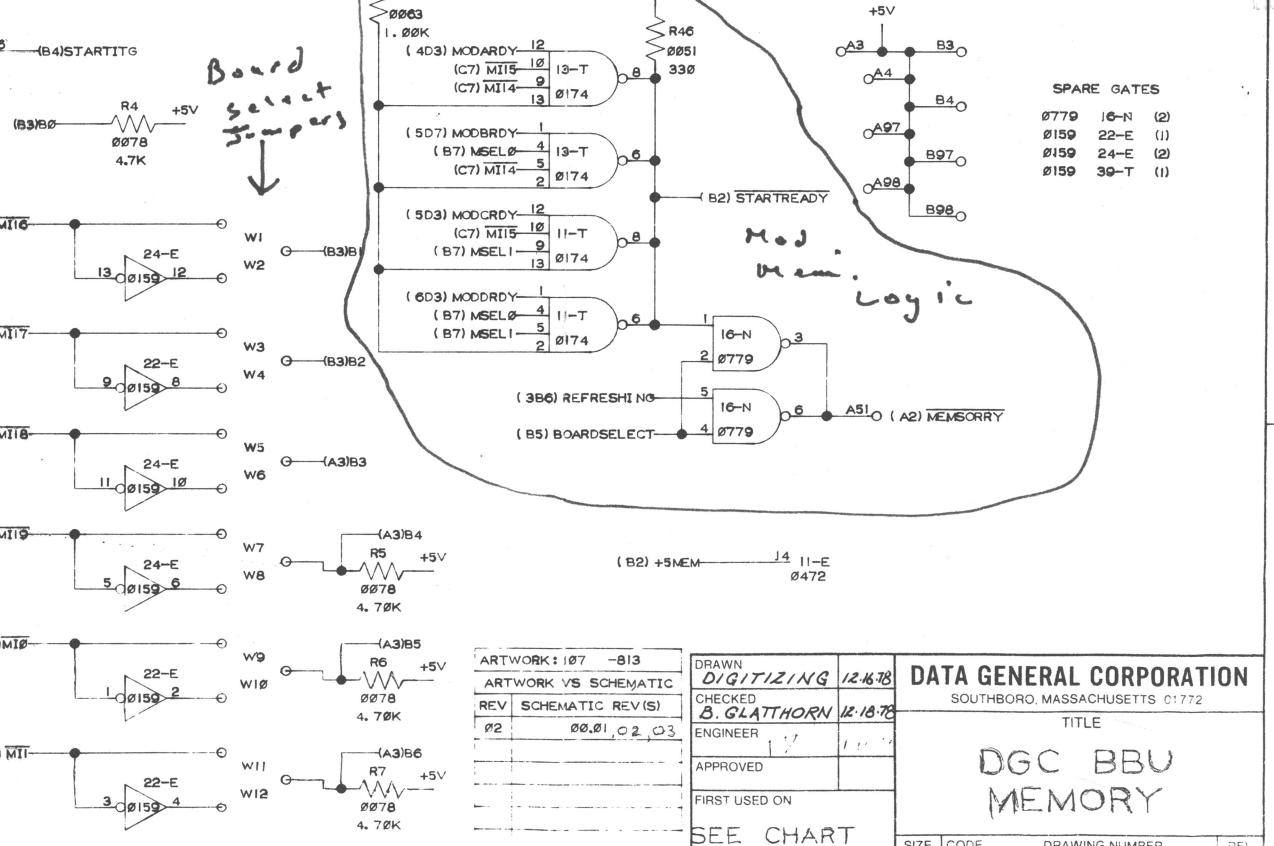
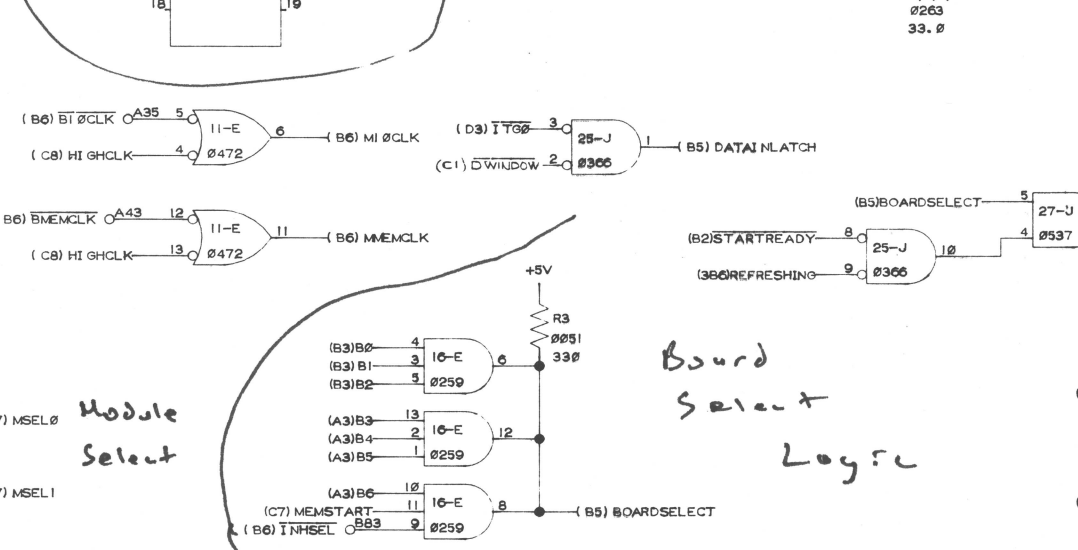
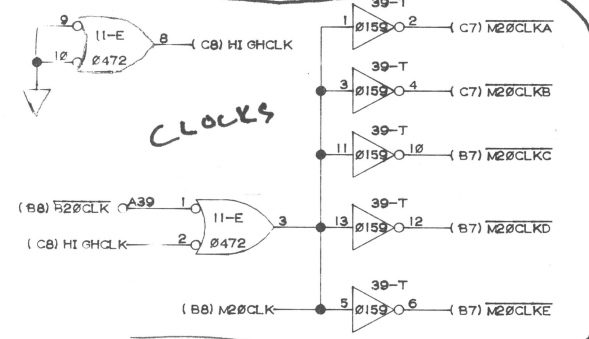
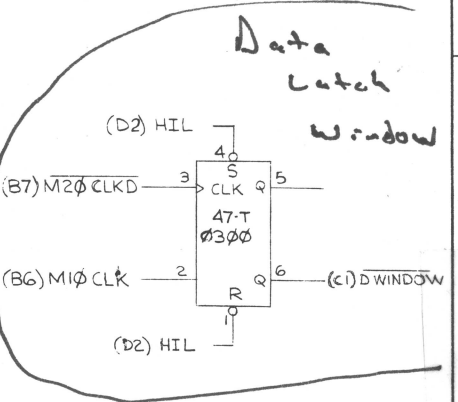
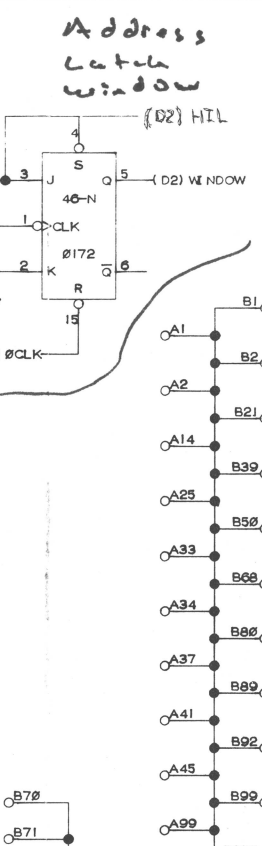
