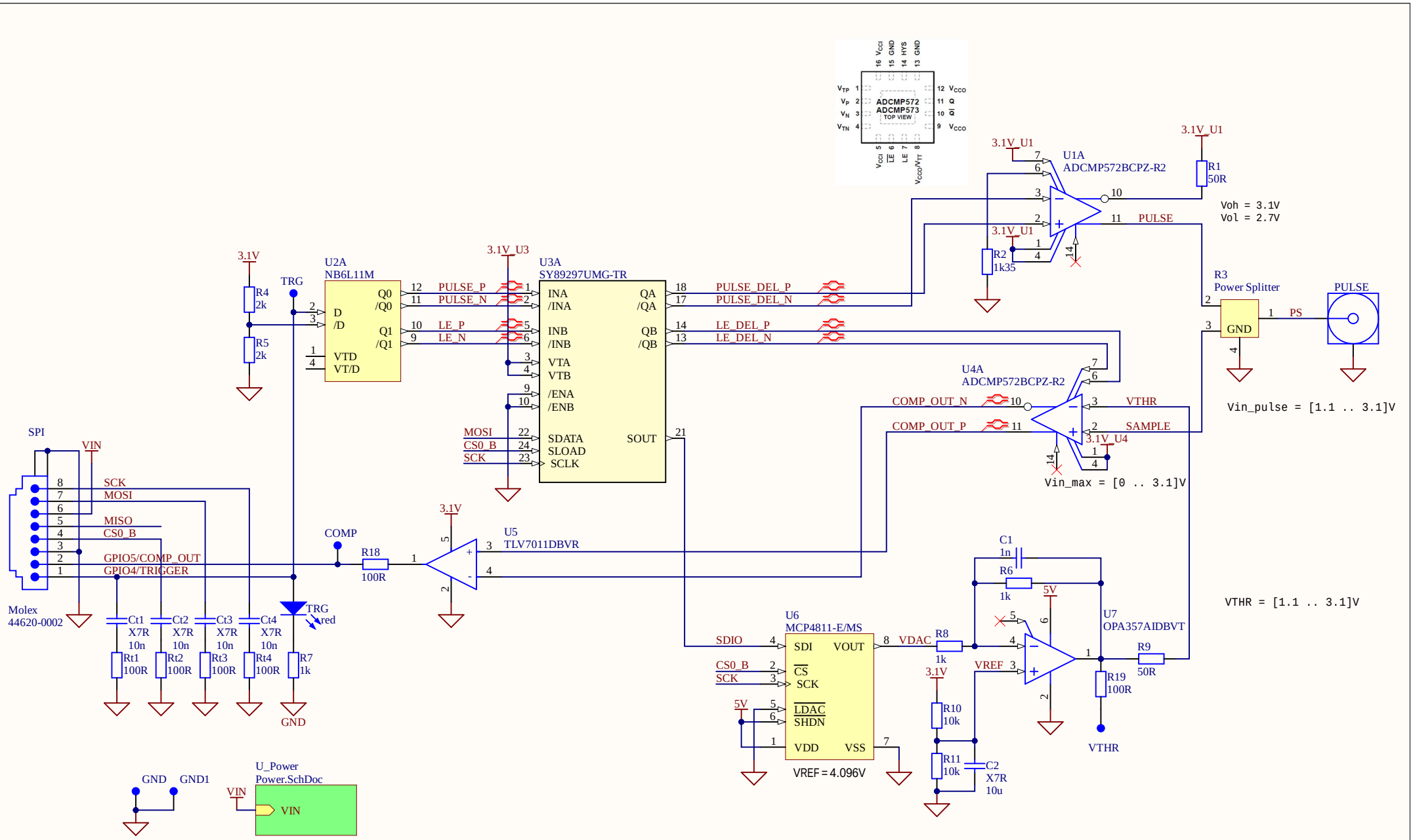
ADCMP572
ADCMP573
TOP VIEW
U1A
ADCMP572BCPZ-R2
3.1V_U1
R1
50R
R2
1k35
Voh = 3.1V
Vol = 2.7V
PULSE
R3
Power Splitter
GND
PS
Vin_pulse = [1.1 .. 3.1]V
U4A
ADCMP572BCPZ-R2
COMP_OUT_N
COMP_OUT_P
VTHR
SAMPLE
3.1V_U4
Vin_max = [0 .. 3.1]V
3.1V
R4
2k
R5
2k
TRG
U2A
NB6L11M
D
/D
Q0
/Q0
Q1
/Q1
VTD
VT/D
PULSE_P
PULSE_N
LE_P
LE_N
3.1V_U3
U3A
SY89297UMG-TR
INA
/INA
INB
/INB
VTA
VTB
/ENA
/ENB
SDATA
SLOAD
SCLK
SOUT
QA
/QA
QB
/QB
PULSE_DEL_P
PULSE_DEL_N
LE_DEL_P
LE_DEL_N
MOSI
CS0_B
SCK
SPI
VIN
SCK
MOSI
MISO
CS0_B
GPIO5/COMP_OUT
GPIO4/TRIGGER
Molex
44620-0002
COMP
R18
100R
3.1V
U5
TLV7011DBVR
TRG
red
Ct1
X7R
