:** USBDP, connected to USB_IN+.
- Pin 14:** RESET#, connected to +5V.
- Pin 15:** VCC, connected to +5V.
- Pin 3:** VCCIO, connected to +5V.
- Pin 6:** GND, connected to GND.
- Pin 16:** GND, connected to GND.
- Pin 18:** CBUS0, connected to GND.
- Pin 17:** CBUS1, connected to GND.
- Pin 10:** CBUS2, connected to GND.
- Pin 19:** CBUS3, connected to GND.
- Pin 20:** TXD, connected to UART4_RX.
- Pin 4:** RXD, connected to UART4_TX.
- Pin 2:** RTS#, connected to GND.
- Pin 9:** CTS#, connected to GND.
- Pin 1:** DTR#, connected to GND.
- Pin 7:** DSR#, connected to GND.
- Pin 8:** DCD#, connected to GND.
- Pin 5:** RI#, connected to GND.

External Components:


- C1:** 100nF capacitor, connected to the RESET# pin (14) and GND.
- C2:** 100nF capacitor, connected to the VCC pin (15) and GND.
- C3:** 4.7uF capacitor, connected to the VCCIO pin (3) and GND.

BOOT OPTIONS

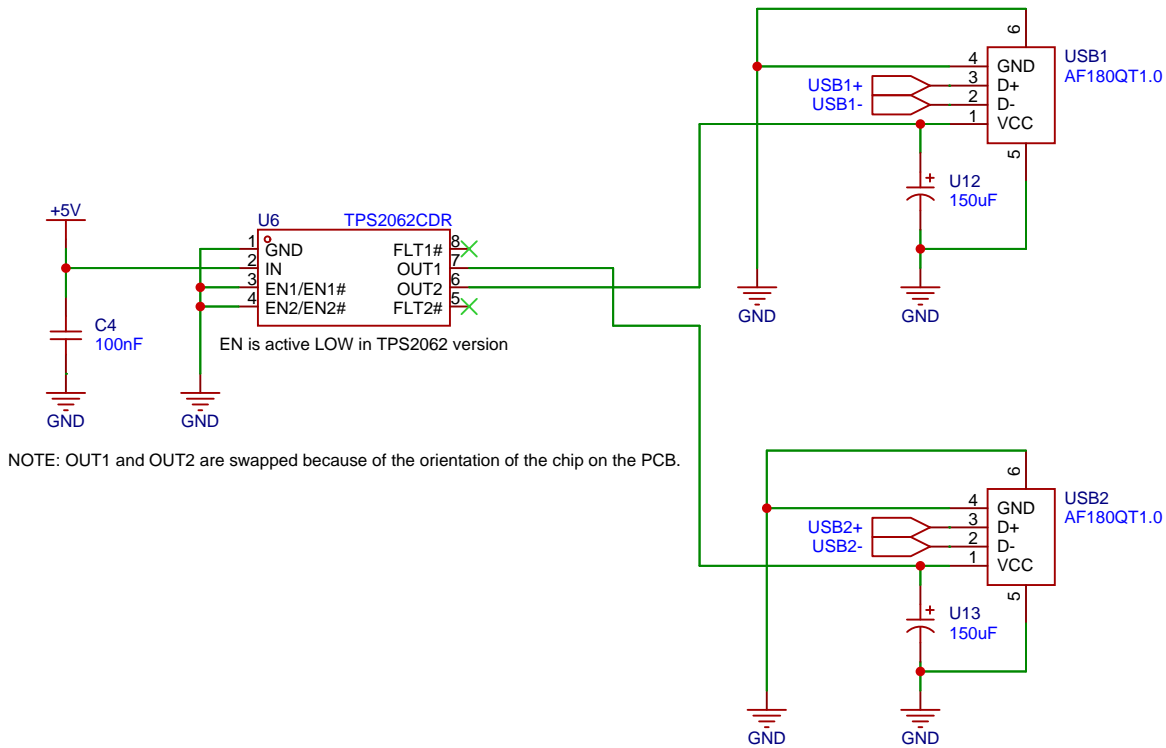
The diagram illustrates the boot options configuration. A DSIC03LS-P switch (SW1) is connected to three boot pins: BOOT0, BOOT1, and BOOT2. The switch has three positions, each corresponding to a different boot mode. The 3V3 supply is connected to the switch's common terminal.

