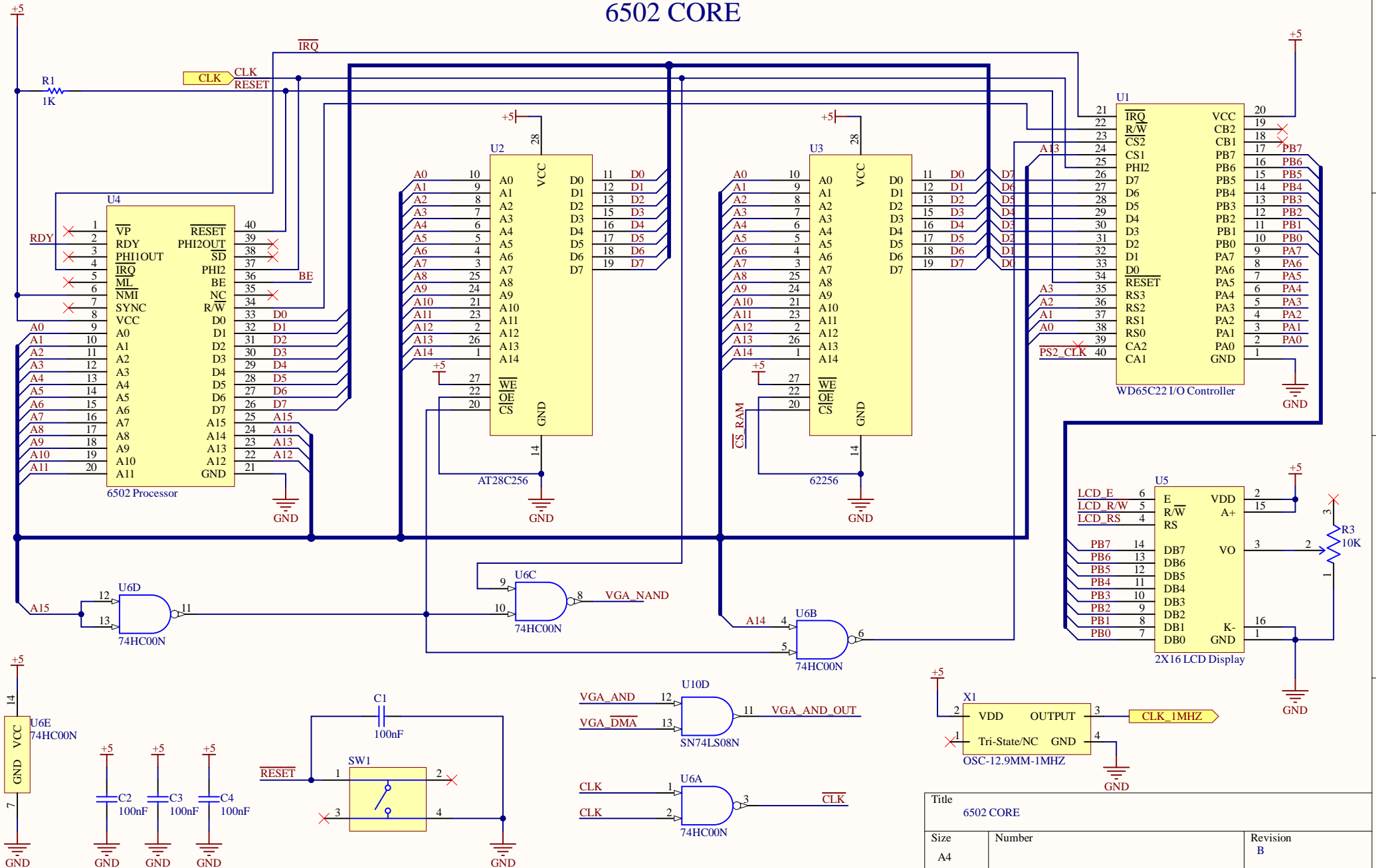
