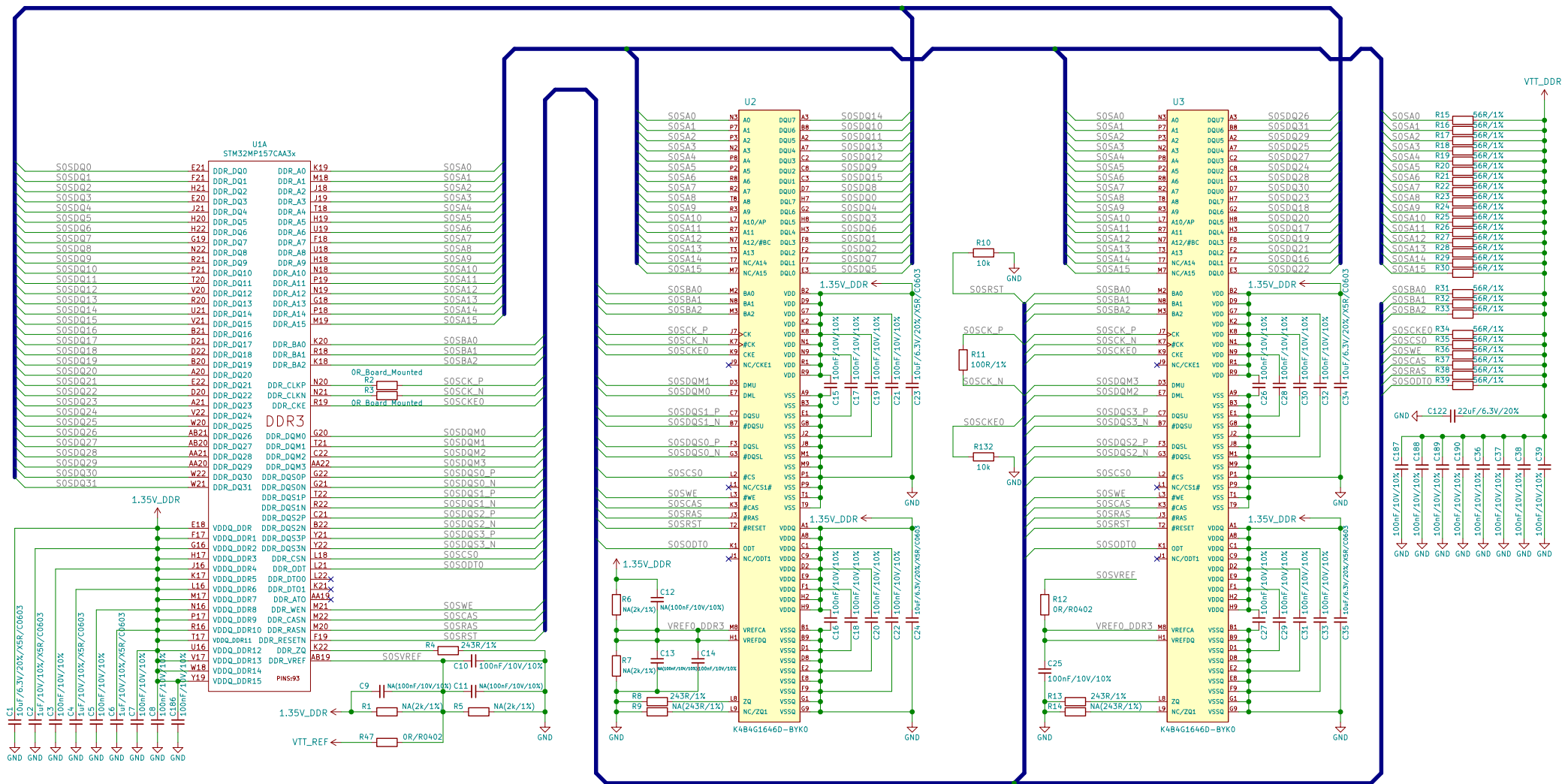


# DDR3L:1GByte



## Note:

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We have used a number of fully compatible, but different DDR3 memories due to supply unavailability. In such cases the memory part name in the schematic might remain outdated. It is recommended to always refer to the exact memory name printed on the component itself.