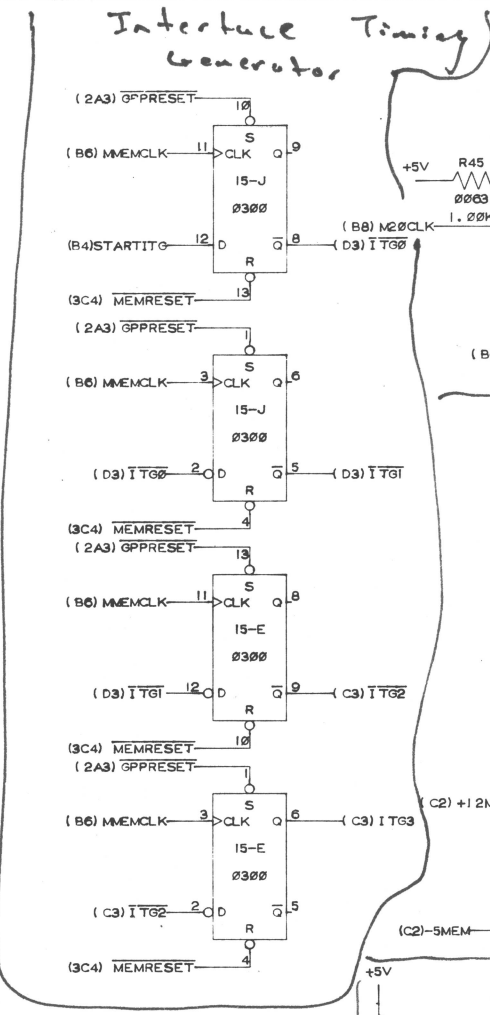
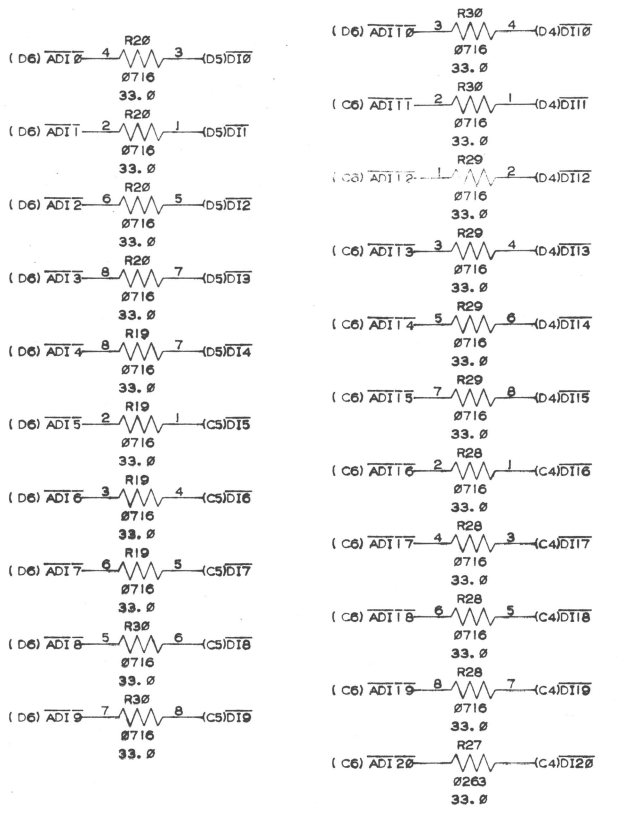
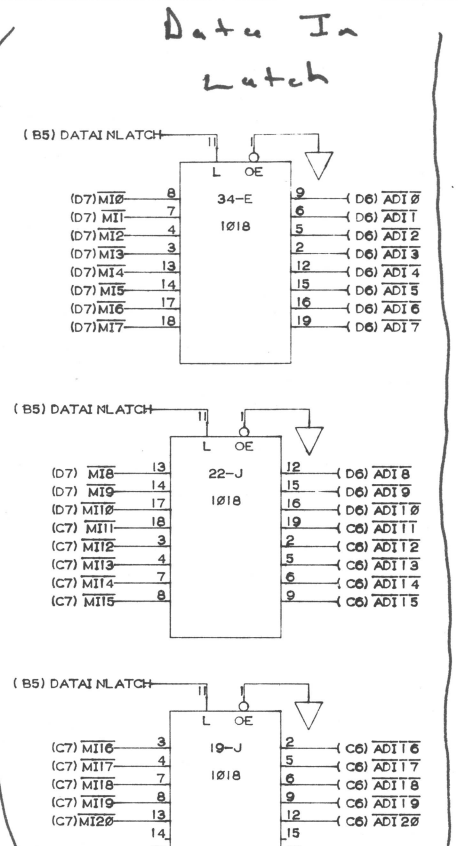
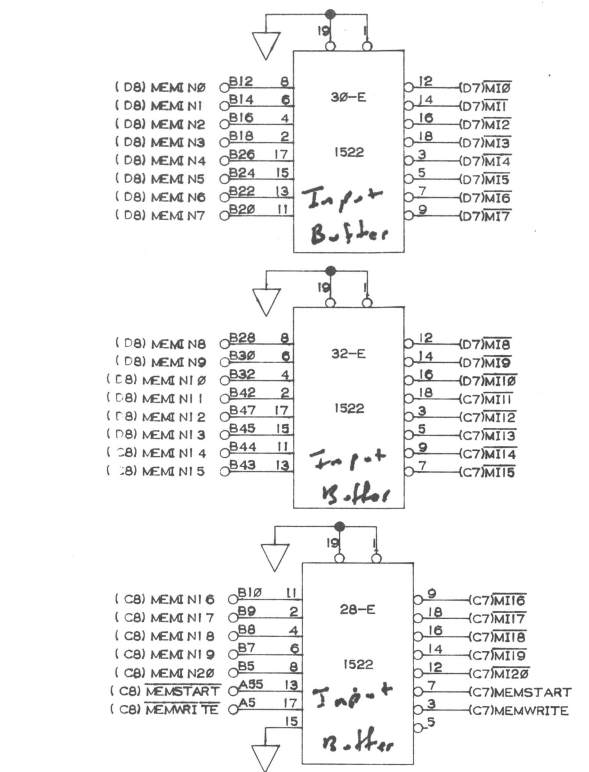


