

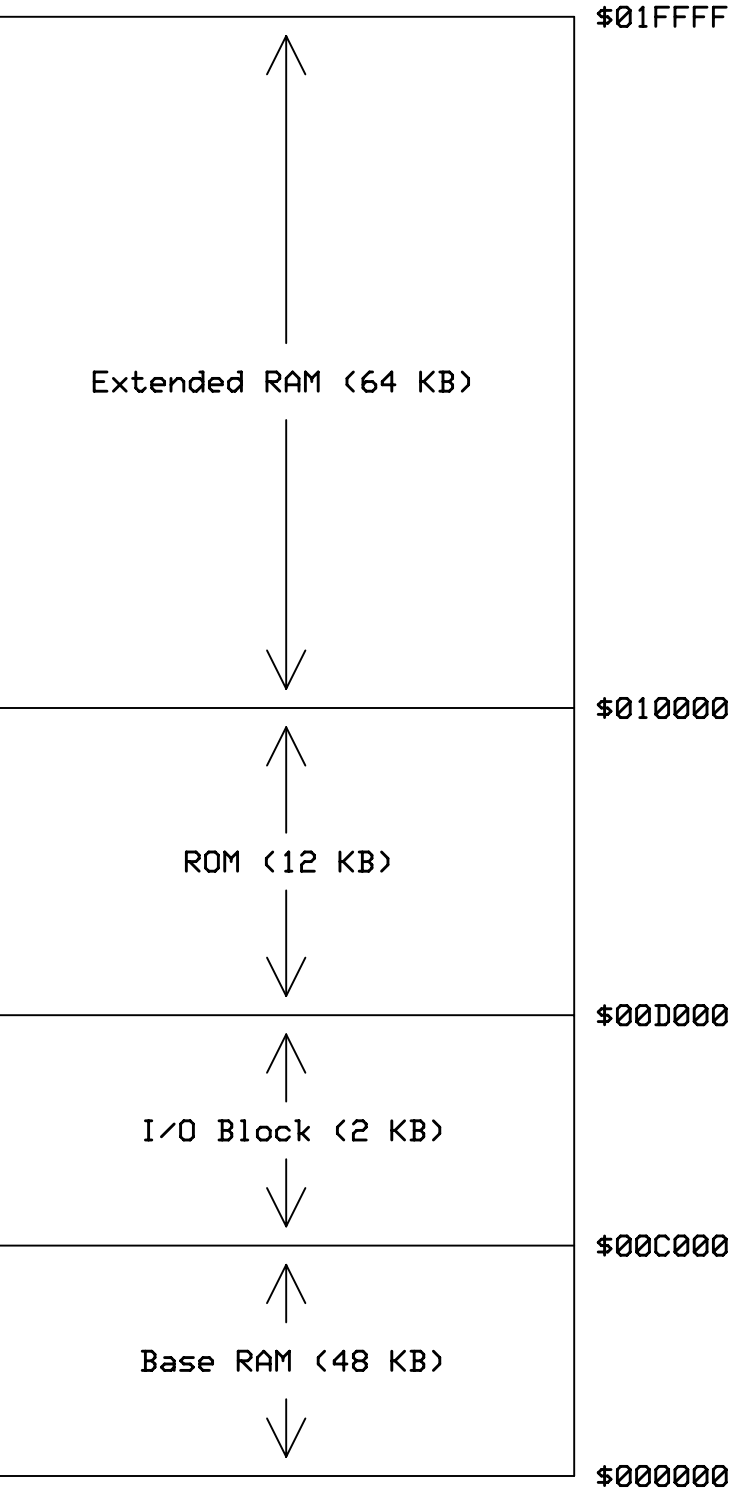
PROOF OF CONCEPT V1

SINGLE-BOARD COMPUTER

128 Kilobyte Static RAM System

Powered by the W65C816S Microprocessor

Designed by BigDumbDinosaur



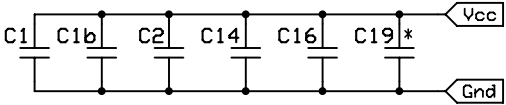
