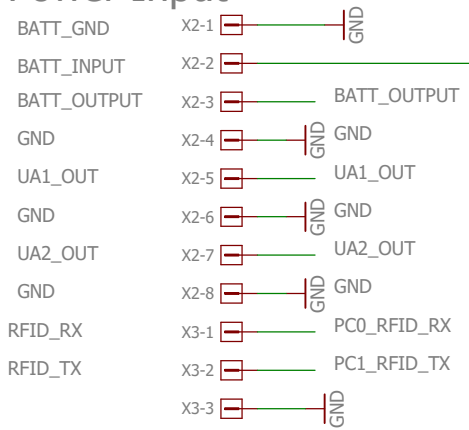
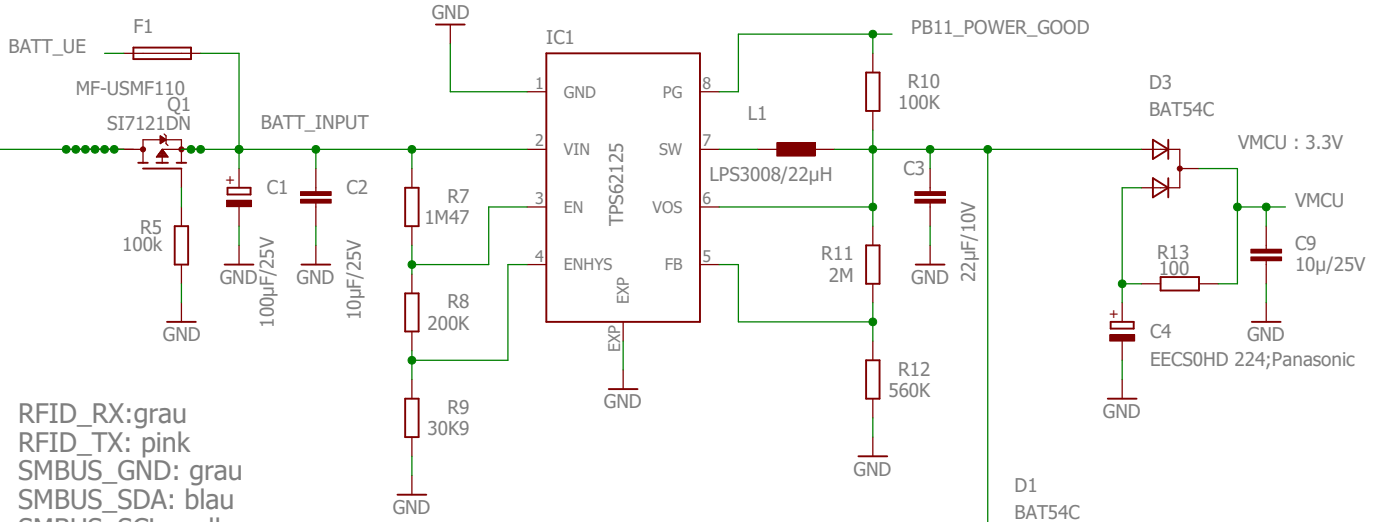
- Warum Strommessung im Pfad vor?
C3 rs_comp. 9015339

BATT_OUTPUT: 12V@900mA (Abschaltung Batterypack)
UA1_OUT:unter 11V@2A
UA2_OUT: unter 11V@2A
Gesamtstromverbrauch über SMBus

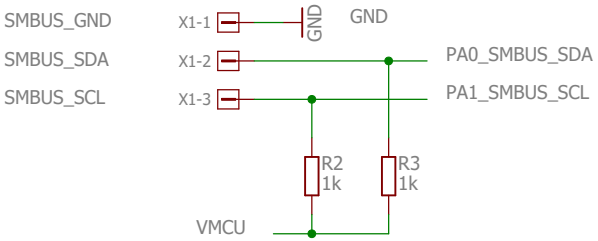
EFM32 Power Regulator

Power Input

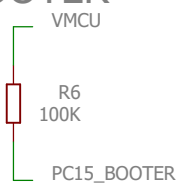




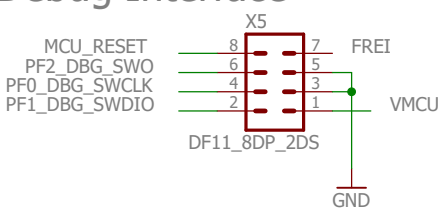
RFID_RX:grau
RFID_TX: pink
SMBUS_GND: grau
SMBUS_SDA: blau
SMBUS_SCL: gelb