10n
Ct2
X7R
10n
Ct3
X7R
10n
Ct4
X7R
10n
Rt1
100R
Rt2
100R
Rt3
100R
Rt4
100R
R7
1k
GND
U6
MCP4811-E/MS
SDIO
CS0_B
SCK
5V
SDI
VOUT
CS
SCK
LDAC
SHDN
VDD
VSS
VDAC
VREF = 4.096V
R8
1k
3.1V
R10
10k
R11
10k
C2
X7R
10u
C1
1n
R6
1k
5V
U7
OPA357AIDBVT
VREF
R9
50R
R19
100R
VTHR
VTHR = [1.1 .. 3.1]V
GND
GND1
U_Power
Power.SchDoc
VIN
FID1 FID2 FID3
Title: Pulse Sampler
Project: Pulse Sampler
Drawn by:HK
Revision:1.0
Date: 25/03/2022 Time: 12:04:56
Sheet 1 of 2
File: PulserSampler.SchDoc
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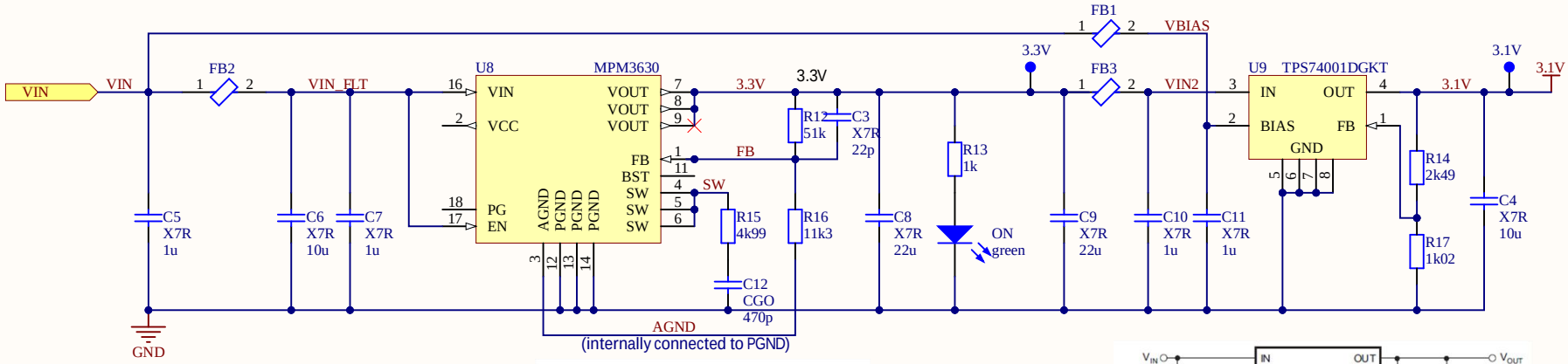
Physikalisches Institut
Universität Bonn
Nußallee 12
53115 Bonn



