AUXPAD1 and AUXPAD2 a drilled pads on the PCB for new uses or user-proprietary purposes. The pins can be made useful by doing what you want in the design software for the CPLD. See the www page for my cpld-design&ABEL code.

IC2 XC9572-TQ100

/IOW	16	1.1P16	3.1P41	41	
DA1	13	1.2P13	3.2P32	32	
DD15	18	1.3P18	3.3P49	49	DD9
	20	1.4P20	3.4P50	50	DD6
INTRQ	14	1.5P14	3.5P35	35	DD3
/IOR	15	1.6P15	3.6P53	53	DD7
AUXPAD1	25	1.7P25	3.7P54	54	/IDERESET
DD0	17	1.8P17	3.8P37	37	DD4
32M	22	1.9P22GCK1	3.9P42	42	DD10
DD1	28	1.10P28	3.10P60	60	/AS
AUXPAD2	23	1.11P23GCK2	3.11P52	52	DD8
DD12	33	1.12P33	3.12P61	61	D0
DD11	36	1.13P36	3.13P63	63	D1
DD14	27	1.14P27GCK3	3.14P55	55	/DTACK
DD13	29	1.15P29	3.15P56	56	R/W
DD5	39	1.16P39	3.16P64	64	D2
DD2	30	1.17P30	3.17P58	58	/LDS
CLK7	40	1.18P40	3.18P59	59	/UDS
/INT2	87	2.1P87	4.1P65	65	D3
A19	94	2.2P94	4.2P67	67	D5
A20	91	2.3P91	4.3P71	71	D8
A15	93	2.4P93	4.4P72	72	D9
A16	95	2.5P95	4.5P68	68	D6
A17	96	2.6P96	4.6P76	76	D15
A4	3	2.7P3GTS1	4.7P77	77	A23
A18	97	2.8P97	4.8P70	70	D7
/CPLDRES	99	2.9P99GSR	4.9P66	66	D4
/OVR	1	2.10P1	4.10P81	81	A22
A3	4	2.11P4GTS2	4.11P74	74	D10
DASP-	6	2.12P6	4.12P82	82	D12
A2	8	2.13P8	4.13P85	85	A21
/CS1	9	2.14P9	4.14P78	78	D14
DA2	11	2.15P11	4.15P89	89	A12
/CS0	10	2.16P10	4.16P86	86	D11
DA0	12	2.17P12	4.17P90	90	A13
A14	92	2.18P92	4.18P79	79	D13

EMC-R2 47 /RST

R2 was added in the belief it would prevent a spontaneous reset in a potential case of noise coupling to the signal trace. The part may be unncessary.

R5 limits current in case of short circuit.

VCC — EMC-R5 — VCCJTAG

TCK	48	TCK	3
TDO	83	TDO	4
TDI	45	TDI	5
TMS	47	TMS	6

CON2 JTAG ISP

GND — 1

C9 100n GND

VCCINT 5, 57, 98

VCCIO 26, 38, 51, 88

VCC

EMC-R4

R4 is for EMI reduction. It could be a small value resistor or a ferrite bead. The SG615H oscillator module takes about 35 mA DC supply (max.)

GND 21, 31, 44, 62, 69, 75, 84, 100

VOSC4

C8 100n

GG1 (VDD, CON, VSS, OUT) 32MHZ

R1 47 32M

In this board, the R1 series resistor has two purposes: A source termination to reduce reflections and on the other hand to "jump over" a number of traces on the circuit board. Its size is "2512"

NC 2, 7, 19, 24, 34, 43, 46, 73, 80

VCC

For PCB routing purpose, the VCC supply track comes in contact with one "NC" pad/pin of the CPLD. This should be OK, since NC pins are not connected in the IC, AFAIK.

IC1/64-PIN-DIP-HEADER

CLK7	15	CLK	FC0	28	
			FC1	27	
	22	BERR	FC2	26	
	18	RESET			
	17	HALT			
			E	20	
	21	VPA	VMA	19	
	13	BR	BG	11	
	12	BGACK			
			AS	6	/AS
/DTACK	10	DTACK	R/W	9	R/W
			UDS	7	/UDS
	25	IPL0	LDS	8	/LDS
	24	IPL1			
	23	IPL2			
			A1	29	
			A2	30	
			A3	31	
			A4	32	/RST
			A5	33	
			A6	34	
			A7	35	
	5	D0	A8	36	
	4	D1	A9	37	
	3	D2	A10	38	
	2	D3	A11	39	
	1	D4	A12	40	
	64	D5	A13	41	
	63	D6	A14	42	
	62	D7	A15	43	
	61	D8	A16	44	
	60	D9	A17	45	
	59	D10	A18	46	
	58	D11	A19	47	
	57	D12	A20	48	
	56	D13	A21	50	
	55	D14	A22	51	
	54	D15	A23	52	

D[0..15] A[1..23]

68000

This symbolises the connection to the 68000-based system. See www home page for advice on how to construct it.

VCC 14, 49 VCC

IC1/64-PIN-DIP-HEADERP

16, 53 GND

GND

DD[0..15]

CON1

/IDERESET	1	RESET-	GROUND	2	
	3	DD7	DD8	4	
	5	DD6	DD9	6	
	7	DD5	DD10	8	
	9	DD4	DD11	10	
	11	DD3	DD12	12	
	13	DD2	DD13	14	
	15	DD1	DD14	16	
	17	DD0	DD15	18	
GND	19	GROUND	KEYPIN		
	21	DMARQ	GROUND	22	
/IOW	23	DIOW-	GROUND	24	
/IOR	25	DIOR-	GROUND	26	
	27	IORDY	SSNC:CSEL	28	
	29	DMACK-	GROUND	30	
INTRQ	31	INTRQ	IOCS16-	32	
DA1	33	DA1	PDIAG-	34	
DA0	35	DA0	DA2	36	DA2
/CS0	37	CS1FX-	CS3FX-	38	/CS1
DASP-	39	DASP-	GROUND	40	

R3 4k7 GND

GND

JMPR
Put a solder blob on "smd-jumper" to tie cable select line to ground.

CON3

/INT2	2
/OVR	3
GND	4

off-board links

CON3 is there for wire link connections from this interface PCB to the Amiga main board pin 1 is free for user's custom purposes

VCC

C1 100n, C2 100n, C3 100n, C5 100n, C6 100n, C7 100n

GND

Decoupling caps for the supply voltage

WWW home: http://www.iki.fi/mkl/ide -> ide68k

TITLE: ide68k101

Document Number:
Note: this schematic applies to ver.num. 100 PCB:s.
This revision adds comments etc. to the schematic.

REV: 101

Date: 09.02.2008 17:31:37

Sheet: 1/1