bus

File: bus.kicad_sch

power

File: power.kicad_sch

buffers

File: buffers.kicad_sch

fpanel

File: fpanel.kicad_sch

6809CPU

File: 6809CPU.kicad_sch

GALS

File: GALS.kicad_sch

bus sharing

File: bussharing.kicad_sch

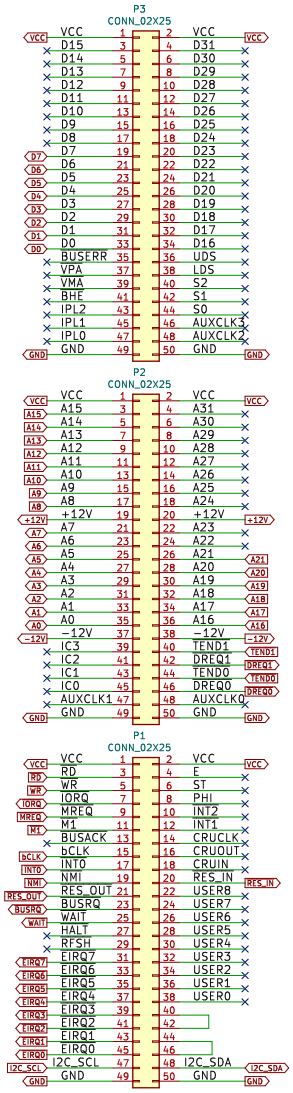
mapper

File: mapper.kicad_sch

Sheet: /
File: processor.6809.kicad_sch

Title: Duodyne 6809 CPU board

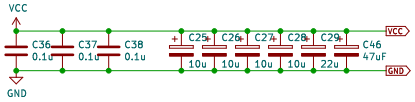
Size: B	Date: 2024-01-14	**Rev: V1.01**
KiCad E.D.A. kicad (6.0.11)		Id: 1/9

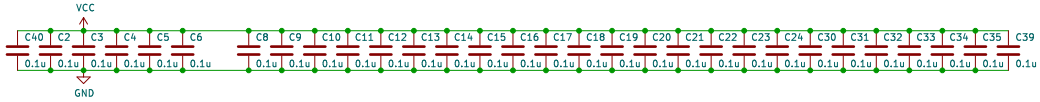


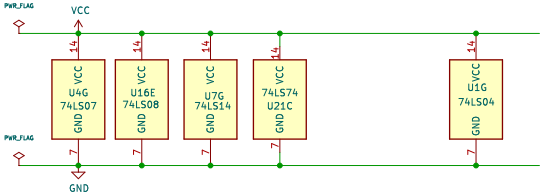
Sheet: /bus/
File: bus.kicad_sch

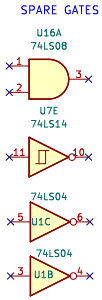
Title: Duodyne 6809 CPU board

Size: B	Date: 2024-01-14	**Rev: V1.01**
KiCad E.D.A. kicad (6.0.11)		Id: 2/9









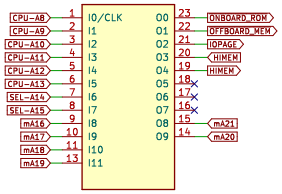
Sheet: /power/	
File: power.kicad_sch	
Title: Duodyne 6809 CPU board	
Size: B	Date: 2024-01-14
KiCad E.D.A. kicad (6.0.11)	Id: 4/9

IO Address Port $50-$5F

$50 PAGER BANK 0(WR)
$51 PAGER BANK 1(WR)
$52 PAGER BANK 2(WR)
$53 PAGER BANK 3(WR)
$54 Front Panel (RW)
$55
$56-$57 I2C(RW)
$58-$5F UART (RW)

