

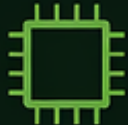
SYSTEM ON MODULE

Top-Level Overview

 Date: 12.04.2026

 Author: Ti2i3

 Revision: A1



DDR3L Memory
MT41K64M16TW-107:J
1 Gb / 933 MHz / 16-bit

VDD_DDR: 1.35 V

Datelt: DDR3.kicad_sch



PMIC
TPS65218D0



PMIC Reset Buffer
SN74LVC1G07DBVR



AM3354
Sitara™ ARM®
Cortex®-A8



**24 MHz
System Clock**

OT2JI11124M

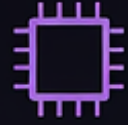
Datelt: Ports.kicad_sch



**32.768 kHz
RTC Clock**

SX3M32.768KM20F30TNN

POWER RAILS

**CORE & MPU**

- VDD_CORE 1.1 V
- VDD_MPU 1.325 V (1 GHz OPP)

**MEMORY**

- VDD_DDR 1.35 V (DDR3L)

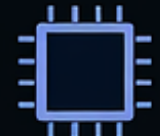
**I/O**

- VDDS 1.8 V
- VDDSHVx 1.8 V / 3.3 V

All voltages are typical values.
Refer to AM3354 Datasheet for details.

Datelt: Power.kicad_sch

KEY COMPONENTS (Critical)

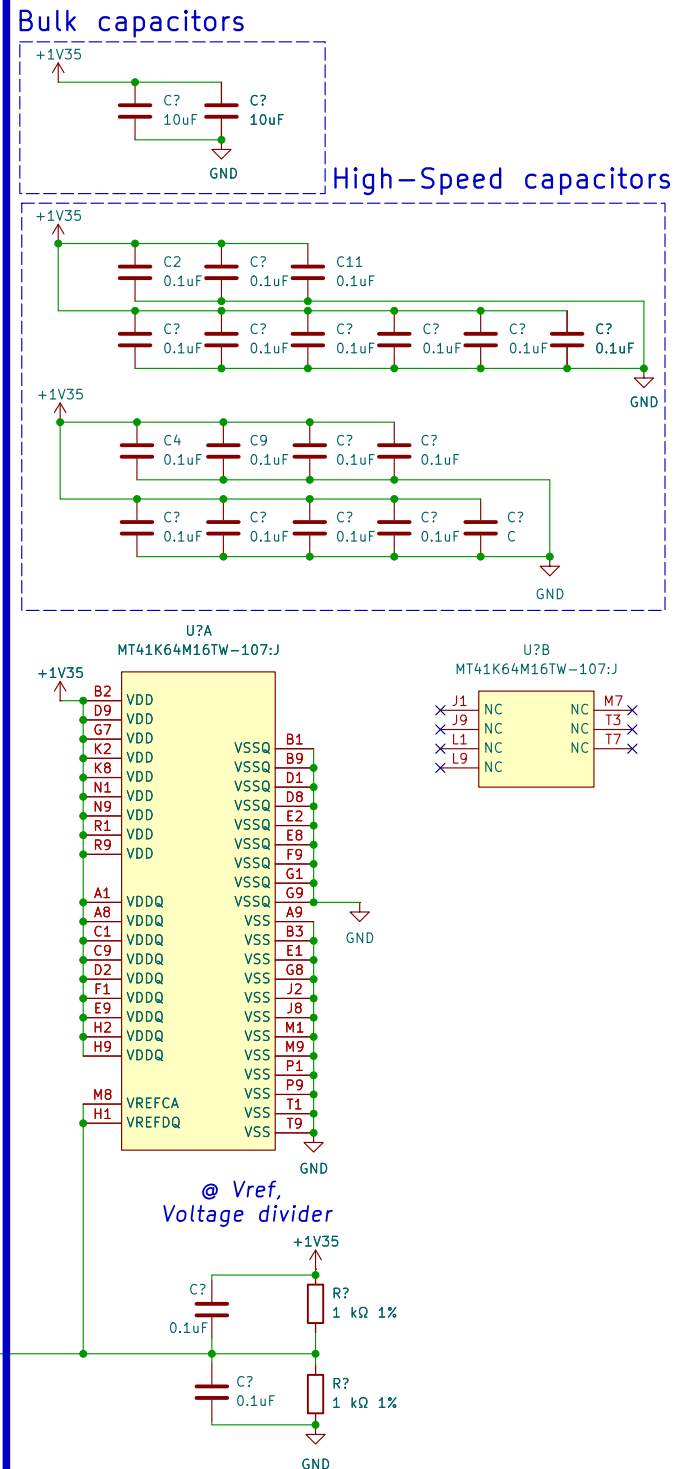
**AM3354 Processor**
Sitara™ ARM®
Cortex®-A8