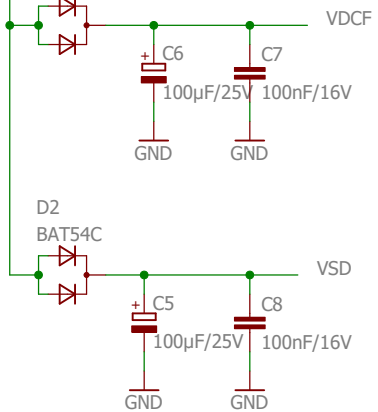


BOOTER



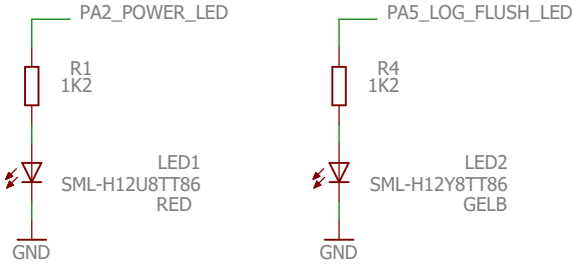
Debug Interface



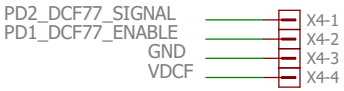


PASS1 PASS2 PASS3 PASS4

POWER_ON



DCF77

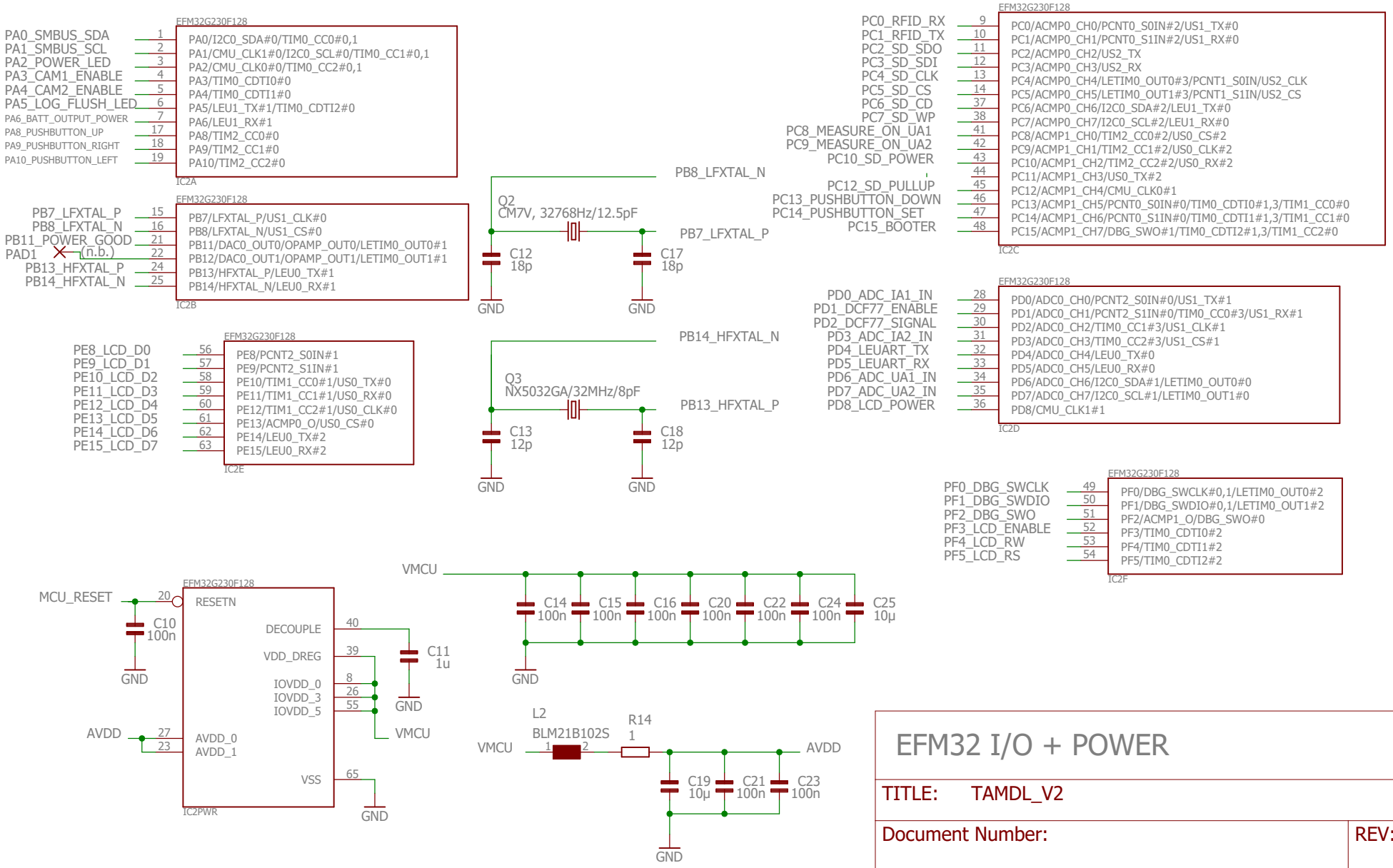


DCF_SIGNAL: grün
DCF_ENABLE: gelb
DCF_GND: braun
DCF_VMCU: weiss

Power+Debug Interface+ SMBus		
TITLE: TAMDL_V2		
Document Number:		REV:
Date: 21.03.2019 10:37	Sheet: 1/6	

