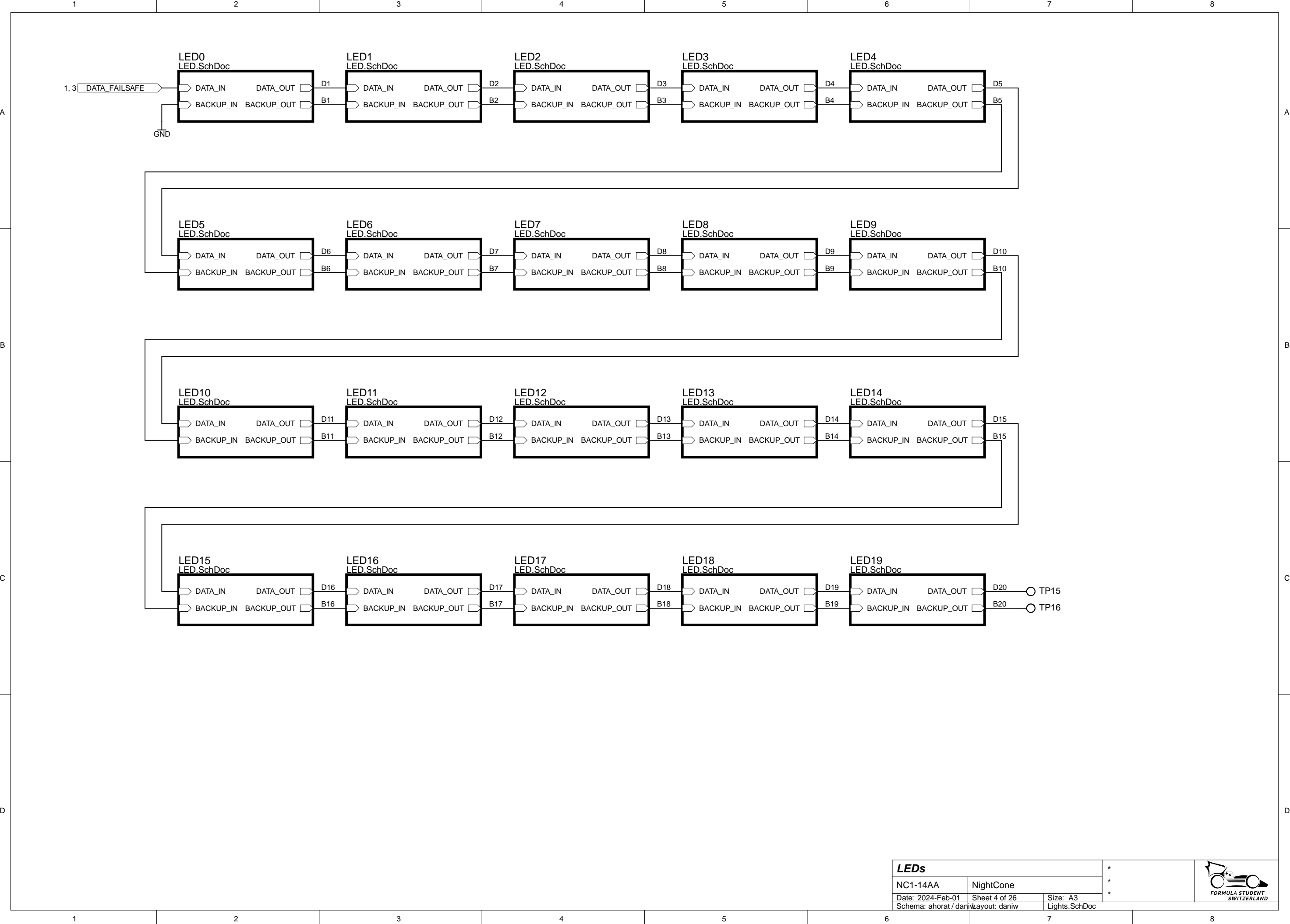


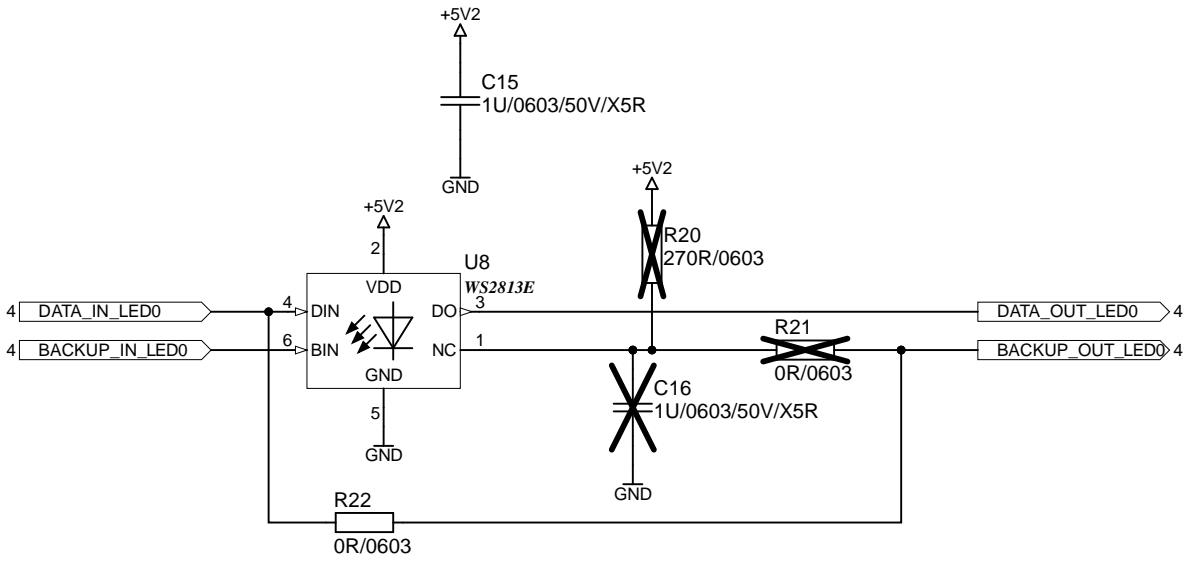
Pull-Up on GPIO0 and GPIO2

Internal to the module

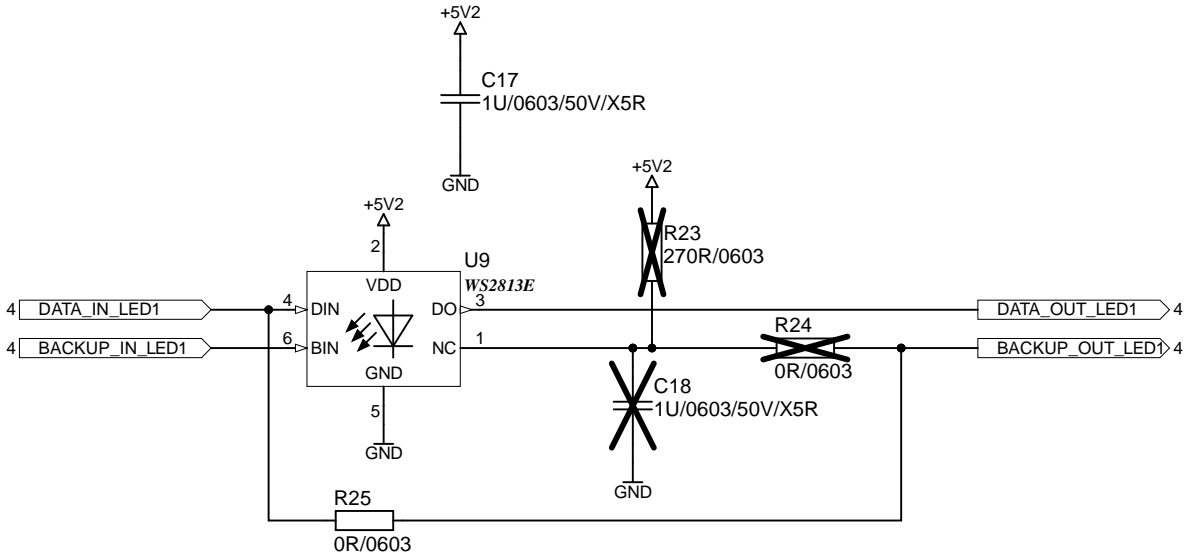