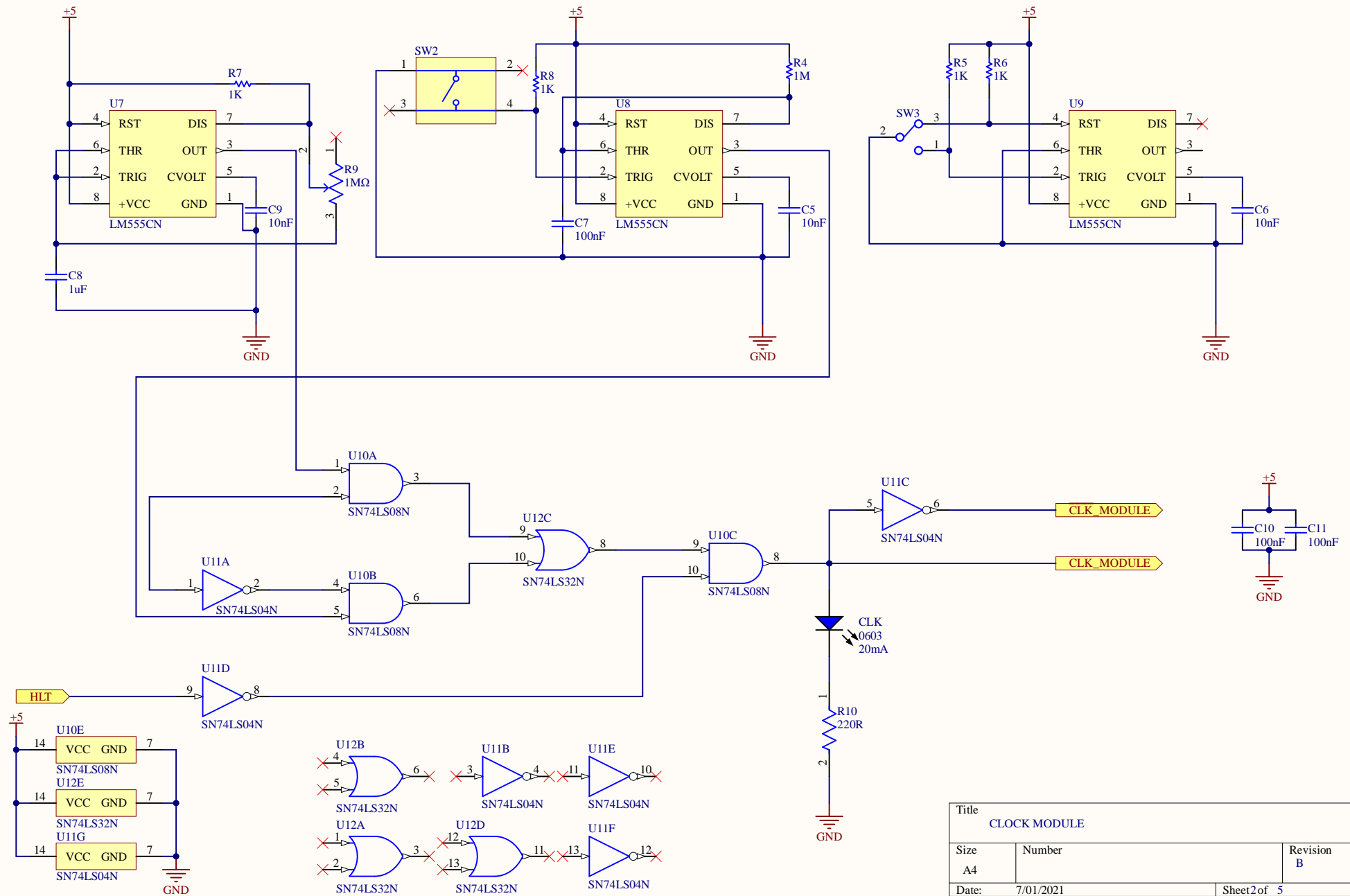