$$R2 = \frac{R1}{\frac{V_{OUT}}{0.6V} - 1} \quad (2)$$

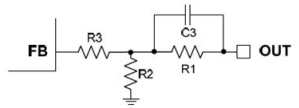
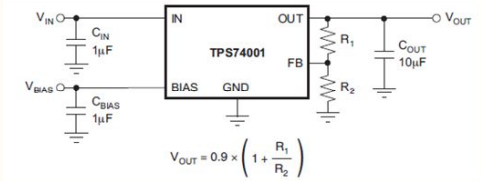


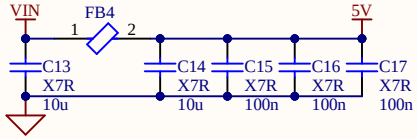
Figure 7: Feedback Network

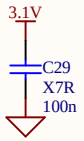
Table 1 lists the recommended resistor values for common output voltages.

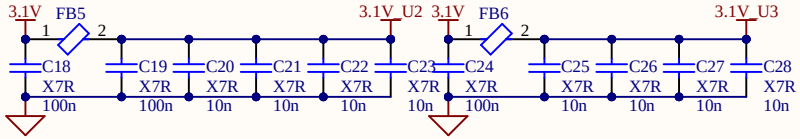
Table 1: Resistor Selection for Common Output Voltages

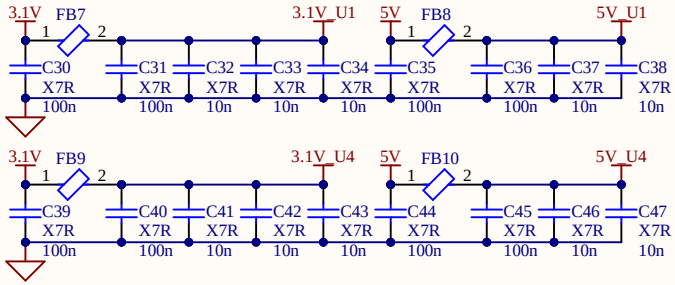
V_{OUT} (V)	R1 (kΩ)	R2 (kΩ)	R3 (kΩ)	C3 (pF)	C_{OUT} (µF)
1.0	51	76.8	51		3x22
1.2	51	51	51		3x22
1.5	51	34	51		3x22
1.8	51	25.5	0	22	2x22
2.5	51	16	0		2x22
3.3	51	11.3	0		2x22
5	51	6.98	0		2x22

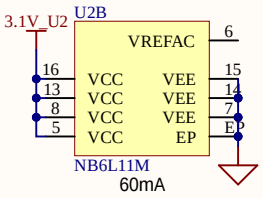


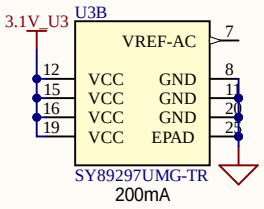


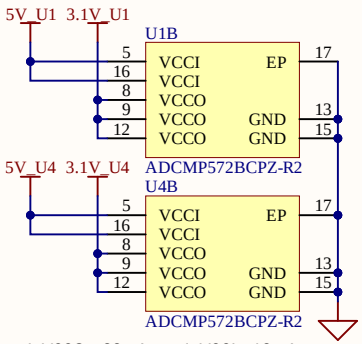












Title: Power Supply		
Project: Pulse Sampler	Drawn by: HK	
	Revision: 1.0	
Date: 25/03/2022 Time: 12:04:57	Sheet 2 of 2	
File: Power.SchDoc		