**OLIMEX**

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OLIMEX LTD, Bulgaria

Sheet: /  
File: STMP157-OLinuXino-LIME2\_Rev.B1.sch

Title: STMP157-OLinuXino-LIME2

Size: A3 Date: 2021-10-07  
KiCad E.D.A. kicad 5.1.6-c6e7f7d87ubuntu18.04.1

Rev: B1  
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# Boot Selection

Boot Mode	Boot2	Boot1	Boot0
Reserved (NoBoot)	1	0	0
NOR -> Serial NOR Flash on QUADSPI	0	0	1
NAND -> Serial NAND Flash on QUADSPI	1	1	1
NAND -> SLC NAND Flash on FMC	0	1	1
eMMC on SDMMC2 (default)	0	1	0
SD-Card on SDMMC1 (default)	1	0	1
Forced UART/USB Boot/ USB high-speed device, or USART2/3/8 and UART4/5/7/8 on default pins.	1	1	0
	0	0	0

U1  
STM32MP157CAAX3

**BOOT**  
**JTAG**

PWR\_ON/PWR\_ON\_LP  
PA0/PIN0\_CH1/PIN2\_ETR/PIN5\_CH1/PIN6\_ETR/TIM5\_BKIN/USART2\_CTS/USART2\_NSS/UART4\_TX/SDMMC2\_CMD/DAC2\_SDA/B/ETH1\_GMAC\_SS/ETH1\_MDIO\_EVENTS/ADC1\_INPA/ANIP1  
PZ4/I2C6\_SCL/I2C2\_SCL/I2C5\_SCL/I2C4\_SCL/EVENTOUT  
PZ5/I2C6\_SDA/I2C2\_SDA/I2C5\_SDA/I2C4\_SDA/USART1\_RTS/USART1\_DE/EVENTOUT

RST\_CORE\_pu  
PDR\_ON\_CORE  
PDR\_ON  
PWR\_LP

PC14-OSC32\_IN/OSC32\_IN/EVENTOUT  
PC15-OSC32\_OUT/OSC32\_OUT/EVENTOUT

PH0-OSC\_IN/OSC\_IN/EVENTOUT  
PH1-OSC\_OUT/OSC\_OUT/EVENTOUT

PA4/ADC1\_INP8/ADC1\_INP9/DAC\_OUT1/HOPD/TIM5\_ETR/SALJ2/SPH1\_NSS/GS1\_M5/SPH3\_NSS/GS3\_M5/USART2\_CS/SPH1\_NSS/SAL\_P4/SOLK\_NINC/COLUS/INVC/VENTOUT  
PA5/ADC1\_INP9/ADC1\_INN8/ADC1\_INP9/ADC1\_INN8/DAC\_OUT2/TIM2\_CH1/TIM2\_ETR/TIM8\_CH1/SAL\_CS1/SPH1\_SCL/GS1/SPH3\_SCL/SAL\_WCKA/COLUS/INVC/VENTOUT