**DDR3L Memory**
MT41K64M16TW-107:J
1 Gb / 933 MHz / 16-bit
1.35 V

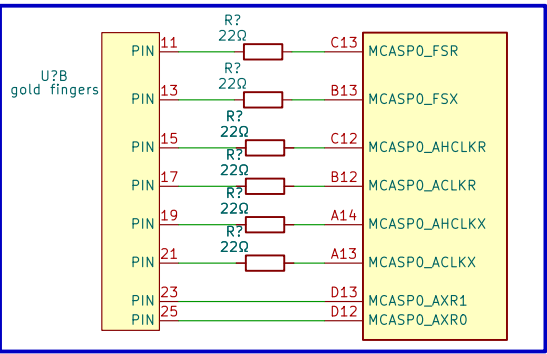
GENERAL NOTES

- All capacitors are rated at 10 V.
- Use 16 V capacitors on 5 V rails.

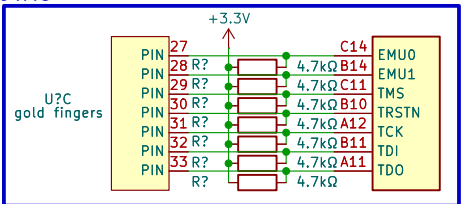
DDR3L Power



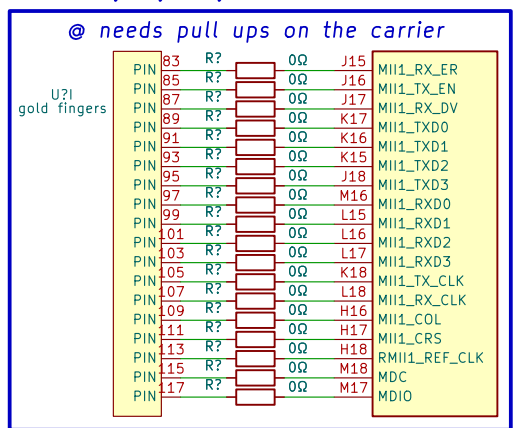
Audio



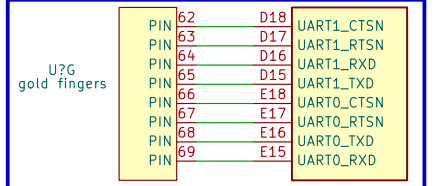
JTAG @ ESD protection may be required



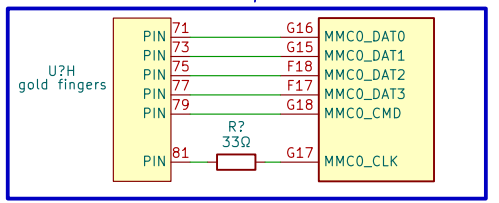
ETHERNET/10/100/1000



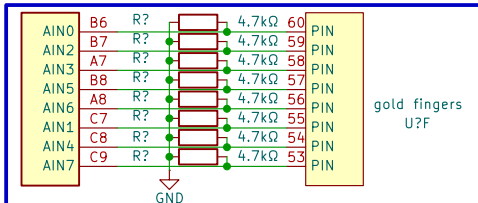
UART



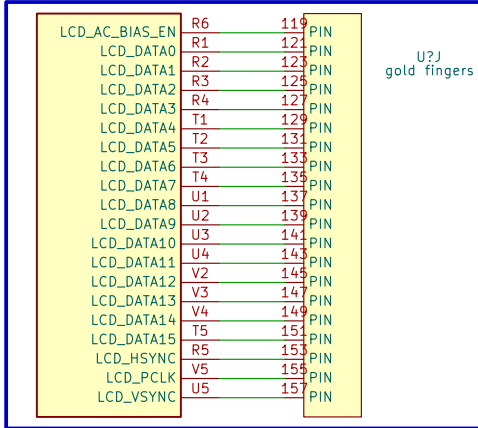
RMI @ Pull-ups on the carrier board will be implemented.