Data und Kill dürfen nicht getauscht werden!



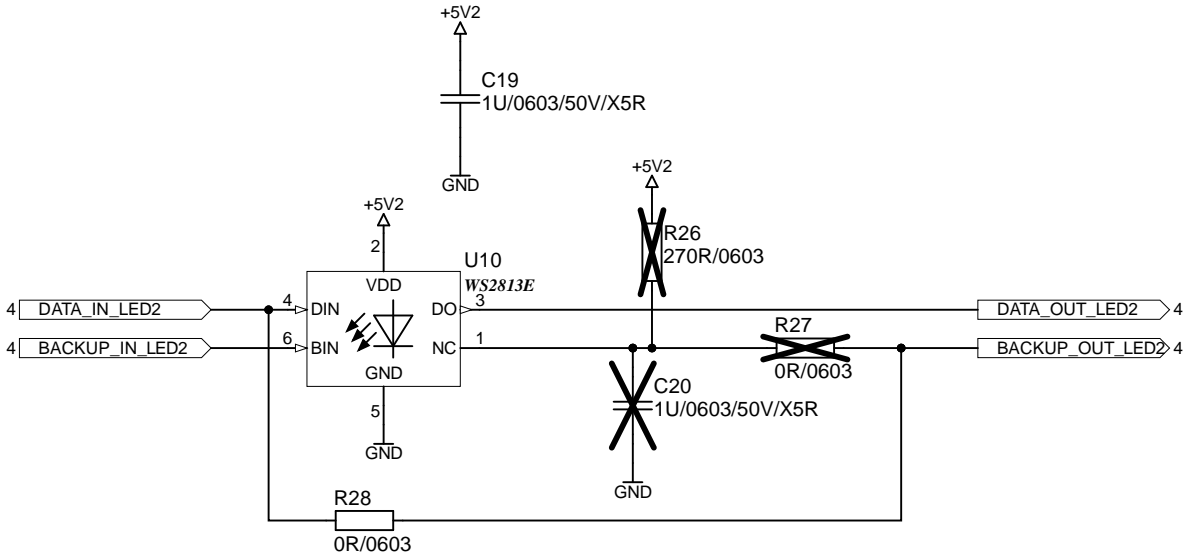




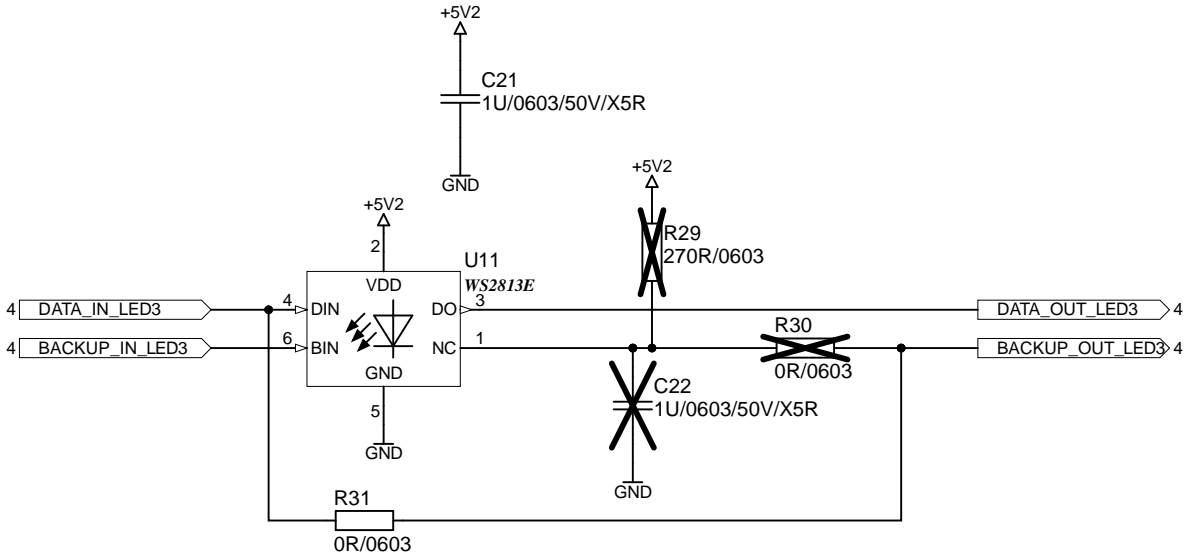
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