ANA0/ADC1\_INP0/ADC1\_INN1/ADC2\_INP0/ADC2\_INN1  
ANA1/ADC1\_INP1/ADC2\_INP1

BOOT0\_pd N3 BOOT0  
BOOT1\_pd N4 BOOT1  
BOOT2\_pd P4 BOOT2

E17 JTIM-SWDIO  
D17 JTCK-SWCLK  
D16 JTDI  
E16 JTD0-TRACESWO  
F15 NJTRST

V1 AA3  
G1 G1  
H4 H4

P1 PA0/WKUP1  
G1 PZ4/I2C4\_SCL  
H4 PZ5/I2C4\_SDA

R1 R1  
U2 U2  
V2 V2  
U1 U1

C40 15nF/PB01/SOL/VTR/C402  
R43 OR/R0402

GND  
VDD

P1 P1  
P2 P2

T1 T1  
T2 X

V6 V6  
U5 U5  
R4 R4  
T5 T5

P44/ADC2\_INP18  
PA5/ADC2\_INN18  
ADC1\_INN1  
ADC1\_INP1

Soldered 1k  
Opened 1k  
Soldered 1k  
Soldered 1k

BOOT0\_VDD1  
BOOT1\_VDD1  
BOOT2\_VDD1  
VDD  
VDD  
VDD  
VDD

STM32MP157CAAX3

# Fiducials

FID1 FID2 FID3 FID4 FID5 FID6

Fiducial Fiducial Fiducial Fiducial Fiducial Fiducial



open source  
hardware

OLIMEX LTD, Bulgaria

Sheet: /eMMC, SPI-Flash, T-Card and Boot,

File: eMMC, SPI-Flash, T-Card and Boot.sch

Title: STMP157-OLinuxino-LIME2

Size: A3	Date: 2021-10-07
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Size: A5	Date: 2021-10-07
KiCad EDA	kiCad 5.1.6-c6e7f7d87ubuntu18.04.1

Rev. B1

Id. 2/5



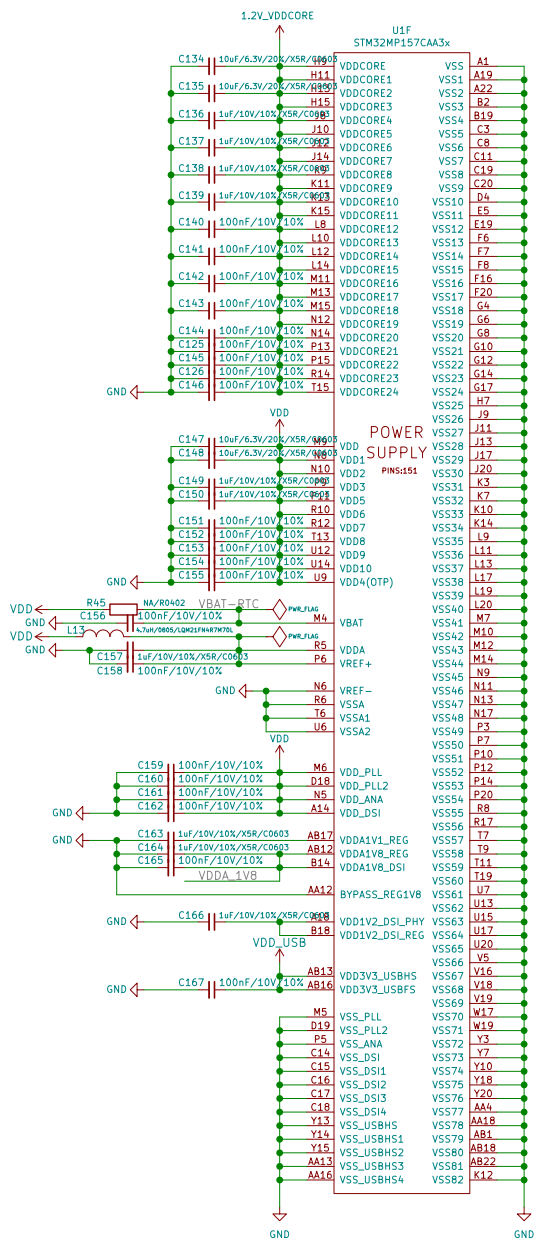
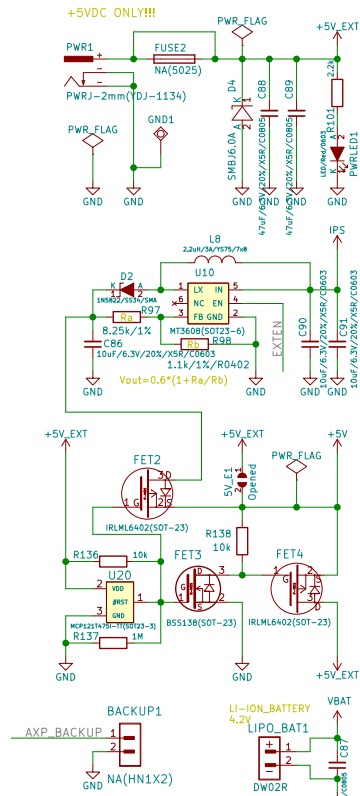
# Power Supply

