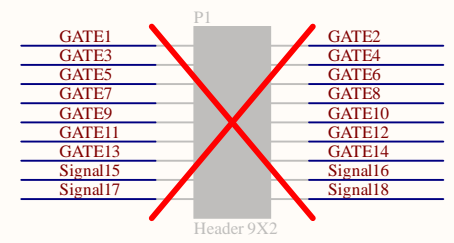
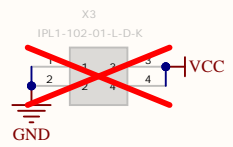
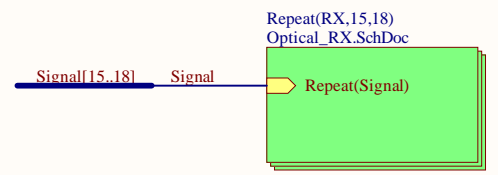
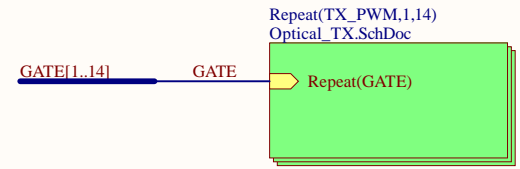
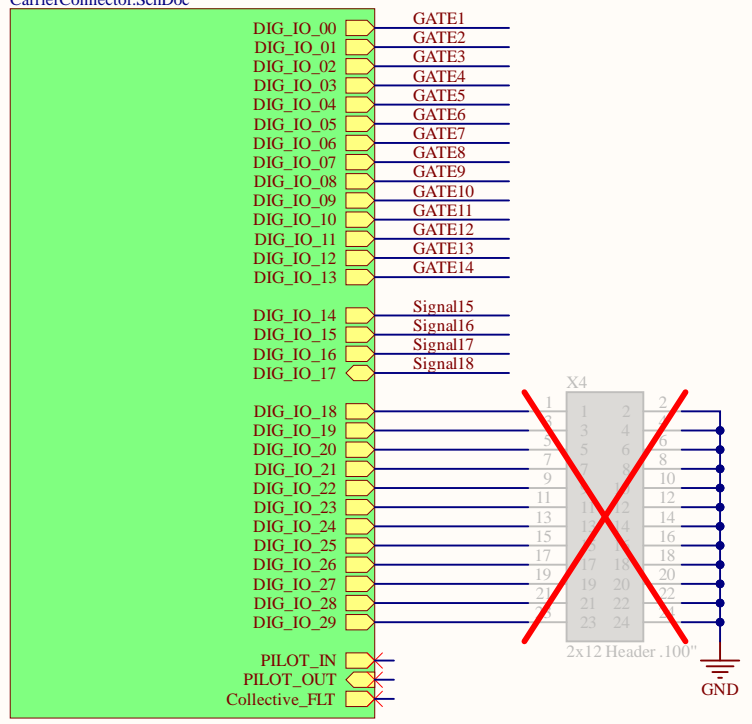


Connector
CarrierConnector.SchDoc

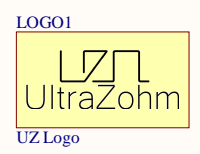


Serial1
 Serial
 Serialnumber 6,3 x 6.3mm

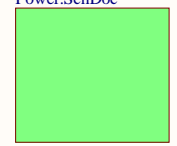
ProjectName1

Laser1
 Logo Laser

Voll_Laser



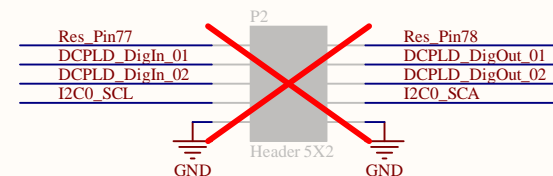
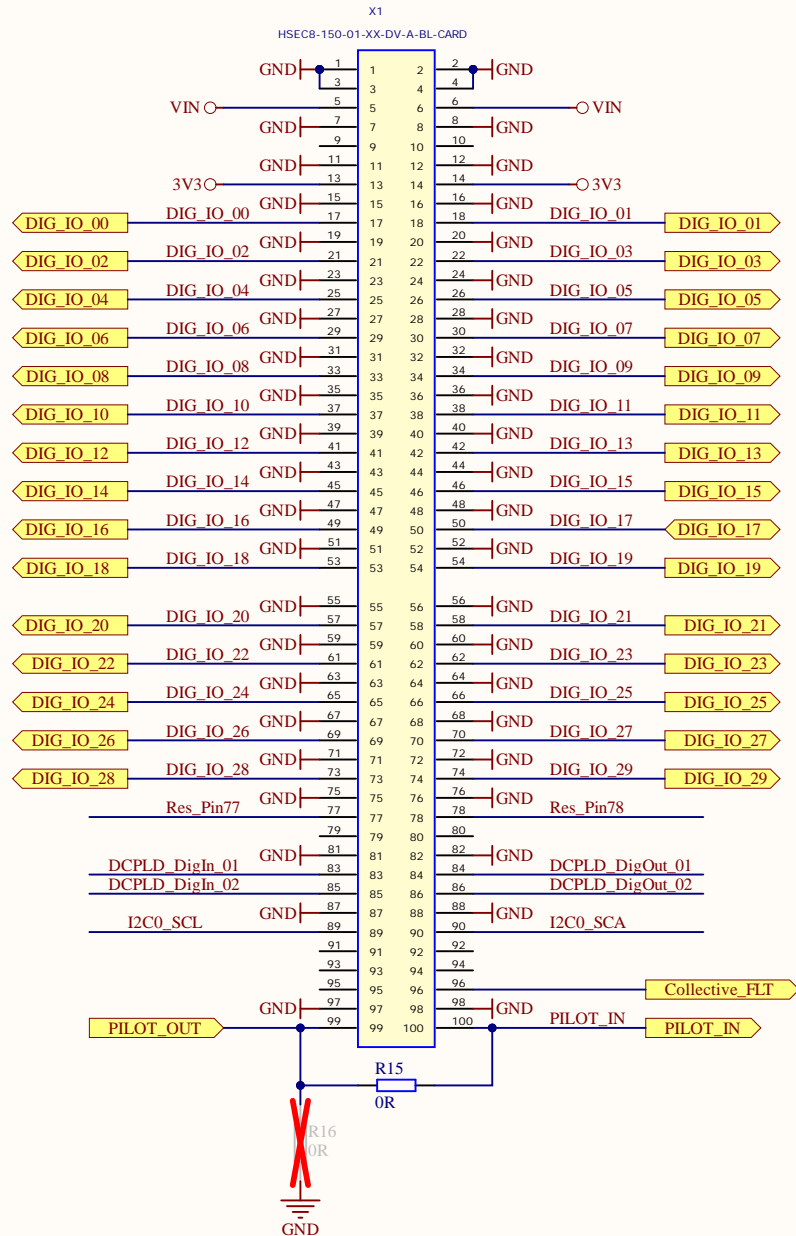
Power
 Power.SchDoc