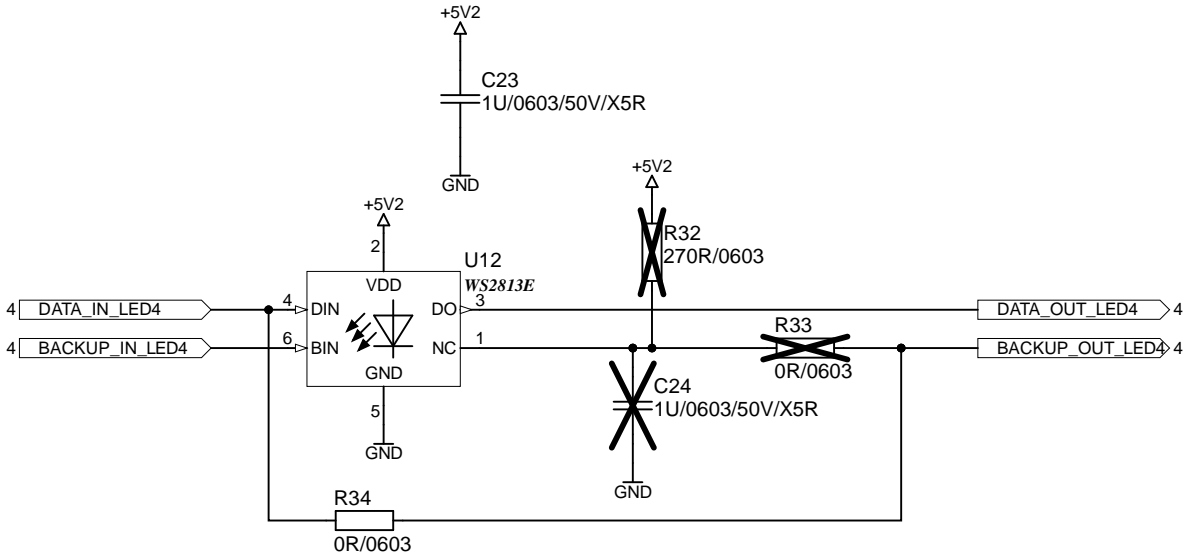
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



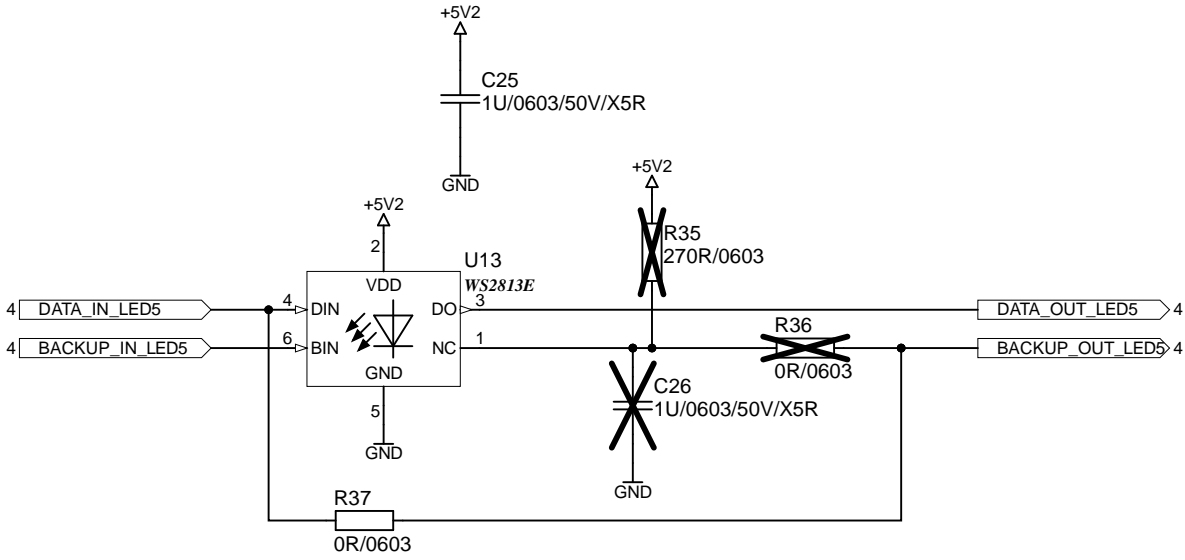
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