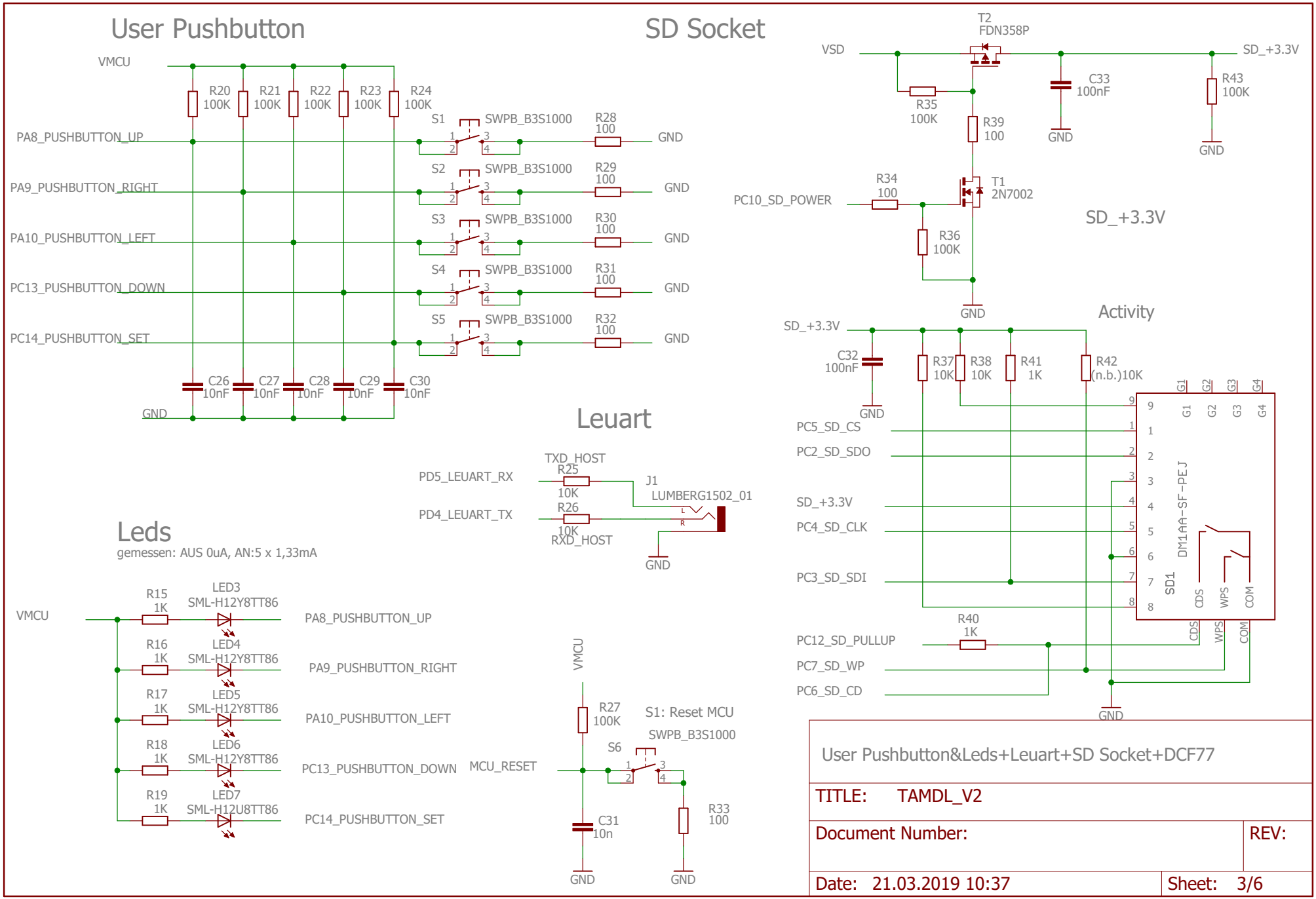
EFM32 I/O + POWER