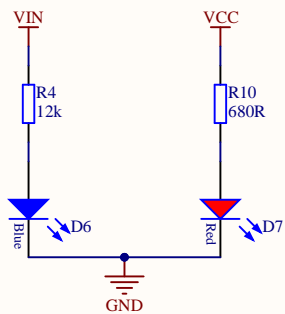
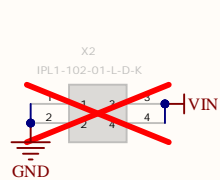
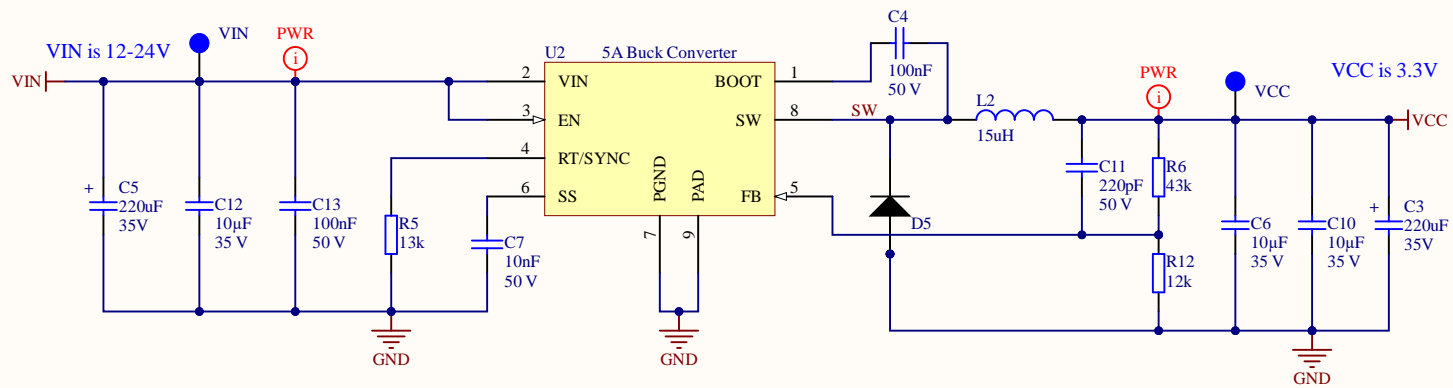
Title TopSheet.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
Date: 05.05.2021
Sheet 1 of 21





Title CarrierConnector.SchDoc		UltraZohm www.ultrazohm.com	
Revision: Rev06	Design Engineer: E. Romaschenko		
Project: Digital_Optical.PrjPCB		Date: 05.05.2021	Sheet 2 of 21