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REVISIONS			
REV	DESCRIPTION	DRFTG	APPBY DATE
00	RLSC PER ECO E547		
01	PER ECO E568A	WLS	12/8/78
02	PER ECO F877A		
03	PER ECO F880A		



ASSEMBLY #	TESTED-005012128 UNTESTED-005012129 (16K X 16 BIT)	TESTED-005012130 UNTESTED-005012131 (6K ECC)	TESTED-005012132 UNTESTED-005012133 (32K X 16 BIT)	TESTED-005012134 UNTESTED-005012135 (32K ECC)	TESTED-005012136 UNTESTED-005012137 (64K X 16 BIT)	TESTED-005012138 UNTESTED-005012139 (64K ECC)	TESTED-005012140 UNTESTED-005012141 (128K X 16 BIT)	TESTED-005012142 UNTESTED-005012143 (128K ECC)
INSTALL THESE DUMMY RESISTORS ONLY	R10, R12, R43	R1, R10, R12, R43	R10, R12, R18, R43	R1, R10, R12, R18, R43	R9, R11, R15, R41	R1, R9, R11, R15, R41	R9, R11, R15, R16, R41	R1, R9, R11, R15, R16, R41
DO NOT INSTALL	R28, 8-E, 2-J, 3-J, 19-J, 2-O, 3-O, 5-T, 7-T		R28, 8-E, 2-J, 3-J, 19-J, 2-O, 3-O, 5-T, 7-T		R28, 8-E, 2-J, 3-J, 19-J, 2-O, 3-O, 5-T, 7-T		R28, 8-E, 2-J, 3-J, 19-J, 2-O, 3-O, 5-T, 7-T	
DO NOT INSTALL ALL COMPONENTS ON PAGES	9,11,13,15	9,11,13,15			9,11,13,15	9,11,13,15		
DO NOT INSTALL THE COMPONENTS ENCLOSED IN SOLID LINES ON PAGES	8,10,12,14		8,9,10,11,12,13,14,15		8,10,12,14		8,9,10,11,12,13,14,15	
ALL RAMS HAVE PART NO.	100-1250	100-1250	100-1250	100-1250	100-1100	100-1100	100-1100	100-1100