RESET BUTTON

The diagram illustrates the reset button circuit for the TS-1187A-B-A-B microcontroller. A 3V3 supply is connected to a 10K resistor (R11). The other end of R11 is connected to the NRST pin of the TS-1187A-B-A-B. The NRST pin is also connected to pin 4 of the TS-1187A-B-A-B. A switch (SW2) is connected between pin 3 and pin 2 of the TS-1187A-B-A-B. Pin 2 is connected to GND.

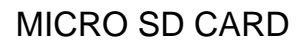
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				Create Date	2024-06-06
Page	USB Debug			Part Number	JLPCB-002
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USB HOST 1 & 2

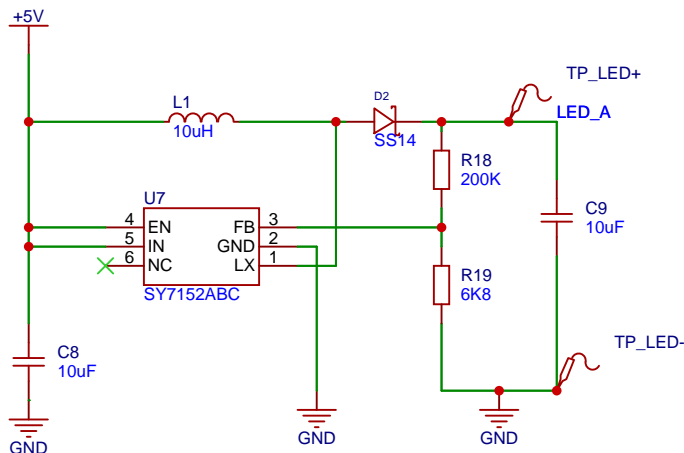


NOTE: OUT1 and OUT2 are swapped because of the orientation of the chip on the PCB.

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			Create Date	2024-06-06
Page	USB Host		Part Number	JLCPCB-002
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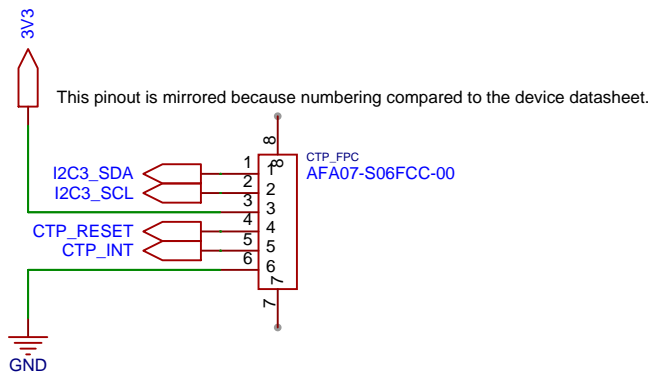


LCD BACKLIGHT



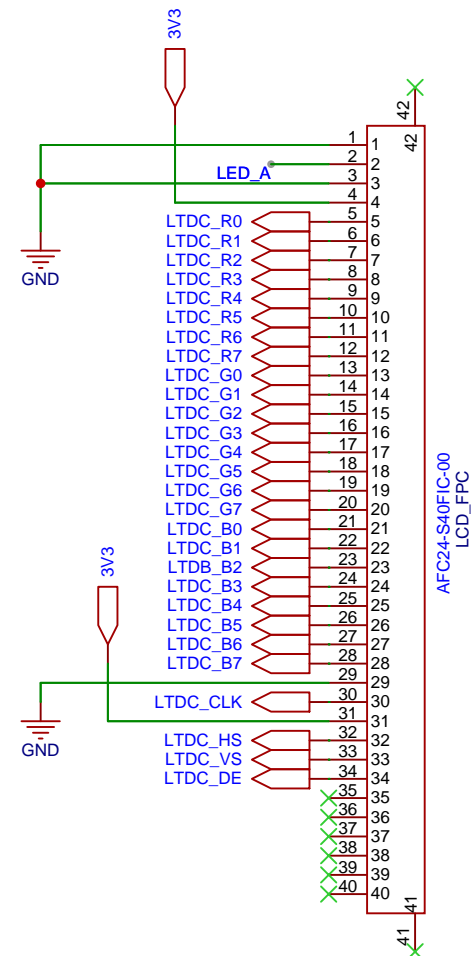
$$R2 = (200K * 0.6) / (16.6V + 0.6) = 6.8K$$

