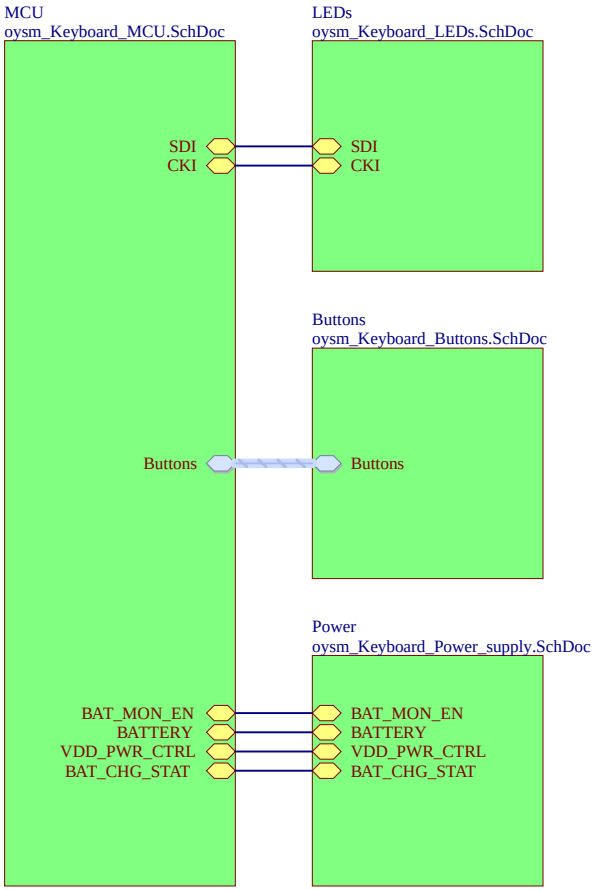
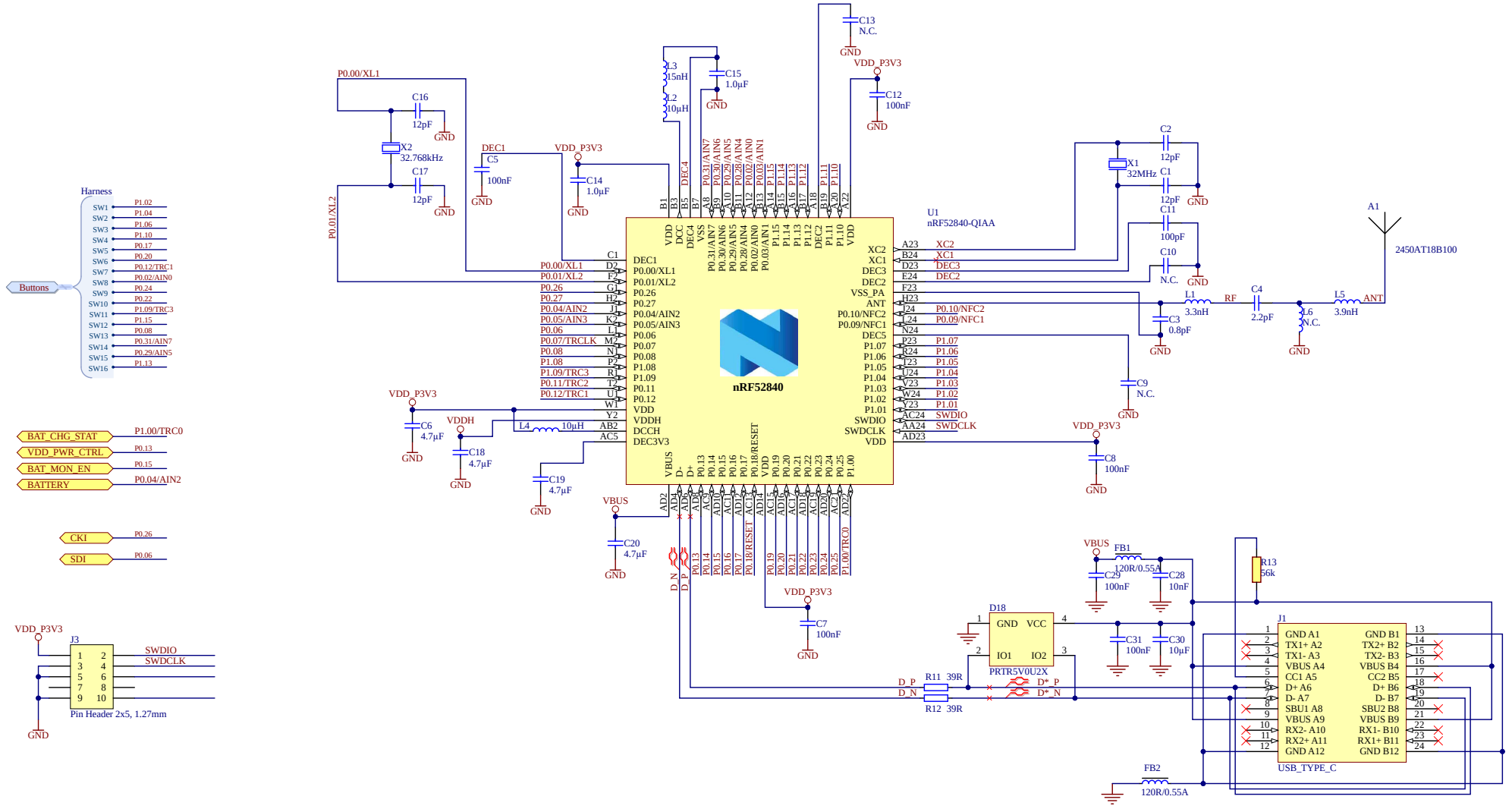
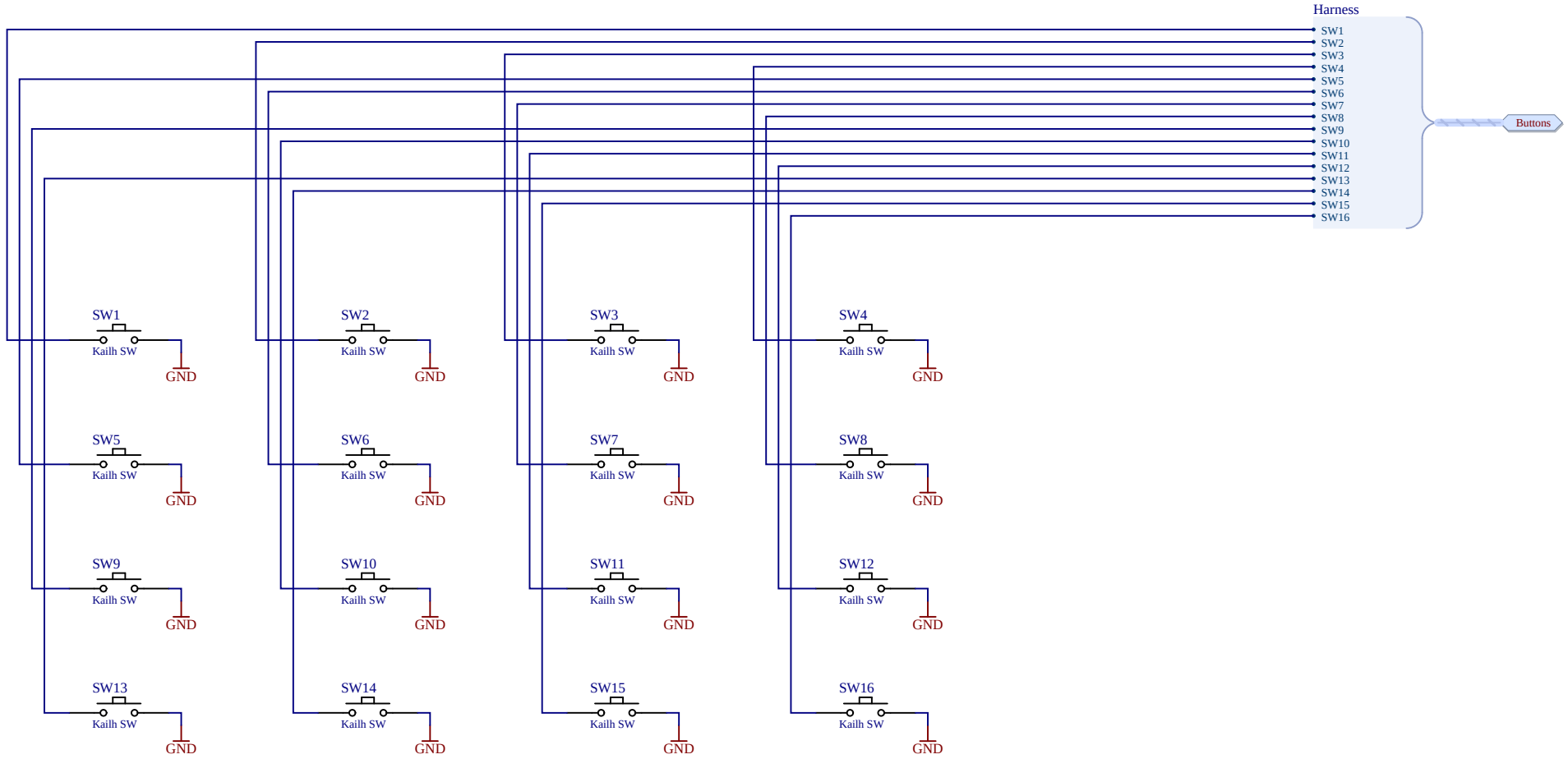