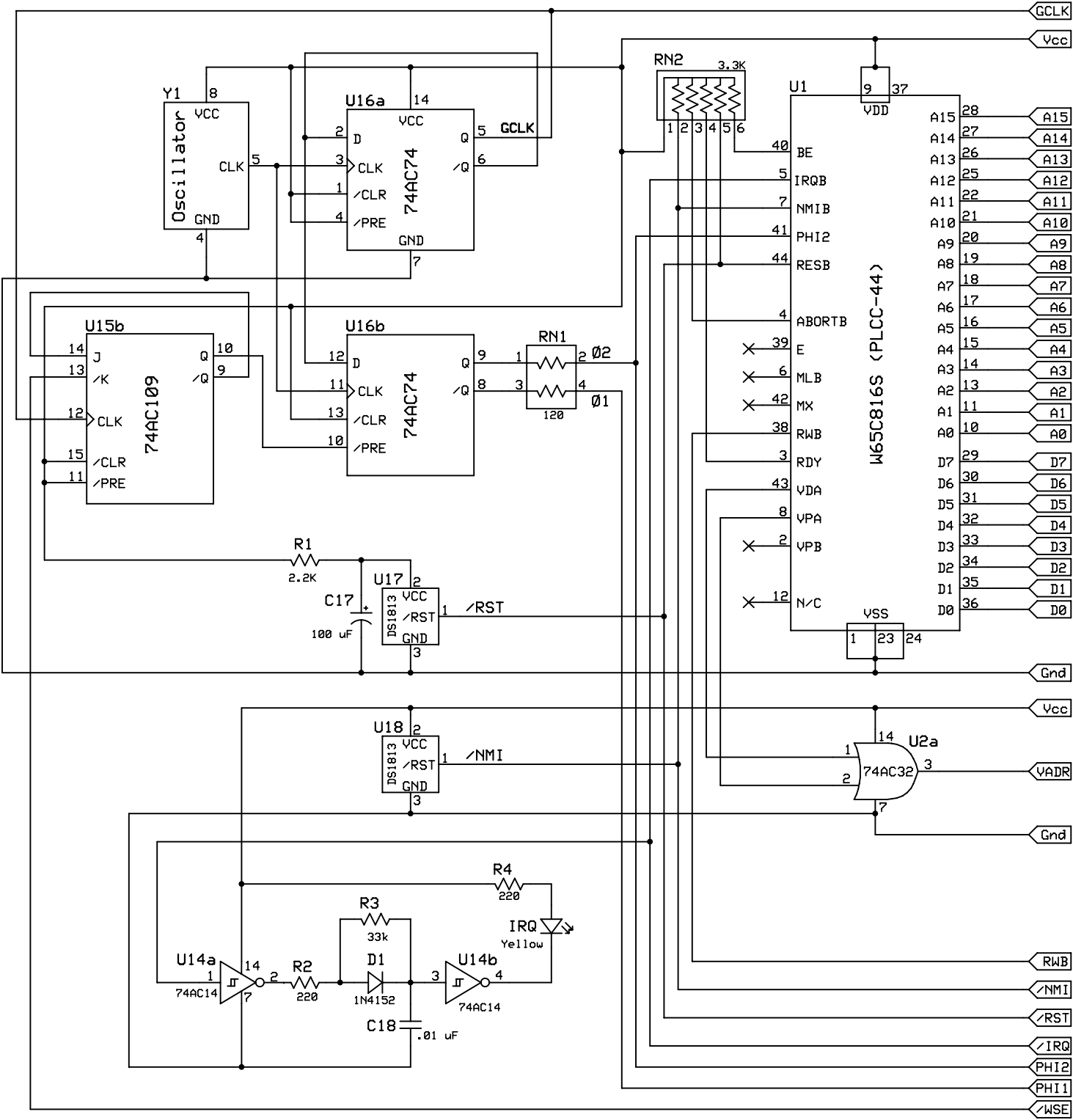
ARCHITECTURE

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W65C816S SINGLE BOARD COMPUTER		
BigDumbDinosaur	2020/04/12	Page 1 of 12
	Rev 1.3	