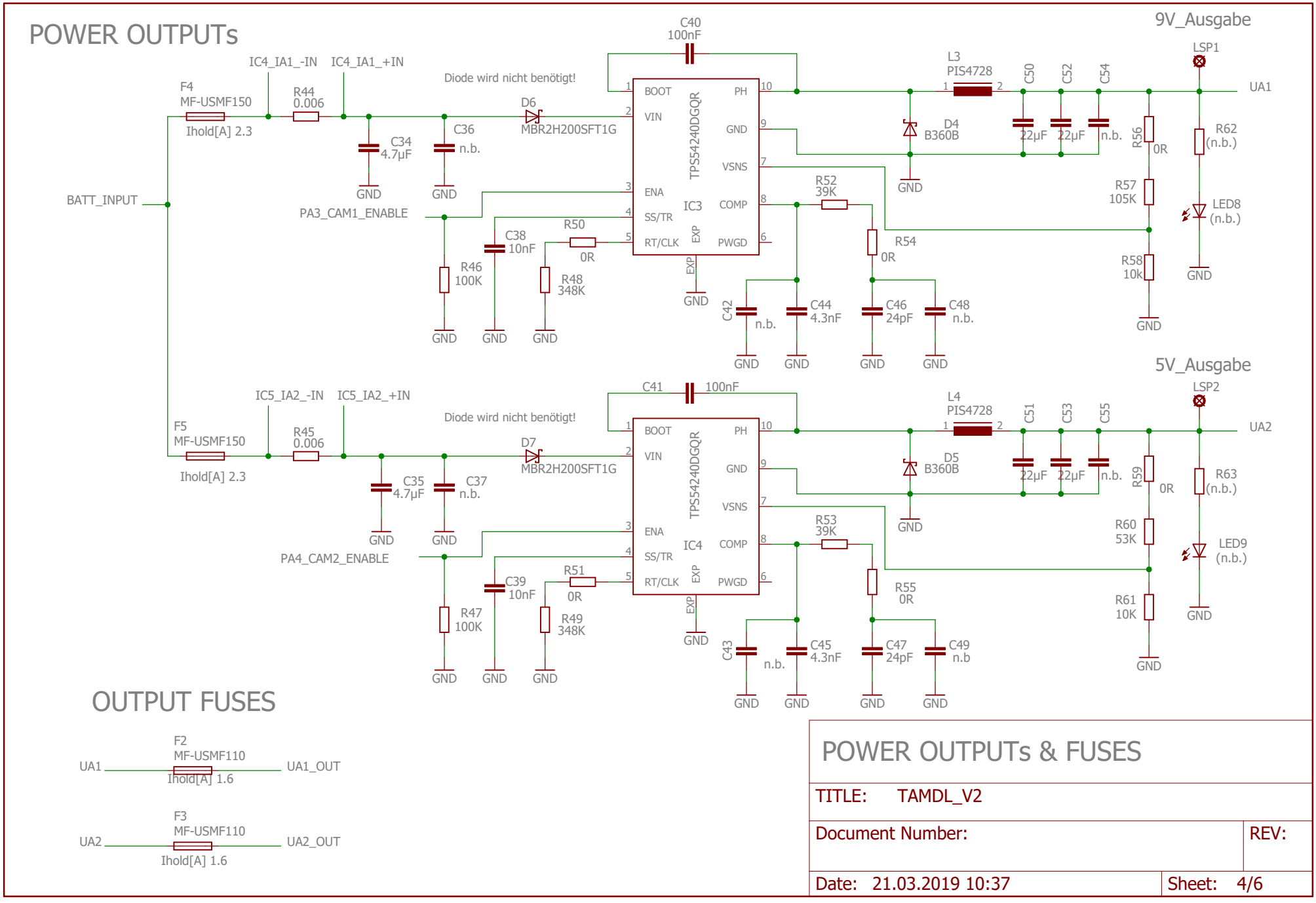
CL f. 32KHz crystal = 22pF as in STK3600