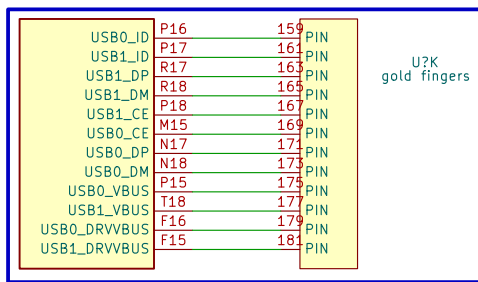
ADC



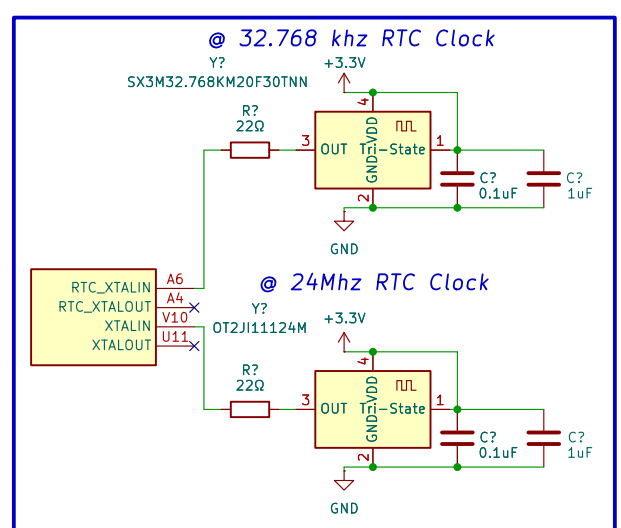
LCD @ Connect the lcd pins on the carrier



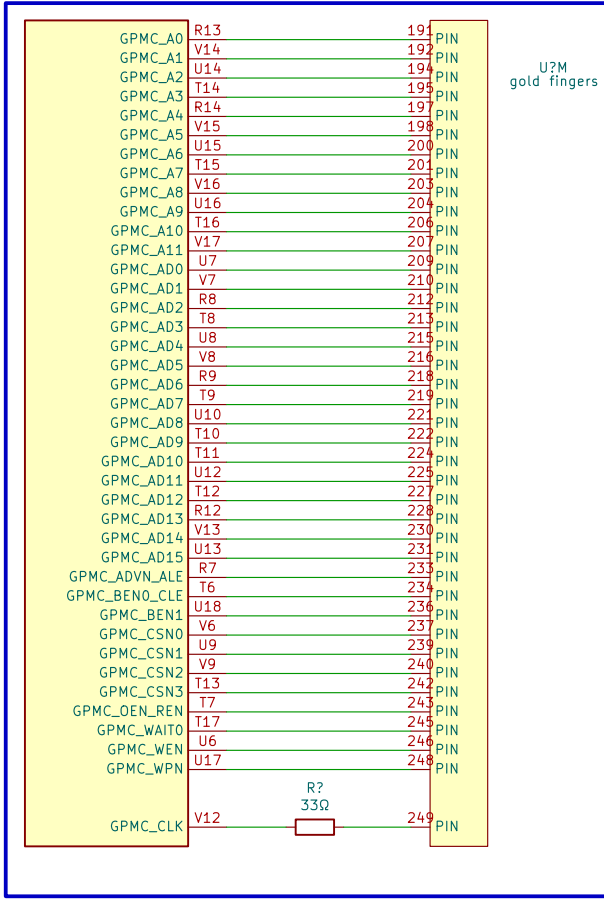
USB @ High speed signals Minimize addition of series resistor or TP