										POC V1.3 MEMORY MAP										
	0 1 0 0 0 0	0 0 8 0 0 0	0 0 4 0 0 0	0 0 2 0 0 0	0 0 1 0 0 0	0 0 0 8 0 0	0 0 0 4 0 0	0 0 0 2 0 0	0 0 0 1 0 0	0 0 0 0 8 0	0 0 0 0 4 0	0 0 0 0 2 0	0 0 0 0 1 8	0 0 0 0 0 0	0 0 0 0 0 4	0 0 0 0 0 2	0 0 0 0 0 1			SIZE
ADDRESS	A16	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0	SYMBOL	ASSIGNMENT	KB
\$000000 \$00BFFF	0 0	0 1	0 0	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	BASRAM	Base RAM Start Base RAM End	48.00
\$00C000 \$00CFFF	0 0	1 1	1 1	0 0	0 0	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	IOBLK <1>	I/O Start I/O End	4.00
\$00D000 \$00FFFF	0 0	1 1	1 1	0 1	1 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	ROM	ROM Start ROM End	12.00
\$010000 \$01FFFF	1 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	EXRAM	Extended RAM Start Extended RAM End	64.00

1) Mirrors due to not being fully decoded.

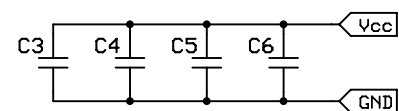
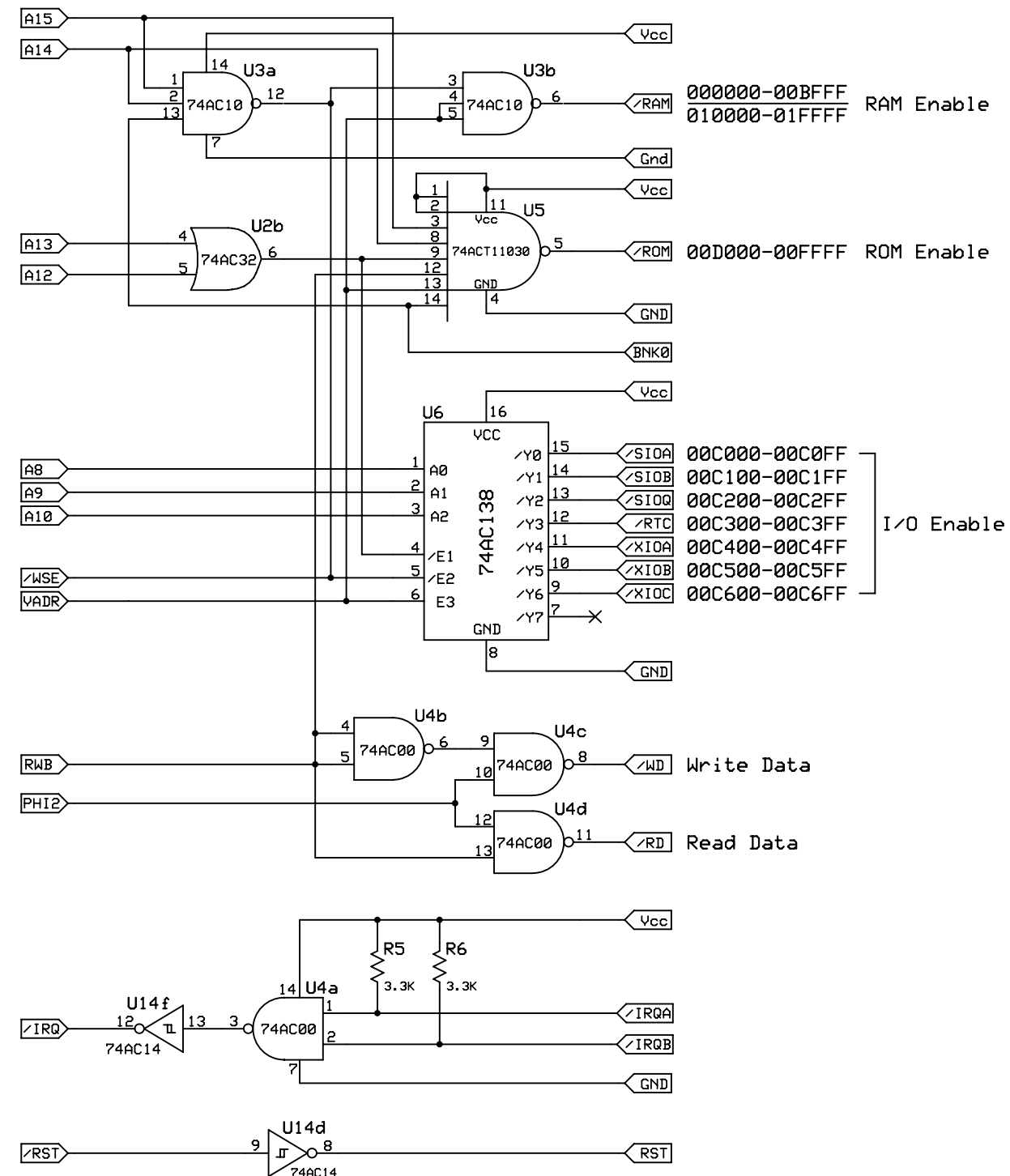
I/O BLOCK DECODING										
	8	4	2	1	0	0	0	0		
	0	0	0	0	8	4	2	1		
	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0		
ADDRESS	A15	A14	A13	A12	A11	A10	A9	A8	ASSIGNMENT	SYMBOL
\$00C000	1	1	0	0	0	0	0	0	DUART #1 (chans A-B, timer A)	SIOA
\$00C100	1	1	0	0	0	0	0	1	DUART #2 (chans C-D, timer B)	SIOB
\$00C200	1	1	0	0	0	0	1	0	vQUART Channel IRQ Status	SIOQ
\$00C300	1	1	0	0	0	0	1	1	Real-Time Clock & NVRAM	RTC
\$00C400	1	1	0	0	0	1	0	0	Expansion Select A	XIOA
\$00C500	1	1	0	0	0	1	0	1	Expansion Select B	XIOB
\$00C600	1	1	0	0	0	1	1	0	Expansion Select C	XIOC
\$00C700	1	1	0	0	0	1	1	1	---	----