EFM32 I/O + POWER

TITLE:	TAMDL_V2
Document Number:	REV:
Date: 21.03.2019 10:37	Sheet: 2/6


User Pushbutton
VMCU
R20 100K
R21 100K
R22 100K
R23 100K
R24 100K
PA8_PUSHBUTTON_UP
PA9_PUSHBUTTON_RIGHT
PA10_PUSHBUTTON_LEFT
PC13_PUSHBUTTON_DOWN
PC14_PUSHBUTTON_SET
S1 SWPB_B3S1000
S2 SWPB_B3S1000
S3 SWPB_B3S1000
S4 SWPB_B3S1000
S5 SWPB_B3S1000
R28 100
R29 100
R30 100
R31 100
R32 100
GND
C26 10nF
C27 10nF
C28 10nF
C29 10nF
C30 10nF
SD Socket
T2 FDN358P
VSD
SD_+3.3V
C33 100nF
R43 100K
R35 100K
R39 100
R34 100
T1 2N7002
PC10_SD_POWER
R36 100K
Activity
C32 100nF
R37 10K
R38 10K
R41 1K
R42 (n.b.)10K
PC5_SD_CS
PC2_SD_SDO
PC4_SD_CLK
PC3_SD_SDI
PC12_SD_PULLUP
PC7_SD_WP
PC6_SD_CD
R40 1K
SD1
DM1AA-SF-PEJ
CDS
WPS
COM
Leuart
TXD_HOST
PD5_LEUART_RX
PD4_LEUART_TX
RXD_HOST
R25 10K
R26 10K
J1
LUMBERG1502_01
Leds
gemessen: AUS 0uA, AN:5 x 1,33mA
R15 1K
R16 1K
R17 1K
R18 1K
R19 1K
LED3 SML-H12Y8TT86
LED4 SML-H12Y8TT86
LED5 SML-H12Y8TT86
LED6 SML-H12Y8TT86
LED7 SML-H12U8TT86
PA8_PUSHBUTTON_UP
PA9_PUSHBUTTON_RIGHT
PA10_PUSHBUTTON_LEFT
PC13_PUSHBUTTON_DOWN
PC14_PUSHBUTTON_SET
MCU_RESET
R27 100K
S6
S1: Reset MCU
SWPB_B3S1000
C31 10n
R33 100
User Pushbutton&Leds+Leuart+SD Socket+DCF77
TITLE: TAMDL_V2
Document Number:
REV:
Date: 21.03.2019 10:37
Sheet: 3/6



