Replica Atom BOM

RefDes	Value	Description	Notes	Supplier Part No.	Quantity
C4,11,107	10uF/16V	Tantalum bead capacitor			3
C5,8	22uF/16V	Tantalum bead capacitor			2
C6,105	10nF	Ceramic capacitor			2
C7,9	47nF	Ceramic capacitor			2
C12	47uF/16V	Electrolytic capacitor			1
C14-31,50-54,111-113,200-205,302,304-307	100nF	Ceramic capacitor			37
C36	150pF	Ceramic capacitor			1
C37-39,42-44,46-48	220nF	Ceramic capacitor			9
C45	4n7	Ceramic capacitor			1
C106	2n2	Ceramic capacitor			1
C300,301	22pF	Ceramic capacitor			2
C303	2u2/16V	Tantalum bead capacitor			1
D1,2,301	1N4148	Small signal silicon diode			3
IC1	6522	Versatile Interface Adapter (VIA)			1
IC2,3,27,28,50,108	74LS244	Octal buffer			6
IC4,29	74LS245	Octal bidirectional buffer			2
IC7,59	74LS02	Quad 2-input NOR gate			2
IC8	74LS00	Quad 2-input NAND gate			1
IC10-52	62256	32K x 8-bit SRAM			1
IC22	6502	8-bit processor			1
IC24,20-21	27128	16K x 8-bit EPROM			2
IC25	INS8255	Programmable peripheral Interface			1
IC26	7445	BDC to decimal decoder/driver			1
IC31	MC6847	Video Display Generator (VDG)			1
IC32-43	6264	8K x 8-bit SRAM			1
IC44,209	74LS393	Dual 4-bit binary counter			2
IC45	74LS04	Hex inverter			1
IC46	LM358	Dual op-amp			1
IC47	74LS163	4-bit synchronous counter			1
IC49a,b,c	74LS139	Dual 2 of 4 decoder			3
IC55	74LS373	Octal latch with tri-state outputs			1
IC56,60	THS7314	3-channel SDTV video amplifier			2
IC58	LMH1251	LMH1251 YPBPR to RGBHV converter	Caution - this IC is the wrong way around !		1
IC60	74AHC1G32DBV	Single OR Gate	Only required if you need the alternative Expansion Connector address		1
IC101	MC68B54	Advanced Data Link Controller (ADLC)			1
IC102,103	LM319	Dual high speed comparator			2
IC104	75159	Dual differential line driver			1
IC105	74LS123	Dual monostable			1
IC109	74LS132	Quad 2-input NAND Schmitt			1
IC201	7438	Quad 2-input NAND buffer			1
IC202	74HCT00	Quad 2-input NAND gate			1
IC203	7406	Hex inverter with o/c outputs			1
IC204	74HCT04	Hex inverter	Must always be fitted		1
IC205,206	4013B	Dual D-type flip-flop			2
IC207,208	74LS93	4-bit binary counter			2
IC210	4020B	14-bit binary counter			1
IC213	8271	Programmable floppy disk controller			1
IC222	74LS138	1 of 8 decoder			1
IC300	STM32F105RBT6	32-bit ARM processor			1
IC301	AP7381-33V-A	3V3 LDO regulator			1
IC302	74LVC07AD	Hex buffer with o/d outputs			1
J300	0.1" x 5	Header	GOTEK Encoder		1
J301	0.1" x 2	Header	GOTEK BOOT0		1
J302	0.1" x 4	Header	GOTEK OLED		1
J303	0.1" x 3	Header	GOTEK Program		1
J304	USB	Type A Right Angle	USB		1
J305	0.1" x 2	Header	GOTEK LED		1
LK2	0.1" x 2	Header	6522 IRQ		1
LK3	0.1" x 3	Header	SYNC		1
LK4	0.1" x 2	Header	INVERT		1
LK5	0.1" x 3	Header	CSS		1
LK6	0.1" x 3	Header	UTILITY ROM		1
LK7	0.1" x 2	Header	32K RAM		1
LK8	0.1" x 3	Header	EXT EN		1
LK9	0.1" x 3	Header	ALT IDENT		1
LK10	0.1" x 3	Header	ALT 6854 CS		1
LK11	0.1" x 2	Header	27256		1
LK12	0.1" x 2	Header	PL8 IRQ		1
LK13	0.1" x 3	Header	PL8 CS		1