# 6502 CORE



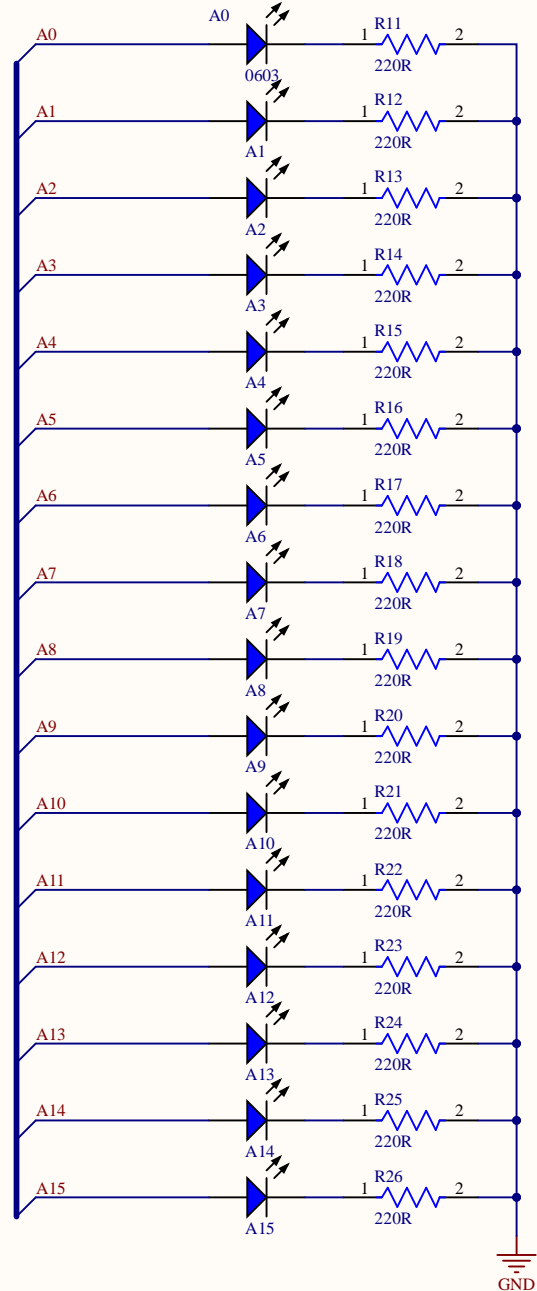
Title 6502 CORE		
Size A4	Number	Revision B
Date: 7/01/2021	Sheet 1 of 5	
File: C:\Users\...\65c02.SchDoc	Drawn By: MING JIE	

## 555 CLOCK GENERATOR

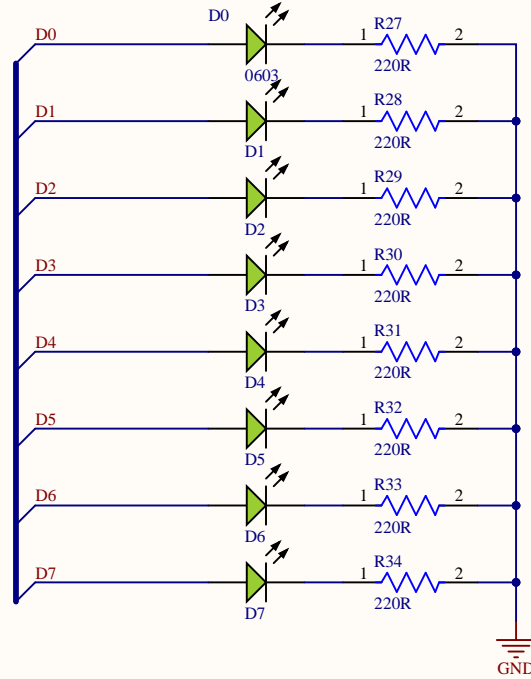


Title <b>CLOCK MODULE</b>		
Size A4	Number	Revision <b>B</b>
Date: 7/01/2021	File: C:\Users\...\clock_module.SchDoc	Sheet2 of 5 Drawn By: <b>MING JIE</b>