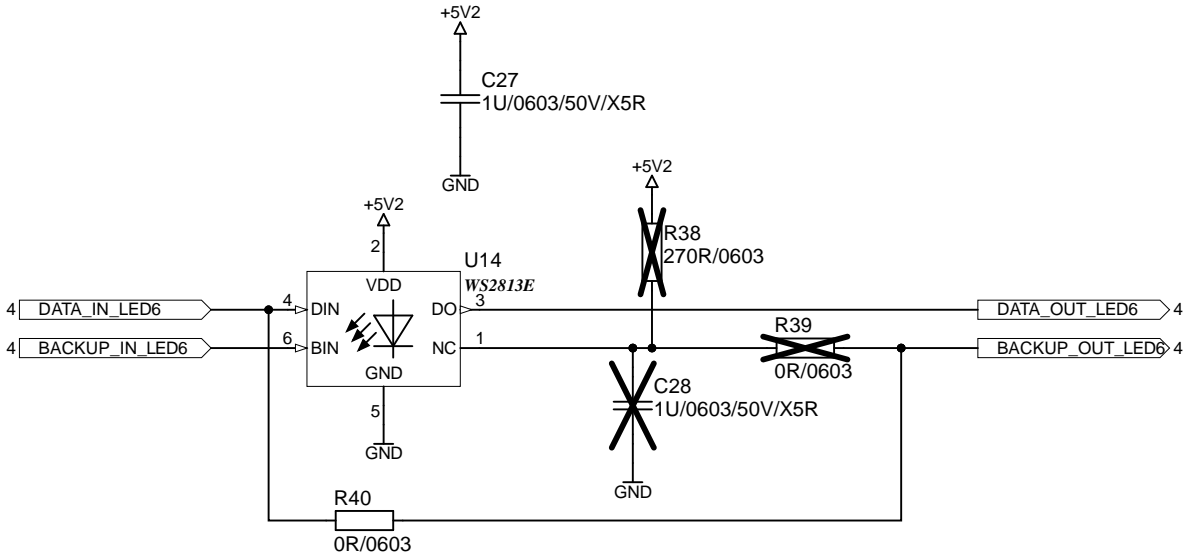
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



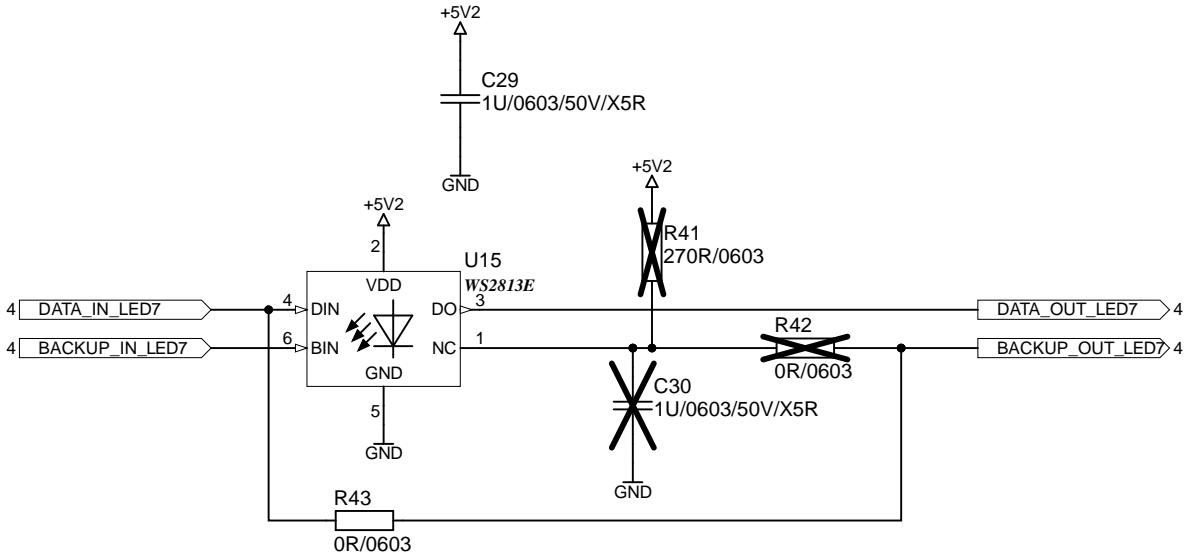
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



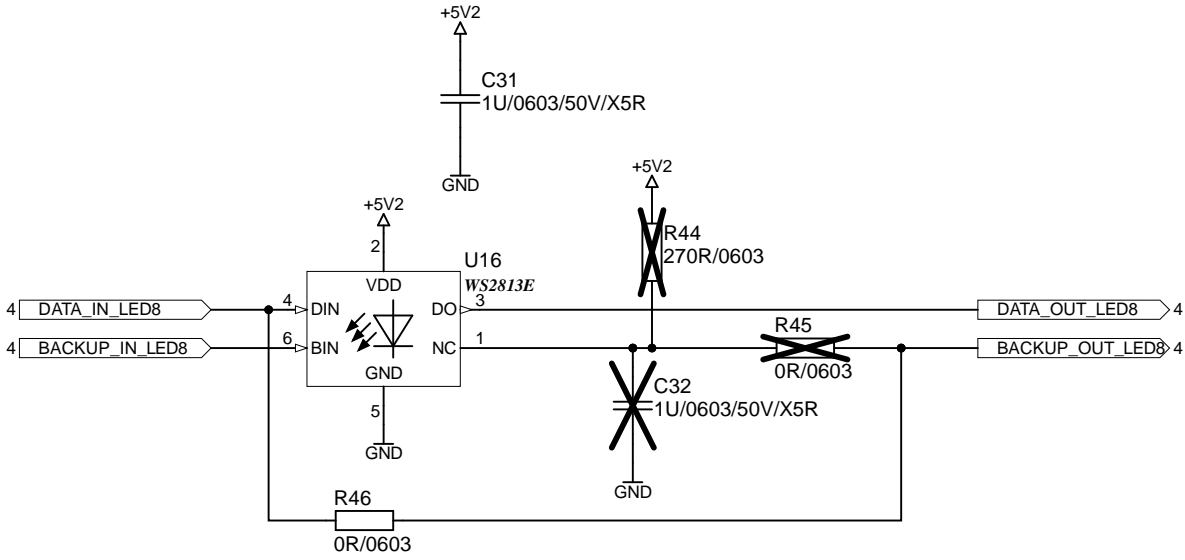
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