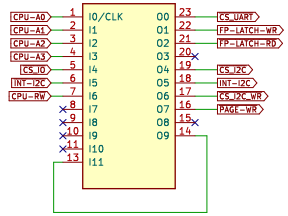
ADDRESS DECODER

U9
GAL22V10

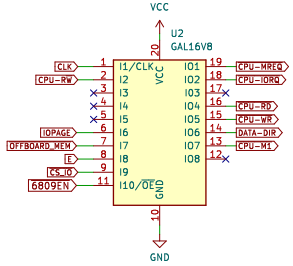


IO DECODER

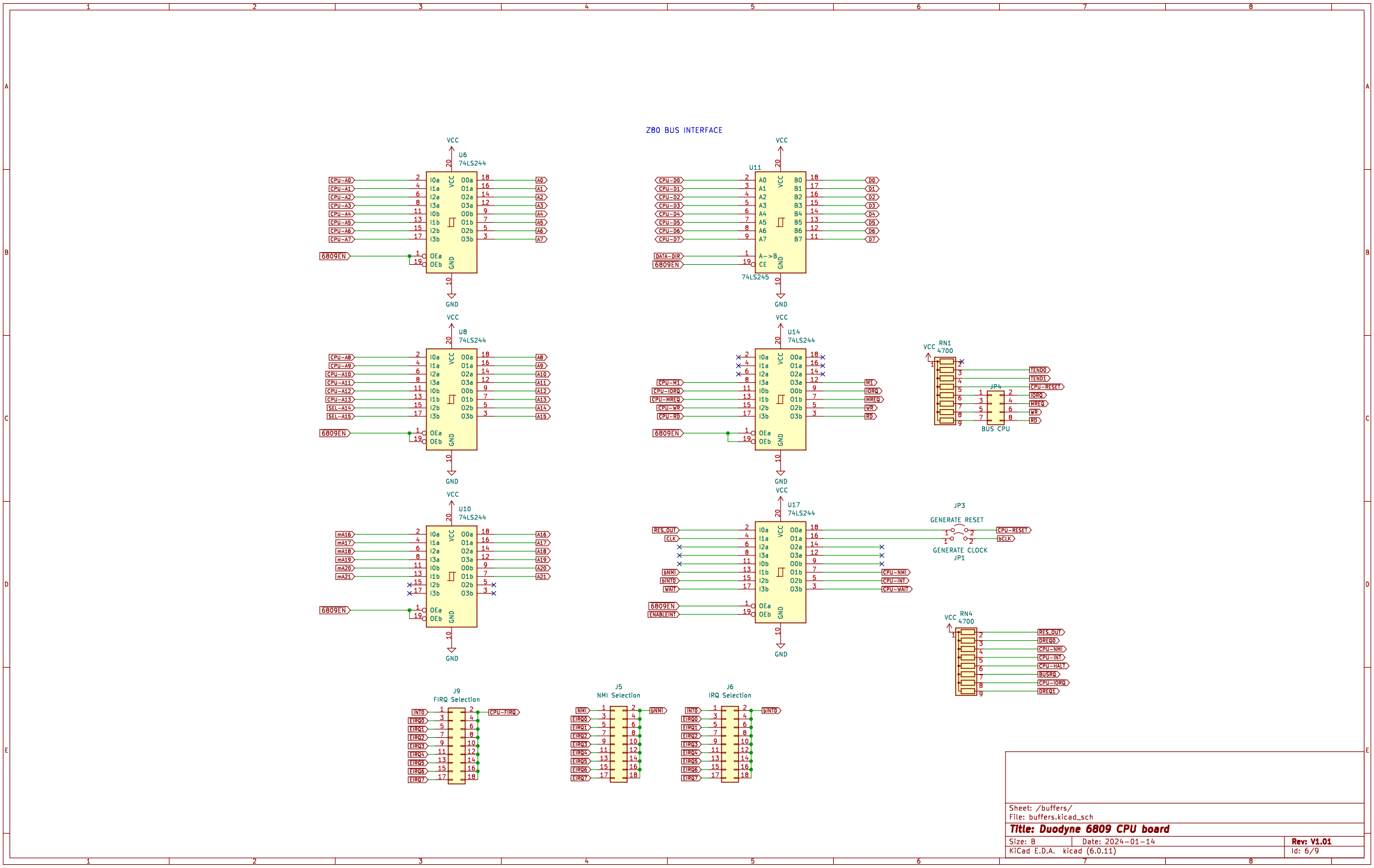
U3
GAL22V10

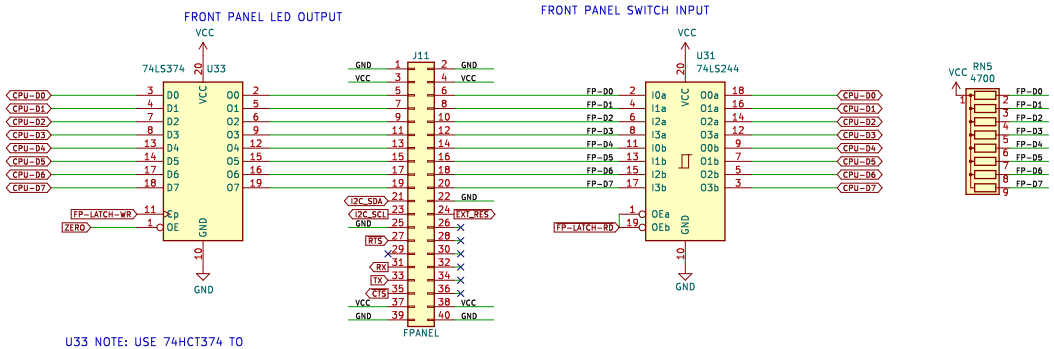


BUS SIGNALS



Sheet: /GALS/		
File: GALS.kicad_sch		
Title: Duodyne 6809 CPU board		
Size: B	Date: 2024-01-14	**Rev: V1.01**
KiCad E.D.A. kicad (6.0.11)		Id: 5/9