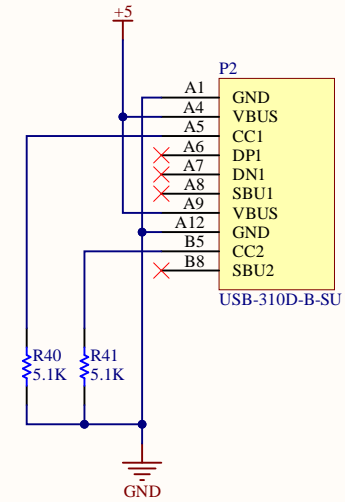
## ADDRESS LEDs



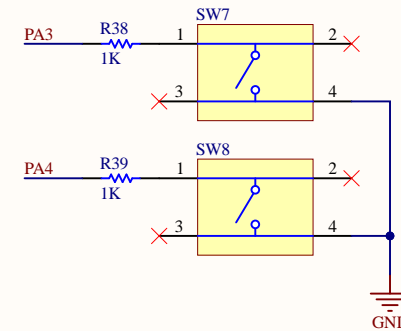
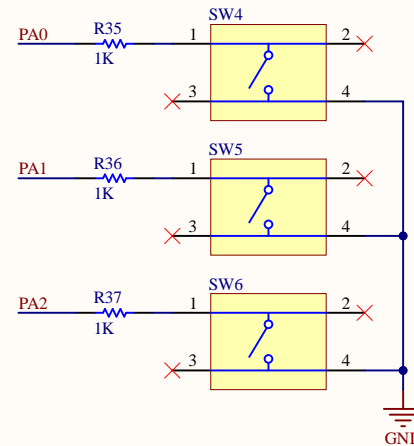
## DATA LEDs



## POWER



## ADDRESS BUTTONS



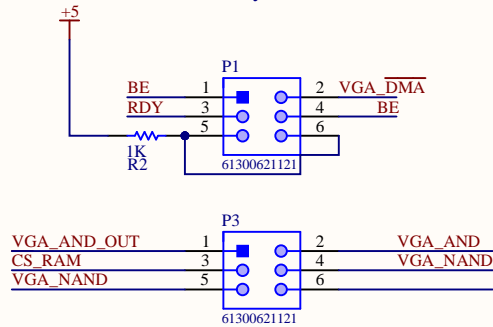
Title LEDs AND BUTTONs		
Size A4	Number	Revision B
Date: 7/01/2021	Sheet 3 of 5	
File: C:\Users\...\address_LEDs.SchDoc	Drawn By: MING JIE	

# CONFIGURATION HEADERS

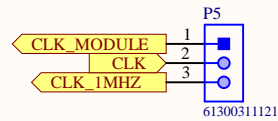
## 6502 CONTROL

For VGA, use 1-3, 2-4 connections

For 6502 only, 3-5,4-6



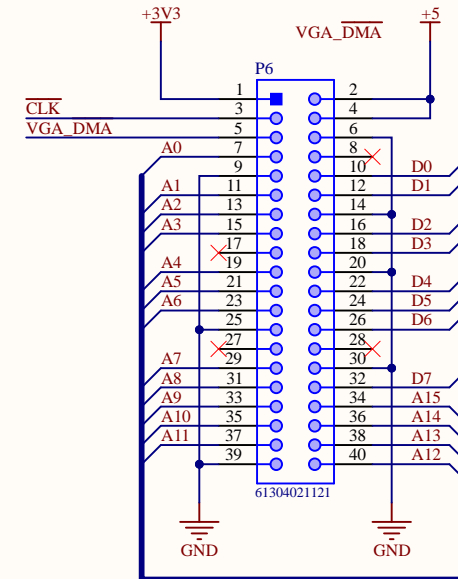
For manual clock, use 1-2



## VGA BACKPLANE

Compatible with RPI GPIO

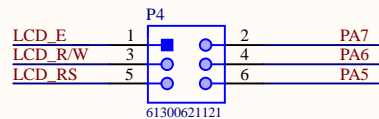
Use RPI to probe address and data bus, be careful with 5V logic levels