Title: PCA70107 Top		
Size: A4	Project Number: <Project number>	Revision: 0
Date: 08/02/2020		Sheet 1 of 4
File: oysm_Keyboard_Top.SchDoc		Drawn By:

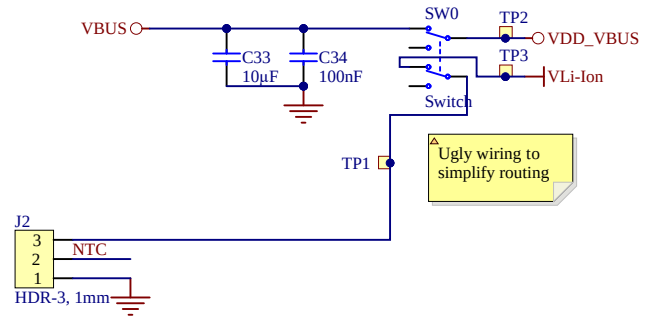


Title: PCA70141 MCU		
Size: A4	Project Number: <Project number>	Revision: 0
Date: 09/02/2020		Sheet 2 of 4
File: oysm_Keyboard_MCU.SchDoc		Drawn By:

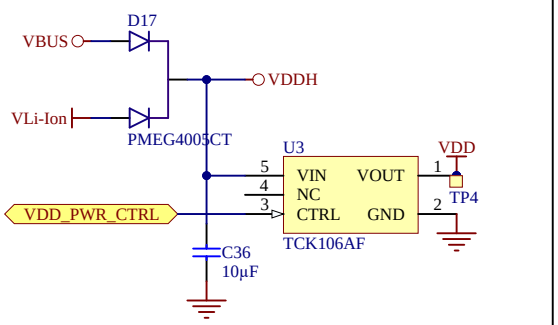


Title: PCA70107 Connectors		
Size: A4	Project Number: <Project number>	Revision: 0
Date: 08/02/2020		Sheet 3 of 4
File: oysm_Keyboard_Buttons.SchDoc		Drawn By:

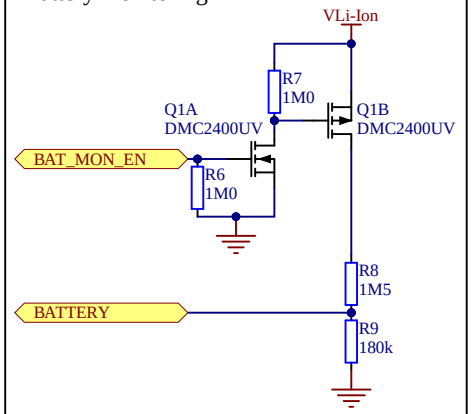
USB- and battery connector and power switch



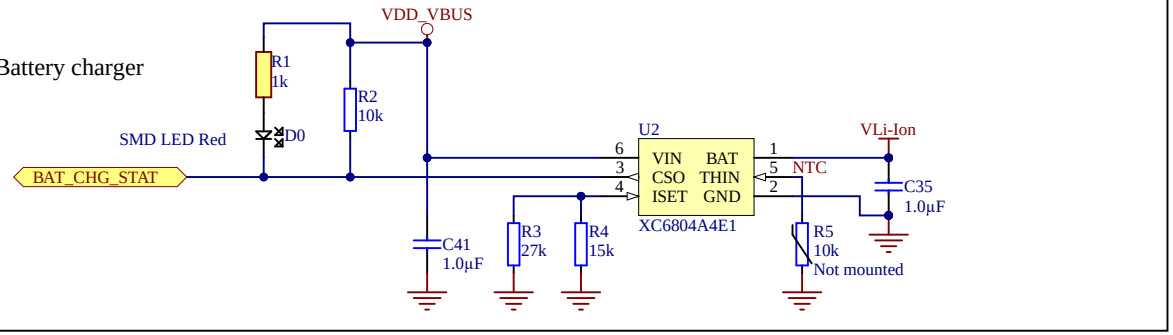
VDD power switch



Battery monitoring

