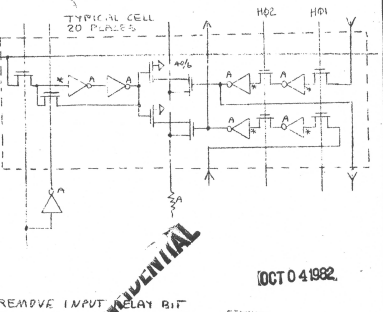
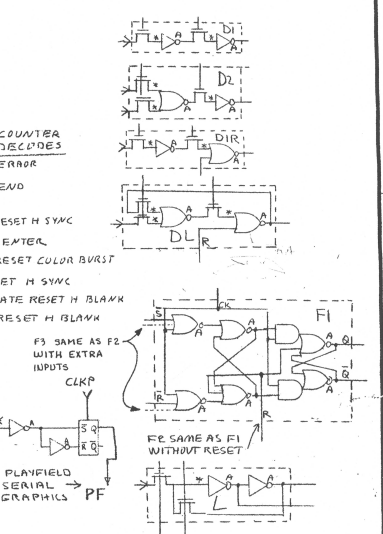


REVISIONS			INITIALS and DATE		
SYM	DESCRIPTION		DATE	CHECK	ENGR
A	FIRST UPDATE		3D 17/84	3M	D/84
B	FIRST CHECK PLOT		3D 10/84		



NOTE 1: REMOVE INPUT LAY BIT FROM FIRST CELL OF BOTH SHIFT REGISTER INPUTS

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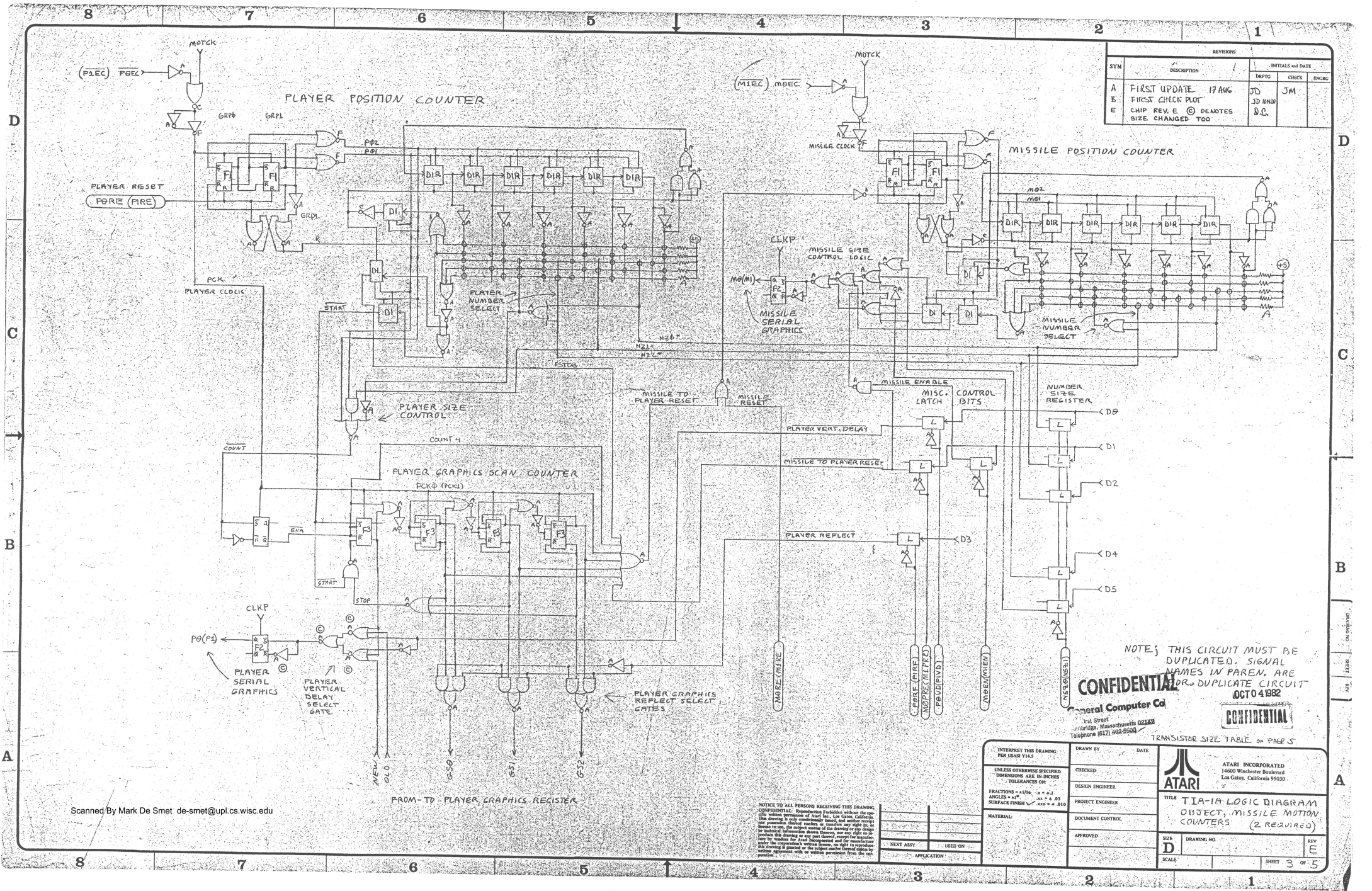
OCT 04 1982

