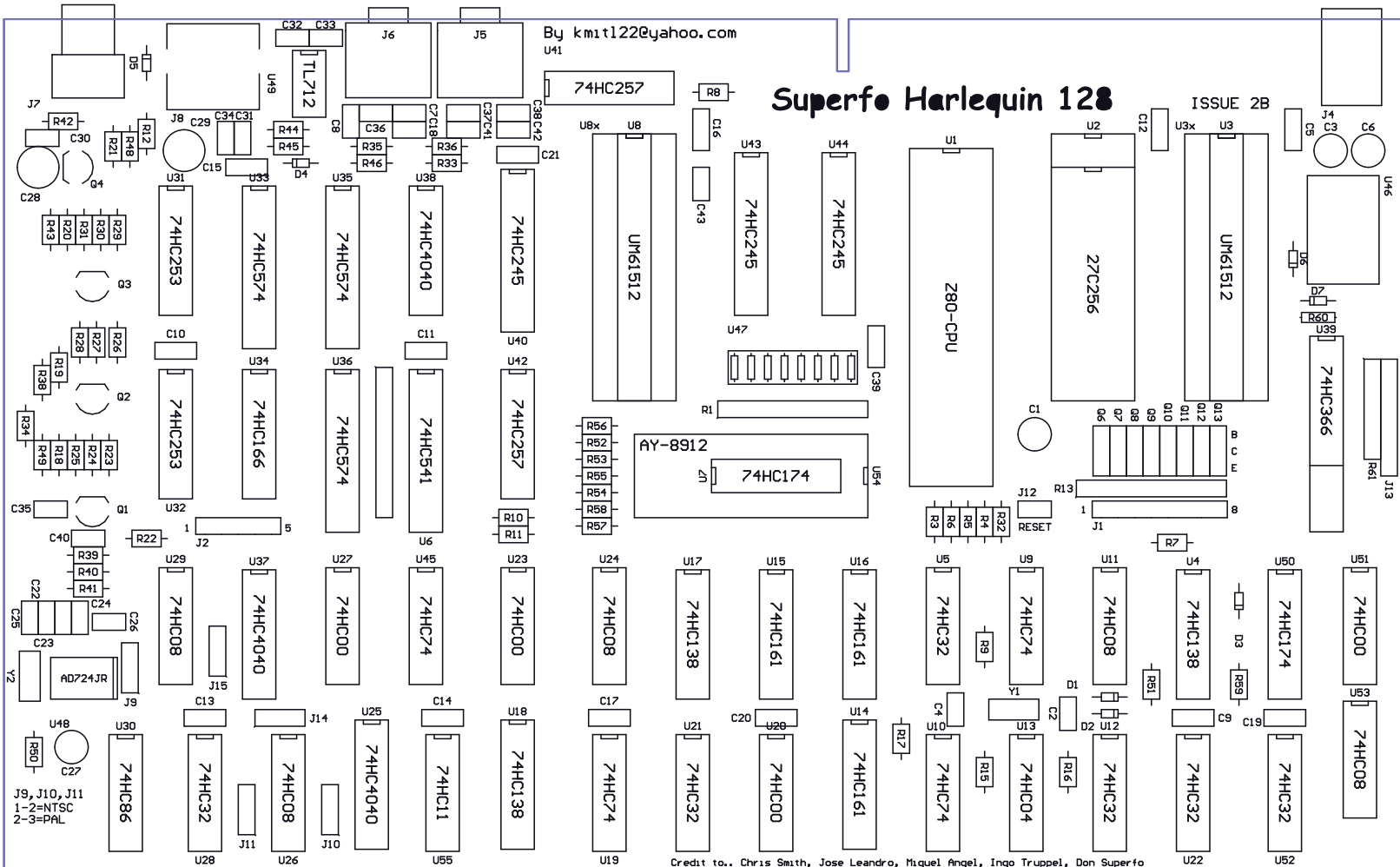
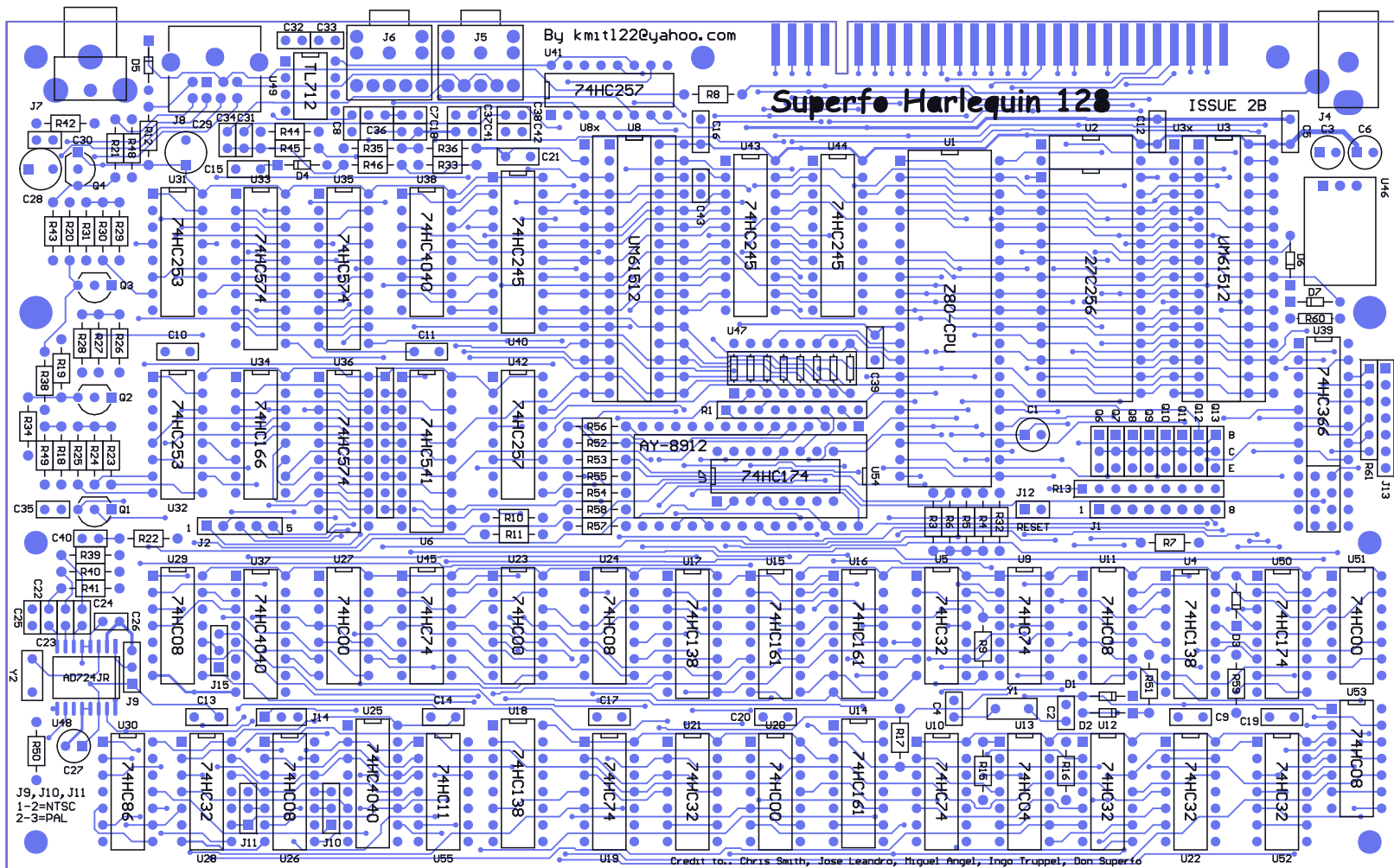


Superfo Harlequin 128

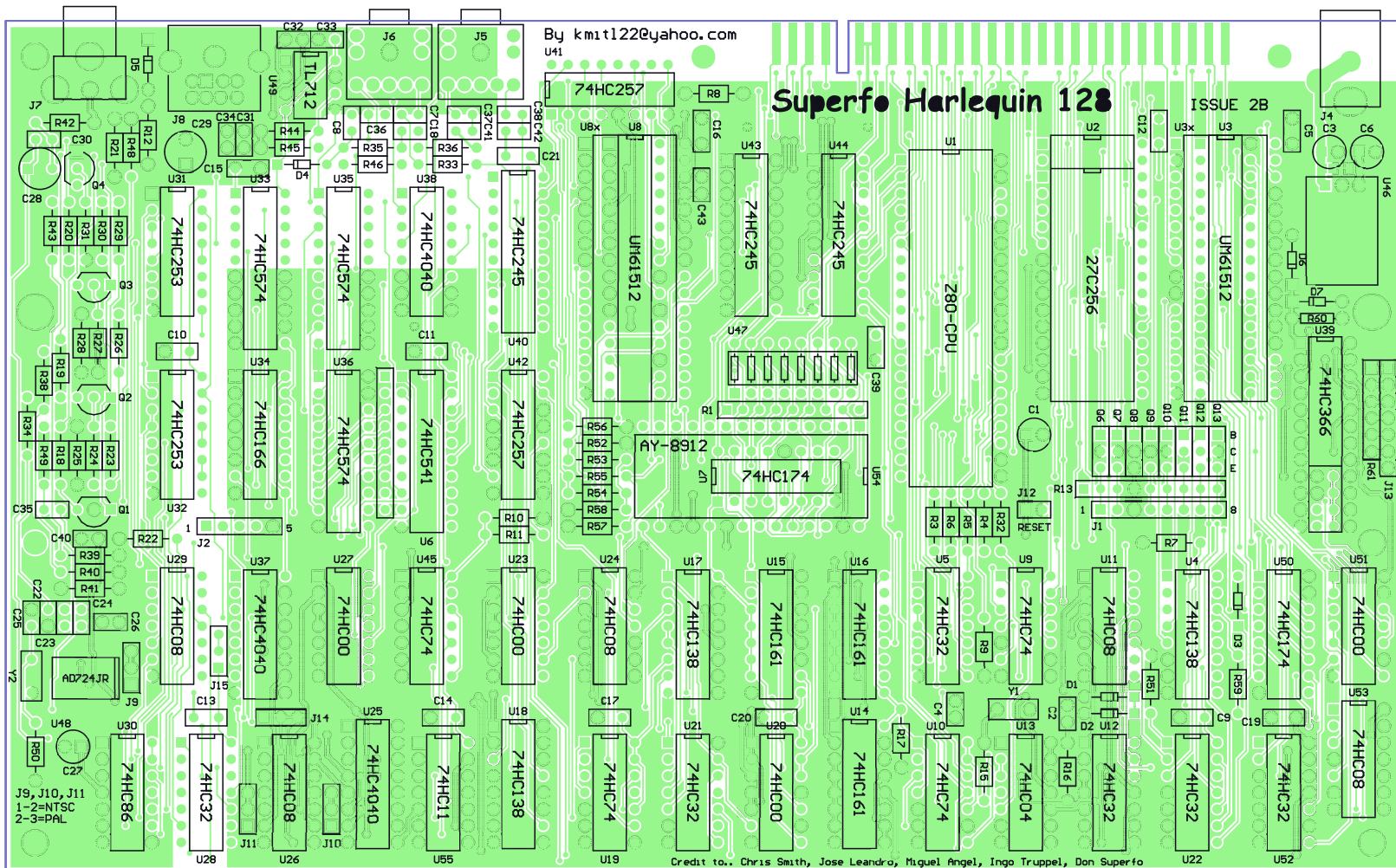
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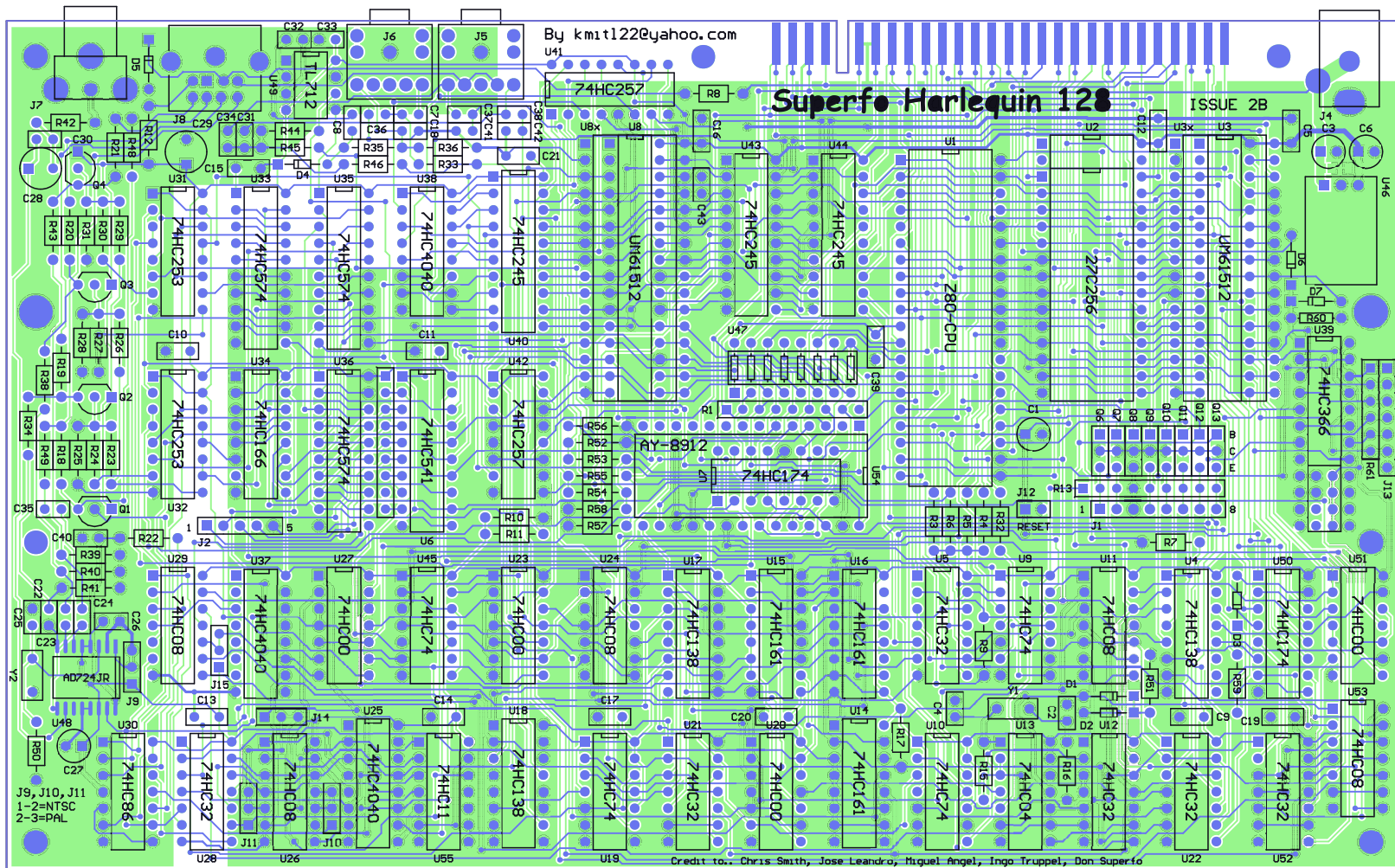
Credit to.. Chris Smith, Jose Leandro, Miguel Angel, Ingo Truppel, Don Superfo



Credit to.. Chris Smith, Jose Leandro, Miquel Angel, Ingo Truppel, Don Superfo



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Comment	Designator	Quantity	Comment	Designator	Quantity
10uF	C1, C3, C27	3	9.1K	R52, R55	2