The diagram illustrates the power supply section, featuring several key components and their connections:

- U18 (TS):** A central component, likely a microcontroller or sensor, with multiple pins connected to various power rails.
- U19 (RT9026GFF):** A voltage regulator for the 1.35V\_VDD1 rail.
- U17 (SY8089A):** A voltage regulator for the 3.3V\_VDD rail.
- U16 (AP1231):** A voltage detector for the VDDA 1V8 rail.
- U15 (MT3608):** A boost converter for the +5V\_EXT rail.
- U14 (IRML6402):** A MOSFET driver for the +5V\_EXT rail.
- U13 (FET2, FET3, FET4):** MOSFETs used for switching and regulation.
- U12 (LMUN2211):** A MOSFET driver for the +5V\_EXT rail.
- U11 (SY8089A):** A voltage regulator for the 1.35V\_VDD1 rail.
- U10 (LX1350):** A MOSFET driver for the +5V\_EXT rail.
- U9 (RT9026GFF):** A voltage regulator for the 1.35V\_VDD1 rail.
- U8 (TS):** A central component, likely a microcontroller or sensor, with multiple pins connected to various power rails.

The diagram shows the following power rails and their connections:

- +5V\_EXT:** Connected to U15, U14, U13, and U12.
- +5V\_VDD:** Connected to U19, U17, and U16.
- +3.3V:** Connected to U17 and U16.
- 1.35V\_VDD1:** Connected to U19 and U11.
- 1.35V\_VDD2:** Connected to U19 and U11.
- 1.35V\_VDD3:** Connected to U19 and U11.
- 1.35V\_VDD4:** Connected to U19 and U11.
- 1.35V\_VDD5:** Connected to U19 and U11.
- 1.35V\_VDD6:** Connected to U19 and U11.
- 1.35V\_VDD7:** Connected to U19 and U11.
- 1.35V\_VDD8:** Connected to U19 and U11.
- 1.35V\_VDD9:** Connected to U19 and U11.
- 1.35V\_VDD10:** Connected to U19 and U11.
- 1.35V\_VDD11:** Connected to U19 and U11.
- 1.35V\_VDD12:** Connected to U19 and U11.
- 1.35V\_VDD13:** Connected to U19 and U11.
- 1.35V\_VDD14:** Connected to U19 and U11.
- 1.35V\_VDD15:** Connected to U19 and U11.
- 1.35V\_VDD16:** Connected to U19 and U11.
- 1.35V\_VDD17:** Connected to U19 and U11.
- 1.35V\_VDD18:** Connected to U19 and U11.
- 1.35V\_VDD19:** Connected to U19 and U11.
- 1.35V\_VDD20:** Connected to U19 and U11.
- 1.35V\_VDD21:** Connected to U19 and U11.
- 1.35V\_VDD22:** Connected to U19 and U11.
- 1.35V\_VDD23:** Connected to U19 and U11.
- 1.35V\_VDD24:** Connected to U19 and U11.
- 1.35V\_VDD25:** Connected to U19 and U11.
- 1.35V\_VDD26:** Connected to U19 and U11.
- 1.35V\_VDD27:** Connected to U19 and U11.
- 1.35V\_VDD28:** Connected to U19 and U11.
- 1.35V\_VDD29:** Connected to U19 and U11.
- 1.35V\_VDD30:** Connected to U19 and U11.
- 1.35V\_VDD31:** Connected to U19 and U11.
- 1.35V\_VDD32:** Connected to U19 and U11.
- 1.35V\_VDD33:** Connected to U19 and U11.
- 1.35V\_VDD34:** Connected to U19 and U11.
- 1.35V\_VDD35:** Connected to U19 and U11.
- 1.35V\_VDD36:** Connected to U19 and U11.
- 1.35V\_VDD37:** Connected to U19 and U11.