General Computer Co
 215 First Street
 Carlsbad, California 92008
 Telephone (617) 492-9500

INTERPRET THIS DRAWING PER USAS Y145		DRAWN BY		DATE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:		CHECKED			
FRACTIONS = 1/16		DESIGN ENGINEER			
ANGLES = 1/8"		PROJECT ENGINEER			
SURFACE FINISH = 1/32" ± .010		INSTRUMENT CONTROL			
MATERIAL		APPROVED			
NEXT ASSY		USED ON			
APPLICATION		SCALE			
		DRAWING NO.		REV	
		D		E	
		SCALE		SHEET / OF 5	

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REVISIONS		INITIALS AND DATE		
SYM	DESCRIPTION	DRFTG	CHECK	ENGRG
A	FIRST UPDATE 17 AUG	JD	JM	
B	FIRST CHECK PLOT	JD	JD	
E	CHIP REV. E @ DENOTES SIZE CHANGED TOO	D.C.		



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 NOTE: THIS CIRCUIT MUST BE DUPLICATED. SIGNAL NAMES IN PAREN. ARE TO DUPLICATE CIRCUIT OCT 04 1982

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 1st Street
 San Jose, California 95128
 Telephone (415) 492-5500

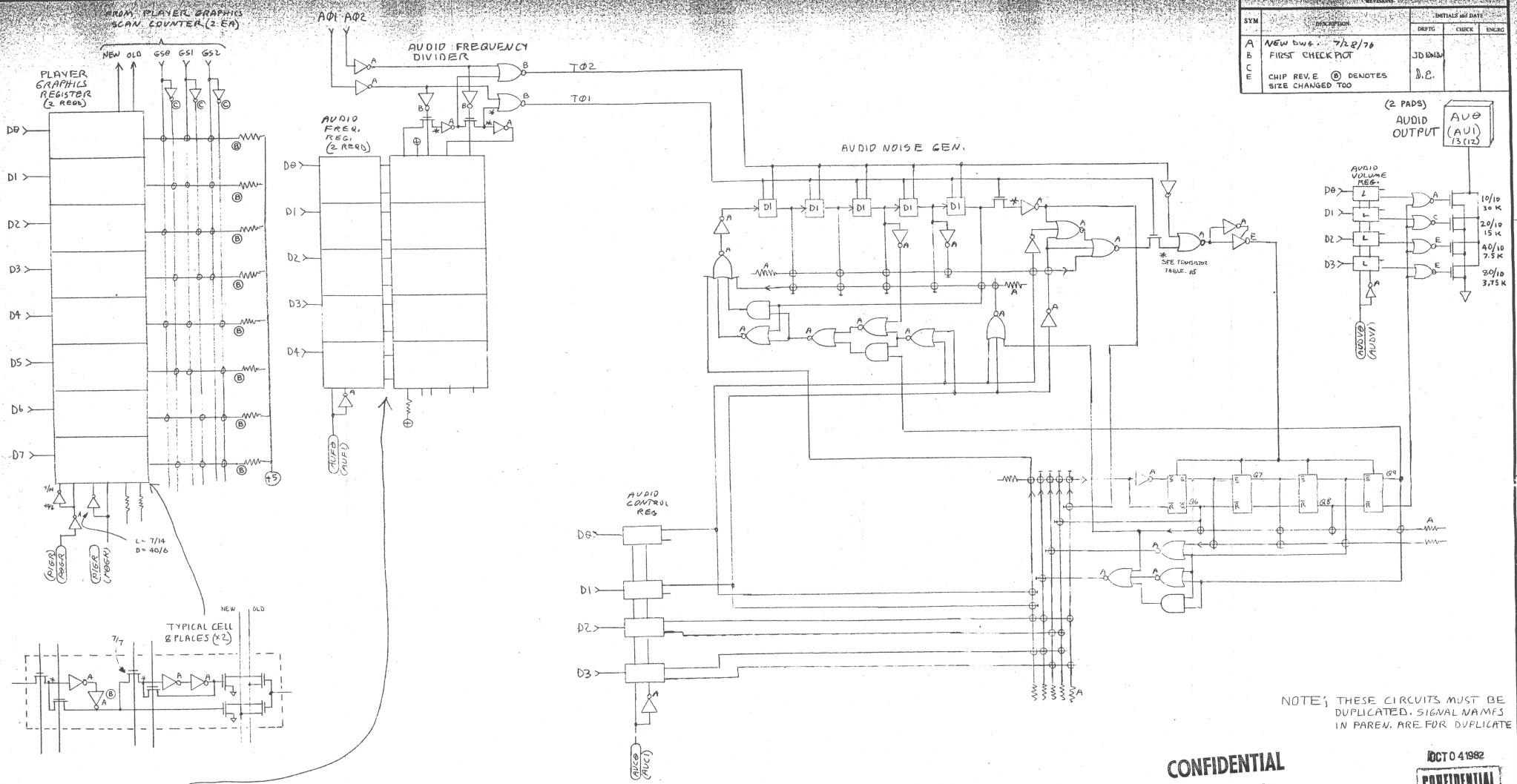
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INTERPRET THIS DRAWING PER ISAS 7145	DRAWN BY	DATE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:	CHECKED	