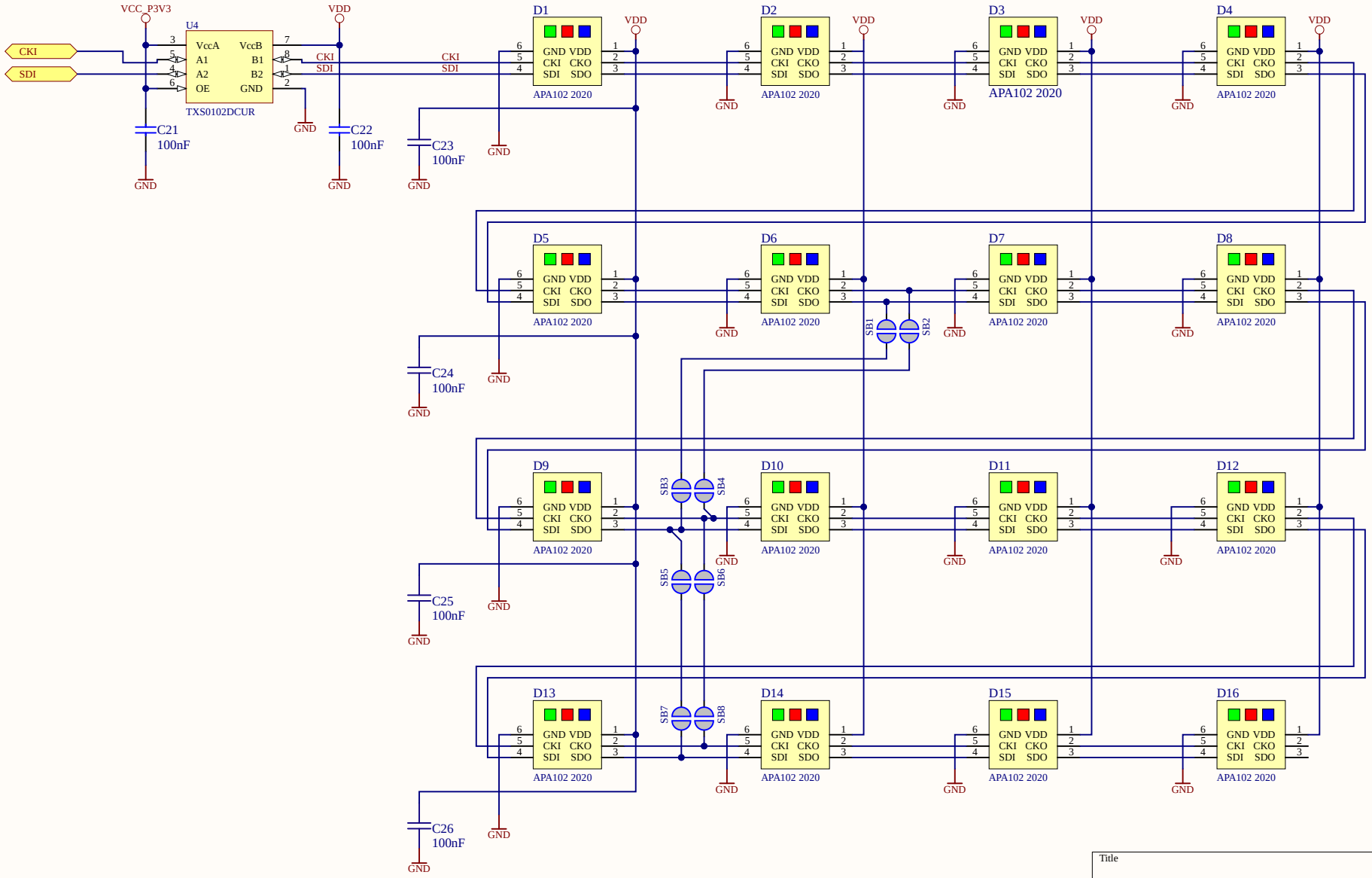


Battery charger

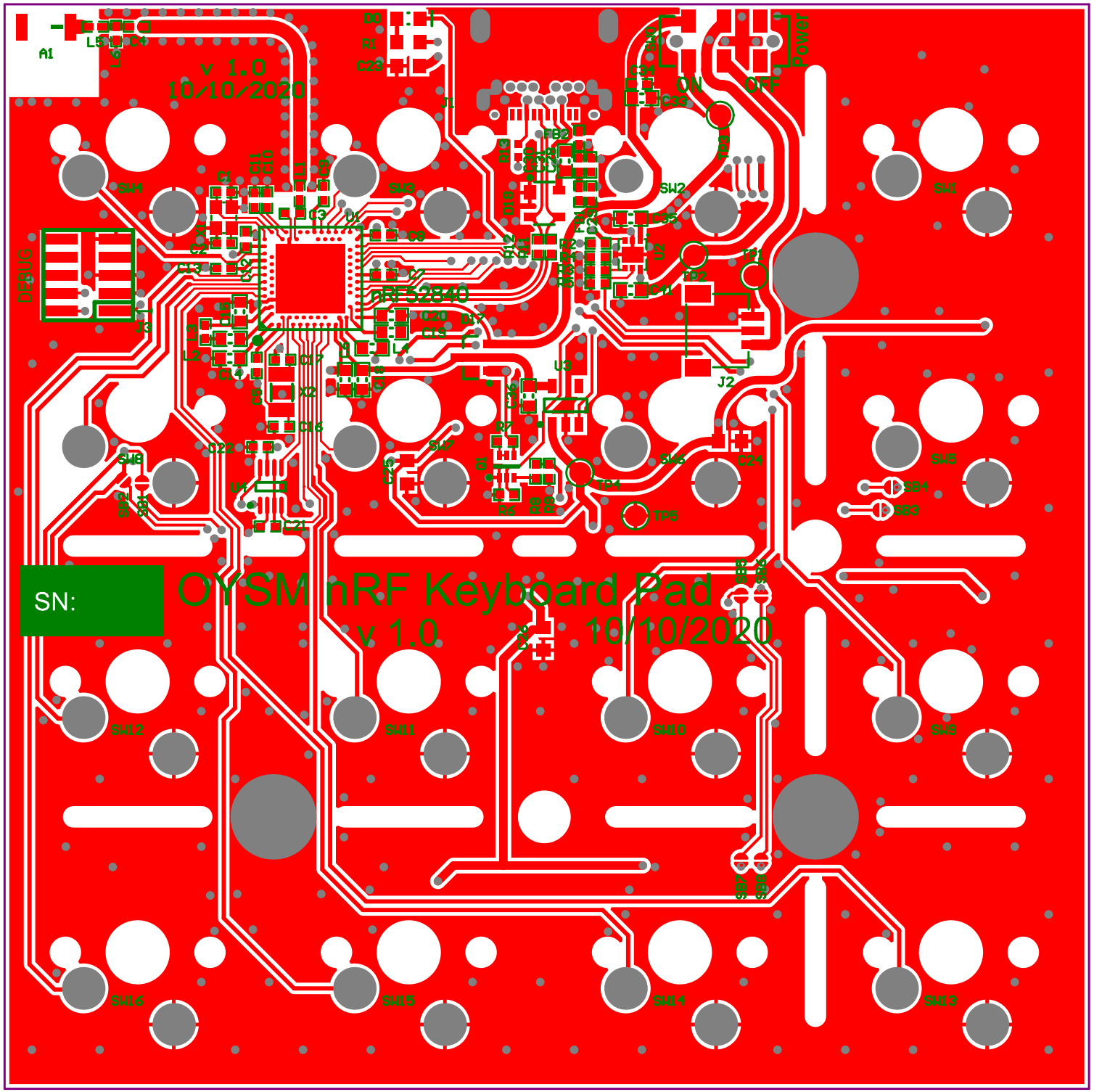


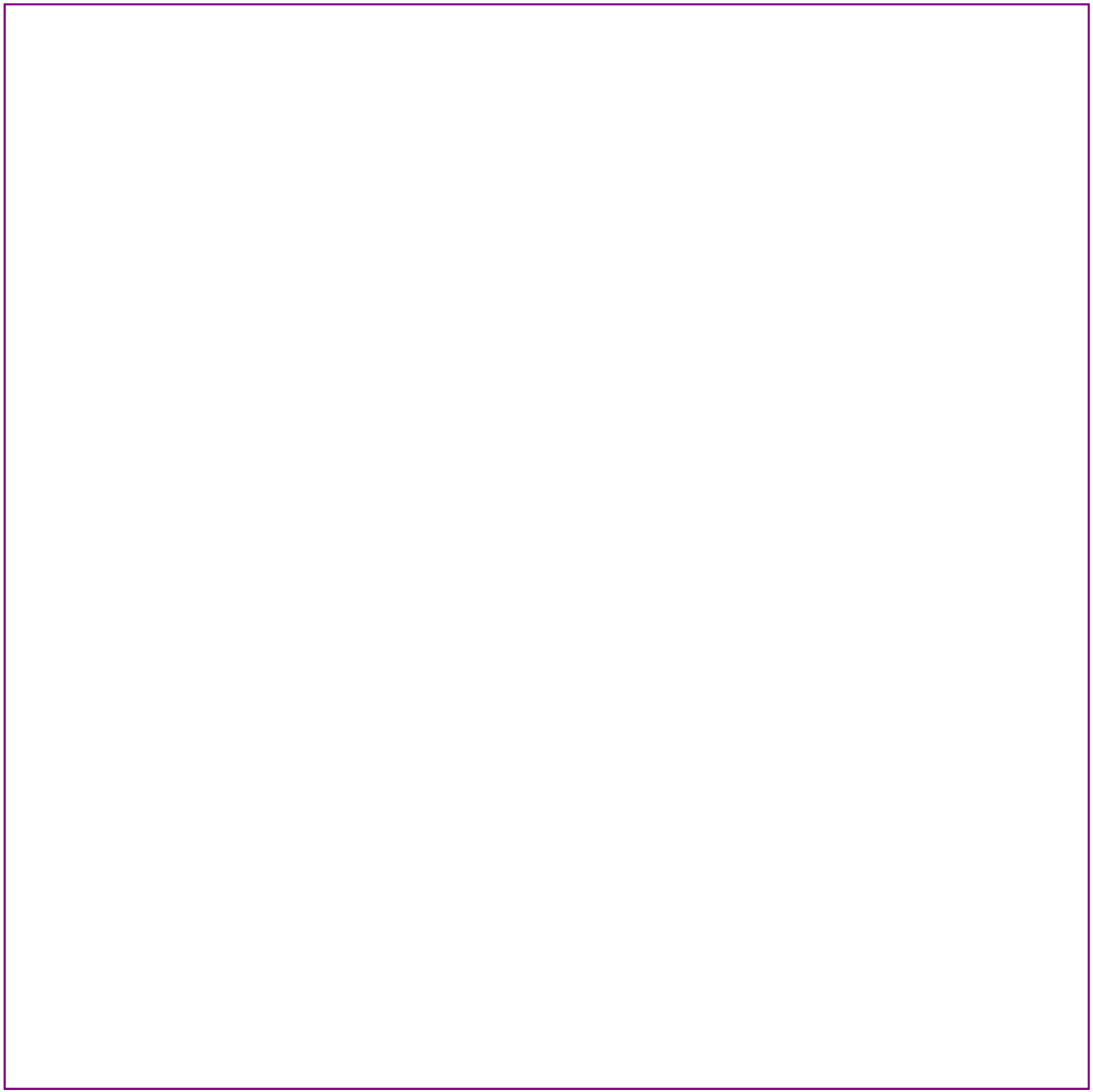
TP5

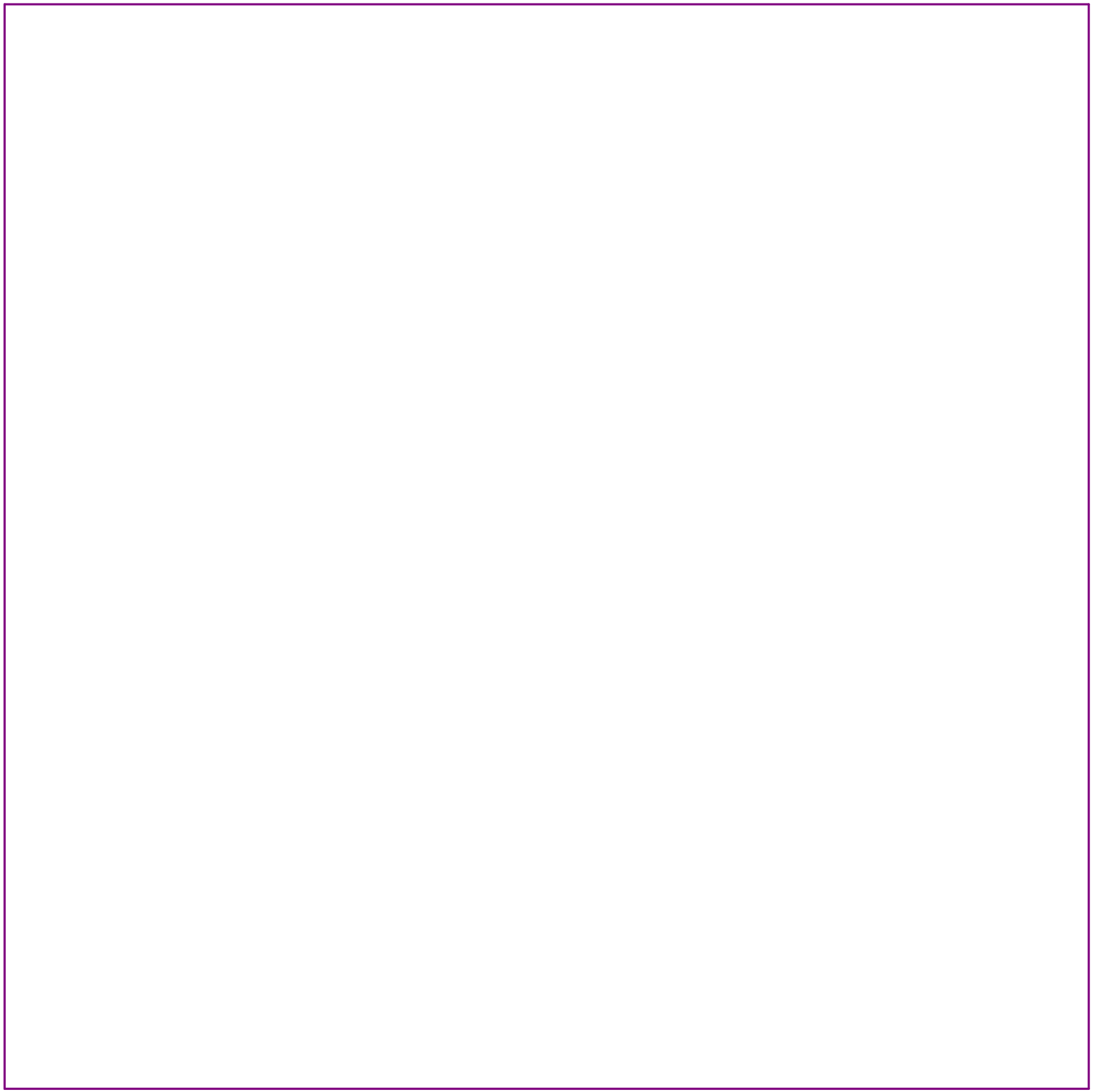
Title: PCA20020 - Power Supply		
Size: A4	Project Number	Revision
Date: 08/02/2020		Sheet 8 of 9
File: oysm_Keyboard_Power_supply.SchDoc		Drawn By:

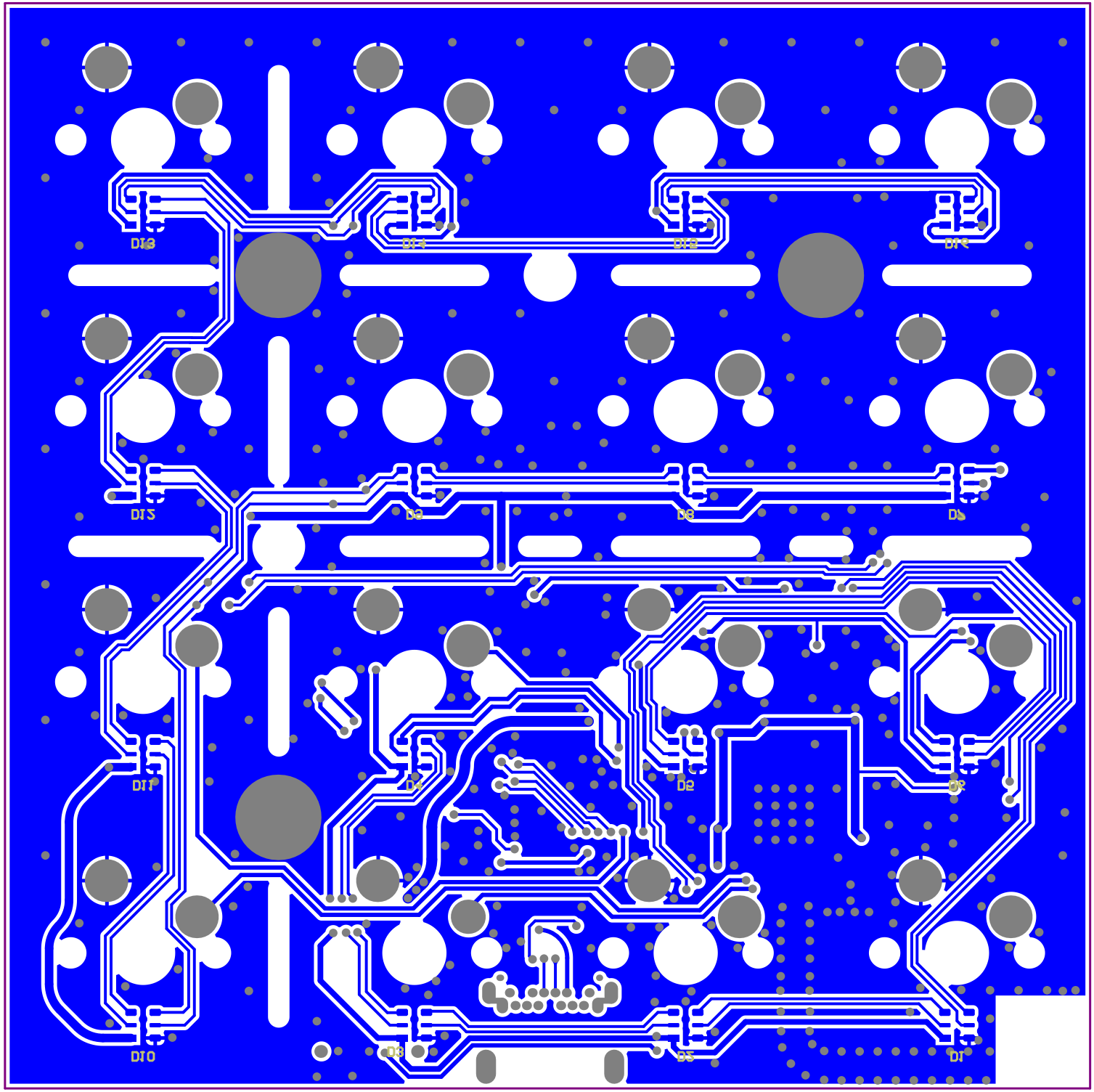


Title			
Size A4	Number		Revision
Date:	10/10/2020	Sheet of	
File:	C:\Git\..\oysm_Keyboard_LEDs.SchDoc	Drawn By:	


v 1.0
10/10/2020
nRF52840
SN:
OYSM nRF Keyboard Pad
v 1.0
10/10/2020
ON
OFF
POWER
DEBUG