Decoupling Capacitors -- 0.1 uf @ 50v
*C19→Y1

MPU INTERFACE

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BigDumbDinosaur	2020/04/12	Page 4 of 12
	Rev 1.3	



Decoupling Capacitors -- 0.1 uf @ 50v

GLUE LOGIC

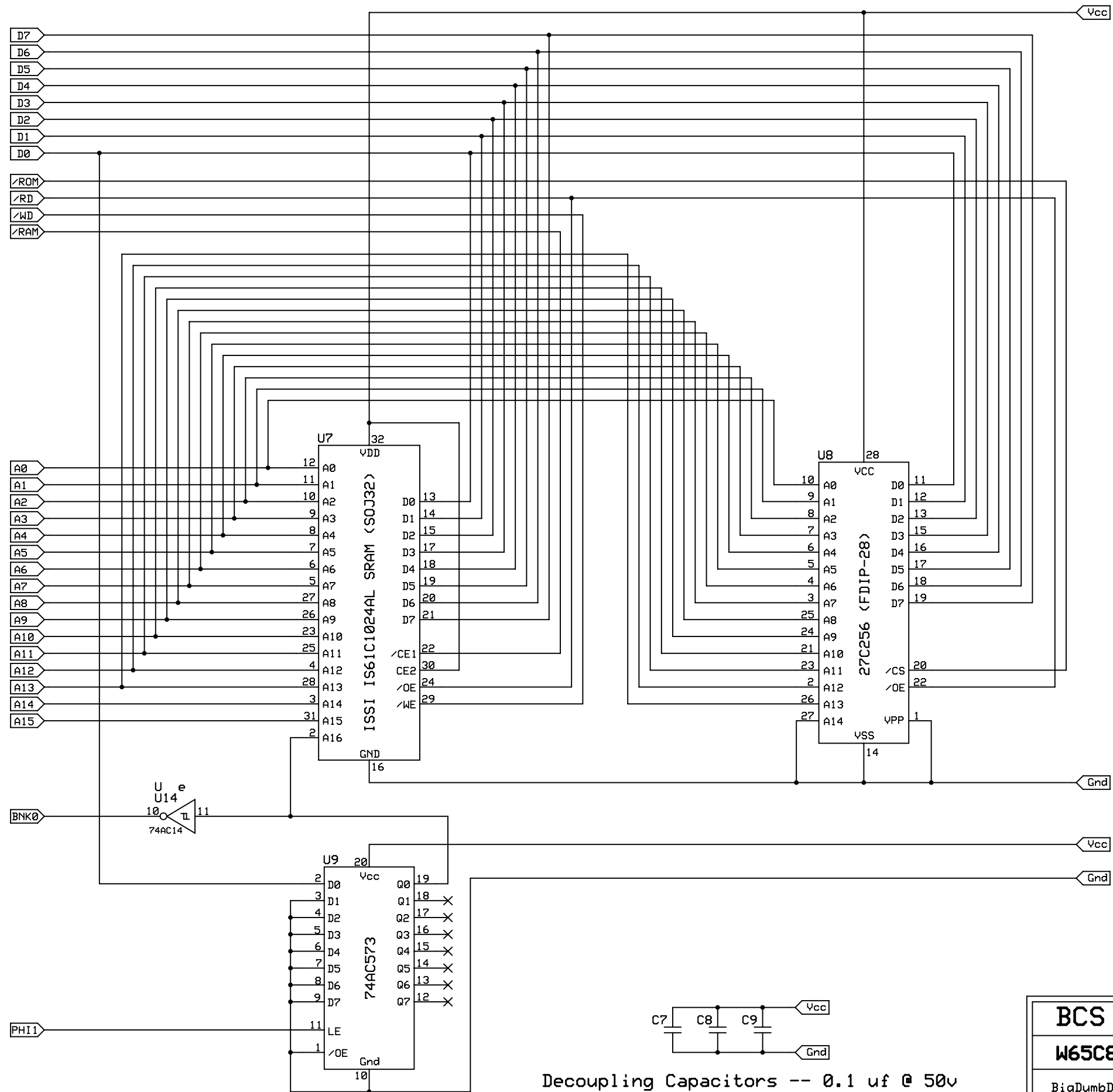
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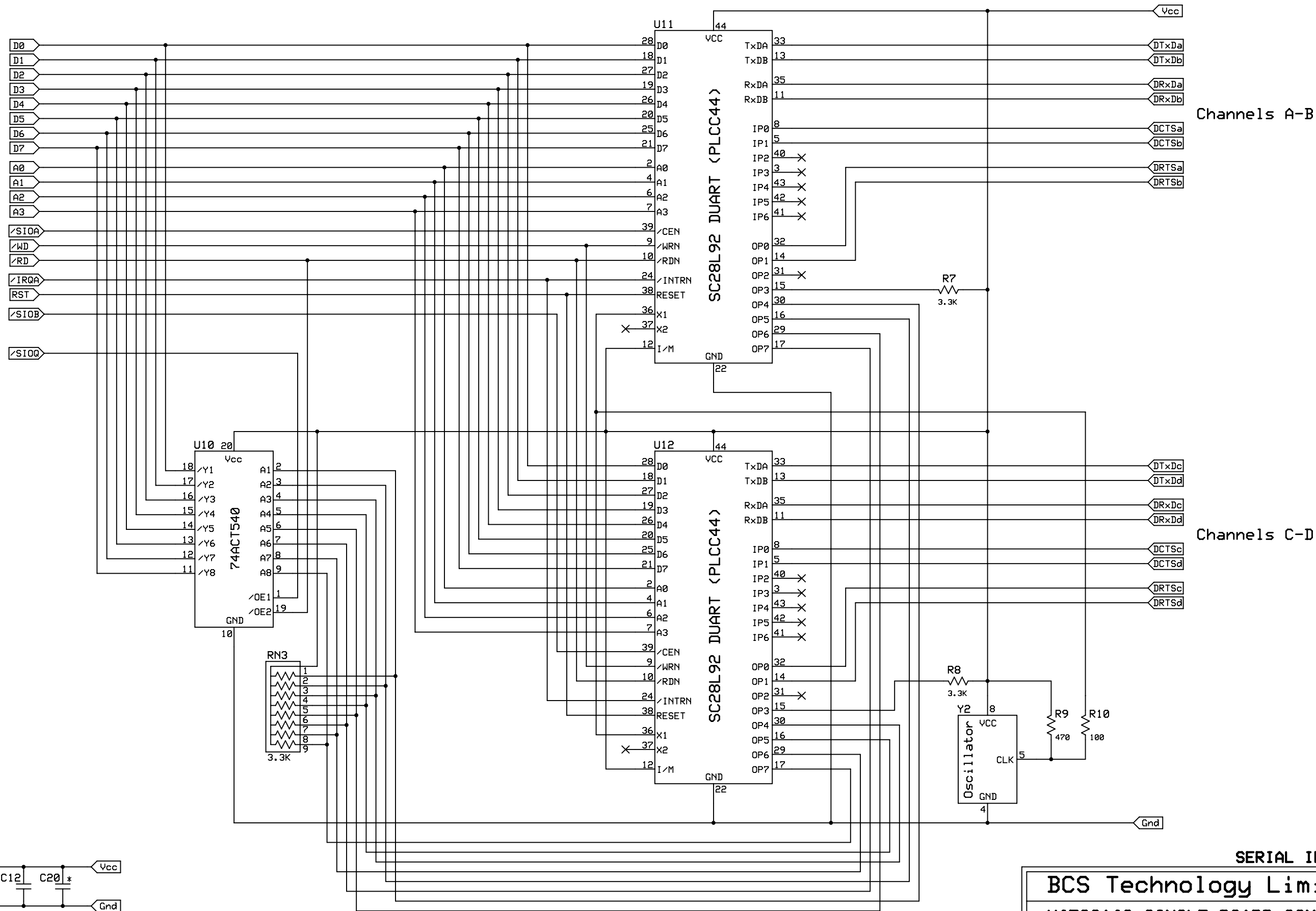
2020/04/12
Rev 1.3