CTP FPC



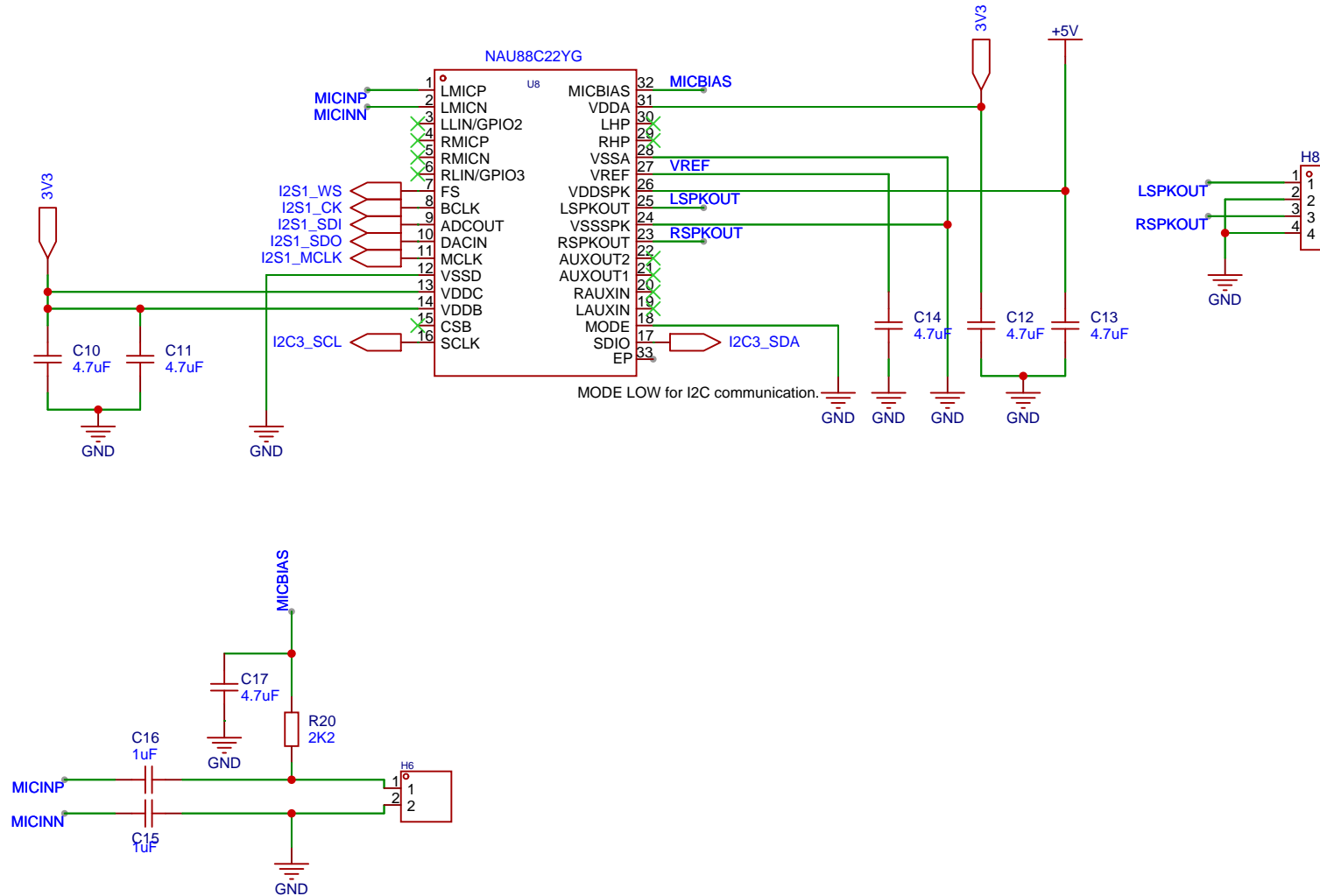
LCD FPC

AFY800480A0-5.0INTH-C



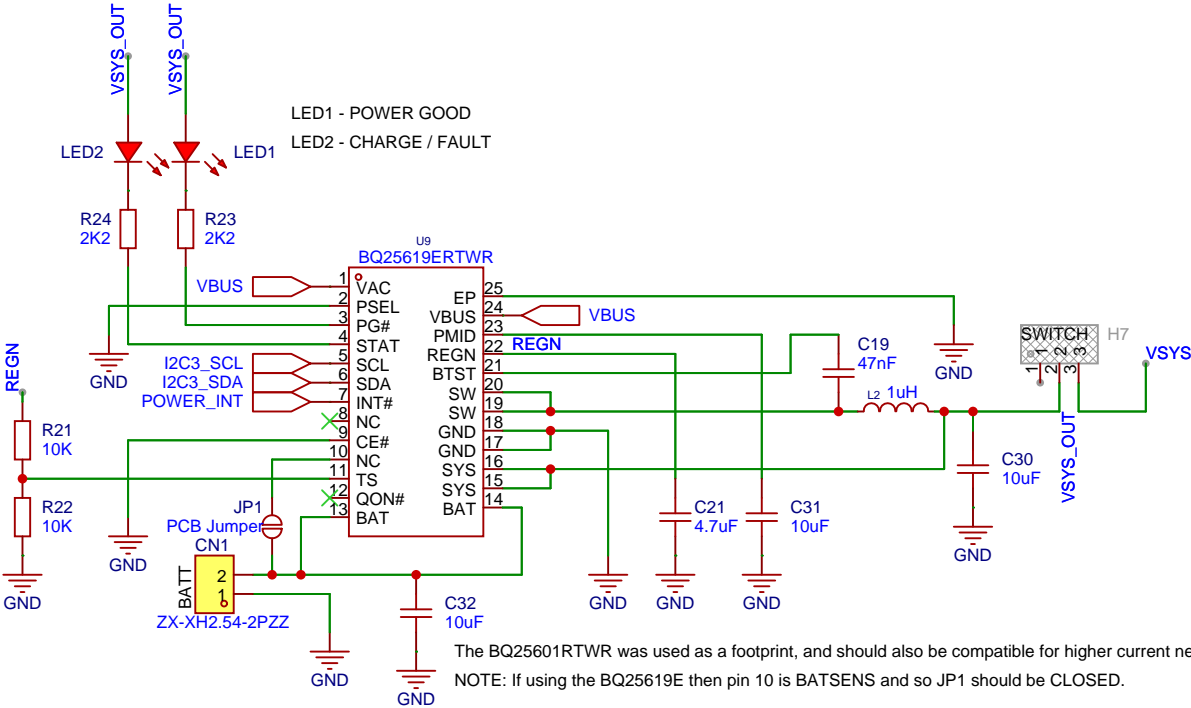
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Page	LCD			Part Number	JLPCB-002
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AUDIO CODEC

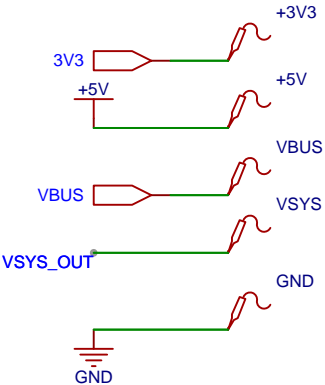