## 6522 CONTROL

For 6502 only, 1-2, 3-4, 5-6

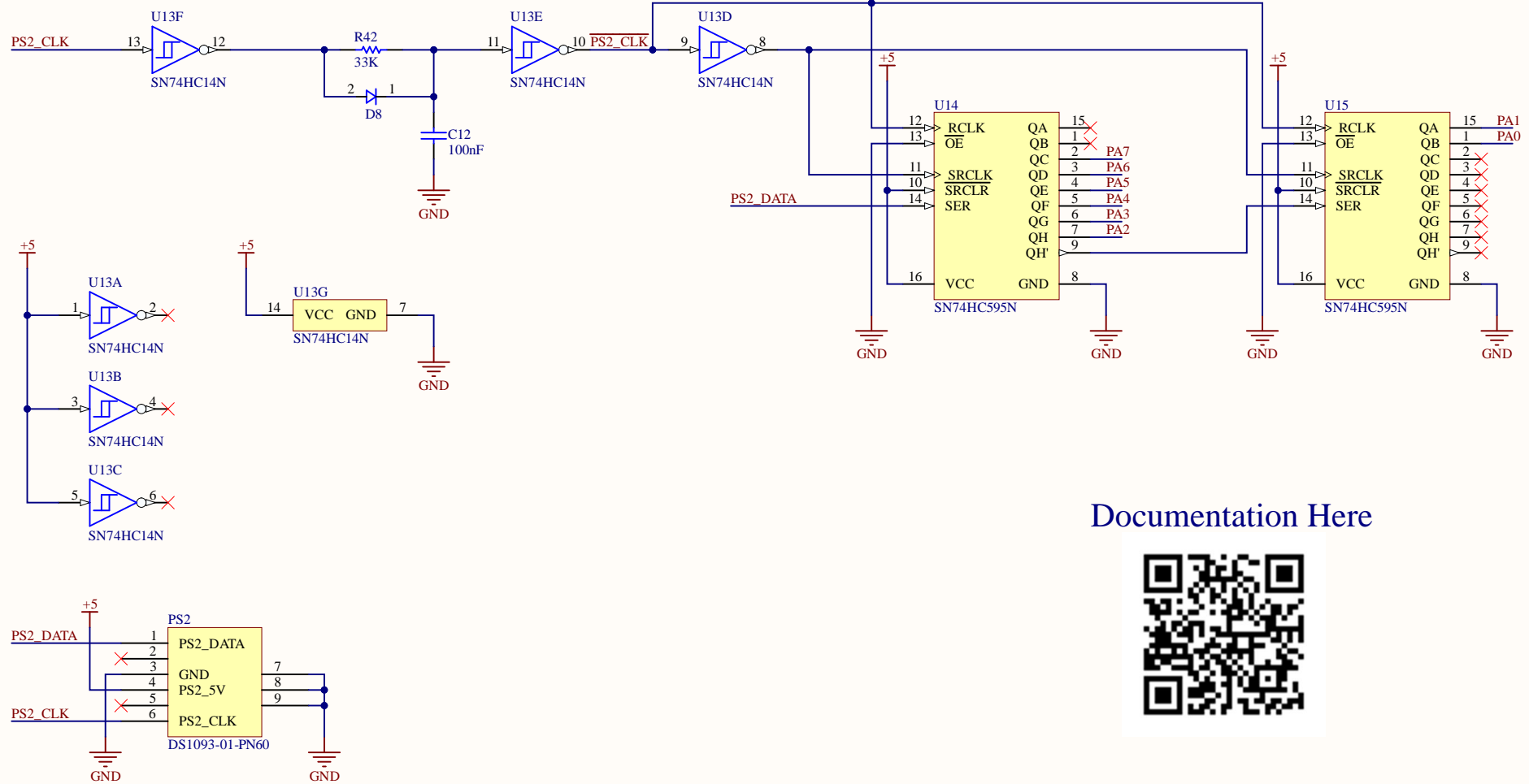
For PS2, leave open



Title CONFIGURATION HEADERS		
Size A4	Number	Revision B
Date:	7/01/2021	Sheet 4 of 5
File:	C:\Users\...\config_headers.SchDoc	Drawn By: MING JIE

