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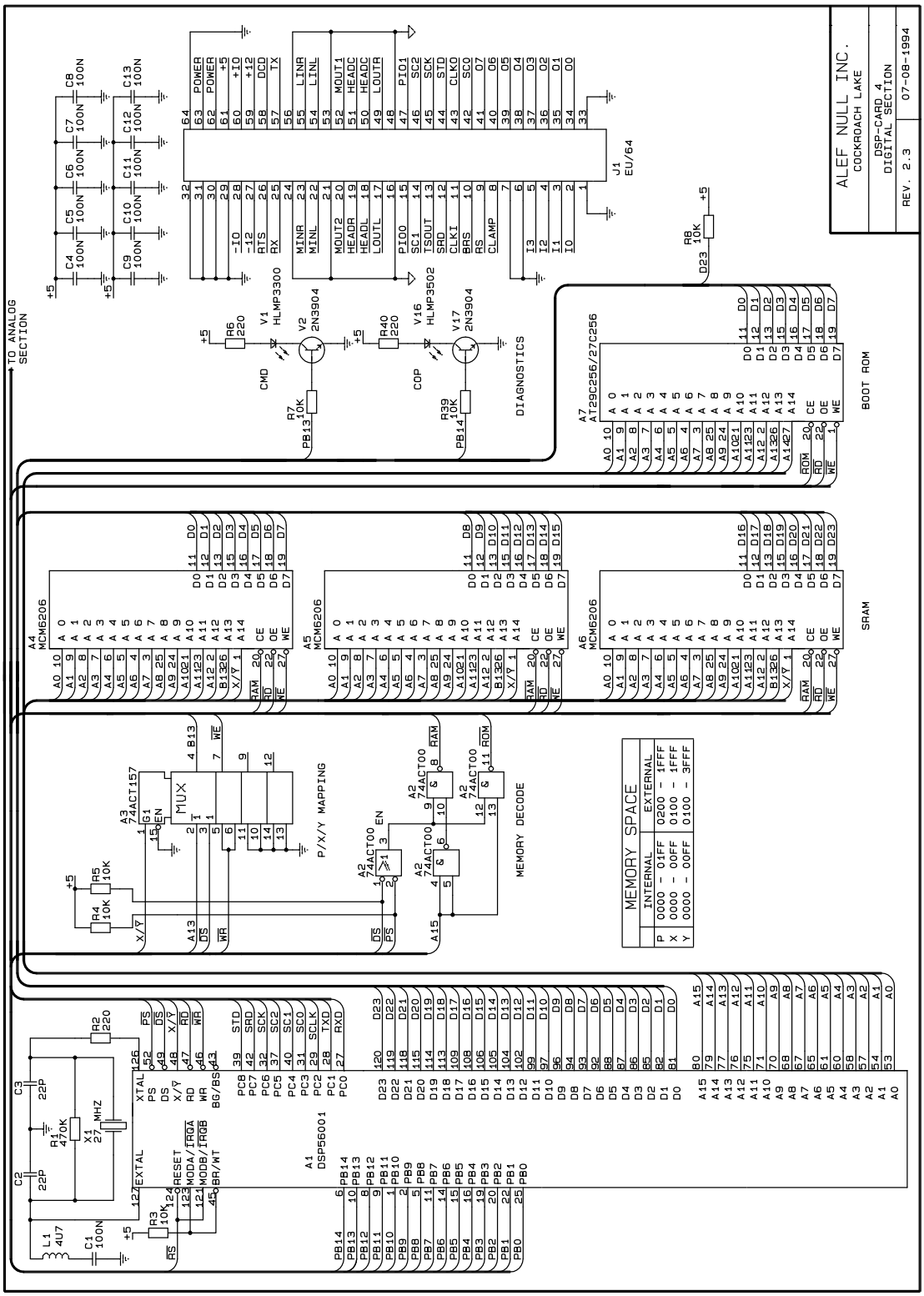
Appendices


