

I	A	+5V	Z
B	C	0V	
D	E	OV	
F	H	BUS B85 L	
J	K	BUS INTL	
L	M	B67 OUT H	
N	O	B66 OUT H	
P	R	B65 IN H	
S	T	B64 IN H	
U	V	B64* OUT H	
I	B	+5V	Z
A	D	OV	
C	E	BUS A12 L	
F	H	BUS A11 L	
J	K	BUS A10 L	
L	M	BUS A09 L	
N	O	BUS A08 L	
P	R	BUS A07 L	
S	T	BUS A04 L	
U	V	BUS A03 L	
I	C	+5V	Z
A	D	OV	
E	F	BUS B86 L D	
H	J	BUS D14 L	
L	M	BUS D12 L	
N	O	BUS D10 L	
P	R	BUS D08 L	
S	T	BUS D06 L	
U	V	BUS D04 L	
I	F	+5V	Z
A	D	OV	
E	H	BUS D14 L	
J	K	BUS D08 L	
L	M	BUS D04 L	
N	O	BUS D02 L	
P	R	BUS D00 L	
S	T	BUS D02 L	
U	V	BUS D06 L	

I	J1	+31
2	TAG 2	+32
3	TAG 3	+34
4	BIT 0	+35
5	BIT 1	+36
6	BIT 2	+37
7	BIT 3	+38
8	BIT 4	+39
9	BIT 5	+40
10	BIT 6	+41
11	BIT 7	+42
12	BIT 8	+43
13	BIT 9	+44
14	OPEN CABLE	+45
15	FAULT ERROR	+46
16	(N)CUNNDER	+47
17	INDEX	+48
18	UNIT READY	+49
19	UNIT GET	+50
20	BUS 2	+51
21	US TAG	+52
22	US2*	+53
23	US2*	+54
24	US2*	+55
25	SECTOR	+56
26	WRITE PROT.	+57
27	PKC-HOLD	+58
28	BIT 10	+59
29	BUS A08 L	+60
30	BUS A07 L	
I	J5	
1	OV	
2	SEVNO CLOCK 3-	
3	READ DATA 3-	
4	WRITE CLOCK 3-	
5	WRITE DATA 3-	
6	SELECTED 3+	
7	SEEK END 3-	
8	INDEX 3-	
9	SECTOR 3-	
10	SEVNO CLOCK 3-	
11	READ DATA 3+	
12	WRITE CLOCK 3+	
13	WRITE DATA 3+	
14	SELECTED 3-	
15	SEEK END 3+	
16	INDEX 3+	
17	SECTOR 3+	
18	OV	
I	F	Z
A	+5V	
B	-15V	
C	OV	
D	BUS B86 L D	
E	BUS D14 L	
F	BUS D12 L	
G	BUS D10 L	
H	BUS D08 L	
I	BUS D06 L	
J	BUS D04 L	
K	BUS D02 L	
L	BUS D00 L	
M	BUS D02 L	
N	BUS D06 L	
O	BUS D04 L	
P	BUS D02 L	
Q	BUS D00 L	
R	BUS D02 L	
S	BUS D06 L	
T	BUS D04 L	
U	BUS D02 L	
V	BUS D06 L	

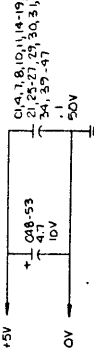
I	J2	
1	OV	
2	SEVNO CLOCK 0-	
3	READ DATA 0-	
4	WRITE CLOCK 0-	
5	WRITE DATA 0-	
6	SELECTED 0+	
7	SEEK END 0-	
8	INDEX 0-	
9	SECTOR 0-	
10	SEVNO CLOCK 0+	
11	READ DATA 0+	
12	WRITE CLOCK 0+	
13	WRITE DATA 0+	
14	SELECTED 0-	
15	SEEK END 0+	
16	INDEX 0+	
17	SECTOR 0+	
18	OV	
I	J6	
1	OV	
2	DB00	H
3	DB01	H
4	DB03	H
5	EX STOP	H
6	STOP	H
7	DB04	H
8	DB05	H
9	DB06	H
10	DB08	H
11	DB09	H
12	DB10	H
13	DB11	H
14	DB12	H
15	DB14	H
16	DB15	H
17	EX TEST	H
18	OV	
19	OV	
20	SPARE	
21	OV	
22	OV	
23	OV	
24	OV	
25	OV	
26	OV	

I	J3	
1	OV	
2	DB00	L
3	EX UPD	L
4	EX STOP	H
5	STOP	H
6	OV	
7	OV	
8	EX CLOCK	L
9	OV	
10	EX RESET	L
11	OV	
12	EX PROMEN	L
13	OV	
14	DB11	H
15	DB12	H
16	PA09	H
17	PA08	H
18	PA07	H
19	PA06	H
20	PA05	H
21	PA04	H
22	PA03	H
23	PA02	H
24	PA01	H
25	OV	
26	OV	
I	J7	
1	OV	
2	EX UPD	L
3	OV	
4	EX STOP	H
5	STOP	H
6	OV	
7	OV	
8	EX CLOCK	L
9	OV	
10	EX RESET	L
11	OV	
12	EX PROMEN	L
13	OV	
14	DB11	H
15	DB12	H
16	PA09	H
17	PA08	H
18	PA07	H
19	PA06	H
20	PA05	H
21	PA04	H
22	PA03	H
23	PA02	H
24	PA01	H
25	OV	
26	OV	

ZONE		LTR		DESCRIPTION	DATE	APPROVED
B		ECC-313		INCORPORATED	2-24-81	HP/GDA
C		ECC-395		INCORPORATED	4-18-81	HP/GDA
D		ECC-402		INCORPORATED	4-28-81	HP/GDA
E		ECC-412		INCORPORATED	4-28-81	HP/GDA
F		ECC-414		INCORPORATED	4-28-81	HP/GDA
G		REVISED PER ECC 420			5-4-81	HP/GDA
H		ECC-503		REVISED PER PAK 114	5-27-81	HP/GDA

NOTES: UNLESS OTHERWISE SPECIFIED
 1. DIMENSIONAL TOLERANCES AND VOLTAGES ARE AS FOLLOWS:
 PICTURAGES ± .2%, 1.00V, 4.7 MICROPICTURES ± 20%, 2.0V.
 2. CAPACITANCE VALUES ARE IN MICROPICTURES.
 3. RESISTANCE VALUES ARE IN OHMS ± 5% 1/4W.

SHEET 2	AU/2901'S AND 0' MUX
SHEET 3	AU FLAGS/TEST MUX / TEST SAMPLING / A' POST MUX
SHEET 4	BUS SOURCE DECODER / BUS DESTINATION DECODER / CLOCKING
SHEET 5	'SEQUENCERS/ PIPELINE ADDRESS REGISTERS
SHEET 6	PROMS AND PIPELINE ADDRESS REGISTERS
SHEET 7	BUFFER ADDRESS REGISTERS / BUFFER MEMORY
SHEET 8	UNIBUS DATA REGISTERS / UNIBUS ADDRESS REGISTER
SHEET 9	INIT CONTROL / B6 AND NFB6 ASPIRATION
SHEET 10	SHIFT REGISTER / BUFFER / DISK DATA CONTROL
SHEET 11	ECL REGISTER
SHEET 12	'A' CABLE REGISTER, DRIVERS AND RECEIVERS
SHEET 13	WRITE DATA AND CLOCK TRANSmitters / 'B' CABLE RECEIVERS
SHEET 14	CONTROL REGISTER