27pF	C2, C4	1	4.7M	R50	1
10pF	C25, C40	2	2.2M	R15	1
0.1uF	C5, C9, C10, C11, C12, C13, C14, C15, C16, C17, C19, C20	12	Z80-CPU	U1	1
0.1uF	C7, C8, C21, C22, C23, C24, C26, C30, C31, C33, C34, C39	12	27C256 (ZX 128K ROM)	U2	1
22uF	C6	1	UM61512 or KM681000 or HM628128	U3, U8	2
1nF	C18, C32	2	74HC138	U4, U17, U18	3
220uF	C28, C29	2	74HC32	U5, U12, U21, U22, U28, U52	6
3.3nF	C35, C36	2	74HC541	U6	1
0.47uF	C37, C38	2	74HC174	U7, U50	2
2.2nF	C41, C42	2	74HC74	U9, U10, U19, U45	4
180pF	C43 (option)	1	74HC08	U11, U24, U26, U29, U53	5
1N4740A	D4	1	74HC04	U13	1
1N4742A	D5	1	74HC161	U14, U15, U16	3
1N4148	D1, D2, D3	3	74HC00	U20, U23, U27, U51	4
RCPT 8	J1	1	74HC4040	U25, U37, U38	3
RCPT 5	J2	1	74HC86	U30	1
DC JACK	J4	1	74HC253	U31, U32	2
AUDIO JACK	J5	1	74HC574	U33, U35, U36	3
EAR/MIC JACK	J6	1	74HC166	U34	1
VIDEO JACK	J7	1	74HC245	U40, U43, U44	3
Mini-DIN 8	J8	1	74HC257	U41, U42	2
Header 3x1	J9, J10, J11, J14, J15 (option, not use if use with PAL TV)	4	OKI-78SR-5 or RECOM R-78E5.0-1.0	U46	1
BC547 or BC548	Q1, Q2, Q3, Q4	4	470 * 8 Network Resistor (DIP)	U47	1