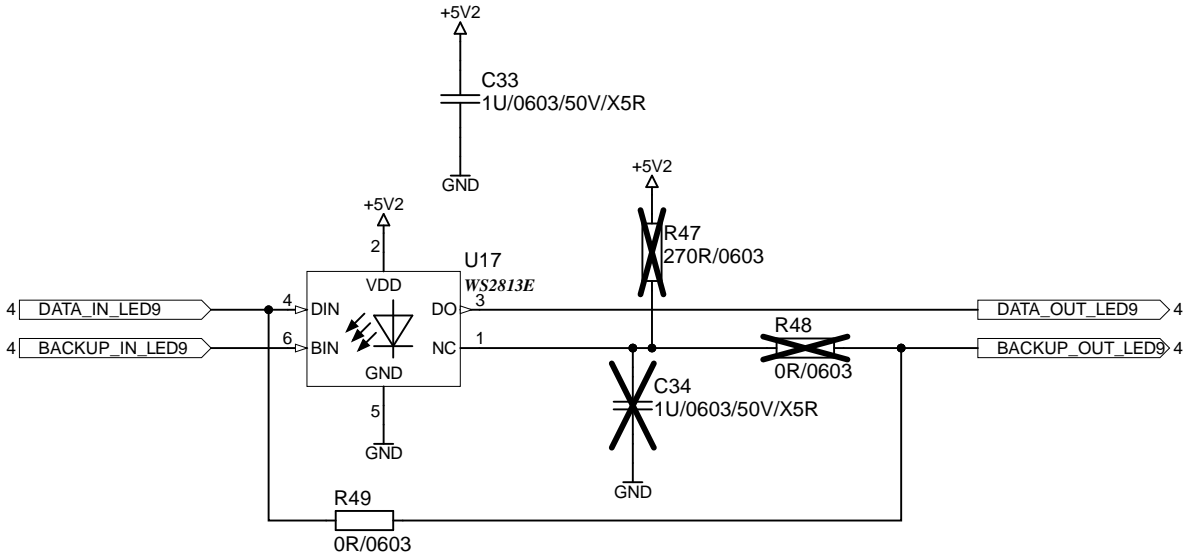
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



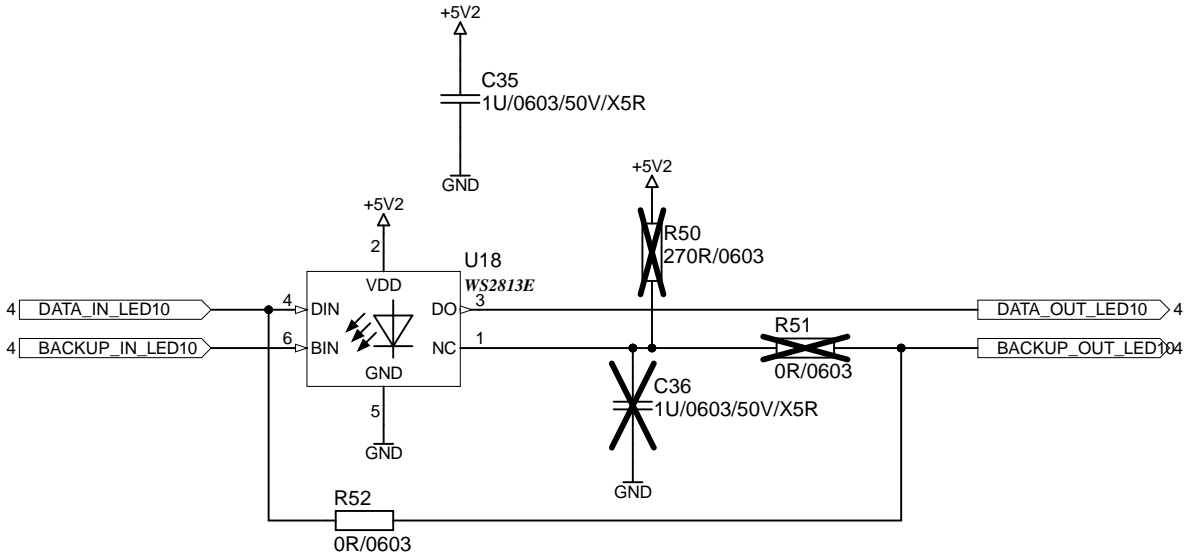
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



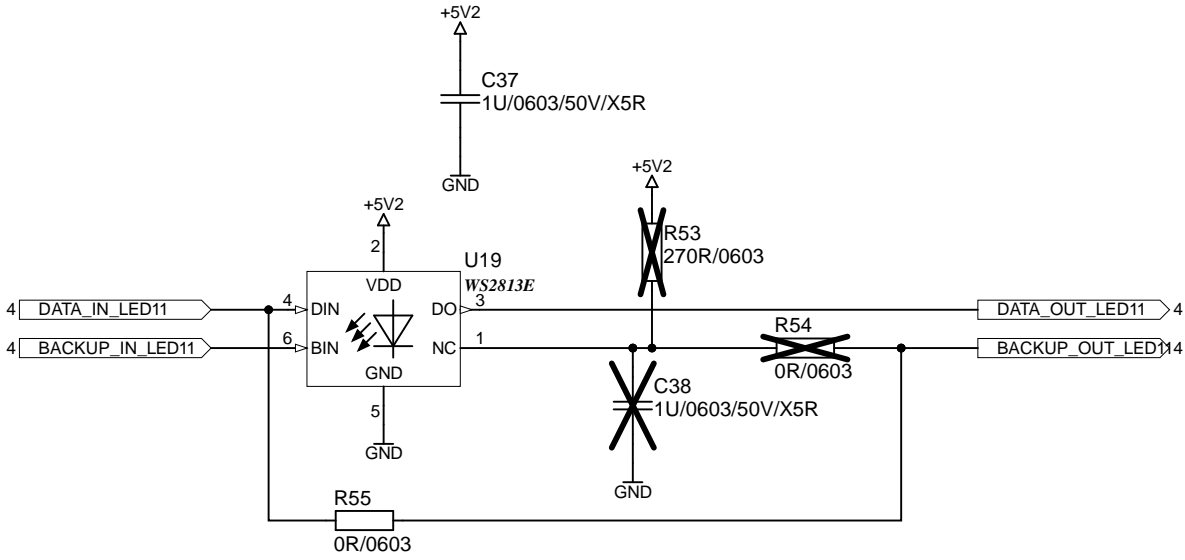
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