Title Power.SchDoc

Revision: Rev06

Design Engineer: E. Romaschenko

Project: Digital_Optical.PrjPCB

UltraZohm

www.ultrazohm.com

Date: 05.05.2021

Sheet 3 of 21

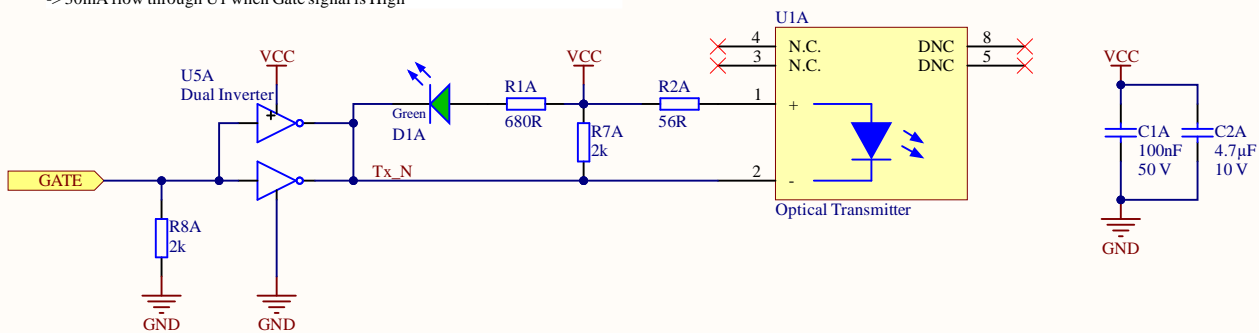


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.1 of 21

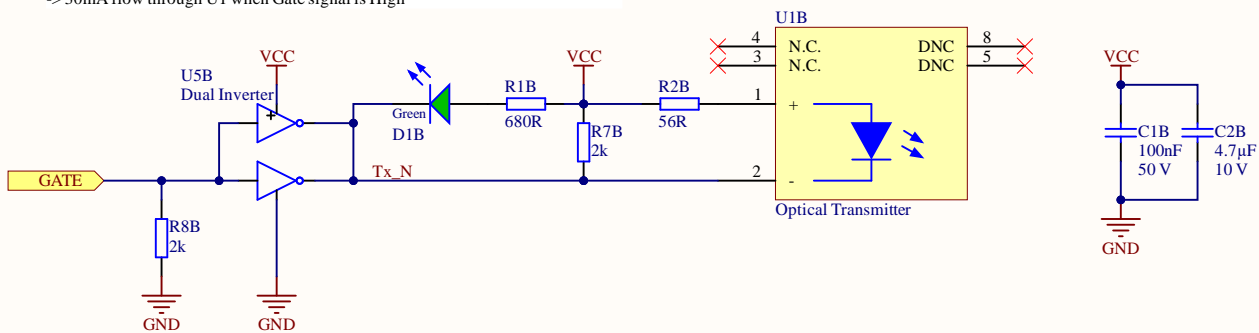


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.2 of 21

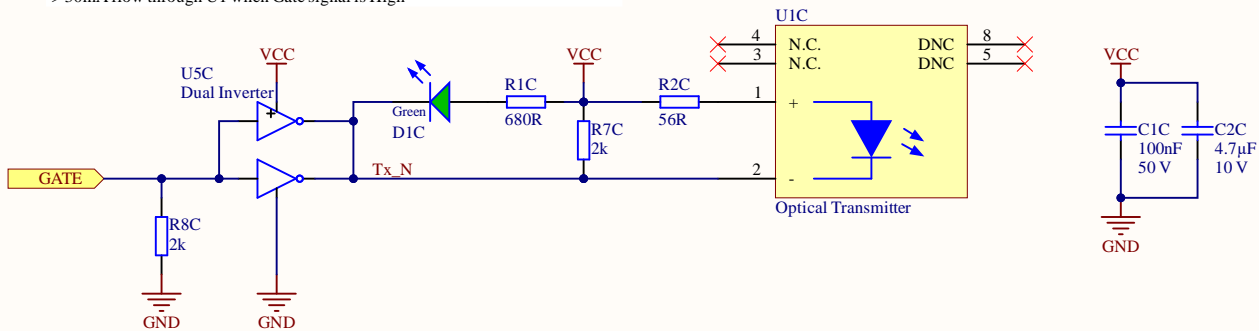


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.3 of 21

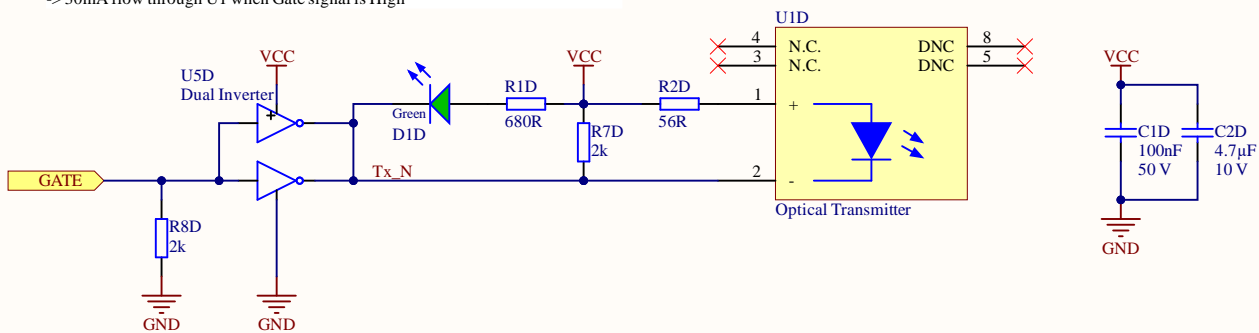


