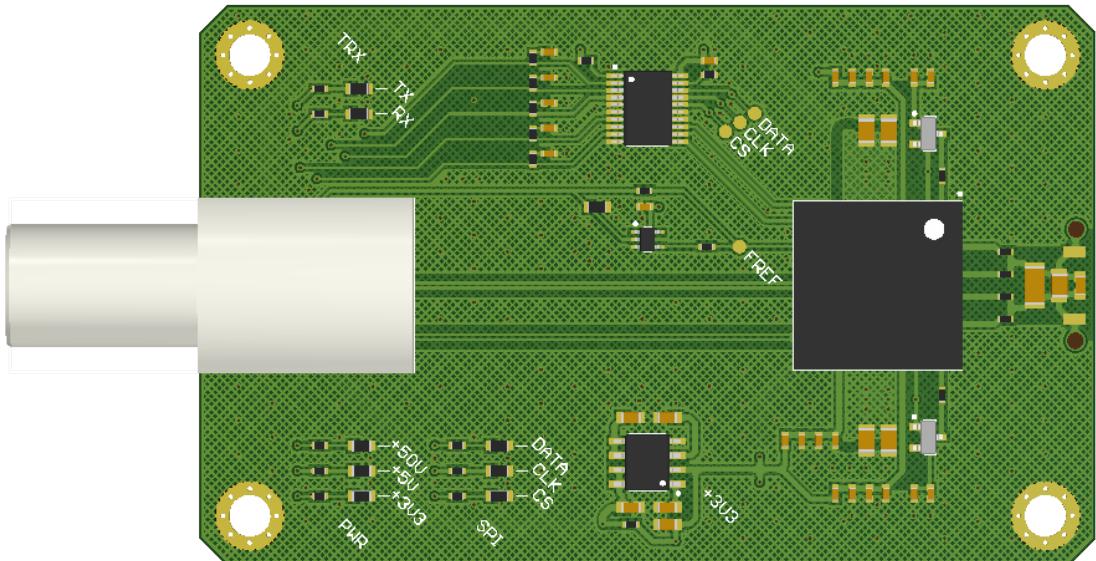
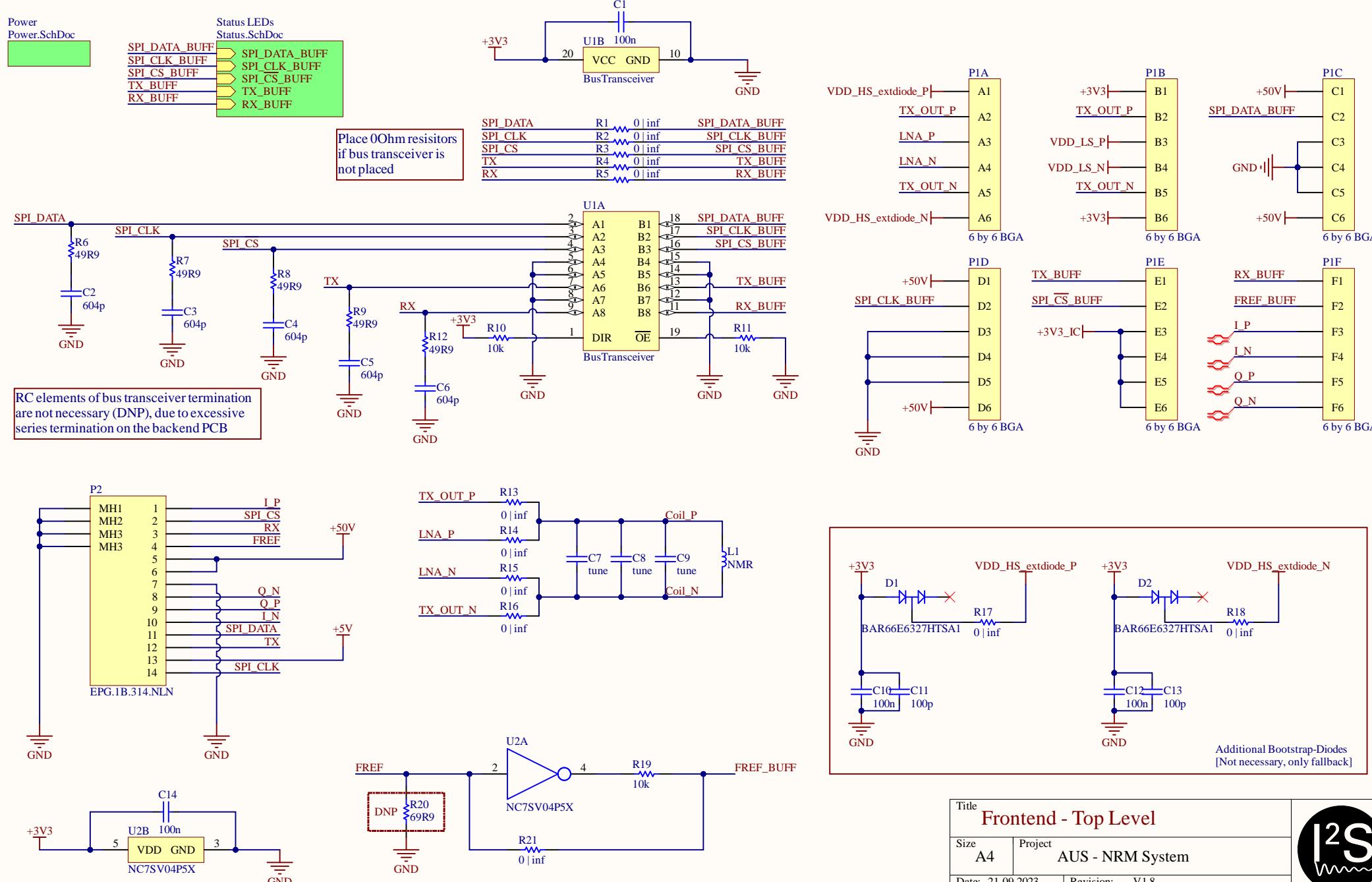