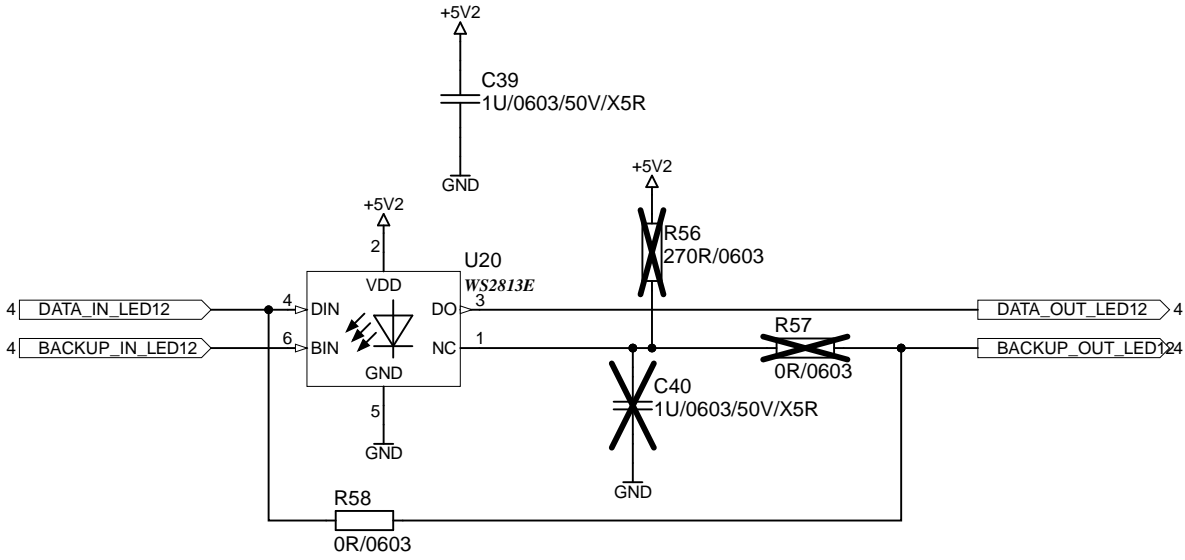
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



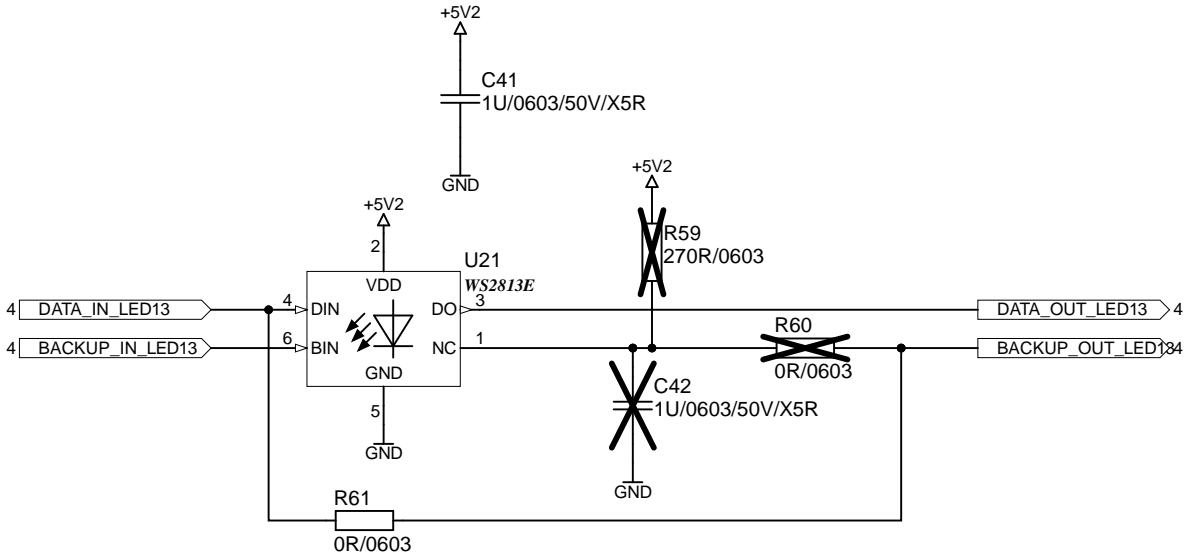
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



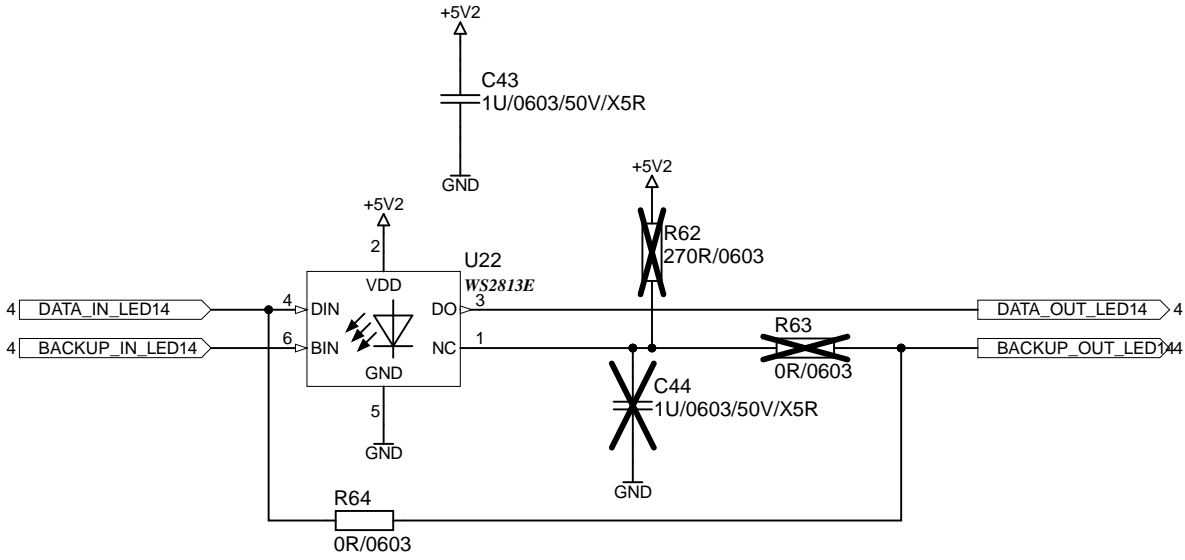
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