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.4 of 21

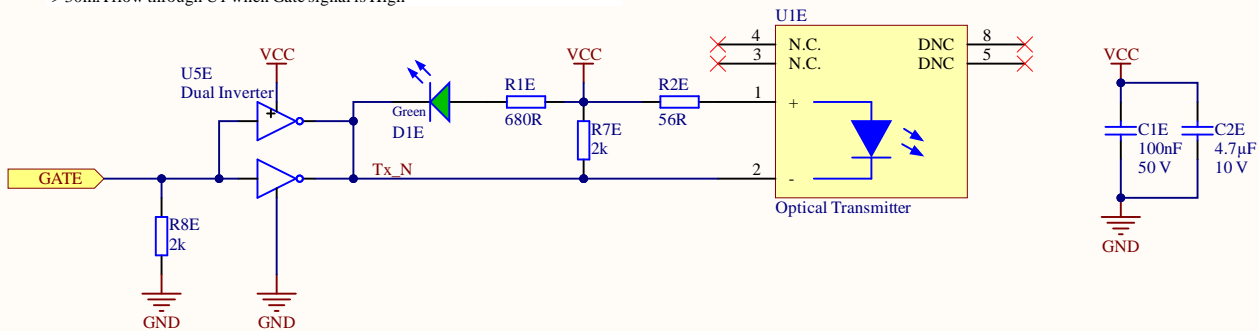


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.5 of 21

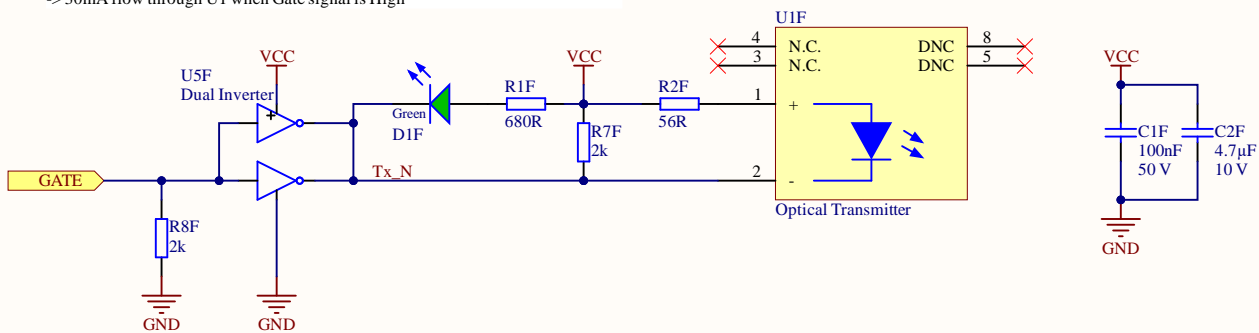


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.6 of 21

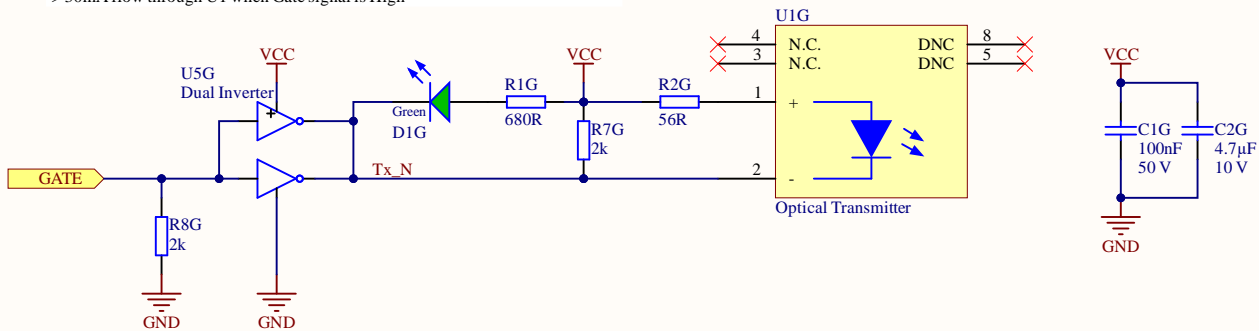


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.7 of 21

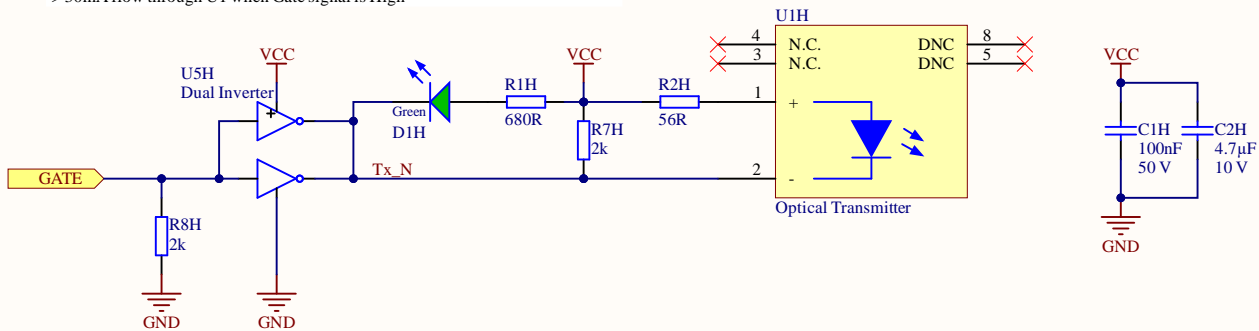


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

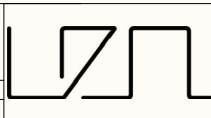
maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.8 of 21