ALEF NULL INC.
COCKROACH LAKE
DSP-CARD 4
DIGITAL SECTION
REV. 2.3
07-08-1994
TO ANALOG SECTION
DIAGNOSTICS
BOOT ROM
SRAM
P/X/Y MAPPING
MEMORY DECODE
MEMORY SPACE
INTERNAL
EXTERNAL
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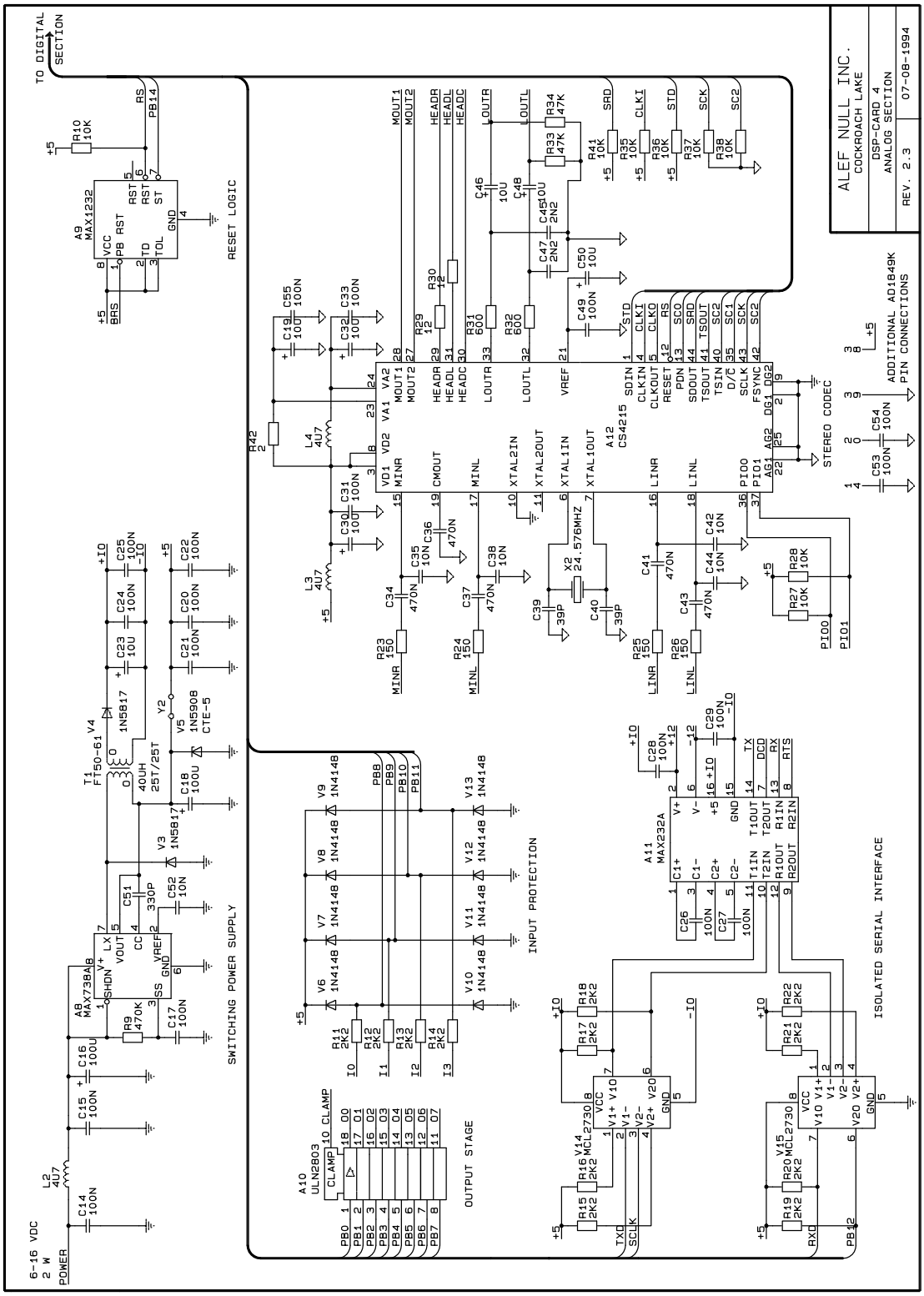
X 0000 - 00FF 0100 - 1FFF
Y 0000 - 00FF 0100 - 3FFF