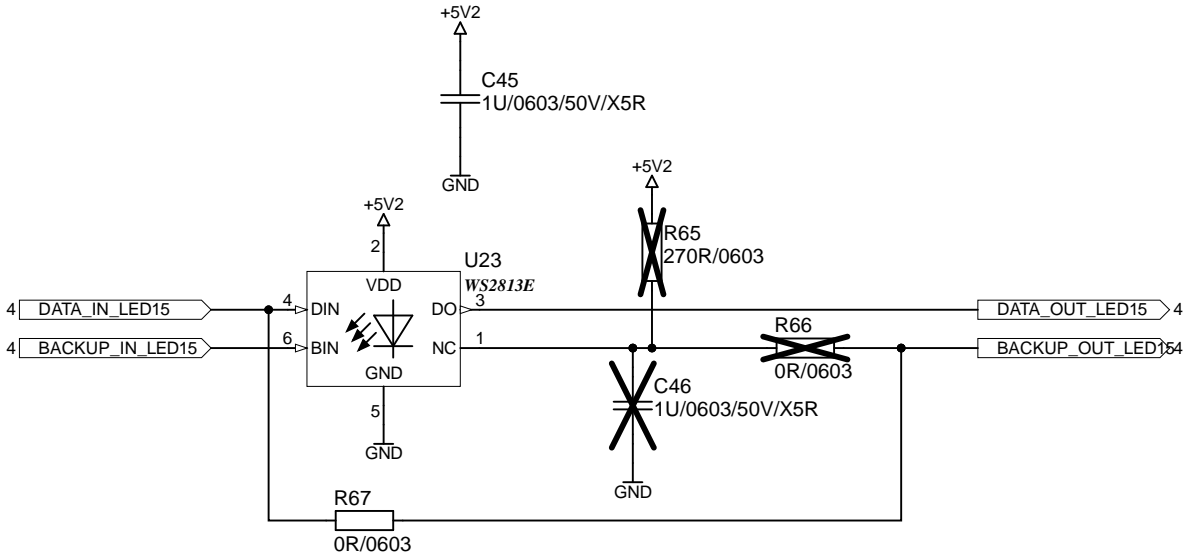
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



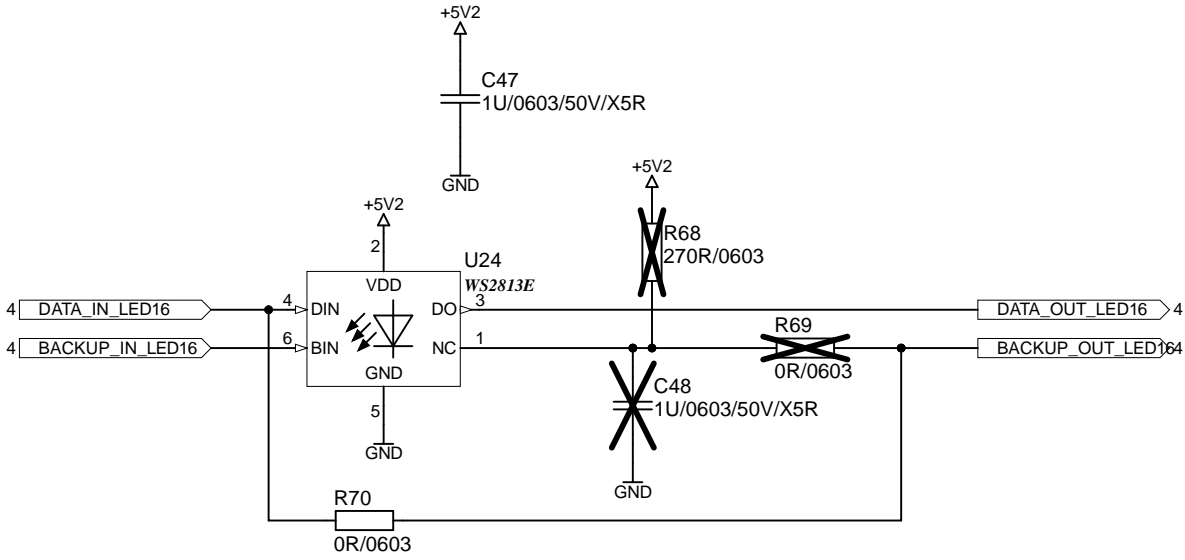
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



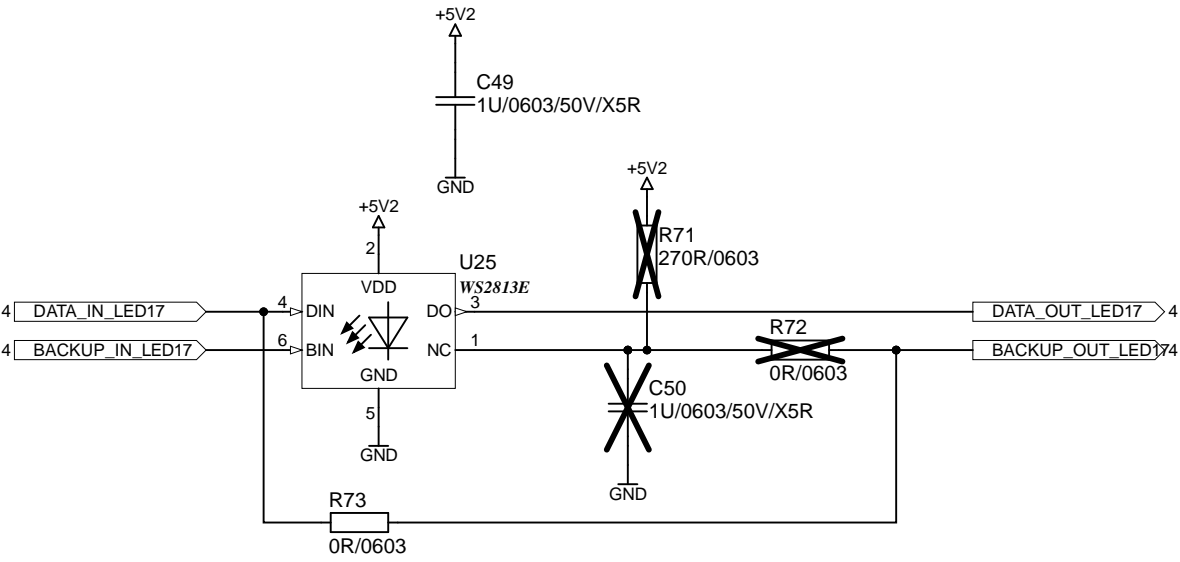
PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280