Bill Of Materials

Line #	Designator	Name	Quantity
1	C1, C10, C12, C14, C25, C28, C31	100n	7
2	C2, C3, C4, C5, C6	604p	5
3	C7, C8, C9	tune	3
4	C11, C13, C26, C29, C32	100p	5
5	C15, C17, C18, C19, C20, C21, C22, C23	10u	8
6	C16	22u / 10u	1
7	C24, C27, C30	1u	3
8	D1, D2	BAR66E6327HTSA1	2
9	L1	NMR	1
10	L2, L3, L4	1k	3
11	LED1, LED2, LED3	Green	3
12	LED4, LED5, LED6	Yellow	3
13	LED7, LED8	Red	2
14	P1	6 by 6 BGA	1
15	P2	EPG.1B.314.NLN	1
16	R1, R2, R3, R4, R5, R13, R14, R15, R16, R17, R18, R21, R22	0 inf, [NoValue]	13
17	R6, R7, R8, R9, R12	49R9	5
18	R10, R11, R19	10k	3
19	R20	69R9	1
20	R23	1k1	1
21	R24	2k8	1
22	R25	47k	1
23	R26, R27, R28	1k3	3
24	R29, R30	1k62	2
25	U1	BusTransceiver	1
26	U2	NC7SV04P5X	1
27	U3	ADM7154ARDZ-3.3-R7	1

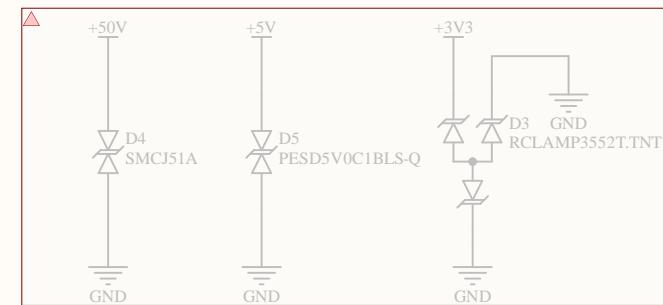
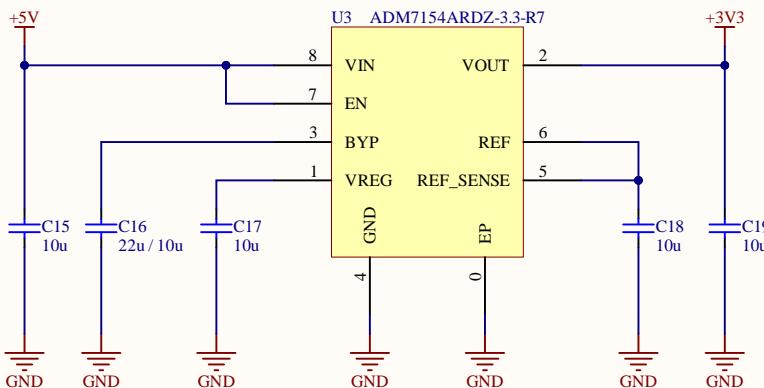
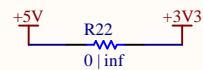
Realistic View