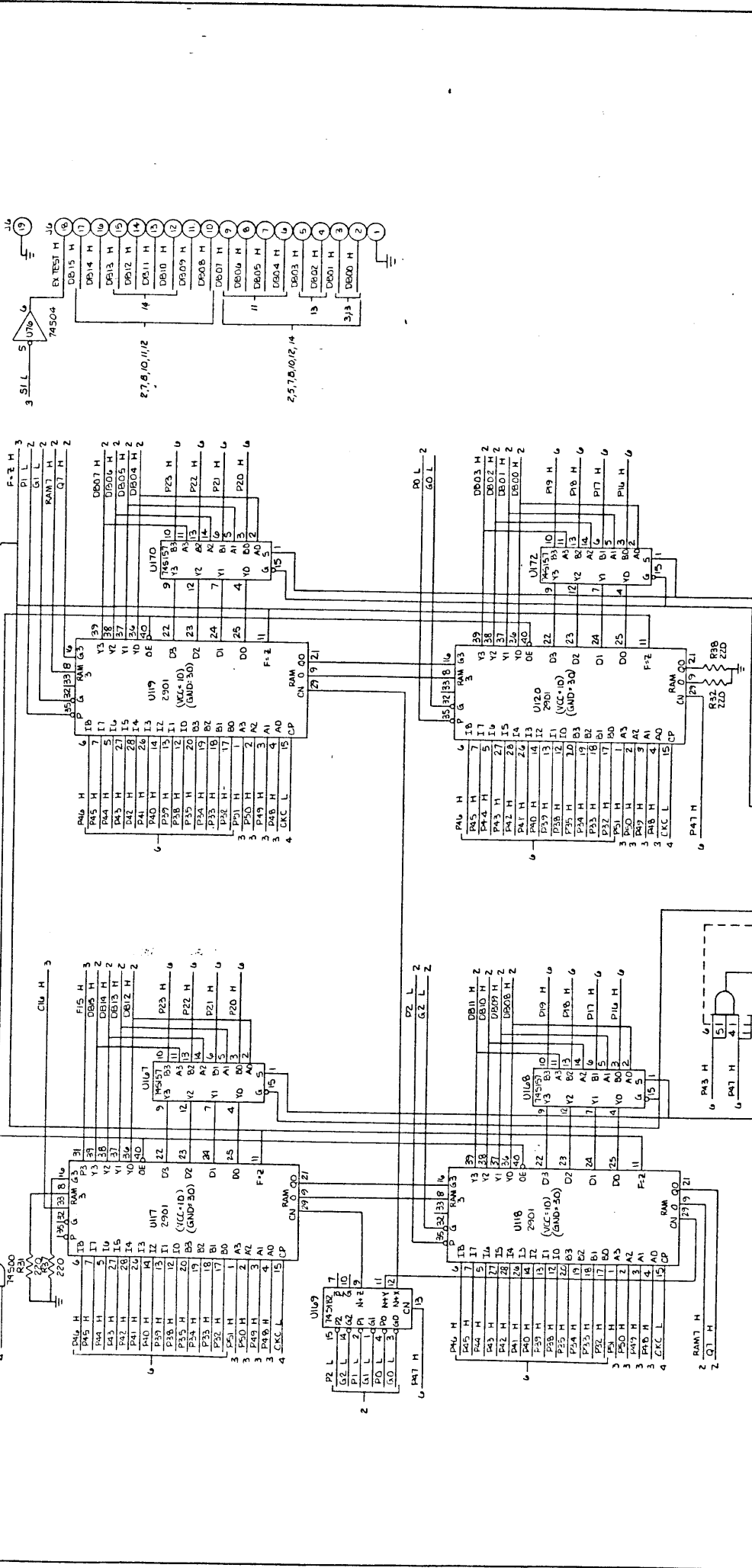
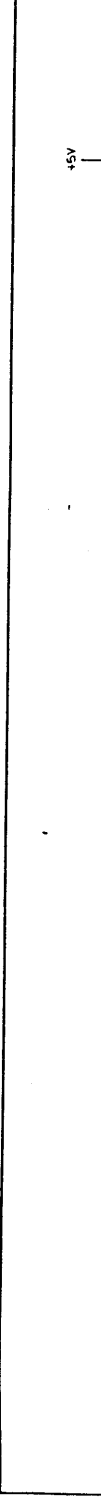



LAST DESIGNATION USED	
INTEGRATED CIRCUIT	UT11
REGISTER	R48
RESISTOR MODULE	RM39
CAPACITORS	C93
VOLTAGE REGULATOR	V11
DIODE	D11
SWITCH	SW3

REFERENCE DESIGNATION	GATES USED PER TOTAL	PART NUMBER
U38	2/4	7438
U34	2/4	74532
U74	3/4	74532
U16	2/4	74586
U16	1/4	74500
U12	2/4	74508
U12	3/4	74602
U14B	4/6	74504
U150	3/4	7436
U159	3/4	8837

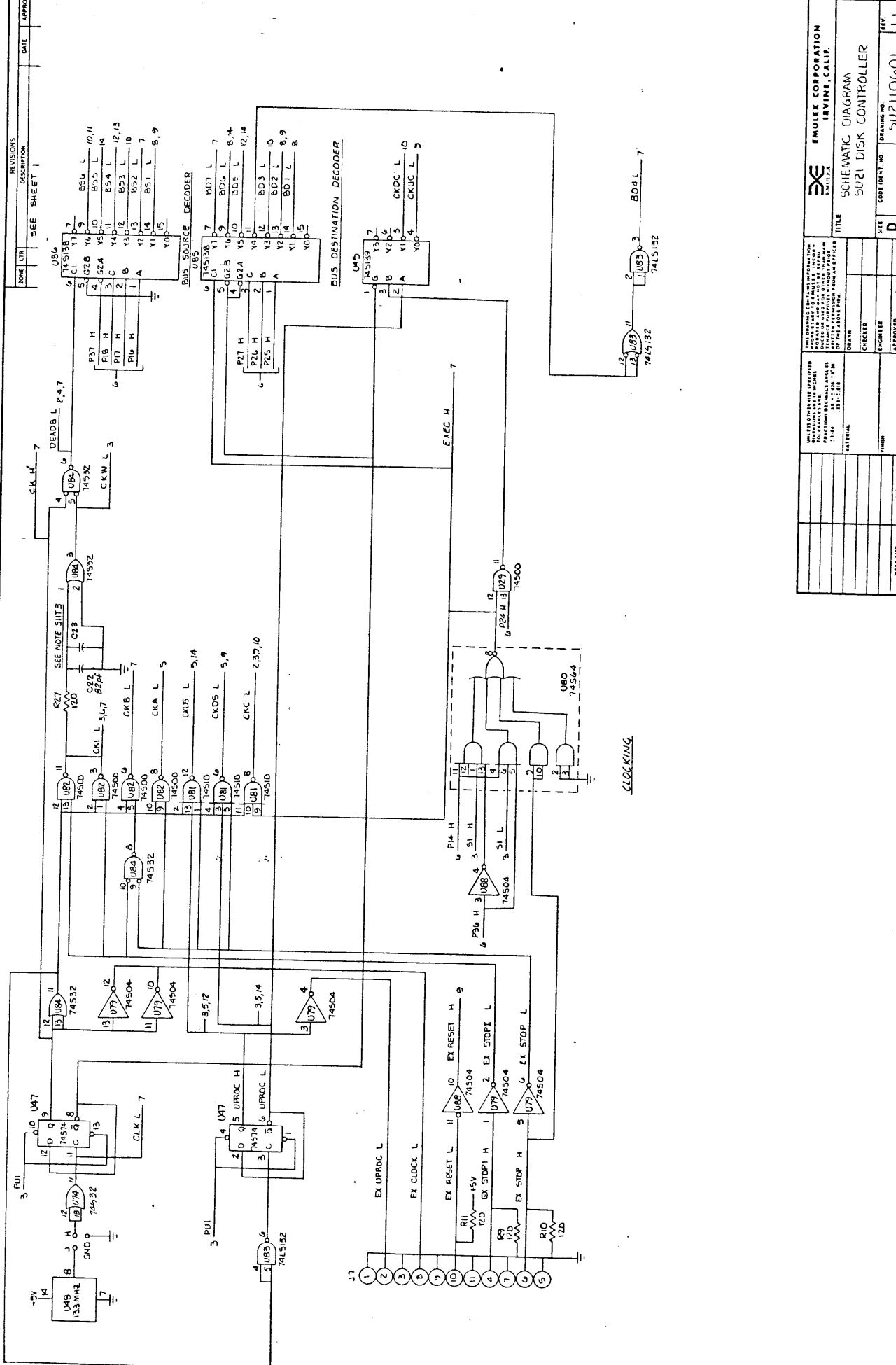
IRVINE, CALIF.	
SHULEX CORPORATION	
TITLE: SCHEMATIC DIAGRAM	
SU21 DISK CONTROLLER	
FILE	DESIGN NO.
D	SU210601
SCALE	NONE
DATE	REV
APPROVED	SHEET 1 OF 14
CHECKED	
DESIGNED	
DRAWN	
DATE	
SCALE	
TITLE	