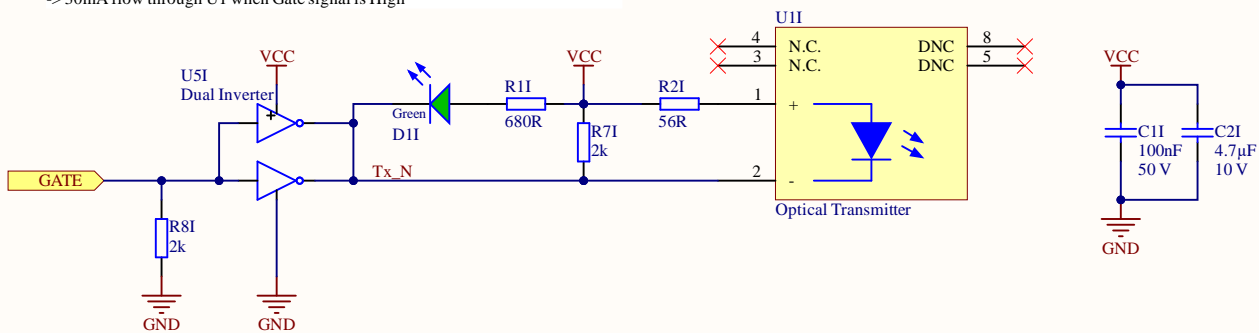


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.9 of 21

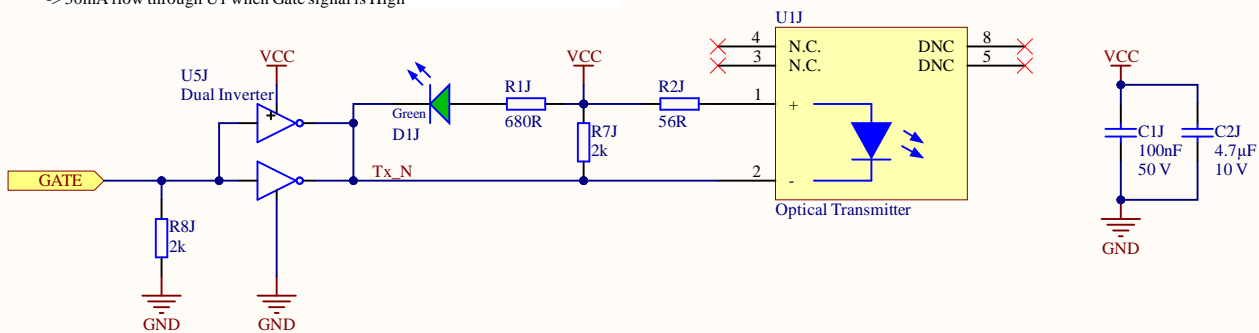


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.10bf 21

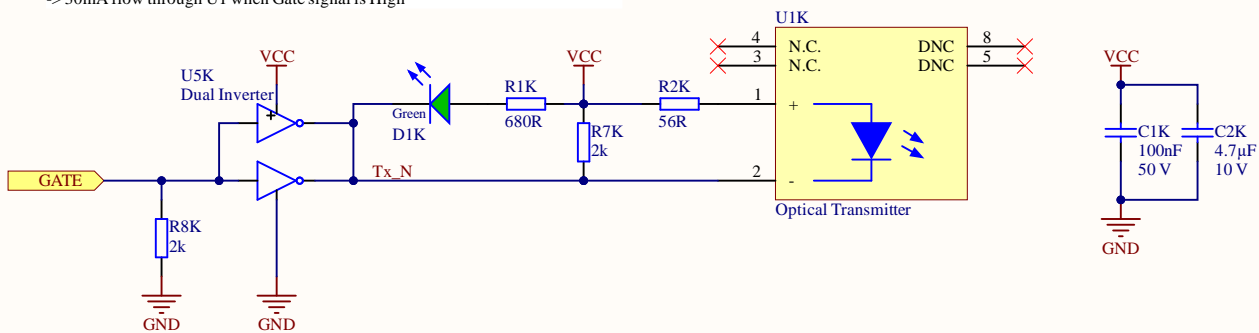


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.11 of 21

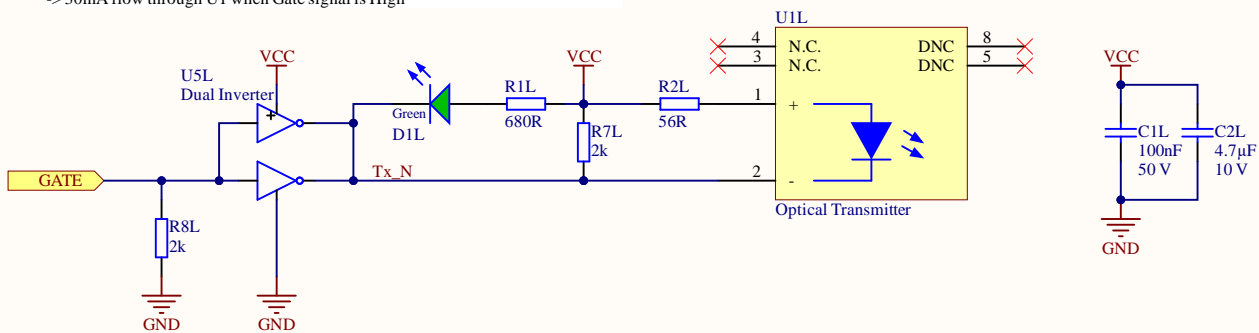


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

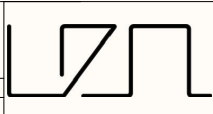
maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With Vcc = 3.3V and R2 = 56R
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.12 of 21