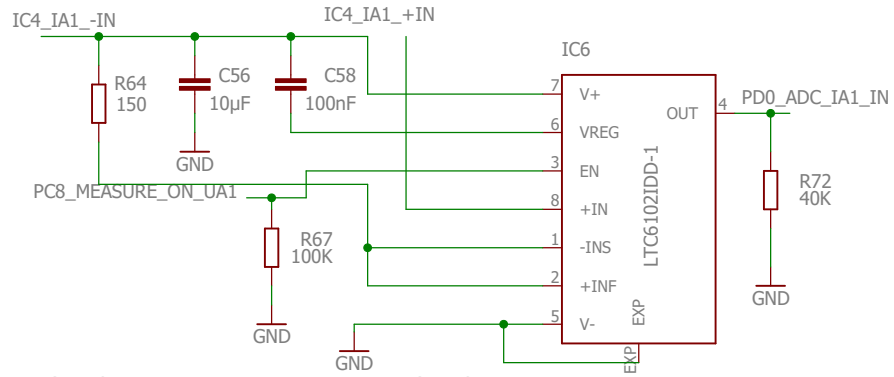
OUTPUT FUSES

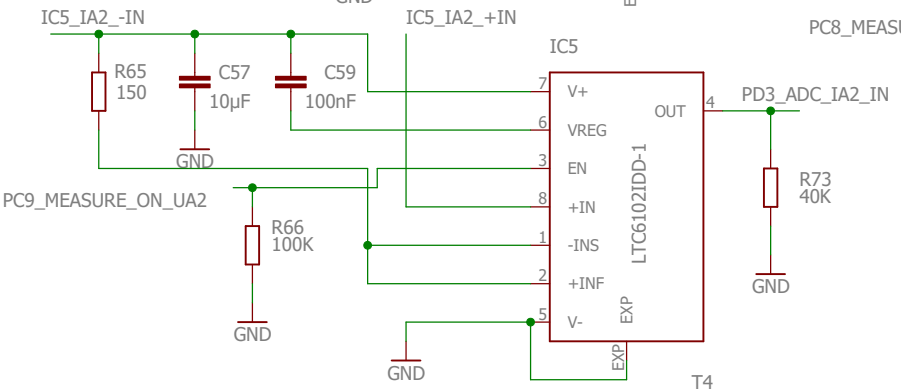
POWER OUTPUTs & FUSES

TITLE: TAMDL_V2	
Document Number:	REV:
Date: 21.03.2019 10:37	Sheet: 4/6

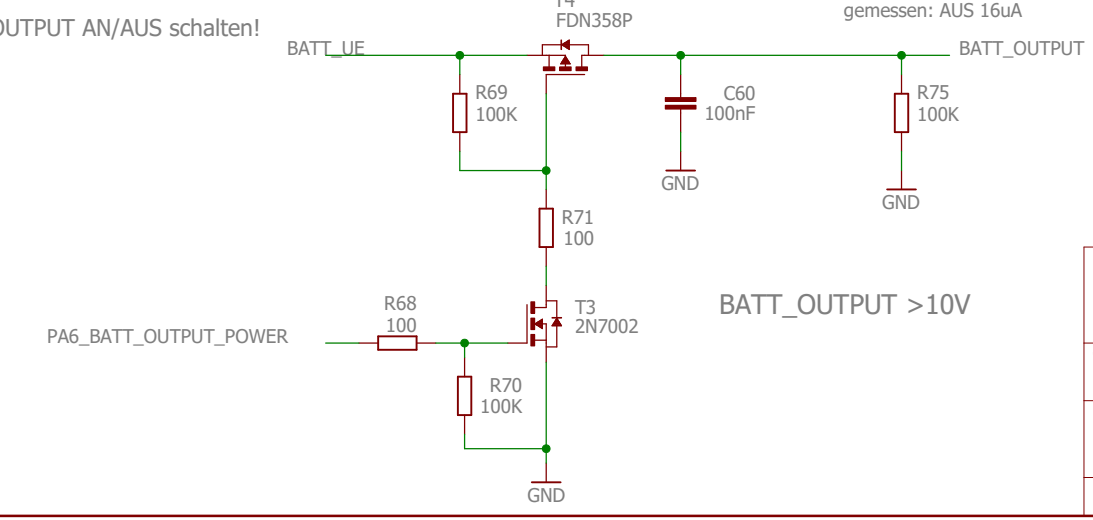
Output Measurements Current

Measure Current mit 12V Pegel





BATT_OUTPUT AN/AUS schalten!