Page 5 of 12



Decoupling Capacitors -- 0.1 uf @ 50v

RAM & ROM



Decoupling Capacitors -- 0.1 uf @ 50v

*C20 → Y2

SERIAL INTERFACE

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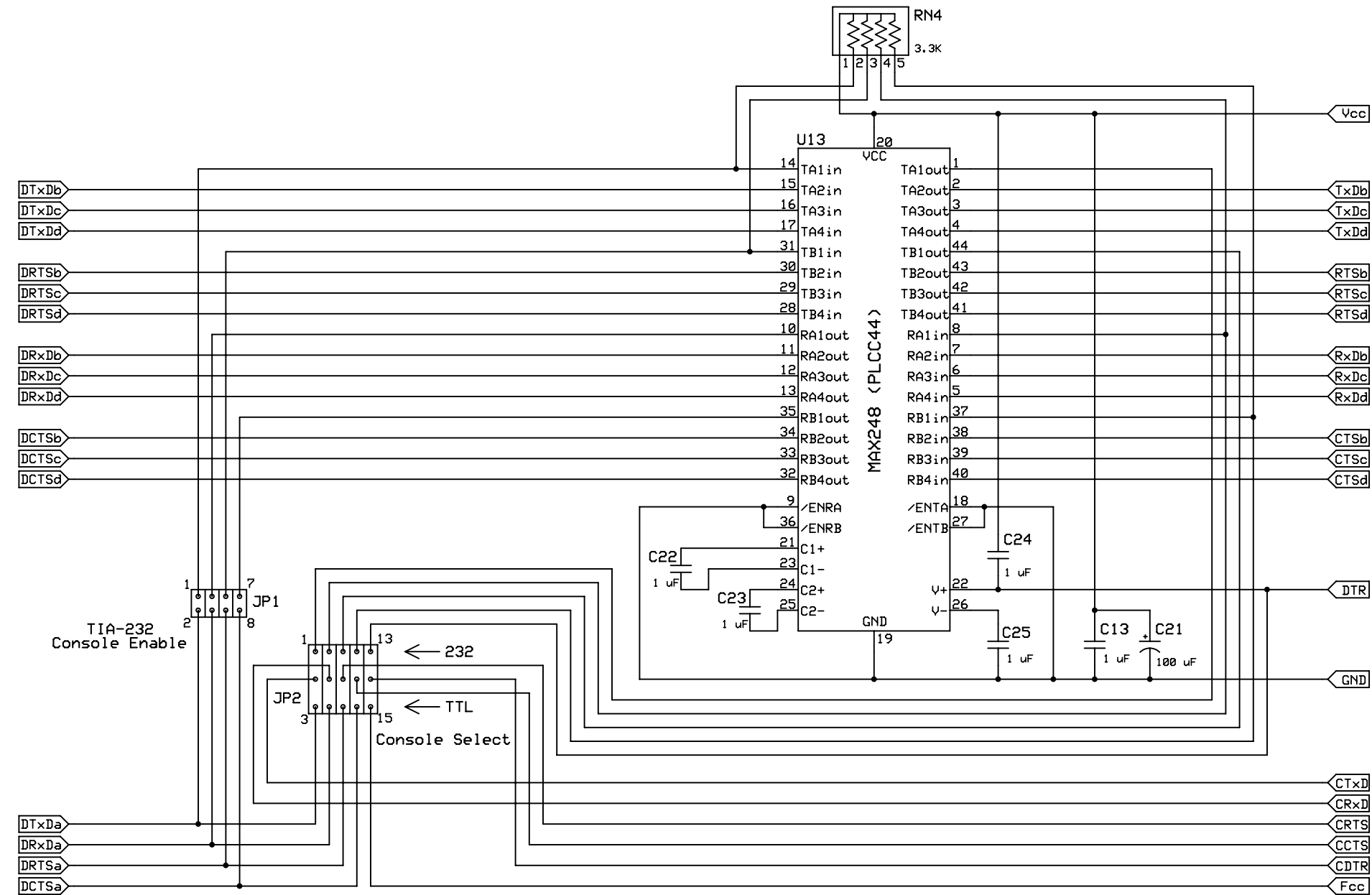
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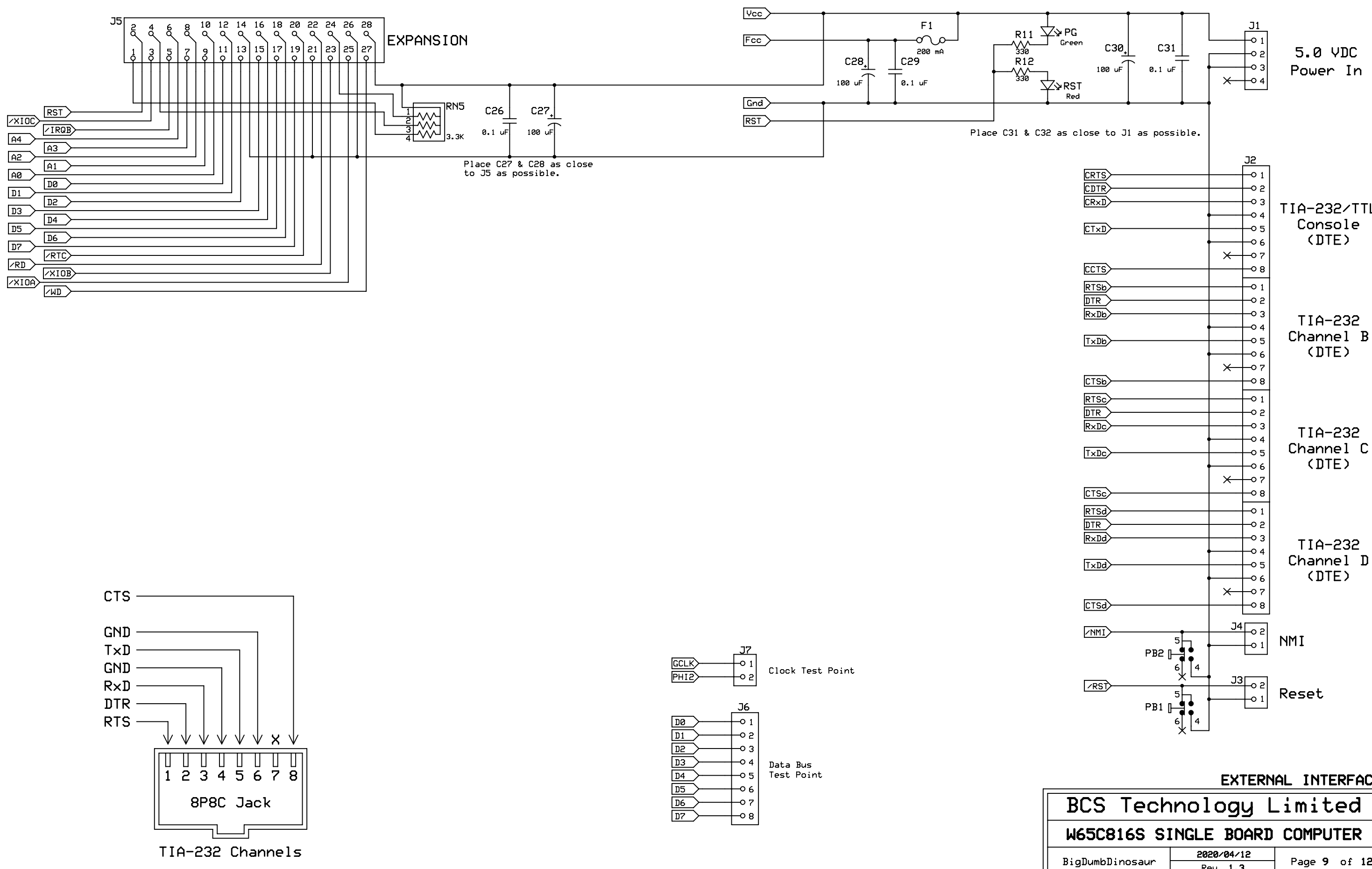