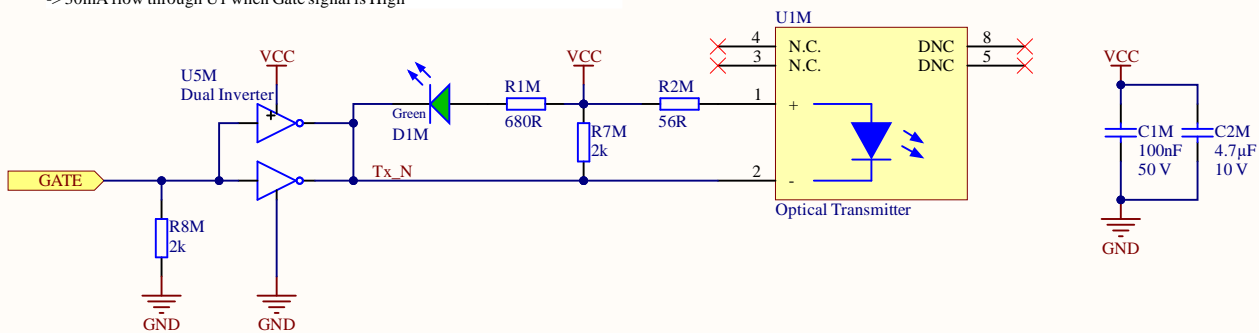


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With $V_{cc} = 3.3V$ and $R2 = 56R$
 -> 30mA flow through U1 when Gate signal is High



Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.13of 21

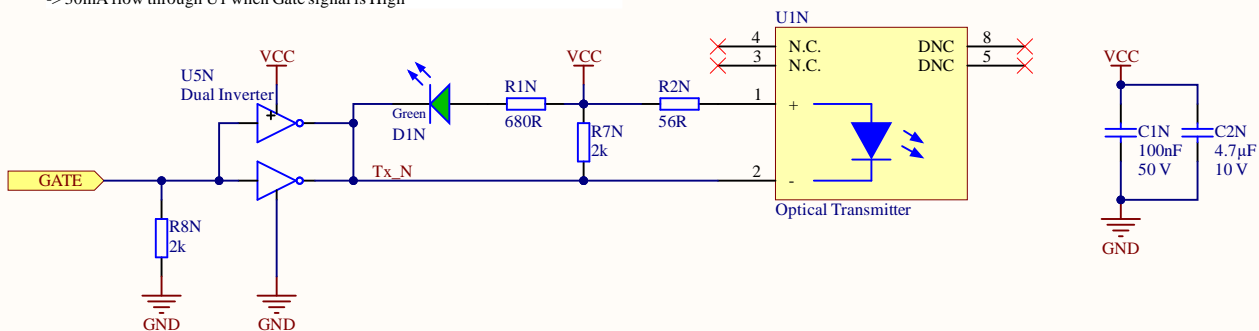


Poor Mans Table of Truth for Tx

GATE	Transmitter LED	Node Tx_N
LOW	OFF	HIGH
HIGH	ON	LOW

maximum drive strength of U5 is 24mA per Channel
 resulting in a total maximum drive strength of 48mA per Transmitter

With $V_{cc} = 3.3V$ and $R2 = 56R$
 -> 30mA flow through U1 when Gate signal is High



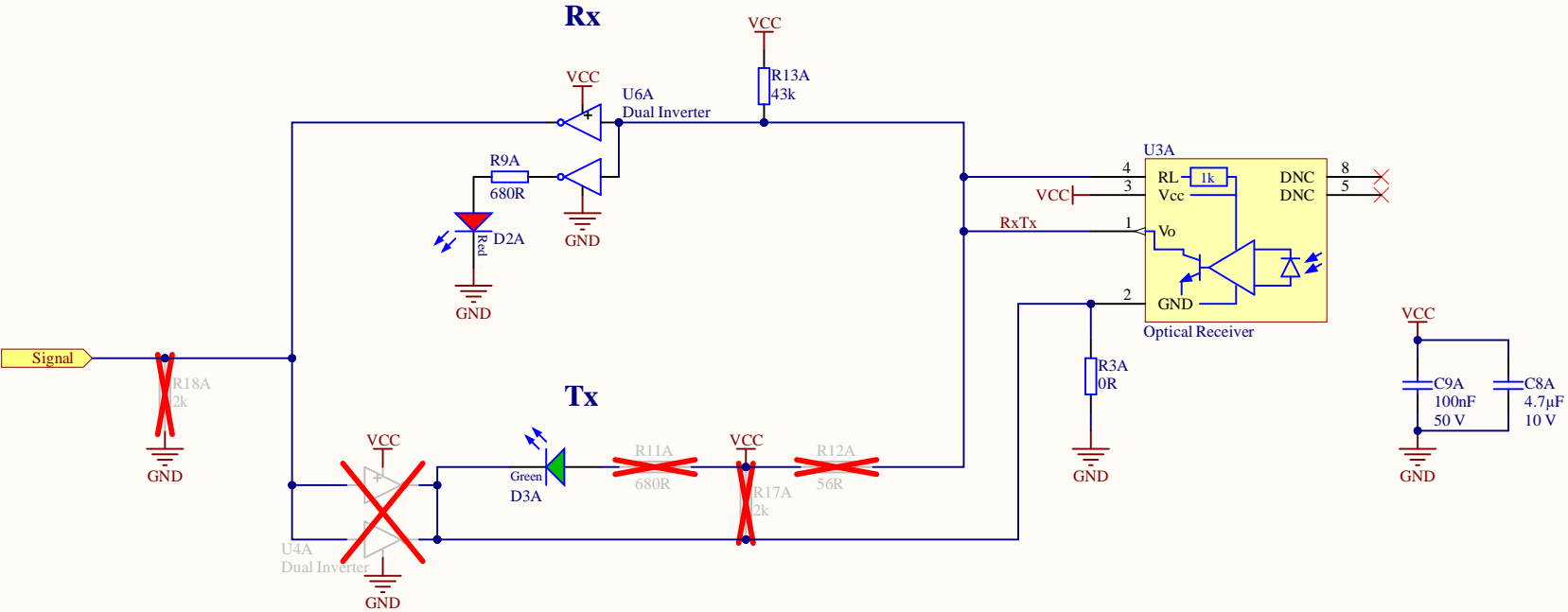
Title: Optical_TX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 4.14of 21



