RevNo	Revision note	Date	Signature	Checked

6522 I/O

ADDRESS BUS

DATA BUS

74LS244 IC2.1

74LS244 IC3.1

74LS245 IC4.1

LK8 EXT EN

RP2(R39-41)

External Bus Expansion PL6.2

Internal Bus Expansion PL7.2

External Bus Expansion PL6.1

Internal Bus Expansion PL7.1

6522 IC1.1

74LS244 IC28.1

74LS244 IC27.1

R3 470R

R1 4K7 R2 4K7

Printer PL5

LK2 6522 IRQ

LK11 27256

74LS245 IC29.1

6264 IC32-43.1

IC20-21 COS F000-FFFF
DOS E000-EFFF
FP D000-DFFF
BASIC C000-CFFF

27128 IC20-21.1

IC24 UTILITY (e.g. NFS) A000-AFFF

27128 IC24.1

62256 IC10-52.1

74LS123 IC105.2

R42 8K2 C36 150pF

R43 4K7 1N4148 D1 1N4148 D2

74LS373 IC55.1

UTILITY ROM LK6

Util Switch S3.2 S3.1

CONTROL BUS

6854 CS (B400)
IDENT CS (B404)
ALT 6854 CS (B408)
ALT IDENT CS (B40C)
NMI
NRDS
NWDS
O2
R/W 4MHz
FDC CS (0Axx)
FDC CS (0Axx)
NRST
Reset

74LS139 IC49b.1 Block 0-3 Decode

74LS139 IC49a.2 Block 8-B Decode

74LS139 IC49c.1

74LS139 IC49b.2

74LS139 IC49c.2

74AHC1G32DBV IC61.1 LK13 PL8 CS

74LS00 IC8.1 RAM CS

74LS00 IC8.2 8000-9FFF

74LS00 IC8.4 Video MS (8000-9FFF)

74LS00 IC8.3 BLK1

74LS02 IC7.1 (A10+A11) (x4xx-xFxx)

74LS02 IC7.3 (0400-FFF)

74LS02 IC7.4 I/O

74LS02 IC7.2

74HCT04 IC204.3 A15

74HCT04 IC204.1 EXT OE

74HCT04 IC204.2 FDC CS (0Axx)

74LS138 IC222.1 I/O Decode

PL8

PL14

LK12 PL8 IRQ

LK7 32K RAM

6502 IC22.1

RP(R13-14) 4K7

RP2(R39-41)

RP(R15-16) 4K7

RP(R17-25) 4K7

RP1(R17-25)

74LS393 IC44.1 Div 8

74LS163 IC47.1 Div 13

74LS393 IC44.2

3.58MHz X1

4.00MHz X2

LK4 INVERT

MC6847 IC31.1

C4 10uF

8K2 R7 1K0 R9 BC239 Q1 3K3 R8 470R R10

Colour O/P PL4

LK5 CSS

470R R28 C5 22uF Speaker PL10

74LS132 IC109.2 4K7 R29 1K0 R30 C6 10nF Cassette SK3

74LS132 IC109.1

74LS04 IC45.3

74LS04 IC45.4

74LS04 IC45.5

74LS04 IC45.2

470K R35 LM358 IC46.2

4K7 R36 LM358 IC46.1

4K7 R34 10K R37 C7 47nF

47K R33 4K7 R31 22uF C8 4K7 R32

47nF C9

1K0 R38 10uF C11

8255 IC25.1

7445 IC26.1

Keyboard PL9

C14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 100nF

IC1 6522 IC2 74LS244 IC3 74LS244 IC4 74LS245 IC7 74LS02 IC8 74LS00 IC10-52.2 62256 IC20-21.2 27128 IC22 6502 IC24.2 27128 IC25 8255

IC26 7445 IC27 74LS244 IC28 74LS244 IC29 74LS245 IC31 MC6847 IC32-43 6264 IC44 74LS393 IC45 74LS04 IC46 LM358 IC47 74LS163 IC49a 74LS139

IC49b 74LS139 IC49c 74LS139 IC50 74LS244 IC55 74LS373 IC61 74AHC1G32DBV IC104.2 75159

Power PL13 C12 47uF/16V Aux Power SK4

Original Refs used where possible, 100 series for Econet, 200 for FDC and 300 for GOTEK

Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference
Drawn by: CDO		Filename: Replica Atom.dch	August 2024 / Scale 1:1
Replica Acorn Atom Based on Issue 3 Schematic		Replica Acorn Atom Issue 3.0	Sheet 1 of 2

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Programming via serial port:

Fit BOOT0 link (J301)
Disconnect OLED display (J302) if fitted
Connect J303 pin-1 to FTDI RxD (Yellow)
Connect J303 pin-2 to FTDI TxD (Orange)

Programming via ST-LINK:

Use J1 (SWDIO) and J2 (SWCLK)

Original Refs used where possible, 100 series for Econet, 200 for FDC and 300 for GOTEK

Itemref	Quantity	Title/Name, designation, material, dimension etc		Article No./Reference	
Drawn by: CDO		Filename: Replica Atom.dch		August 2024	Scale 1:1
Replica Acorn Atom Based on Issue 3 Schematic		Replica Acorn Atom Issue 3.0			Sheet 2 of 2