DO NOT SCALE DRAWING
 APPLICATION: VITE 88
 SHEET 1 OF 14



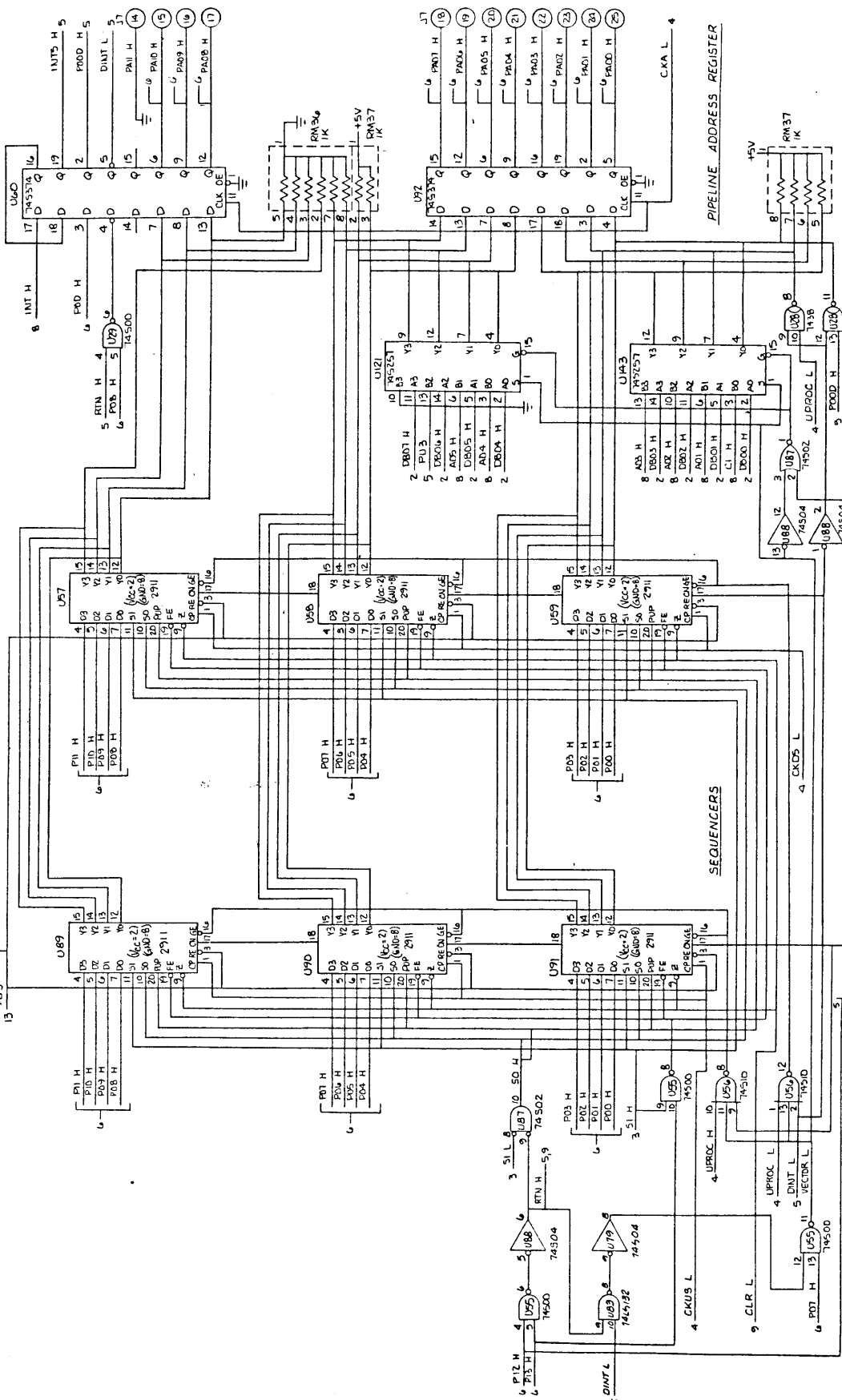
 EMULEX CORPORATION IRVINE, CALIF.	
TITLE SCHEMATIC DIAGRAM SUZU DISK CONTROLLER	
DESIGNER [Blank]	CHECKED [Blank]
ENGINEER [Blank]	APPROVED [Blank]
DATE D	SCALE NONE
CODE SUZ110601	WORK ORDER NO. SHEET 2 OF 14

UNLESS OTHERWISE SPECIFIED, COMPONENTS TO BE MANUFACTURED TO MILITARY SPECIFICATIONS. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. MATERIALS ARE TO BE USED AS SPECIFIED IN THE DRAWING. DATE OF ISSUE IS 11/84. DRAWN BY: [Blank]