Poor Mans Table of Truth for Rx

Receiver LED	Node RxTx	Signal
OFF	HIGH	LOW
ON	LOW	HIGH



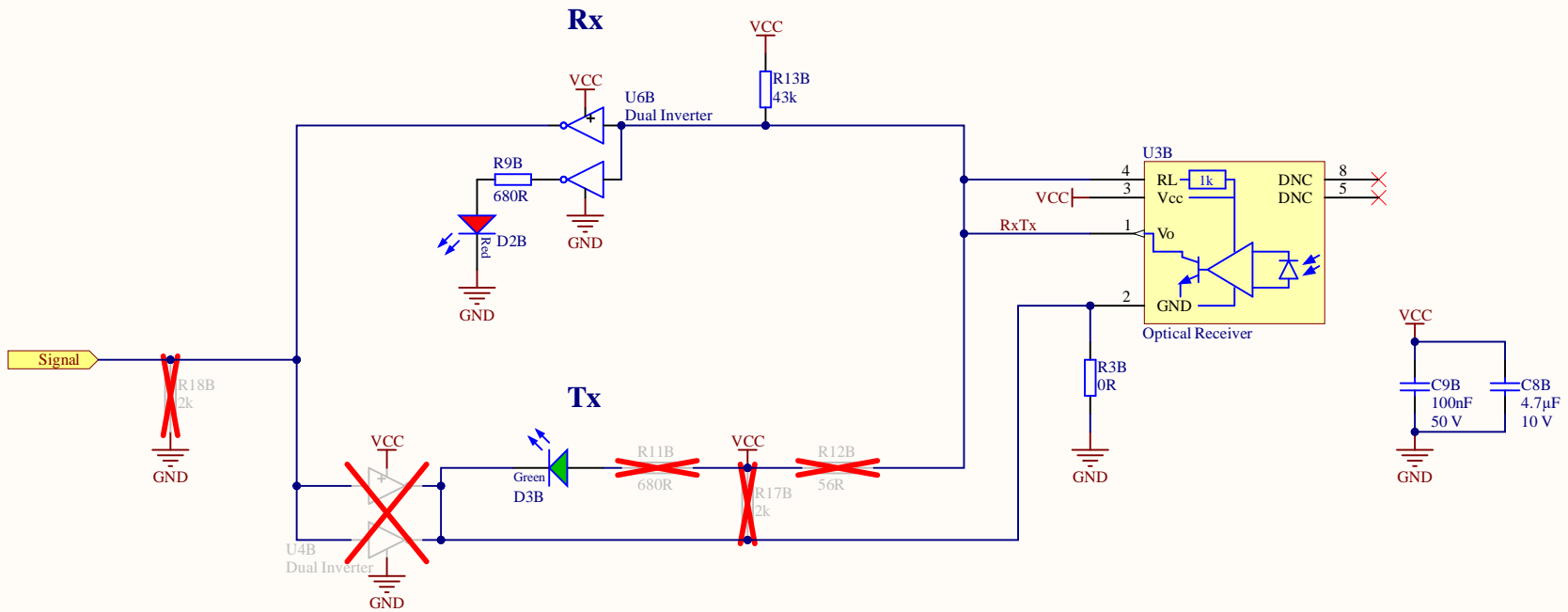
Title: Optical_RX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 5.1 of 21