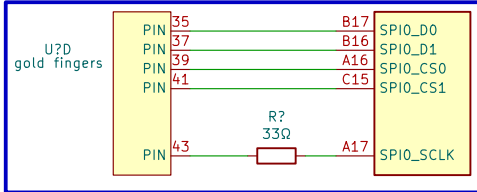
CLOCK



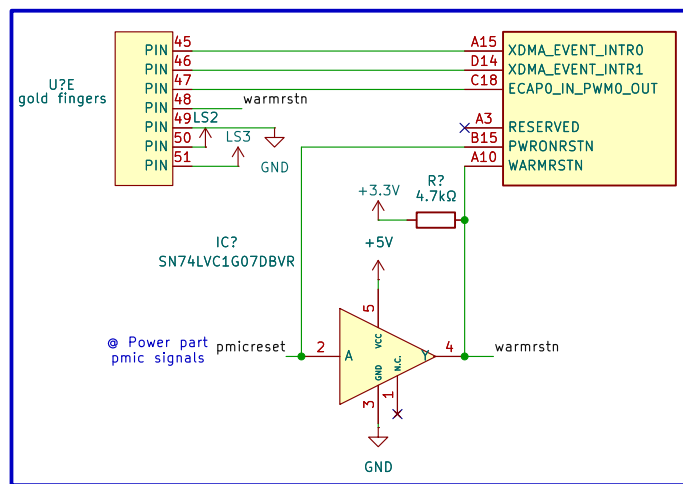
General-Purpose Memory Controller



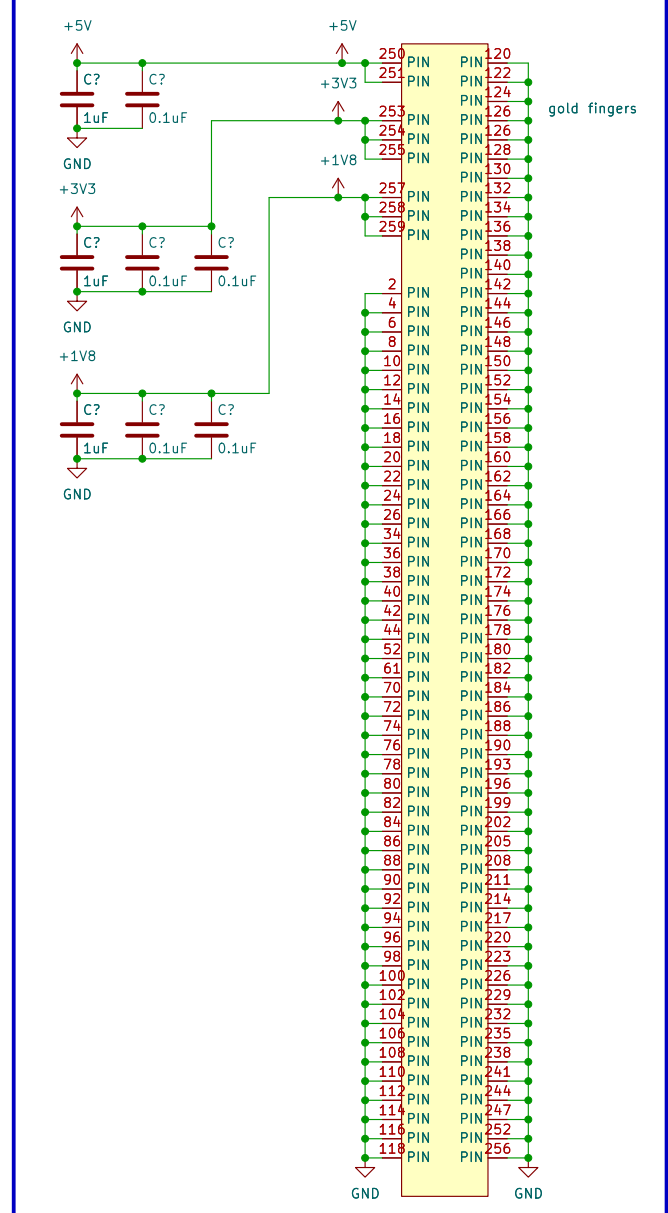
SPI



REST @ Connect the rtc pins on the carrier!



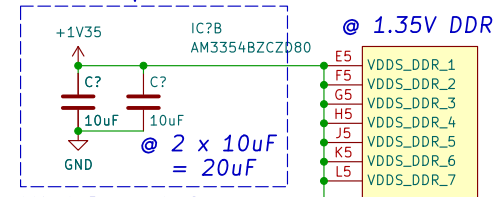
SODIMM Power Pins



Power AM3354

PMIC TPS65218D0RSLR

Bulk Capacitors



HighSpeed Caps