LK100	0.1" x 2	Header	6854 IRQ		1
LK201	0.1" x 3	Header	Drive		1
LK301	0.1" x 3	Header	GOTEK		1
PL4	10-way	2 x 5 Pin header	Colour O/P		1
PL5	26-way	Header	Printer	3M 3429	1
PL6	64-way	64AB R/A Plug	External Bus Expansion		1
PL7	64-way	64AB Straight Socket	Internal Bus Expansion		1
PL8	20-way	Header	PL8		1
PL9	26-way	Transition connector	Keyboard (attach ribbon cable before soldering to board !)		1
PL10	2-way	Pin header	Speaker		1
PL13	0.1" x 2	Pin header	Aux Power		1
PL14	8-way	Pin header	I/O Decode		1
PL204	34-way	Box header	Floppy Disc Drive		1
Q1,100	BC239	NPN transistor			1
R1,2,13-16,29,31,32,34,36,43-45,55,60,61,208,211,304	4K7	250mW resistor			18
R3,10,28	470R	250mW resistor			3
R6a-6e,57-59	75R	250mW resistor			8
R7,42	8K2	250mW resistor			2
R8,202	3K3	250mW resistor			2
R9,30,38,46-48,124-126,129	1K0	250mW resistor			10
R33	47K	250mW resistor			1
R35	470K	250mW resistor			1
R37,56,119,120,122,123,130	10K	250mW resistor			7
R52	200R	250mW resistor			1
R109-112	100K	250mW resistor			4
R113,115-117	56K	250mW resistor			4
R114,118,121	1M5	250mW resistor			3
R127	39K	250mW resistor			1
R128	1K5	250mW resistor			1
R300,301	22R	250mW resistor			2
R303	330R	250mW resistor			1
RP101	47K x 8	Resistor network		4309X-101	1
RP301	270R x 4	Resistor network		4605X-101	1
RP302	1K0 x 8	Resistor network		4609X-101	1
RP1(R17-25)	4K7 x 9	Resistor network		4610X-101	1
RP2(R39-41)	4K7 x 3	Resistor network		4604X-101	1
RV1-3	1K0	Preset		Bourns 3386P	3
S3	2p 4w	Rotary switch		RS1010	1
S100	8-way	DIL switch	Node Ident	BD08	1
S101		Slide switch	6854 IRQ	EG1224	1
SK1	6-pin	6pin DIN Socket 240 Universal No Holes	RGB		1
SK2	RCA Socket	RCA phono socket	Video		1
SK3	7-pin	DIN socket PCB	Cassette		1
SK4	2.1mm	Power jack socket PCB	Power		1
SK5	3.5mm 4-pole	Jack socket TRRS with adapter board	YPrPb		1
SK100	5-pin	DIN socket PCB	Econet		1
X1	3.57945MHz	4-pin XTAL Oscillator			1
X2	4.00MHz	4-pin XTAL Oscillator			1
X300	8MHz	Crystal			1
IC46	8-pin	DIL socket			1
IC7,8,44,45,59,102-104,109,201-209	14-pin	DIL socket			18
IC26,47,49a,49b,49c,105,210,211	16-pin	DIL socket			8
IC2-4,27-29,50,55,108	20-pin	DIL socket			9
IC10-52,20-21,24,32-43,101	28-pin	DIL socket			5
IC1,22,25,31,213	40-pin	DIL socket			5

Off board Parts

	26-way	Ribbon cable	Keyboard		1
	26-way	Ribbon cable header			1
	M2.5 x 10mm	Pan head	PL5,6		2
	M2.5	Nut	PL5,6		2
	No.4 x 3/8"	Self tap screw pointed	Keyboard fixings		2
	No.8 x 1.5"	Self tap screw pointed	Case fixings		2
	M3 x ?mm	Pan head	PCB fixings		9
	M3	Nylon washer	PCB fixings		9
	M3 x 4 x 5	Brass insert nut	PCB fixings		9
	2 x 16mm	Steel dowel pins	Case joints	eBay	0, 11 or 27
	12 x 4mm	Adhesive feet	Feet	eBay	4

Important: the GOTEK CPU should be programmed before the rest of the board is populated ! I suggest fitting only the 3V3 regulator, crystal and associated components.
After programming temporarily connect an OLED display to confirm that FlashFloppy is working.