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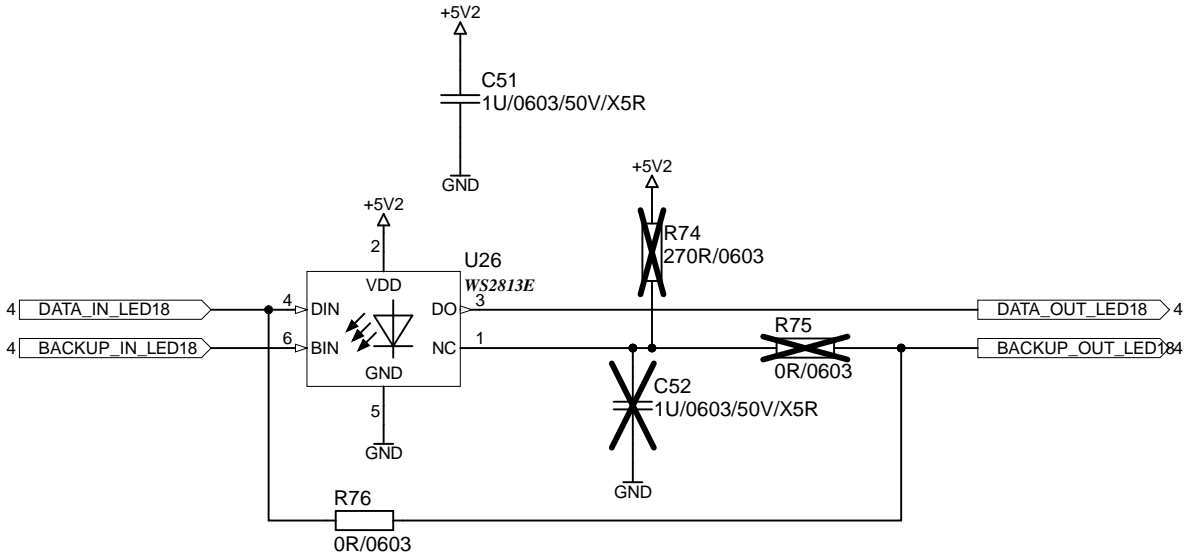
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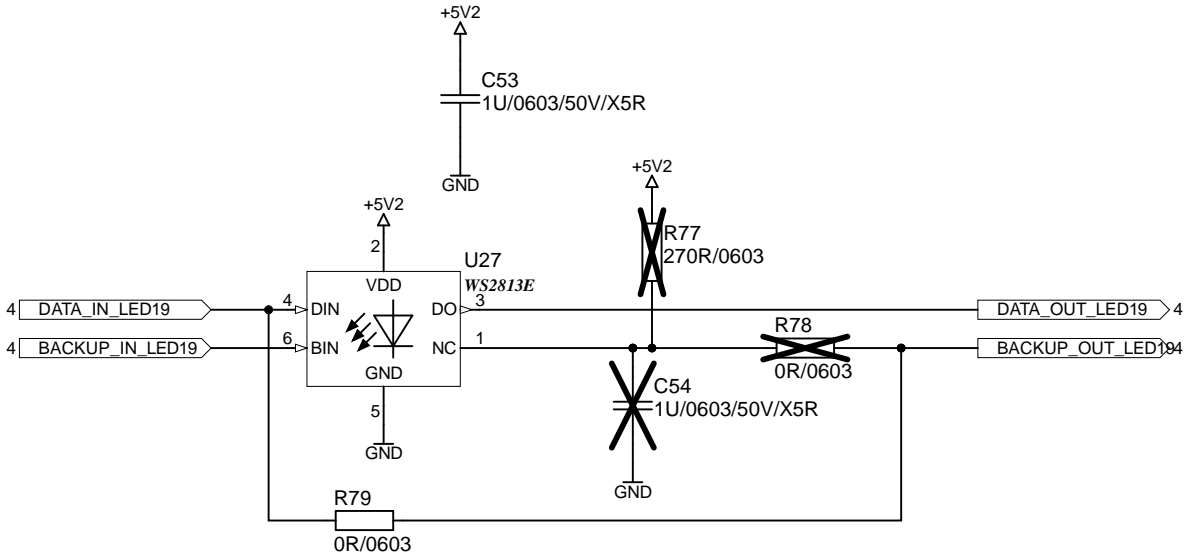
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PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280



PCB Variant	LED Variant	Pin 1	R13	R14	R15	C12	t _{1H} [ns]	t _{1L} [ns]	t _{0H} [ns]	t _{0L} [ns]	t _{Res} [us]
NC1-11	WS2813B-B	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-12	WS2813B-V5	BO	NB	0R	NB	NB	580 - 1600	580 - 1000	220 - 380	580 - 1000	>280
NC1-13	WS2813C	VCC	220R	NB	0R	1U	580 - 1600	220 - 420	220 - 380	580 - 1600	>280
NC1-14	WS2813E	NC	NB	NB	0R	NB	580 - 1600	220 - 420	220 - 380	580 - 1600	>280