ARTWORK: 107 -813
 ARTWORK VS SCHEMATIC
 REV SCHEMATIC REV(S)
 02 00,01,02,03

DRAWN: DIGITIZING 12/8/78
 CHECKED: B. GLATHORN 12/18/78
 ENGINEER:
 APPROVED:
 FIRST USED ON:

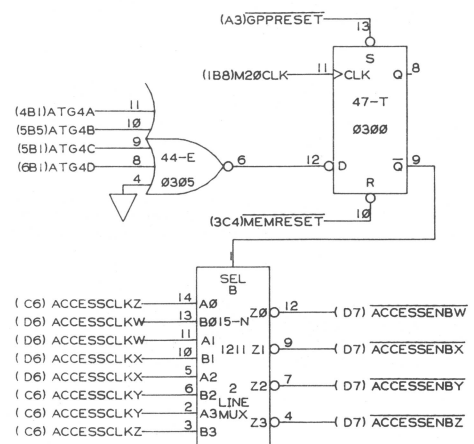
SEE CHART

DATA GENERAL CORPORATION
 SOUTHBORO, MASSACHUSETTS 01772
 TITLE: DGC BBU MEMORY
 SIZE: D CODE: 001001229 03
 DRAWING NUMBER: 03
 SHEET 1 OF 18