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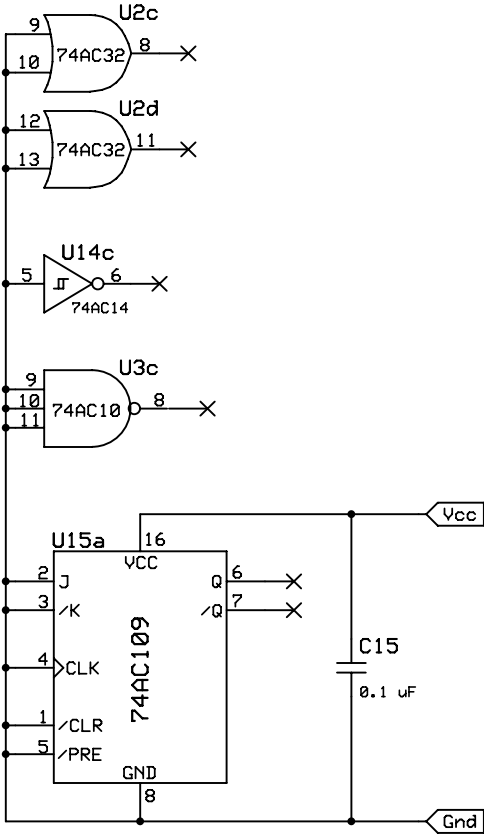
Rev 1.3

Page 7 of 12



Place C?? & C?? as close to U14 as possible.





UNUSED GATES

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W65C816S SINGLE BOARD COMPUTER		
BigDumbDinosaur	2020/04/12	Page 10 of 12
	Rev 1.3	