Z80 BUS INTERFACE
U6
74LS244
U11
74LS245
U8
74LS244
U14
74LS244
U10
74LS244
U17
74LS244
RN1
4700
JP4
BUS CPU
JP3
GENERATE RESET
GENERATE CLOCK
JP1
RN4
4700
J9
FIRQ Selection
J5
NMI Selection
J6
IRQ Selection
Sheet: /buffers/
File: buffers.kicad_sch
Title: Duodyne 6809 CPU board
Size: B
Date: 2024-01-14
Rev: V1.01
KiCad E.D.A. kicad (6.0.11)
Id: 6/9



U33 NOTE: USE 74HCT374 TO SOURCE OR SINK ADEQUATE CURRENT TO DRIVE LEDS ON FRONT PANEL

J11 NOTE:

PINS 5, 7, 9, 11, 13, 15, 17, 19 ARE FOR LED STATUS FOR ROMWBW FRONT PANEL INDICATOR

PINS 6, 8, 10, 12, 14, 16, 18, 20 ARE FOR SWITCH INPUTS FOR ROMWBW FRONT PANEL

PINS 21, 23 ARE FOR I2C CONNECTION (SDA & SCL)

PINS 25, 27, 29, 31, 33, AND 35 ARE FOR TTL SERIAL CONNECTOR TO UART