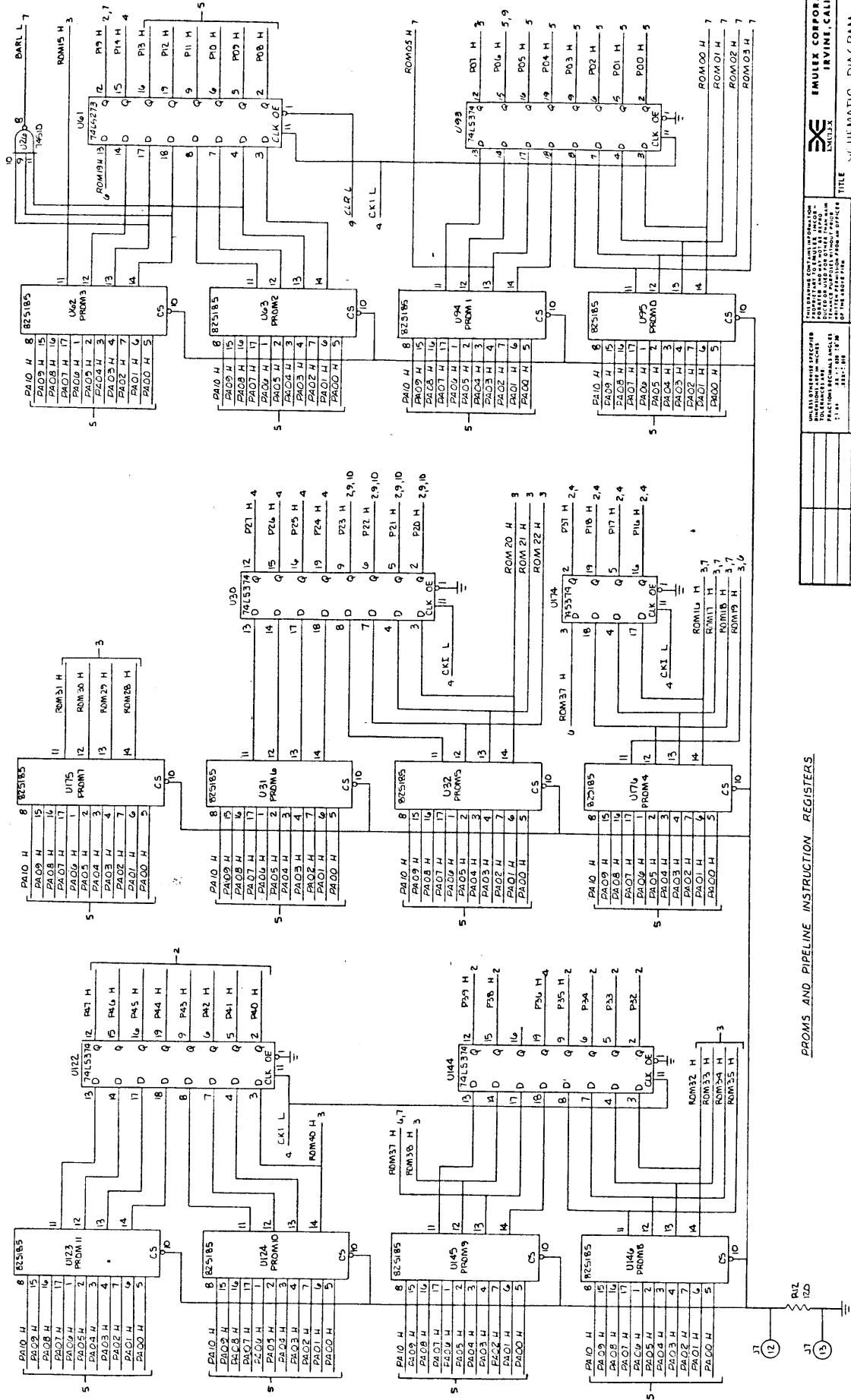
CLD KING

EMULEX CORPORATION IRVINE, CALIF.		DATE		APPROVED
REVISIONS				
SEE SHEET 1				
TITLE	SIZE	CUSTOMER NO.	DRAWING NO.	REV.
SCHEMATIC DIAGRAM	11	502110601	502110601	H
SCALE	SCALE	WORK ORDER NO.		
DATE	CHECKED	ENGINEER	APPROVED	
DRAWN				
UNLESS OTHERWISE SPECIFIED				
DIMENSIONS SHALL BE IN INCHES				
TOLERANCES UNLESS OTHERWISE SPECIFIED SHALL BE:				
FINISH	DO NOT SCALE DRAWING			
MATERIAL	3003 AL			
APPLICATION				



EMULEX CORPORATION IRVINE, CALIF.	
TITLE SCHEMATIC DIAGRAM 5021 DISK CONTROLLER	
SIZE D	DRAWING NO 502110601
CHECKED	ENGINEER
APPROVED	APPROVED
MATERIAL	DESCRIPTION
QUANTITY	UNIT
REVISION	DESCRIPTION
DATE	BY
SCALE NONE	WORK ORDER NO
SHEET 5	OF 14

PREPARING COMPANY'S DRAWING UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DIMENSIONS IN PARENTHESES ARE DIMENSIONS IN MILLIMETERS 1:16 1/8" = 1" (25.4 mm)	
DRAWING NO. 502110601 SHEET 5 OF 14	
DATE	BY
SCALE NONE	WORK ORDER NO
SHEET 5	OF 14



PROMS AND PIPELINE INSTRUCTION REGISTERS

EMULEX CORPORATION
 IRVINE, CALIF.

EMULEX

TITLE: SCHEMATIC DIAGRAM
 SUZU DSK CONTROLLER

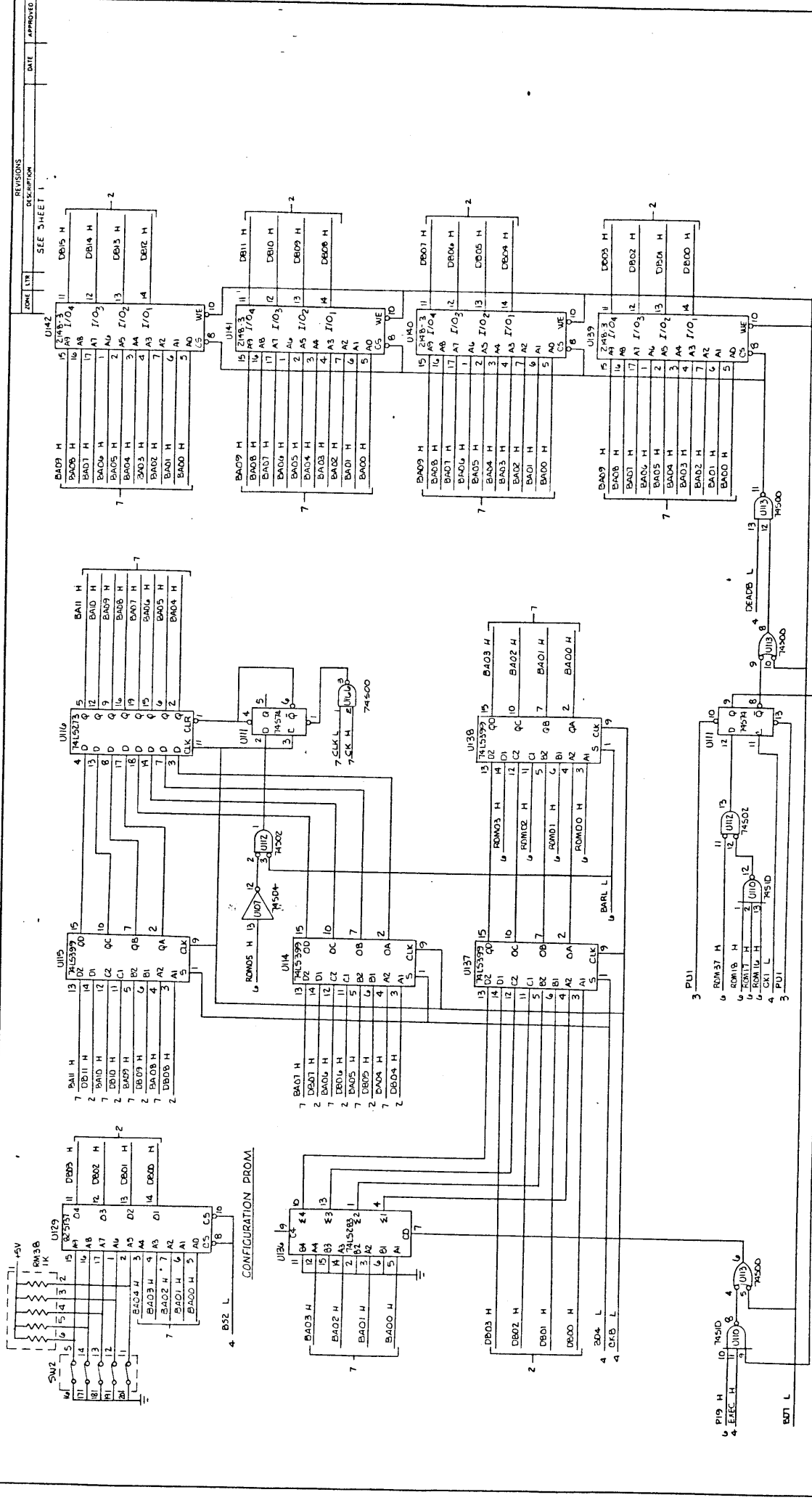
SIZE: COST IDENT. NO. 502110601
 REV. H

SCALE: NONE
 WORK ORDER NO. SHEET 6 OF 14

APPROVED: [Signature]
 ENGINEER: [Signature]
 CHECKED: [Signature]

DO NOT SCALE DRAWING

DATE: [Blank]
 USER: [Blank]
 APPLICATION: [Blank]



BUFFER MEMORY

THIS DRAWING CONTAINS INFORMATION OF A CONFIDENTIAL NATURE. IT IS THE PROPERTY OF EMULEX CORPORATION AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT THE WRITTEN PERMISSION OF EMULEX CORPORATION.