- 1.35V\_VDD38:** Connected to U19 and U11.
- 1.35V\_VDD39:** Connected to U19 and U11.
- 1.35V\_VDD40:** Connected to U19 and U11.
- 1.35V\_VDD41:** Connected to U19 and U11.
- 1.35V\_VDD42:** Connected to U19 and U11.
- 1.35V\_VDD43:** Connected to U19 and U11.
- 1.35V\_VDD44:** Connected to U19 and U11.
- 1.35V\_VDD45:** Connected to U19 and U11.
- 1.35V\_VDD46:** Connected to U19 and U11.
- 1.35V\_VDD47:** Connected to U19 and U11.
- 1.35V\_VDD48:** Connected to U19 and U11.
- 1.35V\_VDD49:** Connected to U19 and U11.
- 1.35V\_VDD50:** Connected to U19 and U11.
- 1.35V\_VDD51:** Connected to U19 and U11.
- 1.35V\_VDD52:** Connected to U19 and U11.
- 1.35V\_VDD53:** Connected to U19 and U11.
- 1.35V\_VDD54:** Connected to U19 and U11.
- 1.35V\_VDD55:** Connected to U19 and U11.
- 1.35V\_VDD56:** Connected to U19 and U11.
- 1.35V\_VDD57:** Connected to U19 and U11.
- 1.35V\_VDD58:** Connected to U19 and U11.
- 1.35V\_VDD59:** Connected to U19 and U11.
- 1.35V\_VDD60:** Connected to U19 and U11.
- 1.35V\_VDD61:** Connected to U19 and U11.
- 1.35V\_VDD62:** Connected to U19 and U11.
- 1.35V\_VDD63:** Connected to U19 and U11.
- 1.35V\_VDD64:** Connected to U19 and U11.
- 1.35V\_VDD65:** Connected to U19 and U11.
- 1.35V\_VDD66:** Connected to U19 and U11.
- 1.35V\_VDD67:** Connected to U19 and U11.
- 1.35V\_VDD68:** Connected to U19 and U11.
- 1.35V\_VDD69:** Connected to U19 and U11.
- 1.35V\_VDD70:** Connected to U19 and U11.
- 1.35V\_VDD71:** Connected to U19 and U11.
- 1.35V\_VDD72:** Connected to U19 and U11.
- 1.35V\_VDD73:** Connected to U19 and U11.
- 1.35V\_VDD74:** Connected to U19 and U11.
- 1.35V\_VDD75:** Connected to U19 and U11.
- 1.35V\_VDD76:** Connected to U19 and U11.
- 1.35V\_VDD77:** Connected to U19 and U11.
- 1.35V\_VDD78:** Connected to U19 and U11.
- 1.35V\_VDD79:** Connected to U19 and U11.
- 1.35V\_VDD80:** Connected to U19 and U11.
- 1.35V\_VDD81:** Connected to U19 and U11.
- 1.35V\_VDD82:** Connected to U19 and U11.
- 1.35V\_VDD83:** Connected to U19 and U11.
- 1.35V\_VDD84:** Connected to U19 and U11.
- 1.35V\_VDD85:** Connected to U19 and U11.
- 1.35V\_VDD86:** Connected to U19 and U11.
- 1.35V\_VDD87:** Connected to U19 and U11.
- 1.35V\_VDD88:** Connected to U19 and U11.
- 1.35V\_VDD89:** Connected to U19 and U11.
- 1.35V\_VDD90:** Connected to U19 and U11.
- 1.35V\_VDD91:** Connected to U19 and U11.
- 1.35V\_VDD92:** Connected to U19 and U11.
- 1.35V\_VDD93:** Connected to U19 and U11.
- 1.35V\_VDD94:** Connected to U19 and U11.
- 1.35V\_VDD95:** Connected to U19 and U11.
- 1.35V\_VDD96:** Connected to U19 and U11.
- 1.35V\_VDD97:** Connected to U19 and U11.
- 1.35V\_VDD98:** Connected to U19 and U11.
- 1.35V\_VDD99:** Connected to U19 and U11.
- 1.35V\_VDD100:** Connected to U19 and U11.



Rev: B1  
Id: 4/5