2nd source part number	2nd source Supplier	Artikkelnr Noca	Comment	Description	Designator	Footprint Doc	LibRef	Manufacturer	Manufacturer Part Number	Part Number	PCBRevision	ProjectName	ProjectNumber	Quantity	Supplier	Supplier part number	Value	Assembly	Library Reference
		N.A.	2450AT18B100	2.45 GHz chip antenna	A1	2450AT18B100	Johanson 2450AT18B100	Johanson Technology	2450AT18B100	Johanson 2450AT18B100	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			2450AT18B100		Johanson 2450AT18B100
		20029159	12pF	Capacitor, NP0, ±2%	C1, C2, C16, C17	0402	C0402-12p			C0402-12p	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	4			12pF		C0402-12p
		20029147	0.8pF	Capacitor, NP0, ±5%	C3	0402	C0402-0.8p			C0402-0.8p	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			0.8pF		C0402-0.8p
		20029145	2.2pF	Capacitor, NP0, ±0.1pF	C4	0402	C0402-2.2p			C0402-2.2p	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			2.2pF		C0402-2.2p
		20039200	100nF	Capacitor, X7R, ±10%	C5, C7, C8, C12, C21, C22, C29, C31, C34	0402	C0402-100n			C0402-100n	<PCB designer code>, [NoParam]	oysm_Keyboard.PrjPCB	<Project number>, [NoParam]	9			100nF		C0402-100n
		20039473	4.7µF	Capacitor, X7R, ±10%, 6.3V	C6	0603	C0603-4µ7-6.3V-X7R	Samsung	CL10B475K(Q8NQNC	C0603-4µ7-6.3V-X7R	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Digi-Key	1276-2087-1-ND	4.7µF		C0603-4µ7-6.3V-X7R
		N.A.	N.C.	Not mounted	C9, C10, C13	0402	C0402-N.C.			C0402-N.C.	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	3			N.C.	Not mounted	C0402-N.C.
		20029135	100pF	Capacitor, NP0, ±5%	C11	0402	C0402-100p			C0402-100p	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			100pF		C0402-100p
		20039335, 20039282	1.0µF	Capacitor, X7R, ±10%	C14, C15, C35, C41	0603	C0603-1µ0			C0603-1µ0	<PCB designer code>, [NoParam]	oysm_Keyboard.PrjPCB	<Project number>, [NoParam]	4			1.0µF		C0603-1µ0
		20069060	4.7µF	Capacitor, X5R, ±10%	C18, C19, C20	0603	C0603-4µ7			C0603-4µ7	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	3			4.7µF		C0603-4µ7
			100nF	X7R 50V 5%	C23, C24, C25, C26		5152					oysm_Keyboard.PrjPCB		4					5152
		20039166	10nF	Capacitor, X7R, ±10%	C28	0402	C0402-10n			C0402-10n	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			10nF		C0402-10n
		20039234	10µF	Capacitor, X5R, ±20%	C30, C33, C36	0603	C0603-10µ			C0603-10µ	<PCB designer code>, [NoParam]	oysm_Keyboard.PrjPCB	<Project number>, [NoParam]	3			10µF		C0603-10µ
			SMD LED Red	SMD	D0		5143					oysm_Keyboard.PrjPCB		1					5143
			APA102 2020	2x2mm SMD RGB Addreiserbar LED	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16		5672					oysm_Keyboard.PrjPCB		16					5672
			PMEG4005CT		D17		PMEG4005CT			PMEG4005CT		oysm_Keyboard.PrjPCB		1					PMEG4005CT
152-4157	Farnell	10069015	PRTR5V0U2X	Ultra low capacitance double rail-to-rail ESD protection diode	D18	SOT-143B	PRTR5V0U2X	NXP	PRTR5V0U2X	PRTR5V0U2X	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Digi-Key	568-4140-1-ND	PRTR5V0U2X		PRTR5V0U2X
151-5760	Farnell	33029317	120R/0.55A	Ferrite Bead, 120 Ohm @ 100MHz, 500mA, 250 mOhm Max	FB1, FB2	0402	FB0402-120R@100M-500mA	Murata	BLM15AG121SN1D	FB0402-120R@100M-500mA	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	2	Digi-Key	490-1005-1-ND	120R/0.55A		FB0402-120R@100M-500mA
			USB_TYPE_C	TH and SMD	J1		5676				<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1					5676
		N.A.	HDR-3, 1mm	1.0mm pitch connector side entry SMD	J2	SM03B-SRSS-TB	SM03B-SRSS-TB	JST	SM03B-SRSS-TB(LF)(SN)	SM03B-SRSS-TB		oysm_Keyboard.PrjPCB		1			HDR-3, 1mm		SM03B-SRSS-TB
FTSH-105-01-F-DV-K	Samtec	55010009	Pin Header 2x5, 1.27mm	Pin Header 2x5, 1.27mm (50mil), SMD, Keying Shroud	J3	HDR_2x5-SMD-1.27mm	Pin Header 2x5 SMD, 1.27mm, KS	W-CON	3132-10MS0BK00R1	Pin Header 2x5 SMD, 1.27mm, KS	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Cabcon	3132-10MS0BK00R1	Pin Header 2x5, 1.27mm		Pin Header 2x5 SMD, 1.27mm, KS
		33029369	3.3nH	Inductor, 190mA, ±0.1nH	L1	0402	L0402-3n3	Murata	LQP15MN3N3B02D	L0402-3n3	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Digi-Key	490-1130-1-ND	3.3nH		L0402-3n3