DATE: 11/18/88
 DRAWN: [Name]
 CHECKED: [Name]
 ENGINEER: [Name]
 APPROVED: [Name]

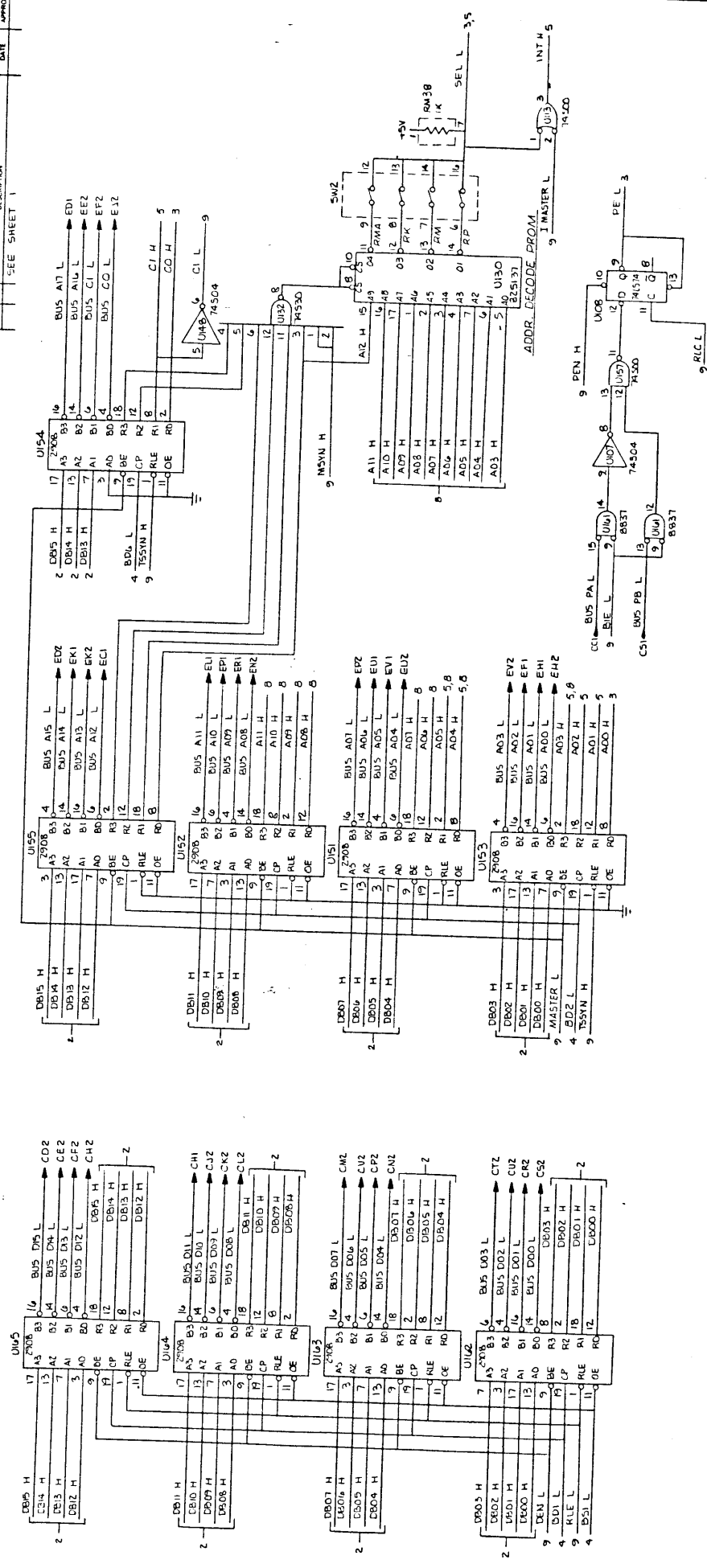
DO NOT SCALE DRAWING

BUFFER ADDRESS REGISTERS

EMULEX CORPORATION
 IRVINE, CALIF.

SCHMATIC DIAGRAM
SU21 DISK CONTROLLER

SIZE: D
 CODE IDENT NO: SU21 110/601
 REV: H1
 SCALE: NONE
 SHEET: 7 of 14



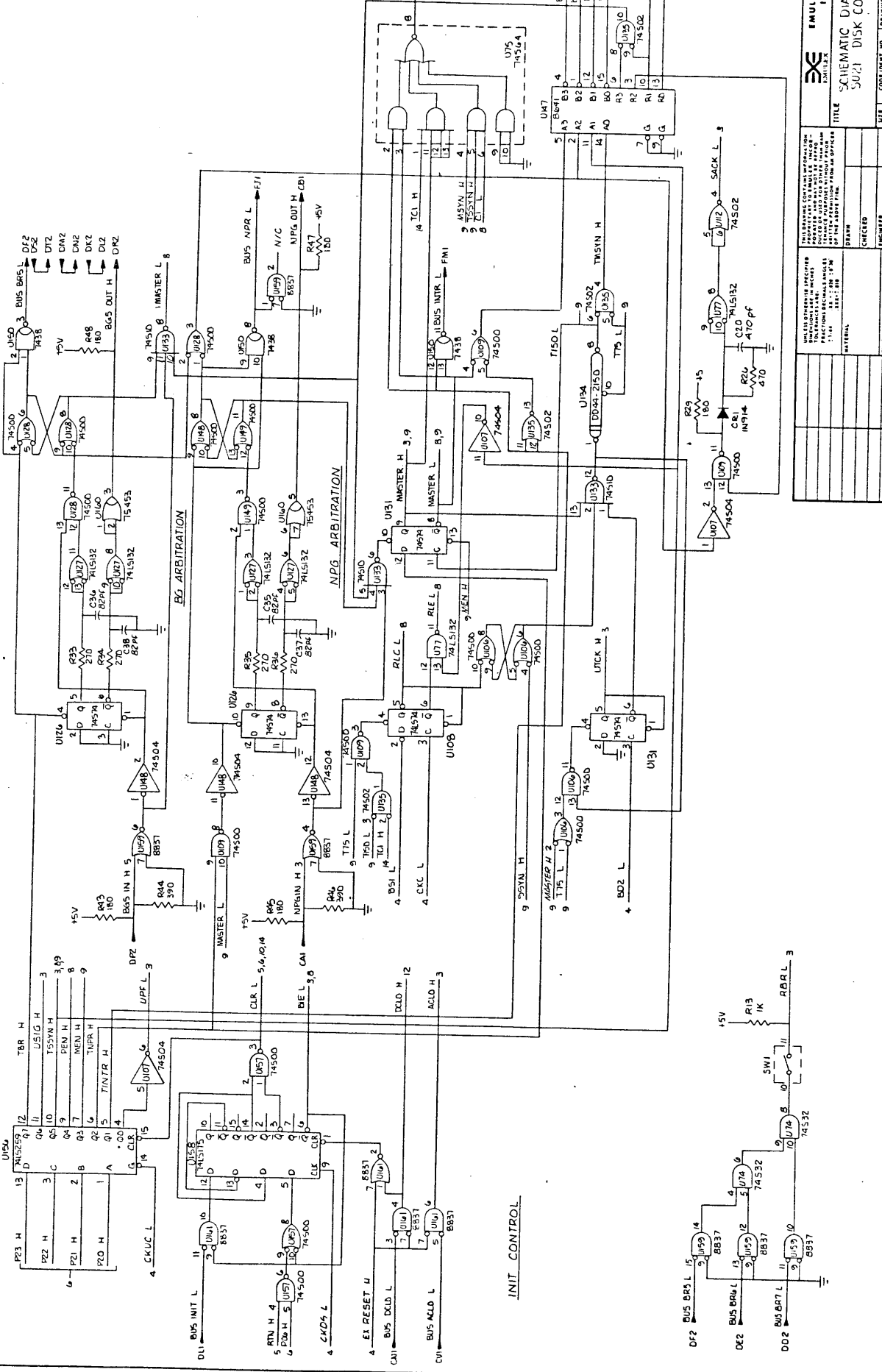
UNIBUS DATA REGISTER

UNIBUS ADDRESS REGISTER

EMULEX CORPORATION IRVINE, CALIF.		TITLE SCHEMATIC DIAGRAM SU21 DISK CONTROLLER	
DRAWN D		CODE IDENT NO SU2110601	
CHECKED		SCALE NONE	
ENGINEER		DATE	
APPROVED		SHEET 5 OF 14	
MATERIAL		FOR OFFICE USE	
FRONT		APPROVED	
APPLICATION		APPROVED	
REVISION		APPROVED	
DATE		APPROVED	