2SA1175 or 2SA1309A	Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13	8	AD724JR	U48	1
10k * 8 Network Resistor (SIP)	R1, R2	2	TL712	U49	1
10k	R3, R4, R5, R6, R10, R11, R22, R36, R51	9	AY-3-8912	U54	1
470	R7, R9, R32, (R59 not use)	4	74HC11	U55	1
150	R8	1	28.375MHz	Y1	1
270	R12, R18, R48	3	4.433MHz	Y2	1
4.7k * 8 Network Resistor (SIP)	R13	1	Socket IC		
4k7	R17	1	SOCKET 8 PIN		1
68	R19, R20, R21, R34, R38, R43	6	SOCKET 14 PIN		21
18K	R23, R26, R29	3	SOCKET 16 PIN		16
3.9K	R24, R27, R30	3	SOCKET 20 PIN		7
2.2K	R25, R28, R31	3	SOCKET 28 PIN		2
33K	R33	1	SOCKET 32 PIN (300mil or 600mil)		2
12K	R35	1	SOCKET 40 PIN		1
75	R39, R40, R41, R42	4	Option Joystick Interface		
15K	R53, R54	2	74HC366 or 74HCT366 or 74LS366	U39	1
1K	R16, R56, R57, R58	4	10K	R60	1
47K	R45	1	10K * 5 Network Resistor (SIP)	R61	1
2.7K	R49	1	1N4148	D6, D7	2
150K	R44, R46	2	Header 7x1	J13	1

Note: Use wire jump for R59. U47 can be separate 470 Ohm resistors. No need to install J9, J10, J11, J14, J15 it set to PAL by default. U2 is 27C256 programed with ZX Spectrum 128 ROM