A

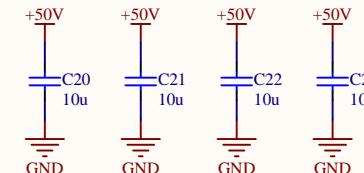
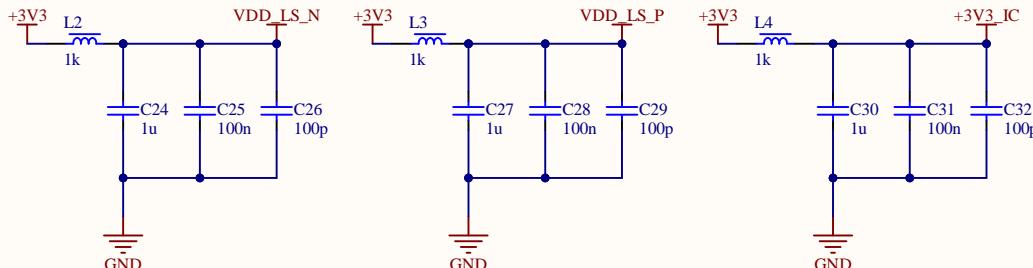
If [U3] is not placed on frontend, use [R22] to bridge the +5V and +3V3 nets



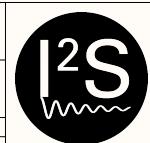
B

C

D



Title PDN (LDO / CCs / ESD)	
Size A4	Project AUS - NMR System
Date: 21.09.2023	Revision: V1.2
Sheet 2 of 3	Drawn By: M.Sc. Tobias Wirth



Power

+3V3
R23 1k1
LED1 Green
GND

+5V
R24 2k8
LED2 Green
GND

+50V
R25 47k
LED3 Green
GND

SPI

SPI_CS_BUFF
R26 1k3
LED4 Yellow
GND

SPI_DATA_BUFF
R27 1k3
LED5 Yellow
GND

SPI_CLK_BUFF
R28 1k3
LED6 Yellow
GND

TRX

TX_BUFF
R29 1k62
LED7 Red
GND

RX_BUFF
R30 1k62
LED8 Red
GND

Forward bias voltage:

R: +1V7
Y: +2V
G: +2V2
B: +3V

Current rating:

IDmax = 20mA
IDnom = 1mA

Title
Status LEDs

Size A4 Project AUS - NMR System

Date: 04.10.2023 Revision: V1.2
Sheet 3 of 3 Drawn By: M.Sc. Tobias Wirth



Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
1	100n		C1, C10, C12, C14, C25, C28, C31	7							
2	604p		C2, C3, C4, C5, C6	5							
3	tune		C7, C8, C9	3							
4	100p		C11, C13, C26, C29, C32	5							
5	10u		C15, C17, C18, C19, C20, C21, C22, C23	8							
6	22u / 10u		C16	1							
7	1u		C24, C27, C30	3							
8	BAR66E6327 HTSA1	SMP1320-075LF (SC-70) BAV99 (SOT23)	D1, D2	2							
9	NMR		L1	1							
10	1k		L2, L3, L4	3							
11	Green		LED1, LED2, LED3	3							
12	Yellow		LED4, LED5, LED6	3							
13	Red		LED7, LED8	2							
14	6 by 6 BGA		P1	1							
15	EPG.1B.314. NLN	LEMO Connector - 14 pin EPG.1B.314.NLN Elbow receptacle for printed circuit (solder mount), Female Contact Drawing Rev. 00 Source: http://www.lemo.com/catalog/ROW/UK_English/unipole_multipole.pdf	P2	1							
16	0 inf, [NoValue]		R1, R2, R3, R4, R5, R13, R14, R15, R16, R17, R18, R21, R22	13							
17	49R9		R6, R7, R8, R9, R12	5							
18	10k		R10, R11, R19	3							
19	69R9		R20	1							
20	1k1		R23	1							
21	2k8		R24	1							
22	47k		R25	1							
23	1k3		R26, R27, R28	3							
24	1k62		R29, R30	2							
25	BusTransceiver		U1	1	Texas Instruments	SN74LVC245ADBR	Volume Production	Arrow Electronics	SN74LVC245ADBR	0,4558	0,4558
26	NC7SV04P5X		U2	1	ON Semiconductor / Fairchild	NC7SV04P5X	Volume Production	Farnell	1467340	0,3812	0,3812
27	ADM7154AR DZ-3.3-R7		U3	1	Analog Devices	ADM7154ARDZ-3.3-R7	Volume Production	Heisener	ADM7154ARDZ-3.3-R7	6,72	6,72