N64 Edge Connector

+12V_N64 +3V3_N64

J1

Pin	Signal		Signal	Pin	Net
9	3V3		AD0	28	AD0_C
17	3V3		AD1	29	AD1_C
34	3V3		AD2	30	AD2_C
42	3V3		AD3	32	AD3_C
			AD4	36	AD4_C
13	12V		AD5	37	AD5_C
38	12V		AD6	40	AD6_C
			AD7	41	AD7_C
1	GND		AD8	16	AD8_C
2	GND		AD9	15	AD9_C
6	GND		AD10	12	AD10_C
22	GND		AD11	11	AD11_C
23	GND		AD12	7	AD12_C
25	GND		AD13	5	AD13_C
26	GND		AD14	4	AD14_C
27	GND		AD15	3	AD15_C
31	GND				
47	GND		ALEL	33	ALEL_C
48	GND		ALEH	35	ALEH_C
50	GND		/READ	10	/READ_C
			/WRITE	8	/WRITE_C
14	KEY				
39	KEY		/RESET	20	/RESET_C
			/NMI	45	/NMI_C
			/INT	44	/INT_C
			SI_CLK	19	SI_CLK_C
			SI_DATA	21	SI_DATA_C
			CIC_DATA_CLK	43	CIC_DATA_CLK_C
			CIC_DATA_IO	18	CIC_DATA_IO_C
			VIDEO_SYNC	46	
			LAUDIO	24	
			RAUDIO	49	

N64_EDGE

GND

U3

W25Q256JVEIQ_TR

Pin	Signal		Signal	Pin
1	C̅S̅		VCC	8
6	CLK			
5	DI(IO0)			
2	DO(IO1)		EXP	9
3	IO2			
7	IO3		GND	4

+3V3

DNF R1

1K R2

S1

GND

GND

U1

W25Q128JVSIQ

Pin	Signal		Signal	Pin
1	/CS		VCC	8
2	DO_(IO1)		/HOLD_OR_/RESET_(IO3)	7
3	/WP_(IO2)		CLK	6
4	GND		DI_(IO0)	5

ABLS-12.000MHZ-B4-T

XTAL1

C15 27pF   C16 27pF

GND   GND
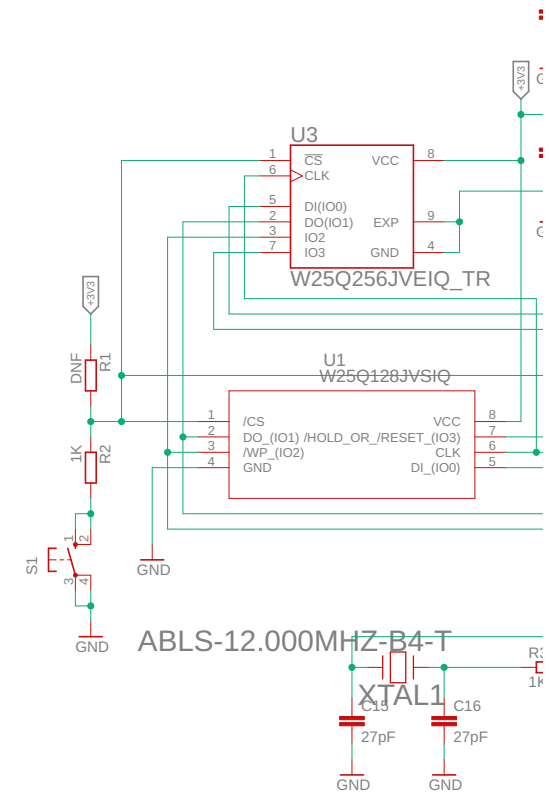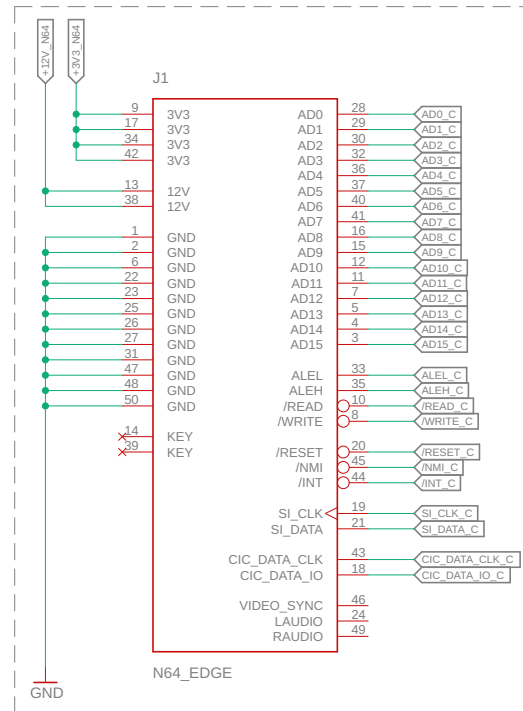
R3
1K