REVISONS	DESCRIPTION	DATE	APPROVED

ZONE A1P SEE SHEET 1



REVISIONS		DATE	APPROVED

EMULEX CORPORATION
 IRVINE, CALIF.
 TITLE: **SCHEMATIC DIAGRAM**
 50/21 DISK CONTROLLER

FILE	CODE RIGHT NO	DRAWING NO	REV
	D	50/2110601	H
DRAWN	CHECKED	ENGINEER	APPROVED

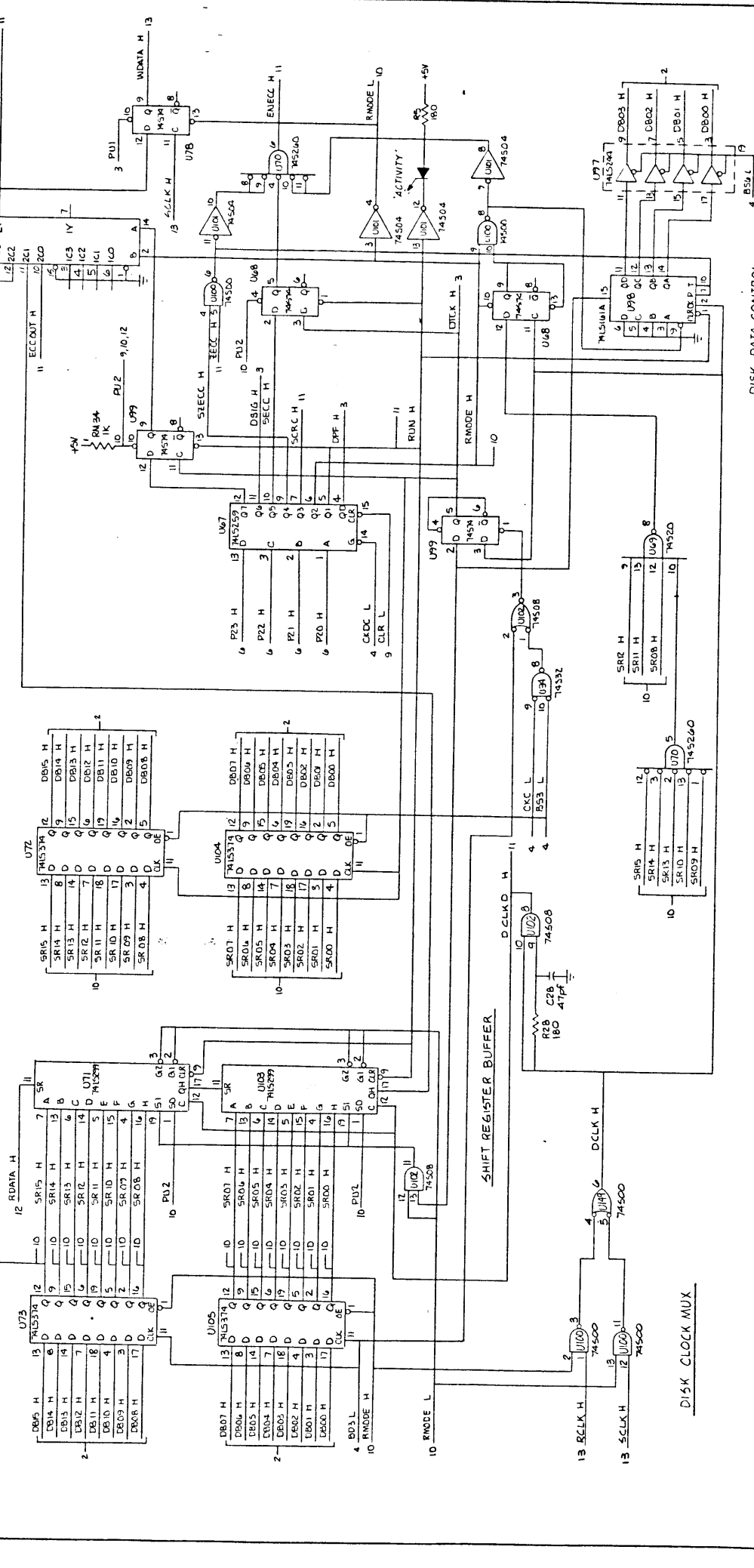
THE DESIGN OF THIS PRODUCT IS THE PROPERTY OF EMULEX CORPORATION. NO PART OF THIS PRODUCT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF EMULEX CORPORATION.

MATERIALS: (Empty fields)
 PARTS LIST: (Empty fields)
 APPLICATION: (Empty fields)
 DO NOT SCALE DRAWING: (Empty fields)

SHEET 9 OF 14

ZONE	DATE	APPROVED

REVISIONS	DESCRIPTION	DATE	APPROVED



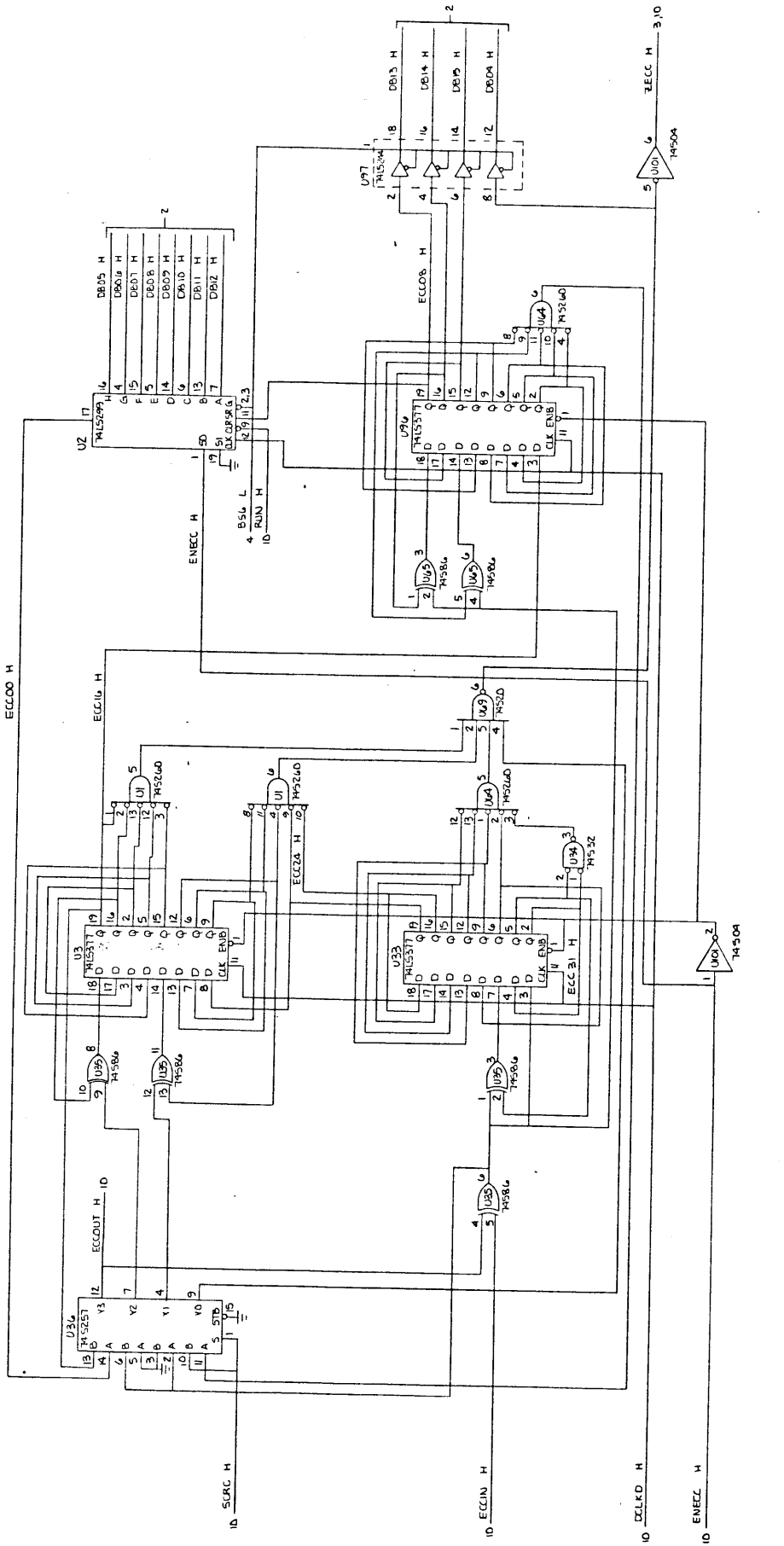
DISK DATA CONTROL

SCHEMATIC DIAGRAM
SU21 DISK CONTROLLER

DATE	SCALE	SCALE ALIASE	TOTAL ORDER NO.
D	502110601		H

DESIGNED BY	CHECKED
ENGINEER	APPROVED
TEST ADVT.	APPLICATION
USED IN	
MATERIAL	

EMULEX CORPORATION
IRVINE, CALIF.