FRACTIONS = 1/16 - .001	DESIGN ENGINEER	
ANGLES = 1/2 - .01	PROJECT ENGINEER	
SURFACE FINISH = .001 - .010	DOCUMENT CONTROL	
MATERIAL	APPROVED	
NEXT ASSY	USED ON	
APPLICATION		

ATARI INCORPORATED 14600 Winchester Boulevard Los Gatos, California 95030	
TITLE	TIA-1A LOGIC DIAGRAM OBJECT, MISSILE MOTION COUNTERS (2 REQUIRED)
SIZE	D
DRAWING NO.	
REV	E
SHEET	3 OF 5

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REVISIONS			INITIALS AND DATE		
SYM	DESCRIPTION	DEPT	CHECK	ENGR	
A	NEW b/w. 7/28/76				
B	FIRST CHECK PLOT	JDM			
C	CHIP REV. E (C) DENOTES SIZE CHANGED TOO	D.E.			



NOTE: THESE CIRCUITS MUST BE DUPLICATED. SIGNAL NAMES IN PAREN. ARE FOR DUPLICATE

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OCT 4 1982
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215 First Street
Cambridge, Massachusetts 02142

INTERPRET PER USASI Y14.5
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:
FRACTIONS - ±0.10
ANGLES - ±1°
SURFACE FINISH - SEE FIG. 010

DESIGNED BY: _____ DATE: _____
CHECKED: _____
DESIGN ENGINEER: _____
PROJECT ENGINEER: _____
MATERIAL: _____
DOCUMENT CONTROL: _____
APPROVED: _____