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Page	Audio		Part Number	JLCPCB-002
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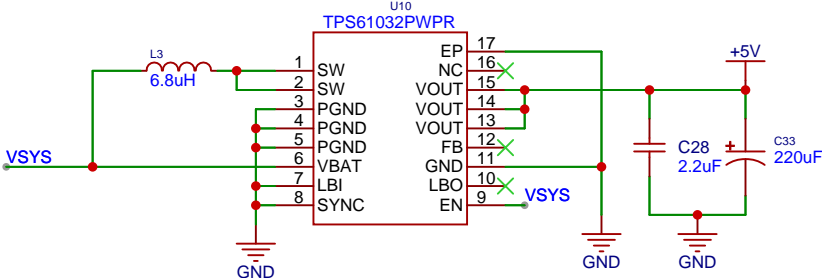
BMS and POWER PATH



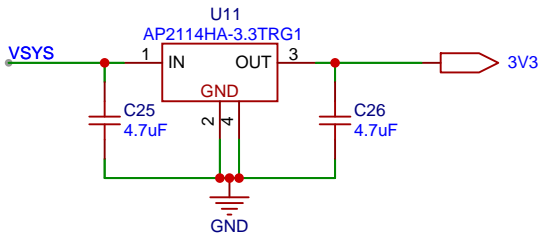
TEST POINTS



+5V 3A



+3.3V 1A



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