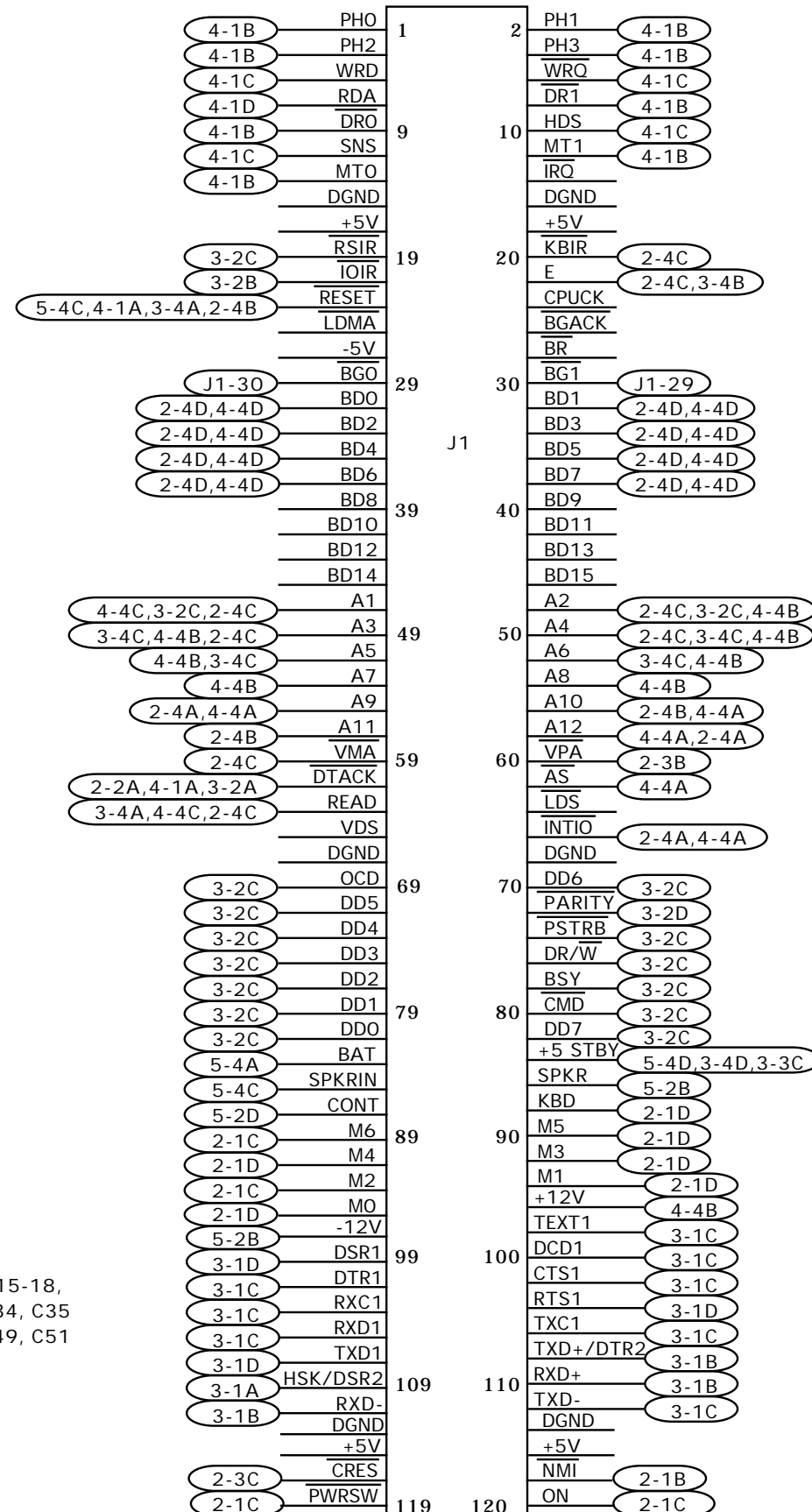
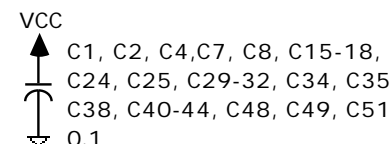
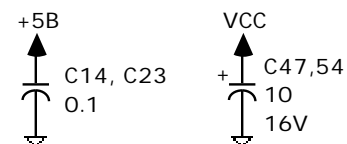
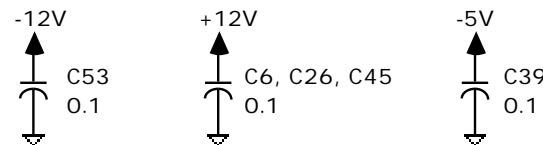




1. ALL RESISTOR VALUES ARE IN OHMS  
1/4 WATT  $\pm 5\%$



DEVICE	NAME	+5V	GND	+12V	OTHER
74LS00	U7B, 10B	14	7		
74LS04	U12D, 3F	↑	↑		
74LS09	U10D				
7417	U7F				
74LS32	U2D	↓	↓		
74LS38	U11D, 5E				
74LS86	U9A	14	7		
74LS109	U6B, 6E	16	8		
74LS132	U6A	14	7		
74LS139	U5A, 4E	16	8		
74LS153	U8E	16	8		
74LS157	U2C, 3C, 4C	16	8		
74LS161	U7A	16	8		
74C174	U9B		8		+5B,16
74LS174	U5B	16	8		
74LS244	U4F	20	10		
74LS245	U3D, 4D, 6F	20	10		
74LS259	U2E, 3E	16	8		
74LS280	U5F, 7E	14	7		
74LS323	U3B	20	10		
74LS393	U1E	14	7		
26LS30	U10E	1	5		-5V,8
26LS32	U11E	16	8		GND,4
4011B	U14B		7		BATV, 14
444C-3	U1B, 2B		9		+5B,18
COPS 421	U9F				
PROM STATE MACHINE	U4B		1		+5B,9
TL074	U10A			4	-12V,11
4193	U14A		4		BATV, 5
1488	U10F		7	14	-12V,1
1489	U11F	14	7		
8T97	U2F	16	8		
6504	U3A	4	2		
6522	U5C, 7C	20	1		
8530	U9C	9	31		
9512	U11B	2	1	16	
DISK BOOT EPROM	U1A	24	12		
PULL UPS	RP1, RP2	16			
PULL UPS	RP4	8			

LISA 1  
I/O  
( sheet 1 of 5 )