178-6105	Farnell	33029314	10µH	Inductor, 80mA, ±10%	L2, L4	0603	L0603-10µ	Taiyo Yuden	LBMF1608T100K	L0603-10µ	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	2	Digi-Key	587-1714-1-ND	10µH		L0603-10µ
658-1328	Farnell	33029323	15nH	Inductor, 320mA, ±5%	L3	0402	L0402-15n	Taiyo Yuden	HK100515NJ-T	L0402-15n	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Digi-Key	587-1521-1-ND	15nH		L0402-15n
		33029151	3.9nH	Inductor, 170mA, ±0.1nH	L5	0402	L0402-3n9	Murata	LQP15MN3N9B02D	L0402-3n9	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			3.9nH		L0402-3n9
		N.A.	N.C.	Not mounted	L6	0402	L0402-N.C.			L0402-N.C.	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1			N.C.	Not mounted	L0402-N.C.
		N.A.	DMC2400UV	Dual N & P Ch MOFET, 1.03A/0.7A, 480mOhm, 450mW	Q1	SOT-563	DMC2400UV	Diodes Incorporated	DMC2400UV	DMC2400UV		oysm_Keyboard.PrjPCB		1			DMC2400UV		DMC2400UV
			1k	0.1W 1% Thick film resistor	R1		5389					oysm_Keyboard.PrjPCB		1					5389
		27049097	10k	Resistor, ±1%, 0.063W	R2	0402	R0402-10k			R0402-10k		oysm_Keyboard.PrjPCB		1			10k		R0402-10k
		27049107	27k	Resistor, ±1%, 0.063W	R3	0402	R0402-27k			R0402-27k		oysm_Keyboard.PrjPCB		1			27k		R0402-27k
		27049101	15k	Resistor, ±1%, 0.063W	R4	0402	R0402-15k			R0402-15k		oysm_Keyboard.PrjPCB		1			15k		R0402-15k
		N.A.	10k	THERMISTOR 10K OHM NTC 0402 SMD	R5	0402	NCP15XH103F03RC	Murata	NCP15XH103F03RC	NCP15XH103F03RC		oysm_Keyboard.PrjPCB		1			10k	Not mounted	NCP15XH103F03RC
		27049145	1M0	Resistor, ±1%, 0.063W	R6, R7	0402	R0402-1M0			R0402-1M0		oysm_Keyboard.PrjPCB		2			1M0		R0402-1M0
		27049149	1M5	Resistor, ±1%, 0.063W	R8	0402	R0402-1M5			R0402-1M5		oysm_Keyboard.PrjPCB		1			1M5		R0402-1M5
		27049127	180k	Resistor, ±1%, 0.063W	R9	0402	R0402-180k			R0402-180k		oysm_Keyboard.PrjPCB		1			180k		R0402-180k
		27049039	39R	Resistor, ±1%, 0.063W	R11, R12	0402	R0402-39R			R0402-39R	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	2	Farnell	173-8831	39R		R0402-39R
			56k	0.1W 1% Thick film resistor	R13		5677				<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1					5677
		N.A.	Switch	SMD slide Switch (ON-ON)	SW0	Switch-Slide-RA-J-Lead-DPDT-8.5x3.5mm	Switch-Slide-RA-J-Lead-DPDT-8.5x3.5mm_C&K	C&K Components	JS202011AQN	Switch-Slide-RA-J-Lead-DPDT-8.5x3.5mm_C&K		oysm_Keyboard.PrjPCB		1			Switch		Switch-Slide-RA-J-Lead-DPDT-8.5x3.5mm_C&K
			Kailh SW	Kailh Mechanical keyboard switch	SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8, SW9, SW10, SW11, SW12, SW13, SW14, SW15, SW16		5669				<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	16					5669
		15079344	nRF52840-QIAA	Multi-protocol Bluetooth Low Energy, IEEE 802.15.4, ANT and 2.4GHz proprietary system-on-chip	U1	AQFN-73	nRF52840-QIAAAA	Nordic Semiconductor	nRF52840-QIAAAA	nRF52840-QIAAAA	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Nordic Semiconductor	nRF52840-QIAAAA	nRF52840-QIAA		nRF52840-QIAAAA
		N.A.	XC6804A4E1	One Cell Li-ion/Li-polymer Linear Charger IC with Battery Temperature Detection	U2	USP-6EL	XC6804A4E14R-G	Torex Semiconductor	XC6804A4E14R-G	XC6804A4E14R-G		oysm_Keyboard.PrjPCB		1			XC6804A4E1		XC6804A4E14R-G
		15070086	TCK106AF	1.0 A Load Switch IC with Slew Rate Control Driver in Small Package	U3	SOT-25	TCK106AF,LF	Toshiba	TCK106AF,LF	TCK106AF,LF		oysm_Keyboard.PrjPCB		1			TCK106AF		TCK106AF,LF
		N.A.	TXS0102DCUR	IC VOLT-LEVEL TRANSLATOR 8-USB	U4	8-VFSOP	TXS0102DCUR	Texas Instruments	TXS0102DCUR	TXS0102DCUR		oysm_Keyboard.PrjPCB		1			TXS0102DCUR		TXS0102DCUR
		22019238	32MHz	XTAL SMD 2016, 32MHz, CI=8pF, Tol: ±10ppm, Stab: ±10ppm	X1	XTAL_2016	XTAL_SMD2016_32MHz_8pF_Epson	Epson Toyocom	Q22FA12800025	XTAL_SMD2016_32MHz_8pF_Epson	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Farnell	171-2806	32MHz		XTAL_SMD2016_32MHz_8pF_Epson
		22019249	32.768kHz	XTAL SMD 3215, 32.768kHz, 9pF, ±20ppm, -40°C - 125°C	X2	XTAL_3215	XTAL_SMD3215_32.768kHz_9pF_Kyocera_HT	Kyocera	ST3215SB32768E0HSZB1	XTAL_SMD3215_32.768kHz_9pF_Kyocera_HT	<PCB designer code>	oysm_Keyboard.PrjPCB	<Project number>	1	Digi-Key	1253-1402-1-ND	32.768kHz		XTAL_SMD3215_32.768kHz_9pF_Kyocera_HT