ECC REGISTER

EMULEX CORPORATION
 IRVINE, CALIF.

TITLE
 SCHEMATIC DIAGRAM
 SUZI DISK CONTROLLER

DATE
 D

CONFIDENTIAL NO.
 502110601

SCALE
 NONE

WORK ORDER NO.
 SHEET 11 OF 14

DESIGNED BY
 ENGINEER
 APPROVED
 APPROVED

DRAWN
 CHECKED
 ENGINEER
 APPROVED

DO NOT SCALE DRAWING

NO.	REV.	DATE	DESCRIPTION	APPROVED

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMAL ANGLES DECIMAL INCHES DIMENSIONS ARE TO BE MAINTAINED THROUGHOUT THE PROJECT UNLESS OTHERWISE SPECIFIED

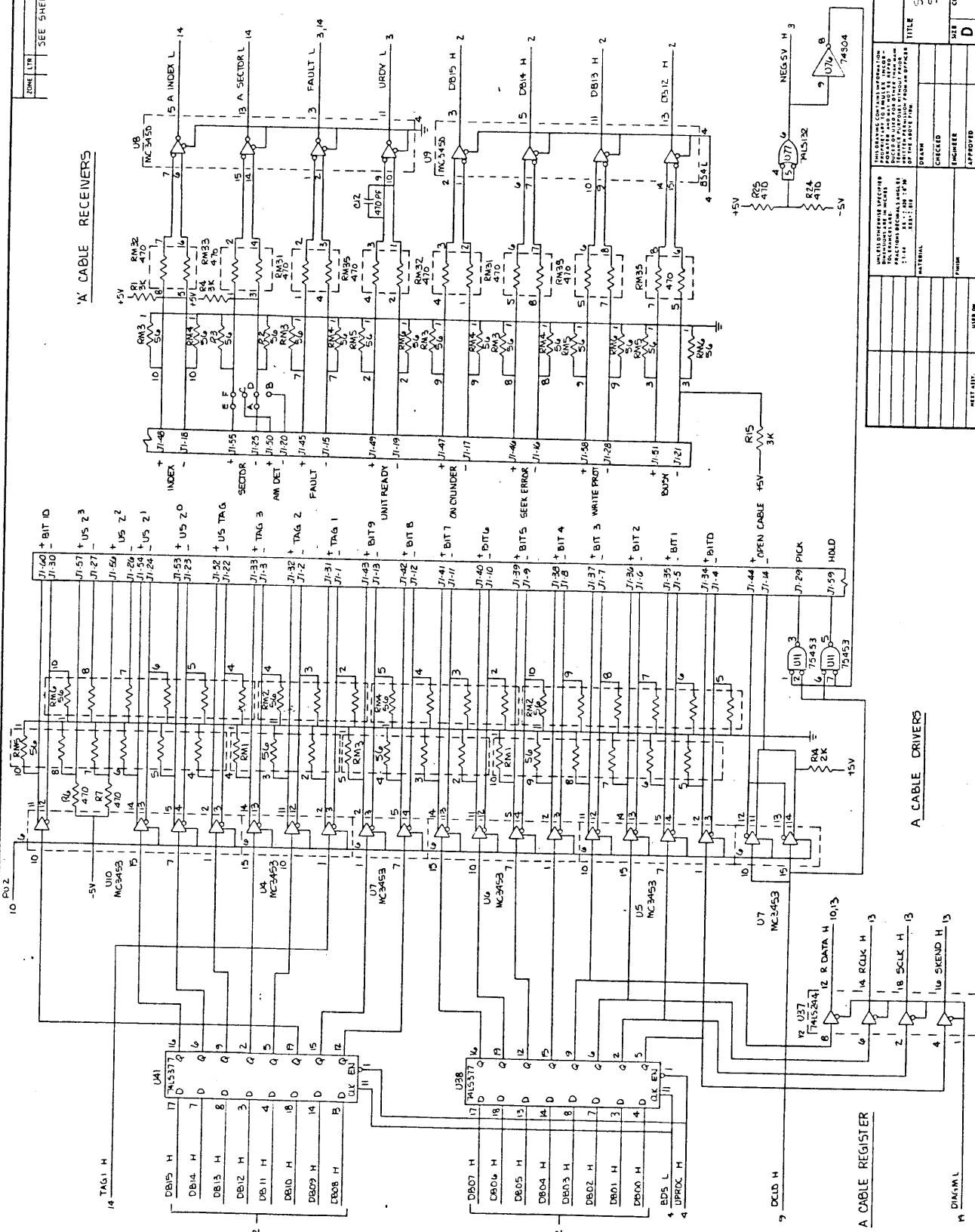
MATERIAL

FINISH

SIZE IN

APPLICATOR

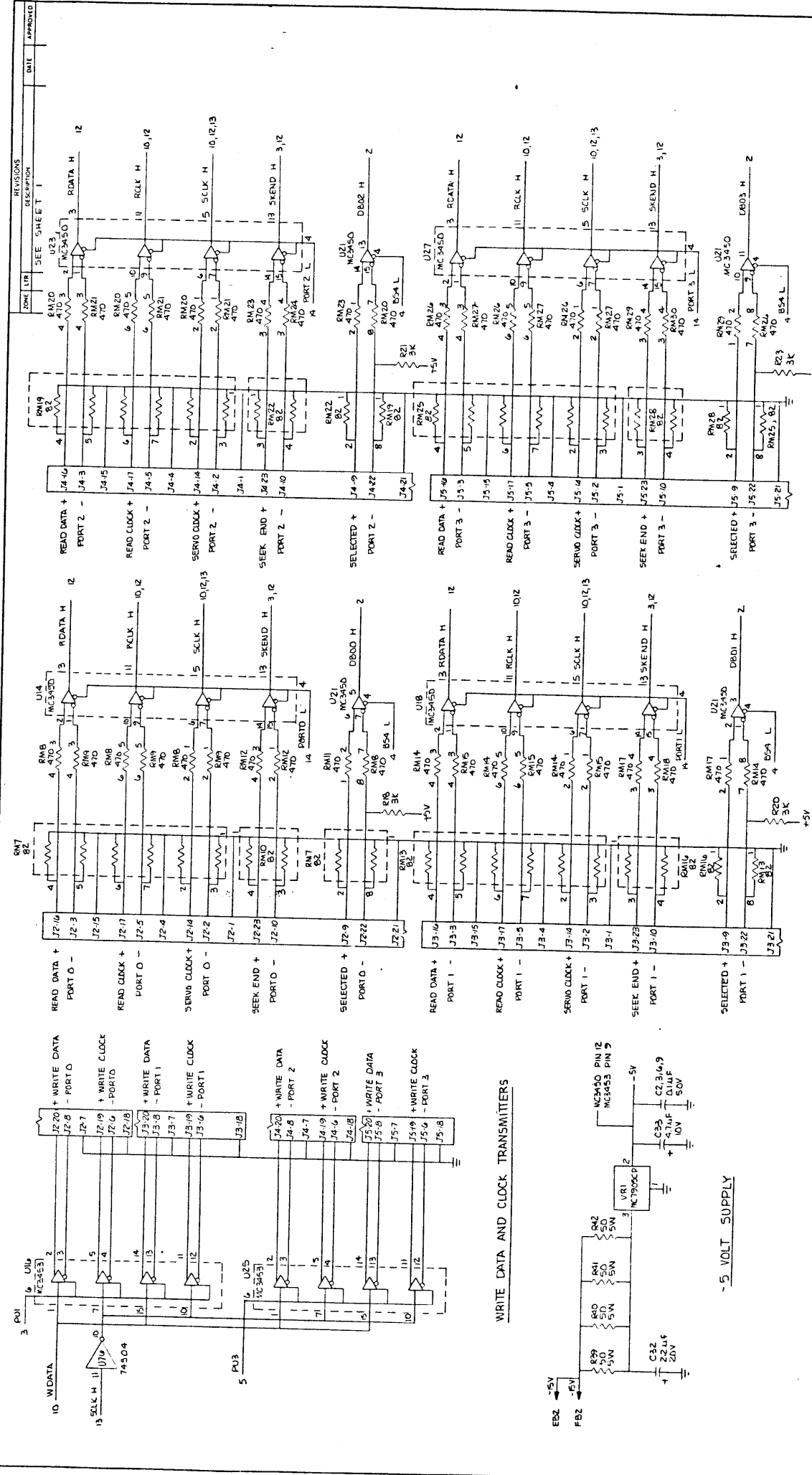
'A' CABLE RECEIVERS



A CABLE DRIVERS

A CABLE REGISTER

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS DIMENSIONS IN PARENTHESES ARE THE PREFERRED DIMENSIONS UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS DIMENSIONS IN PARENTHESES ARE THE PREFERRED DIMENSIONS	DRAWN	CHECKED	ENGINEER	APPROVED
MATERIAL	PHOTO	DO NOT SCALE DRAWING	UNIT DIM	APPLICATION
DATE	REV. NO.	REV. DATE	REV. BY	REV. H
DESIGN NO.	ORDER NO.	WORK ORDER NO.	SCALE	NON-SCALE
TITLE SCHEMATIC DIAGRAM 5021 DISK CONTROLLER				
EMULX CORPORATION IRVINE, CALIF.				