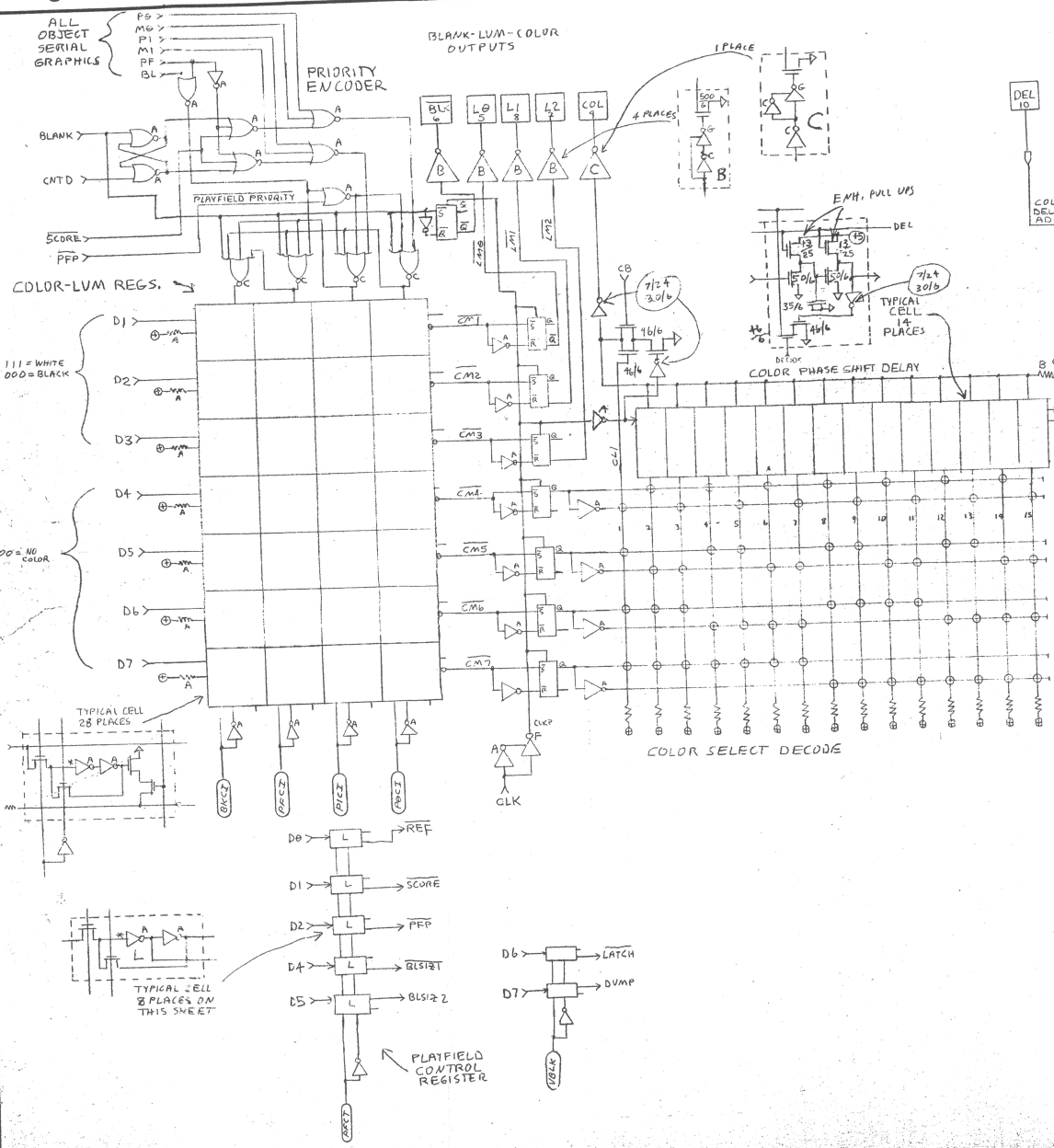
ATARI INCORPORATED
14600 Winchester Boulevard
Los Gatos, California 95030

TITLE: TIA-1A LOGIC DIAGRAM
AUDIO CIRCUITS (2 REQS.)