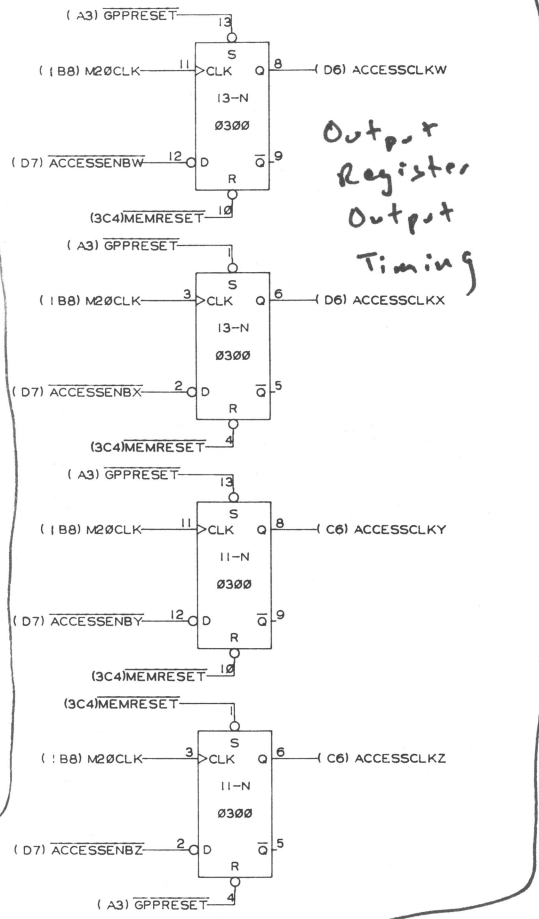
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REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DATE

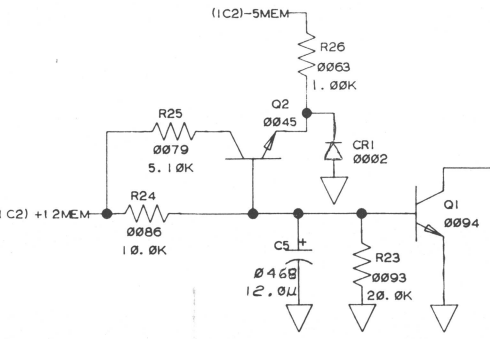
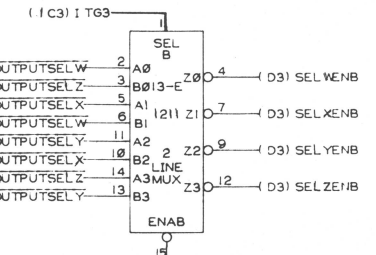
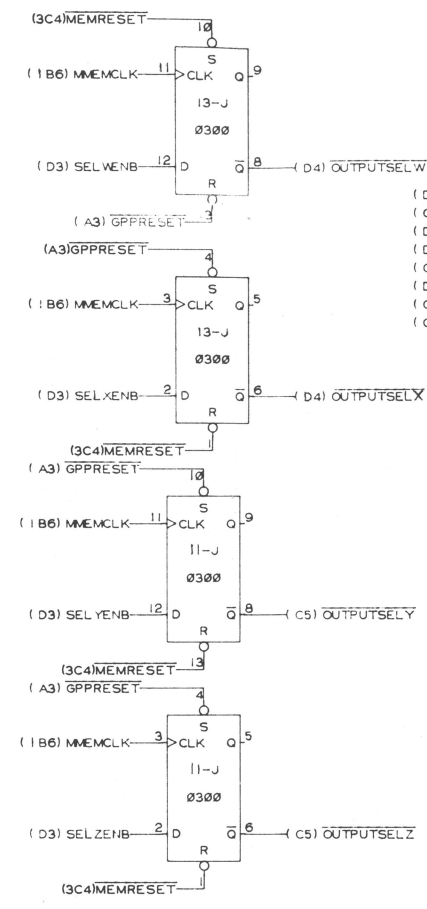
8 7 6 5 4 3 2



Output Register Access Timing
(For writing into register)