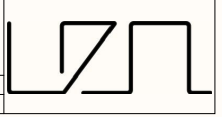
Poor Mans Table of Truth for Rx

Receiver LED	Node RxTx	Signal
OFF	HIGH	LOW
ON	LOW	HIGH



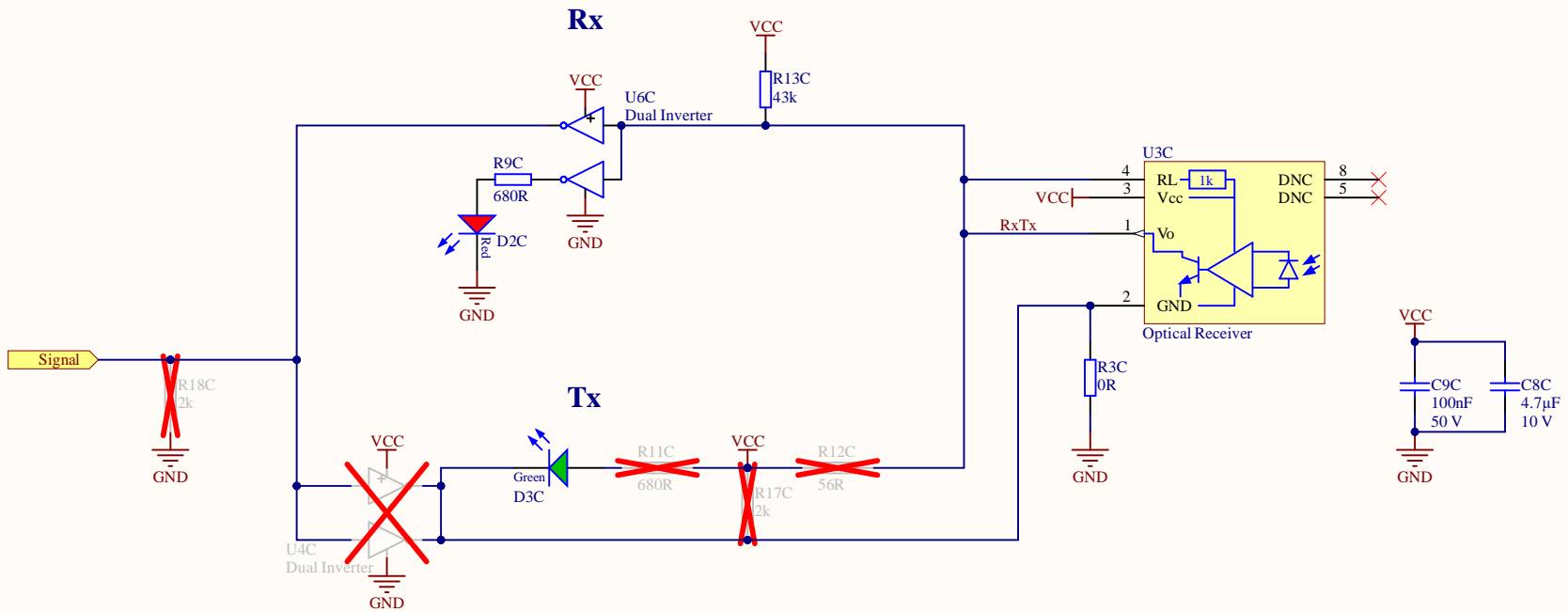
Title: Optical_RX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 5.1 of 21



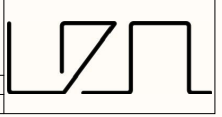
Poor Mans Table of Truth for Rx

Receiver LED	Node RxTx	Signal
OFF	HIGH	LOW
ON	LOW	HIGH



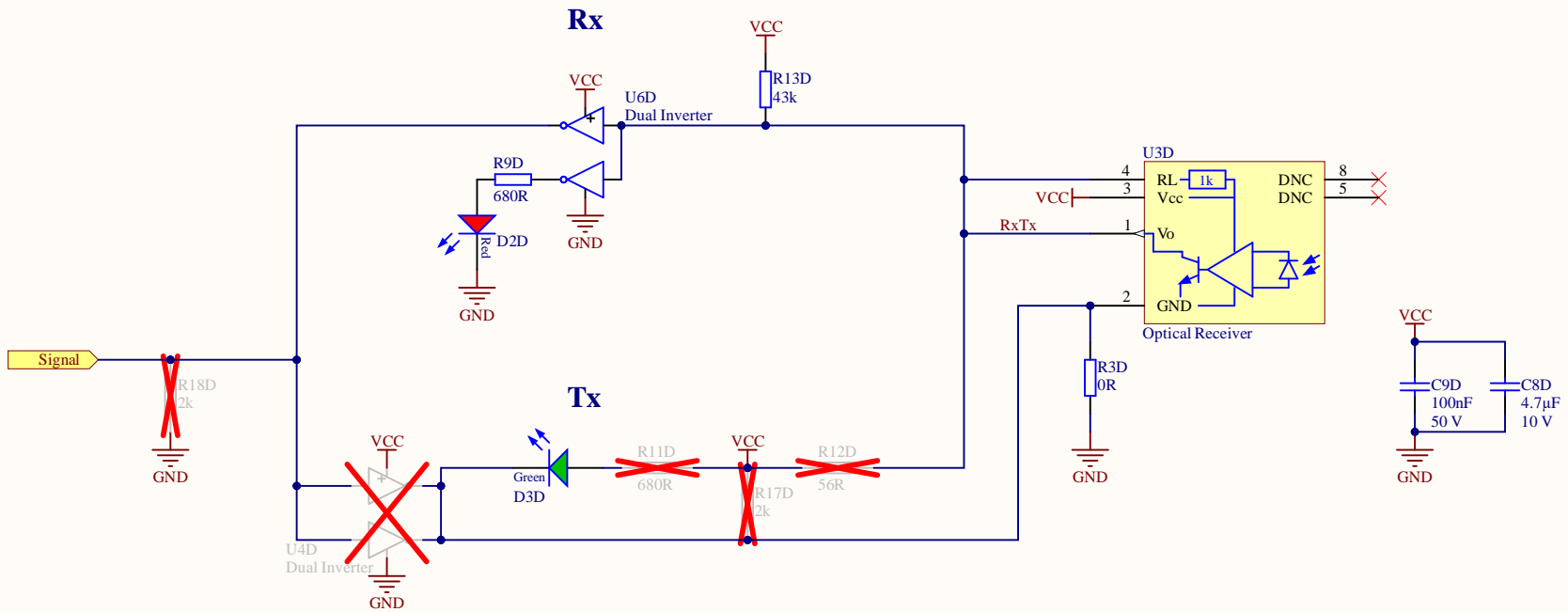
Title: Optical_RX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 5.17 of 21



Poor Mans Table of Truth for Rx

Receiver LED	Node RxTx	Signal
OFF	HIGH	LOW
ON	LOW	HIGH



Title: Optical_RX.SchDoc	
Revision: Rev06	Design Engineer: E. Romaschenko
Project: Digital_Optical.PrjPCB	

UltraZohm
www.ultrazohm.com
 Date: 05.05.2021
 Sheet 5.18of 21