SIZE: _____ DRAWING NO: _____ REV: _____
SCALE: _____ SHEET 4 OF 5

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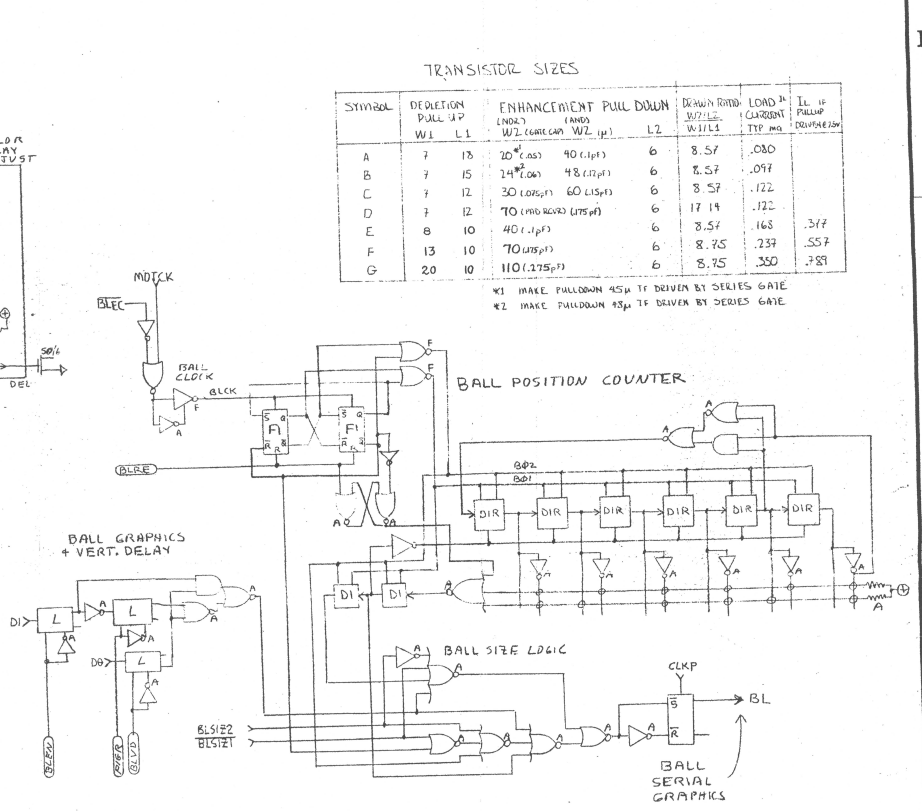
REVISIONS			INITIALS AND DATE		
SYM	DESCRIPTION		DRAFT	CHECK	ENGR.
A	FIRST UPDATE		JD	FRANK	FRANK
B	FIRST CHECK PLOT		JD	FRANK	FRANK



TRANSISTOR SIZES

SYMBOL	DELETION PULL UP W1	ENHANCEMENT PULL DOWN (ANDS) W2	ENHANCEMENT PULL DOWN (ORs) W3	DRAIN FETD W4	LOAD CAPACITANCE TYP. max	LL IF SETUP COMPARE
A	7	13	20 (.05)	40 (.1pf)	6	8.57 .030
B	7	15	14 (.06)	48 (.17pf)	6	8.57 .017
C	7	12	30 (.105pf)	60 (.15pf)	6	8.57 .122
D	7	12	70 (.235pf)	175 pf	6	17.14 .122
E	8	10	40 (.1pf)		6	8.57 .168
F	13	10	70 (.235pf)		6	8.75 .237
G	20	10	110 (.375pf)		6	8.75 .350

*1 MAKE PULLDOWN 45% IF DRIVEN BY SERIES GATE
 *2 MAKE PULLDOWN 45% IF DRIVEN BY SERIES GATE



Scanned By Mark De Smet de-smet@upl.cs.wisc.edu

CONFIDENTIAL
 General Computer Co.
 10000 E. 1st Street
 Denver, Colorado 80231

OCTO 4 1982

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INTERPRET THIS DRAWING PER USAS 114-5

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:

FRACTIONS = ±1/16 .3" - 1.3" = ±.015
 ANGLES = ±1° .3" - 1.3" = ±.015
 SURFACE FINISH = .125" = ±.010

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CHECKED	DATE	ATARI INCORPORATED
J. MINER	7/22/76	14600 Winchester Boulevard
DESIGN ENGINEER		Los Gatos, California 95030
PROJECT ENGINEER		
DOCUMENT CONTROL		
APPROVED	DATE	TITLE
		TIA-1A LOGIC DIAG.
		COLOR-LUM-PRIORITY CIRCUITS
		BALL MOTION COUNTER
SIZE	DRAWING NO.	REV.
D		B
		5