PINS 29, 37 ARE FOR SERIAL VCC POWER ENABLE

PINS 22, 24 ARE FOR EXTERNAL RESET SWITCH

PINS 26, 28 ARE FOR IM2 CIRCUIT ENABLE

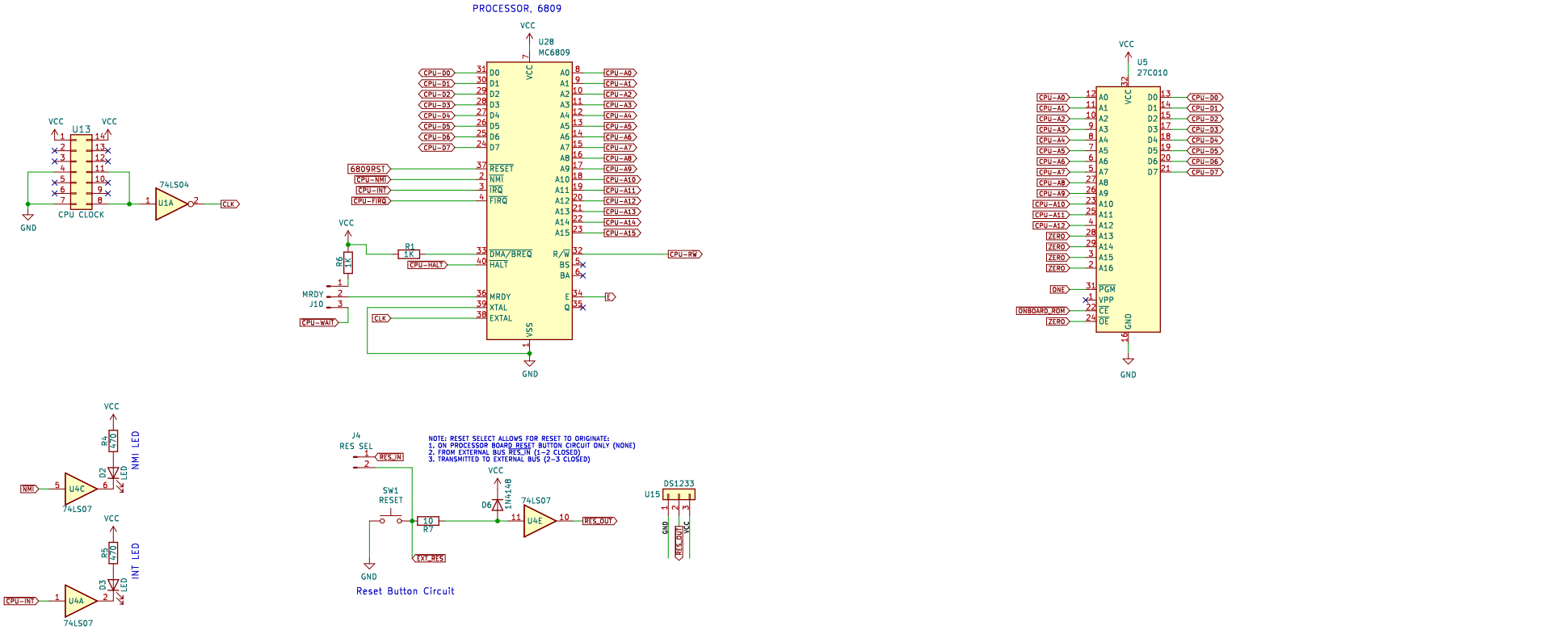
PINS 30, 32 ARE FOR INTERRUPT 0 ENABLE

PINS 34, 36 ARE FOR WAIT STATE CIRCUIT ENABLE

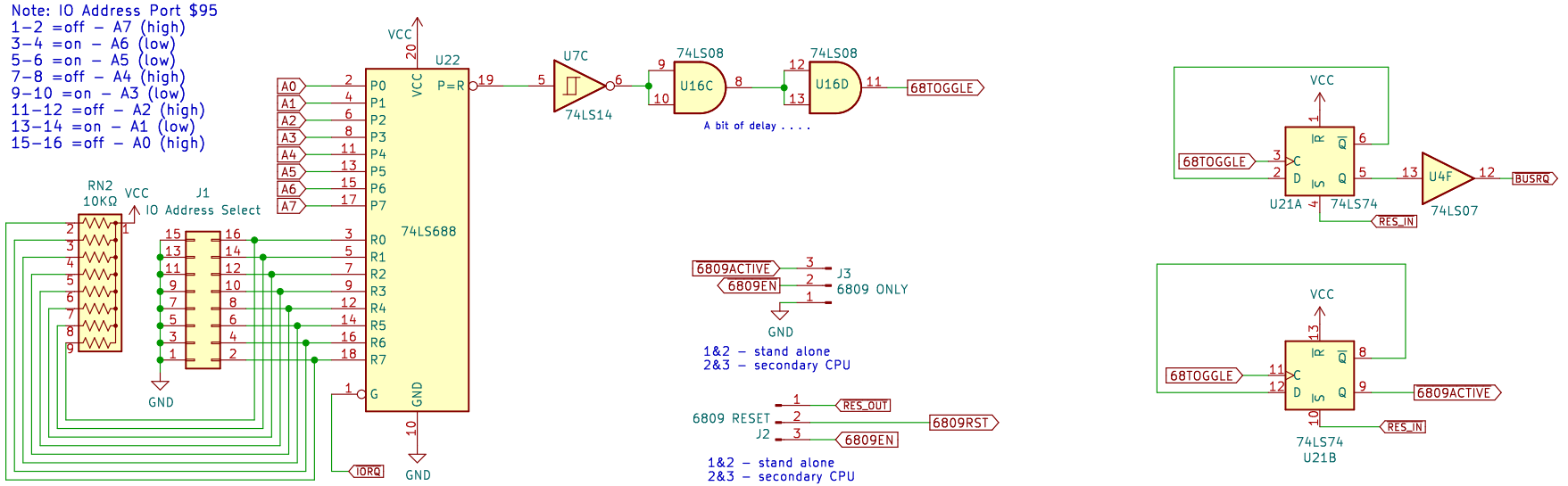
Sheet: /fpanel/
File: fpanel.kicad_sch

Title: Duodyne 6809 CPU board

Size: B	Date: 2024-01-14	**Rev: V1.01**
KiCad E.D.A. kicad (6.0.11)		Id: 8/9

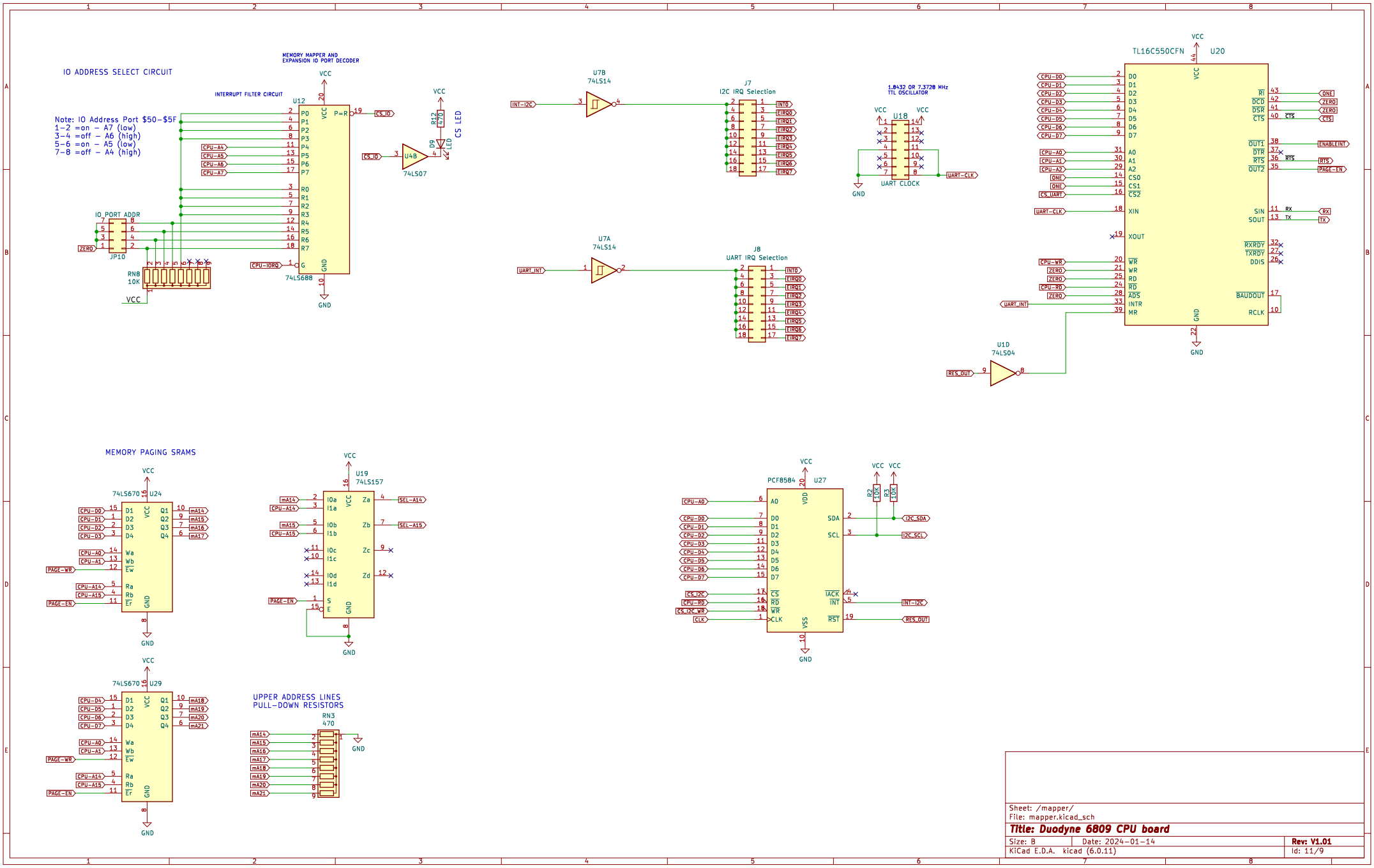


Sheet: /6809CPU/	
File: 6809CPU.kicad_sch	
Title: Duodyne 6809 CPU board	
Size: USLedger | Date: 2024-01-14	**Rev: V1.01**
KiCad E.D.A. kicad (6.0.11)	Id: 9/9



Sheet: /bus sharing/	
File: bussharing.kicad_sch	
Title: Duodyne 6809 CPU board	