ALEF NULL INC.
COCKROACH LAKE
DSP-CARD 4
ANALOG SECTION
REV. 2.3
07-08-1994
TO DIGITAL SECTION
RESET LOGIC
SWITCHING POWER SUPPLY
INPUT PROTECTION
OUTPUT STAGE
ISOLATED SERIAL INTERFACE
STEREO CODEC
ADDITIONAL AD1849K PIN CONNECTIONS
6-16 VDC 2 W POWER
A8 MAX738A
A9 MAX1232
A10 ULN2803
A11 MAX232A
A12 CS4215
T1 FT50-61
X2 24.576MHZ

ALEF NULL DSP CARD 4 Rev 2.3 PARTS LIST REPORT Sun Jan 11 12:31:00 1995

Part Type	Reference Designation					Description
DSP56001FC27	A1					27 MHz, CQFP PACKAGE DSP
DSP56001FE27	A1					27 MHz, PQFP PACKAGE DSP
74ACT00	A2					4 ACMOS NANDs
74ACT157	A3					ACMOS MUX
MCM6206	A4	A5	A6			300mils 256K 25ns SRAM
CXK58258AP-25	A4	A5	A6			300mils 256K 25ns SRAM
MT5C2568-25	A4	A5	A6			300mils 256K 25ns SRAM
27C256	A7					256K EPROM
AT29C256	A7					256K FLASH EPROM
MAX738A	A8					PWM REGULATOR
MAX1232	A9					MICROPROCESSOR MONITOR
ULN2803	A10					OCTAL DRIVER
MAX232A	A11					RS232 DRV/REC, 114 Kbit/s
MAX202A	A11					RS232 DRV/REC, 19.2 Kbit/s
CS4215	A12					16-BIT, 48kHz, CODEC
AD1849K	A12					16-BIT, 48kHz, CODEC
HLMP3300	V1					5mm, RED LED
2N3904	V2	V17				NPN TRANSISTOR
1N5817	V3	V4				HIGH SPEED SCHOTTKY DIODE
1N5908	V5					TRANSIENT SUPPRESSOR
1N4148	V6	V7	V8	V9		SMALL SIGNAL DIODE
	V10	V11	V12	V13		
HCPL2730	V14	V15				DUAL OPTOCOUPLER
HLMP3502	V16					5mm, GREEN LED
DXTAL	X1					27MHz CRYSTAL
DXTAL	X2					24.576MHz CRYSTAL
100N	C1	C4	C5	C6	C7	COUPLING CAP
	C12	C13	C14	C15		
	C17	C20	C21	C22	C24	
	C25	C26	C27	C28	C29	
	C31	C33	C49	C55		
100N	C53	C54				Needed only with AD1849K
20P	C2	C3				
100N	C8	C9	C10	C11		GENERIC 1206 SMD CAP
100U	C16	C18				ELYT, 25V
10U	C19	C23	C30	C32	C46	TANTAL, 10V
	C48	C50				
10N	C35	C38	C42	C44	C52	NP0
470N	C34	C36	C37	C41	C43	
40P	C39	C40				
2N2	C45	C47				
330P	C51					
470K	R1	R9				ALL RESISTORS ARE 1/8W
220	R2	R40	R6			
150	R23	R24	R25	R26		
10K	R3	R4	R5	R7	R8	
	R10	R27	R28	R35		
	R36	R37	R38	R39		
	R41					
2K2	R11	R12	R13	R14	R15	
	R16	R17	R18	R19	R20	
	R21	R22				
12	R29	R30				
47K	R33	R34				
600	R31	R32				
2	R42					
4U7	L1	L2	L3	L4		SMALL INDUCTOR
FT50-61	T1					AMIDON TOROIDAL CORE
EU/64	J1					64-PIN F EURO CONNECTOR
GNDLOOP	Y1					GND WIRE LOOP FOR PROBES
PRWLOOP	Y2					LOOP FOR POWER ISOLATION

All capacitors (except C16 and C18 which are 0.1") are 0.2". Resistors and diodes are 0.4".

Note that there are alternative parts listed for DSP, RAM and Codec. A2 and A3 can also be (but not recommended) ‘AC’ or ‘F’ types. V5 can be ordinary 5V1 Zener (BZV 55C 5V1 for example) if TransZorb is not available. A4, A5 and A6 can be higher speed versions also, e.g. CXK58258AP-20 or similar parts from other manufacturers.