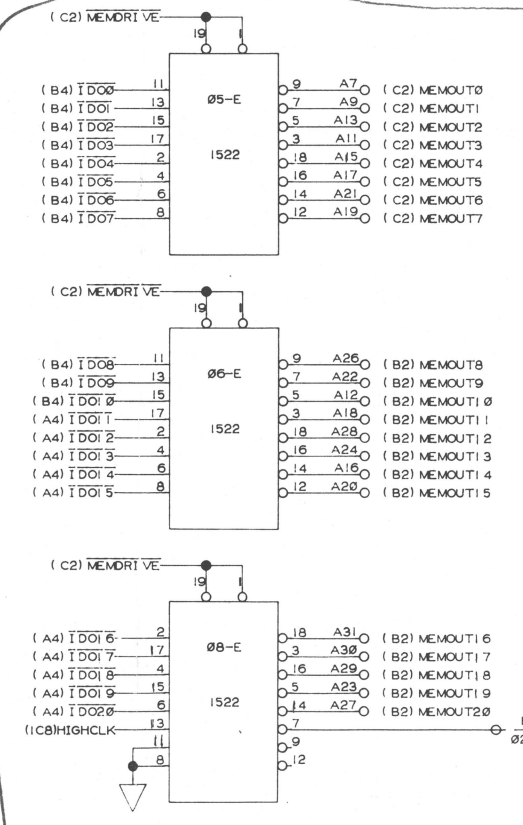
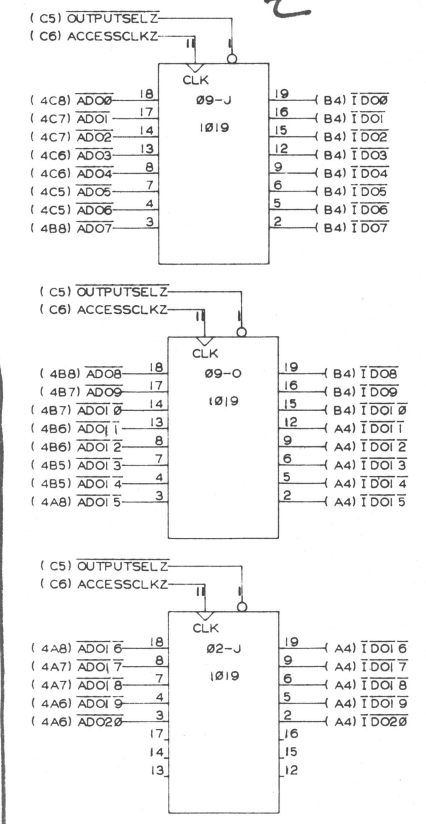
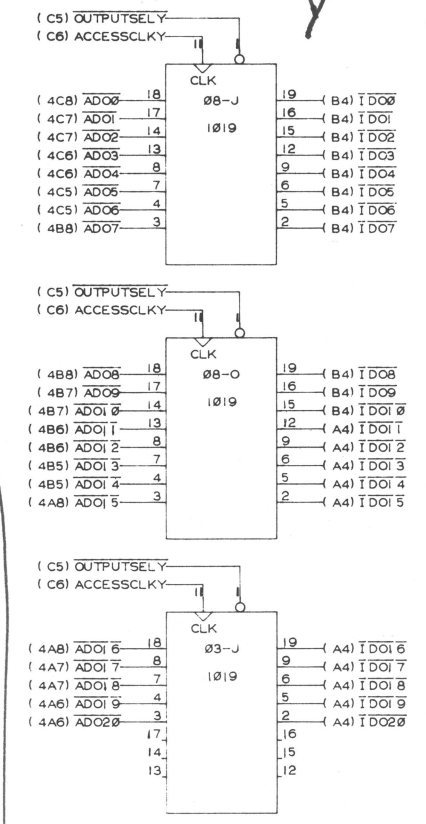
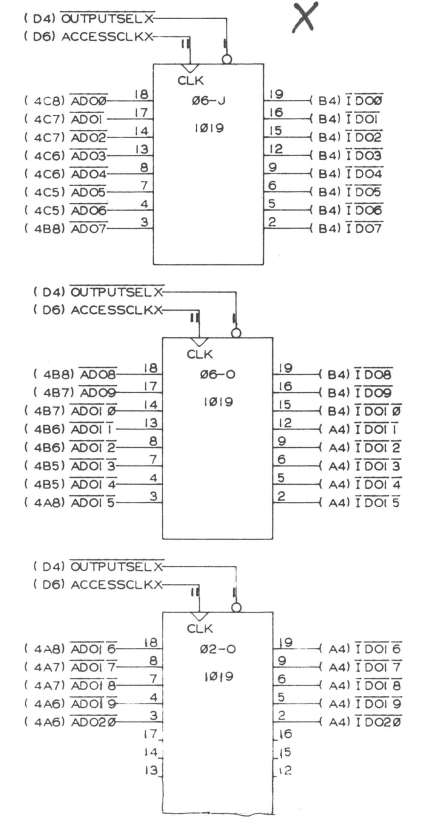
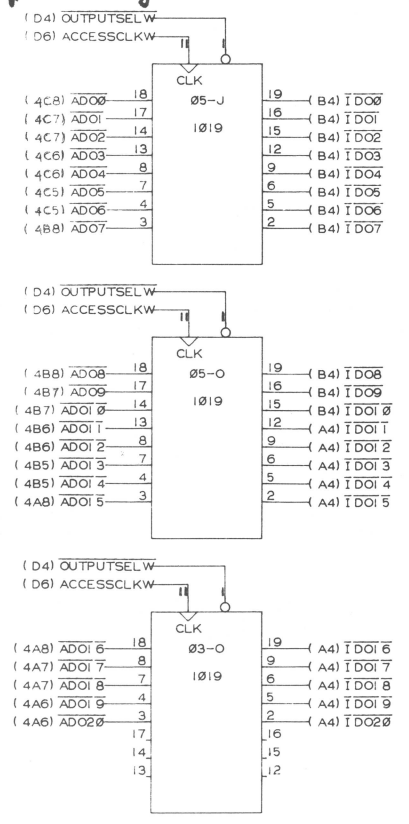