Size: A4	Date: 2024-01-14
KiCad E.D.A. kicad (6.0.11)	Id: 9/9

Rev: V1.01


IO ADDRESS SELECT CIRCUIT
MEMORY MAPPER AND
EXPANSION IO PORT DECODER
INTERRUPT FILTER CIRCUIT
Note: IO Address Port $50-$5F
1-2 =on - A7 (low)
3-4 =off - A6 (high)
5-6 =on - A5 (low)
7-8 =off - A4 (high)
U12
74LS688
IO_PORT ADDR
JP10
RN8
10K
U4B
74LS07
D9
LED
R12
470
CS LED
U7B
74LS14
U7A
74LS14
J7
I2C IRQ Selection
J8
UART IRQ Selection
1.8432 OR 7.3728 MHz
TTL OSCILLATOR
U18
UART CLOCK
TL16C550CFN
U20
U1D
74LS04
MEMORY PAGING SRAMS
74LS670
U24
U29
U19
74LS157
PCF8584
U27
UPPER ADDRESS LINES
PULL-DOWN RESISTORS
RN3
470
VCC
GND
Sheet: /mapper/
File: mapper.kicad_sch
Title: Duodyne 6809 CPU board
Size: B
Date: 2024-01-14
Rev: V1.01
KiCad E.D.A. kicad (6.0.11)
Id: 11/9