# PS2 INTERFACE

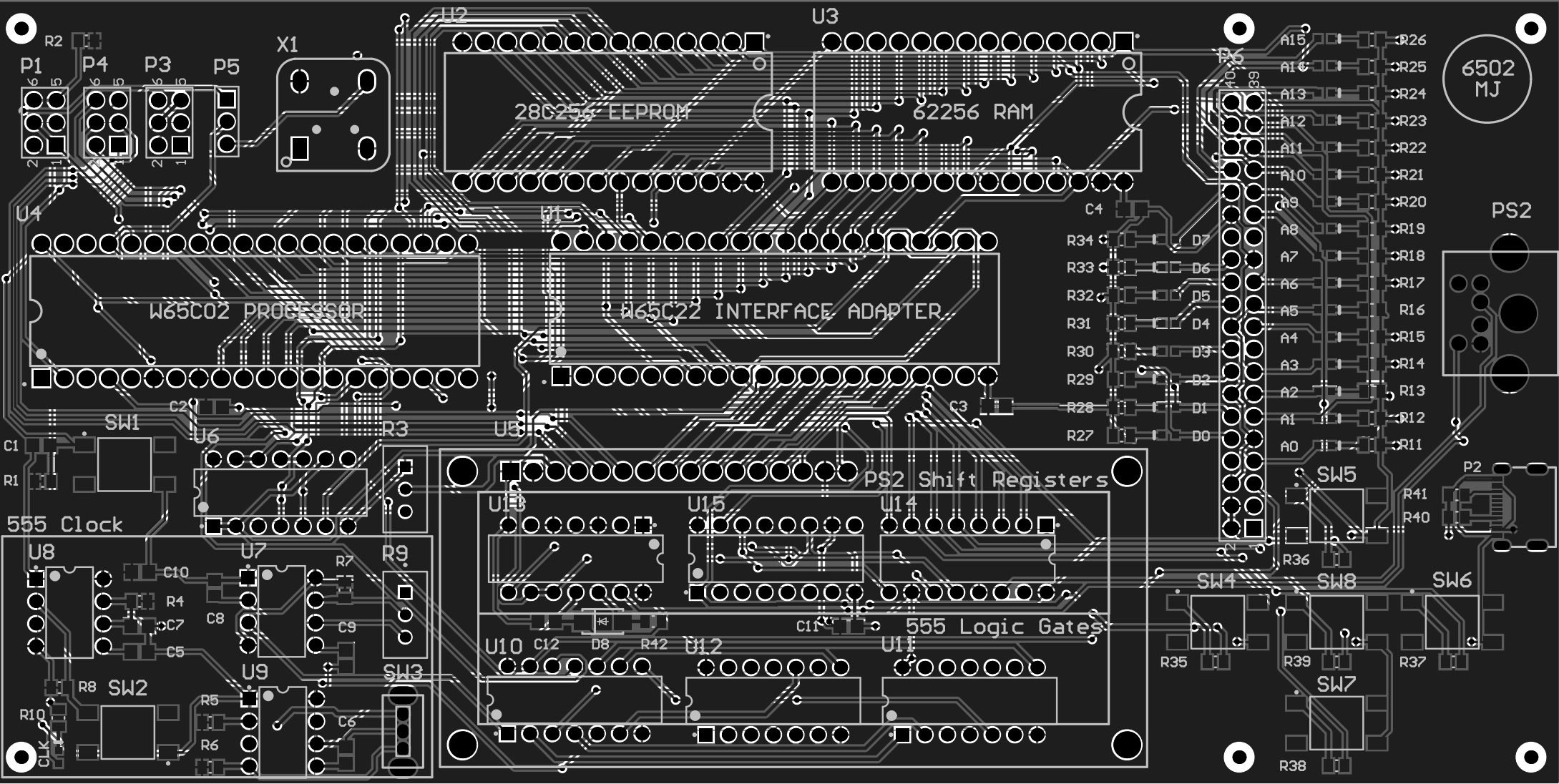
Ignore START(1), PARITY(10), STOP(11) bit  
Send 8 DATA bits to 65C22



Documentation Here



Title PS2 INTERFACE		
Size A4	Number	Revision B
Date:	7/01/2021	Sheet 5 of 5
File:	C:\Users\...\ps2_interface.SchDoc	Drawn By: MING JIE