REV	DATE	DESCRIPTION

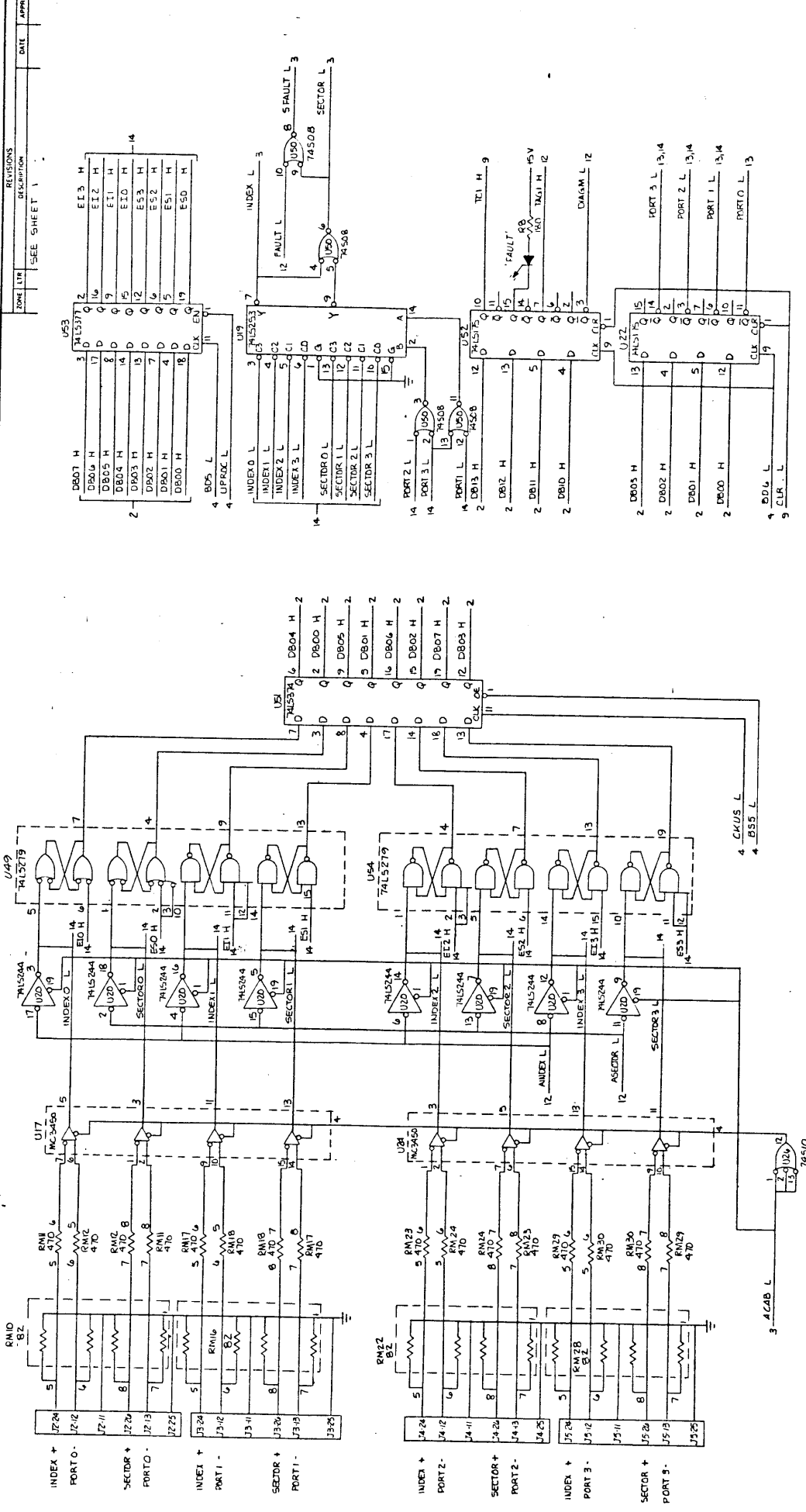
		EMULX CORPORATION IRVINE, CALIF.	
SCHMATIC DIAGRAM SUZIDISK CONTROLLER			
TITLE SUZIDISK CONTROLLER		DRAWING NO. SUZ110601	
CHECKED _____		SCALE NONE	
ENGINEER _____		PORT QUOTE NO. SUZ110601	
APPROVED _____		SHEET NO. 13 OF 14	

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MATERIAL		DRAWN _____	
FINISH		CHECKED _____	
APPLICATION		APPROVED _____	
TEST APP.		ENGINEER _____	
USER NO.		APPROVED _____	
DO NOT SCALE DRAWING		DATE 11/11/80	

CABLE RECEIVERS

WRITE DATA AND CLOCK TRANSMITTERS

-5 VOLT SUPPLY



CONTROL REGISTER

REVISIONS		DATE	APPROVED
ZONE	LTR	DESCRIPTION	DATE
SEE SHEET 1			

THIS DRAWING CONFORMS TO THE FOLLOWING SPECIFICATIONS:	
APPROVED FOR FABRICATION	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
ENGINEER	DATE
APPROVED	DATE
APPROVED	DATE
DO NOT SCALE DRAWING	

MULTIPLE SHEETS OF THIS DRAWING	
NUMBER OF SHEETS	TOTAL NUMBER OF SHEETS
FRACTIONS OF SHEETS	FRACTIONS OF SHEETS
SCALE	SCALE
MATERIAL	
FINISH	
DATE	
APPICATION	

EMULEX CORPORATION IRVINE, CALIF.	
TITLE	SCHEMATIC DIAGRAM
SIZE	502110601
REV	H
SCALE	NONE
FORM ORDER NO.	502110601
SHEET 14 OF 14	