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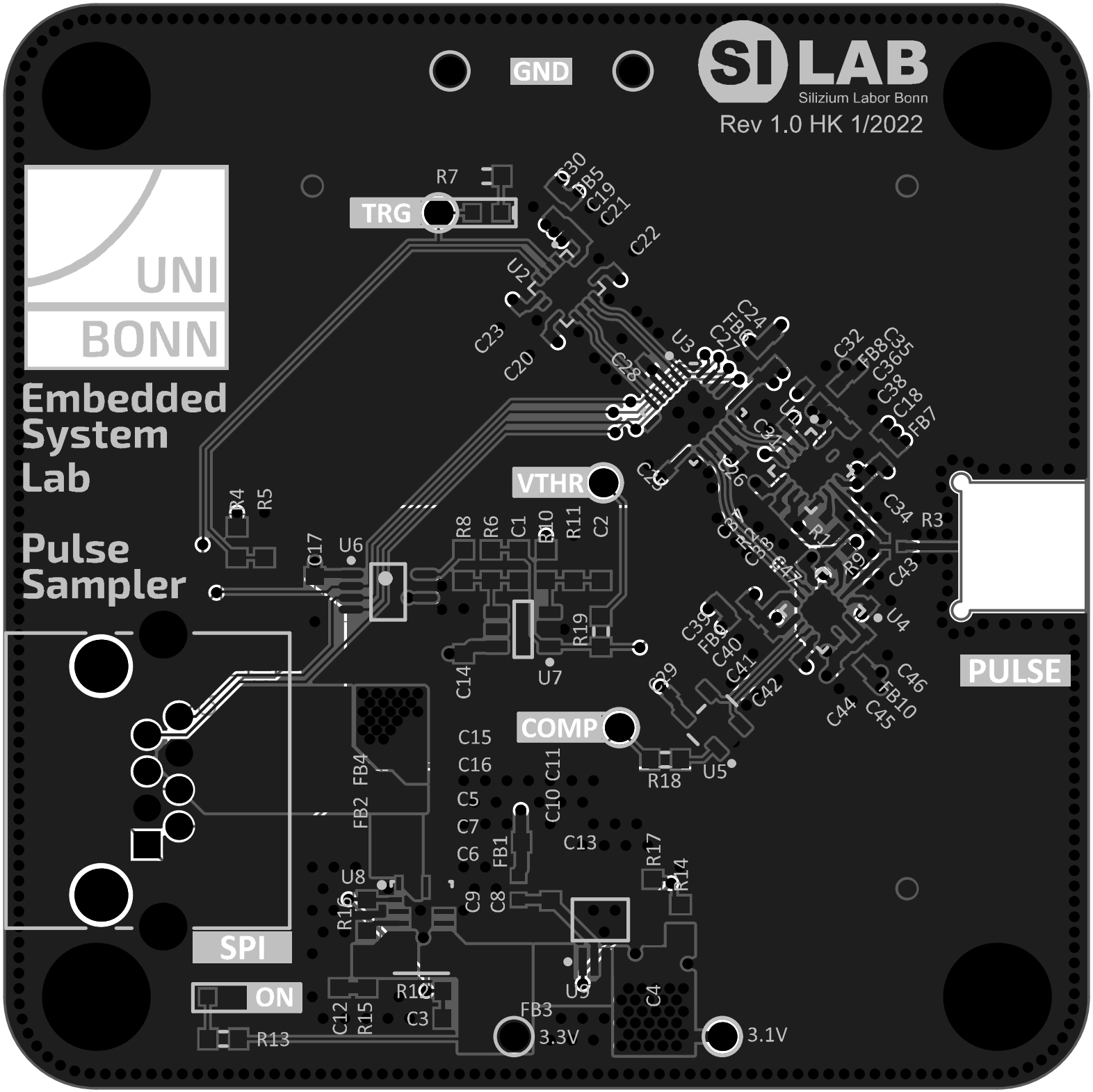
Universität Bonn
Nußallee 12
53115 Bonn


GND
SI LAB
Silizium Labor Bonn
Rev 1.0 HK 1/2022
UNI
BONN
Embedded
System
Lab
Pulse
Sampler
TRG
VTHR
COMP
PULSE
SPI
ON
3.3V
3.1V
R7
D30
DB5
C19
C21
C22
U2
C23
C20
C24
FB6
C27
C28
U3
C32
FB8
C35
C36
C38
C18
FB7
C31
C29
C26
C34
R3
R1
R9
C43
U4
C39
FB9
C40
C41
C42
C46
FB10
C44
C45
R4
R5
C17
U6
R8
R6
C1
R10
R11
C2
R19
U7
C14
C15
C16
C5
C7
C6
FB1
C10
C11
C13
R18
U5
FB4
FB2
U8
R16
C9
C8
R17
R14
R12
C12
R15
C3
R13
FB3
U9
C4