Do not solder Q1 if D2 is soldered. Use either D2 or Q1.
Do not solder R1 and R6.

+3V3

DNF R6

RUN

BAT60AE6327HTSA1

U$1

+VBUS — 3 VIN VOUT 2 — D1 — +3V3

C4 100n   GND   C7 100n   GND

LDI1117-3.3U

GND

Q1 BSS84

+3V3 — +3V3_N64

D2

+VBUS — +3V3_N64

C22 47u   BAT60AE6327HTSA1

GND

C13 1uF   C12 100n   C11 100n

GND   GND   GND

C14 100n

GND

+3V3

C1 100n   C2 100n   C3 100n   C5 100n   C6 100n   C8 100n   C9 100n   C10 1uF

GND   GND   GND   GND   GND   GND   GND   GND

LED1   LED2

+3V3   GPIO25

1K R12   1K R7

GND   GND

GND1

ID1

R4 27   D+1   USB_DP 47

D-1   USB_DM 46

R5 27   VBUS1

USBAB

+VBUS

23 50   45 44   1 10 22 33 42 49   48 43

DVDD0 DVDD1   VREG_OUT VREG_IN   IOVDD0 IOVDD1 IOVDD2 IOVDD3 IOVDD4 IOVDD5   USB_VDD ADC_AVDD

56   QSPI_SS   GPIO0 2 — AD0_C
53   QSPI_SD0   GPIO1 3 — AD1_C
55   QSPI_SD1   GPIO2 4 — AD2_C
54   QSPI_SD2   GPIO3 5 — AD3_C
51   QSPI_SD3   GPIO4 7 — AD4_C
52   QSPI_SCLK   GPIO5 6 — AD5_C
                     GPIO6 8 — AD6_C
                     GPIO7 9 — AD7_C
                     GPIO8 11 — AD8_C
                     GPIO9 12 — AD9_C
                     GPIO10 13 — AD10_C
                     GPIO11 14 — AD11_C
                     GPIO12 15 — AD12_C
                     GPIO13 16 — AD13_C
                     GPIO14 17 — AD14_C
                     GPIO15 18 — AD15_C
20   XIN   GPIO16 27 — ALEL_C
21   XOUT   GPIO17 28 — ALEH_C
                     GPIO18 29 — /WRITE_C
                     GPIO19 30 — /READ_C
                     GPIO20 31 — CIC_DATA_CLK_C
                     GPIO21 32 — CIC_DATA_IO_C
26   RUN   GPIO22 34 — /RESET_C
                     GPIO23 35 — SI_DATA_C
24   SWCLK   GPIO24 36 — SI_CLK_C
25   SWD   GPIO25 37 — GPIO25

                     GPIO26_ADC0 38 — /NMI_C
                     GPIO27_ADC1 39 — /INT_C
                     GPIO28_ADC2 40 — UART_TX
                     GPIO29_ADC3 41 — UART_RX

RUN

SWCLK
SWD

TESTEN   GND

19   57*10

GND   GND

IC1   RP2040-QFN56

DEBUG
SWD   1
       2
SWCLK 3
GND

UART
UART_RX   1
UART_TX   2
           3
GND