Comment	Description	Designator	Footprint	LibRef	Quantity
19-217/BHC-ZL1M2RY/3T	Chip LED, Blue, 5 V, 25 mA, -40 to 85 degC, 2-Pin SMD (0603), RoHS, Tape and Reel	A0, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, CLK	EVRL-0603-2_V	CMP-2100-03577-1	17
GRM21BR71H104KA01L	Chip Capacitor, 0.1 uF +/- 10%, 50 V, -55 to 125 degC, 0805 (2012 Metric), RoHS, Tape and Reel	C1, C2, C3, C4, C7, C10, C11, C12	CAPC2013X135X45ML10T25	CMP-2100-03644-1	8
GRM216R71H103KA01D	Chip Capacitor, 10 nF, +/- 10%, 50 V, -55 to 125 degC, 0805 (2012 Metric), RoHS, Tape and Reel	C5, C6, C9	CAPC2013X70X45ML10T25	CMP-2000-05013-1	3
GRM216R61E105KA12D		C8	CAPC2013X70X45NL10T25	CMP-2007-00957-1	1
19-217/GHC-YR1S2/3T	Green 520-535nm 0603 Light Emitting Diodes (LED) RoHS	D0, D1, D2, D3, D4, D5, D6, D7	EVRL-0603-2_V	CMP-2100-03580-1	8
Diode, General Purpose	General Purpose Diode, SMT, DO-214	D8	DO-214AC/SMA	C95872	1
61300621121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Dual Row, 6 pins	P1, P3, P4	61300621121	CMP-1502-01072-1	3
USB-310D-B-SU	USB Type C Receptacle	P2	USB-C-THT	USB-310D-B-SU	1
61300311121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Single Row, 3 pins	P5	61300311121	CMP-1502-01062-1	1
61304021121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Dual Row, 40 pins	P6	61304021121	CMP-1502-01135-1	1
DS1093-01-PN60	PS2 Port	PS2	PS2_PORT	PS2_CONN	1
CRCW08051K00FKEA		R1, R2, R5, R6, R7, R8, R35, R36, R37, R38, R39	RESC2013X50X30NL20T20	CMP-1013-00510-2	11
3296W-1-103RLF	TRIMMER 10K OHM 0.5W PC PIN TOP	R3	FP-3296W-MFG	CMP-07234-000024-1	1
CRCW08051M00JNEA		R4	RESC2013X50X30NL20T20	CMP-2001-03632-1	1
3296W-1-105LF	TRIMMER 1M OHM 0.5W PC PIN TOP	R9	FP-3296W-MFG	CMP-2000-05583-2	1
CRCW0805220RFKEA	RES Thick Film, 2200, 1%, 0.125W, 100ppm/C, 0805	R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34	FP-CRCW0805-e3-MFG	CMP-2001-03682-2	25
0805W8F5101T5E	5.1kΩ ±1% 0.125W ±100ppm/C 0805 Chip Resistor - Surface Mount RoHS	R40, R41	RESC2013X50X30NL20T20	CMP-1013-00510-2	2
0805W8F3302T5E	33K, 0805 Chip Resistor, UniOhm	R42	RESC2013X50X30NL20T20	CMP-1013-00510-2	1
K2-1102SP-C4SC-04	Switch, SPST, 24 V, -35 to 85 degC, 4-Pin SMD, RoHS, Tape and Reel	SW1, SW2, SW4, SW5, SW6, SW7, SW8	TECO-FSM4JSMA_V	CMP-2000-05602-2	7
SS-12D02-VG4	SPDT, Korean Hroparts Elec SS-12D02-VG4	SW3	5_2-54mm_SPDT	SS-12D02-VG4	1
WD65C22 I/O Controller	WD65C22 PDIP-40, I/O Controller	U1	PDIP_40	WD65C22	1
AT28C256	Paged Parallel EEPROM AT28C256	U2	DIP_28	AT28C256	1
62256	32K x 8, SRAM	U3	DIP_28	62256	1
6502 Processor	WDC 6502 PDIP-40	U4	PDIP_40	WDC65C02	1
2X16 LCD Display	2X16 LCD Display, Parallel Input	U5	LCD_2x16	LCM1602C	1
74HC00N	Quad 2-input NAND gate, CMOS, 2 to 6 V, -40 to 125 degC, 14-Pin DIP (SOT27-1), RoHS, Bulk	U6	NXP-SOT27-1-14	CMP-0976-00001-1	1
LM555CN	Timer, 8-pin MDIP	U7, U8, U9	N08E	CMP-0056-00017-2	3
SN74LS08N	Quadruple 2-Input Positive-AND Gates, N0014A, TUBE	U10	N0014A	CMP-0777-00259-3	1
SN74LS04N	Hex inverters, N0014A, TUBE	U11	N0014A	CMP-1615-00911-2	1
SN74LS32N	Quad 2-input positive-OR gates, N0014A, TUBE	U12	N0014A	CMP-1573-00145-3	1
SN74HC14N	Hex Schmitt-Trigger Inverters, N0014A, TUBE	U13	N0014A	CMP-1615-00889-3	1
SN74HC595N	8-Bit Shift Registers With 3-State Output Registers, N0016A, TUBE	U14, U15	N0016A	CMP-0780-00137-3	2
OSC-12.9MM-1MHZ	12.9MM x 12.9MM, 1MHz Can Oscillator	X1	OSC_THT_12-9MM	OSC-12.9MM-1MHZ	1