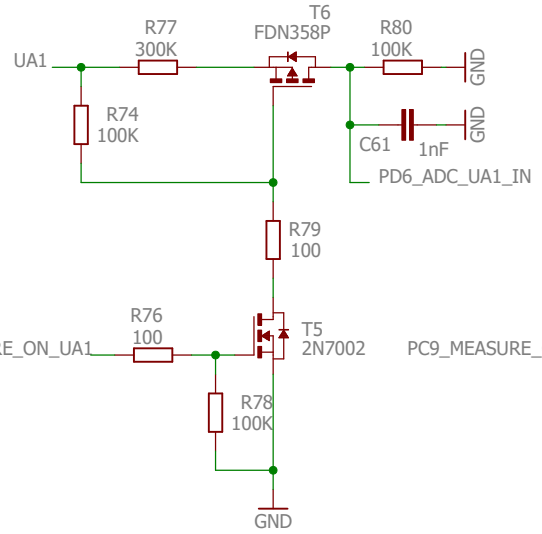


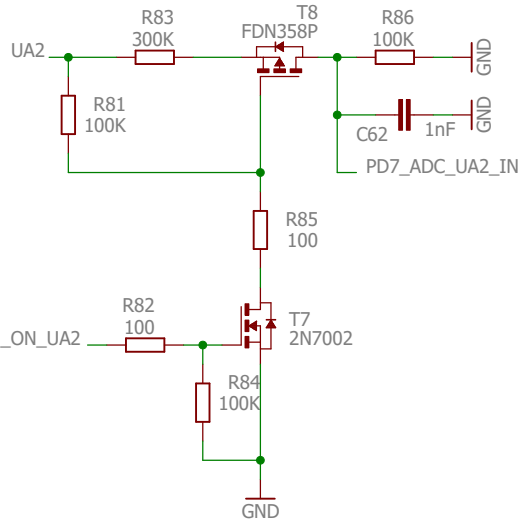
gemessen: AUS 16uA

BATT_OUTPUT >10V

Output Measurements Voltage

Teilerverhältnis: 12V:4= 3V (PD6_ADC_UA1_IN;PD7_ADC_UA2_IN)





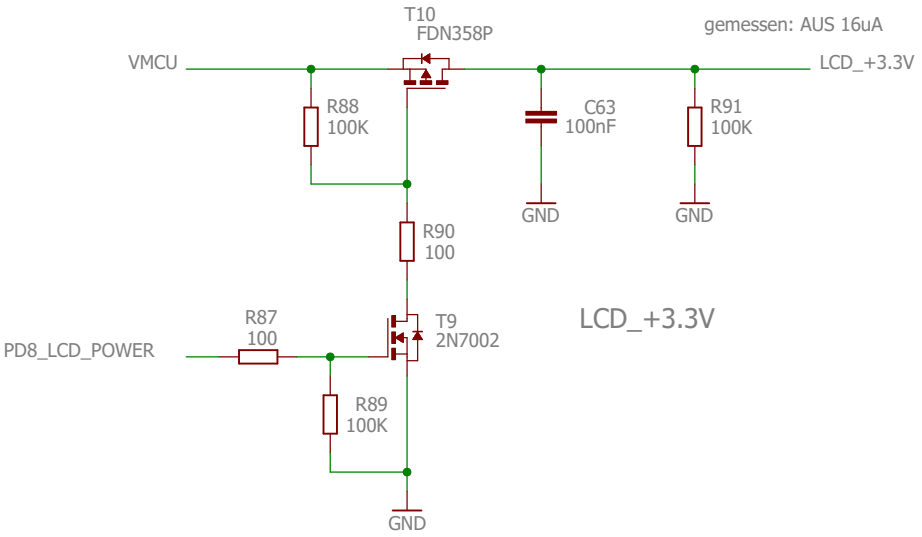
Taktung der Messungen durch
PC8_MEASURE_ON_UA1
PC9_MEASURE_ON_UA2

Output Measurements Current&Voltage

TITLE: TAMDL_V2	
Document Number:	REV:
Date: 21.03.2019 10:37	Sheet: 5/6

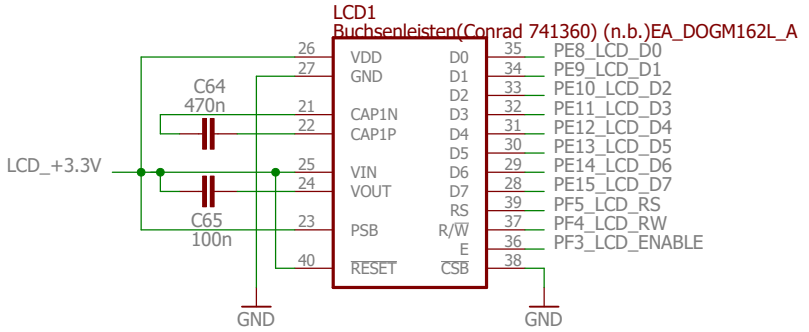
LCD ANZEIGE

LCD AN/AUS schalten!



E,RS,RW an Port B (Pin 0 1 2)
Daten an Port C (8 Bit)
RST,PSB,VIN fest an +3,3V
CS fest an GND

gemessen: AN 342uA



LCD ANZEIGE		
TITLE: TAMDL_V2		
Document Number:		REV:
Date: 21.03.2019 10:37	Sheet: 6/6	