Output Register Output Timing



Monitors -5V (memory disconnector) If low, shuts Pow. Sup down

Output Reg. W



Memory Output Bus Drivers

DRAWN		DATA GENERAL CORPORATION SOUTHBORO MASSACHUSETTS 01772 TITLE DGC BBU MEMORY	
CHECKED			
ENGINEER			
APPROVED			
FIRST USED ON			
SIZE	CODE	DRAWING NUMBER	REV
D		001001229	03

B

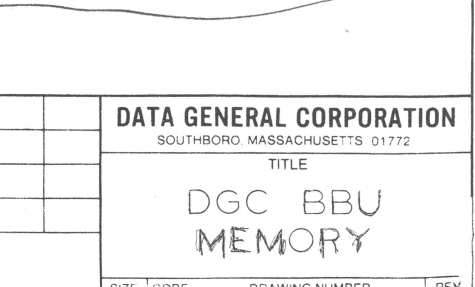
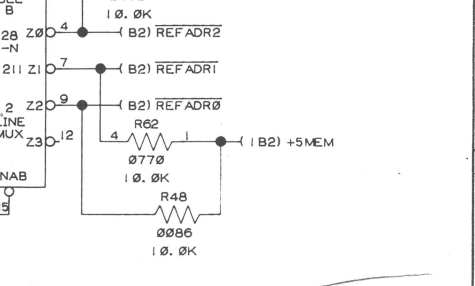
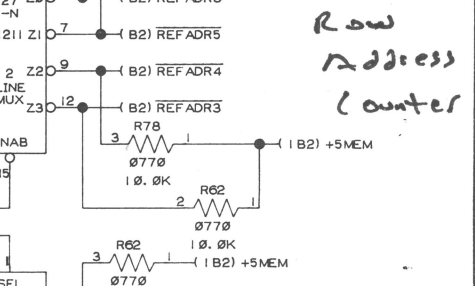
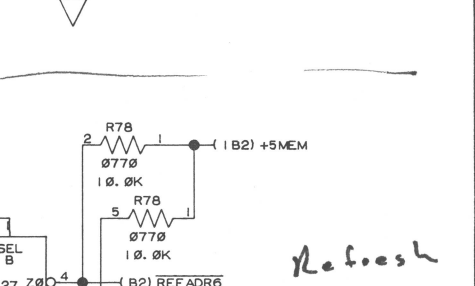
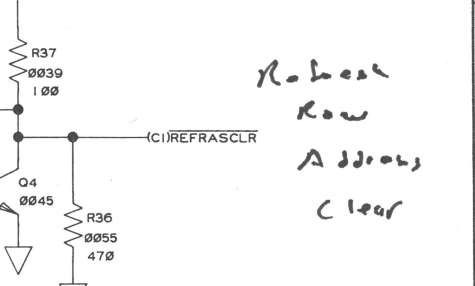
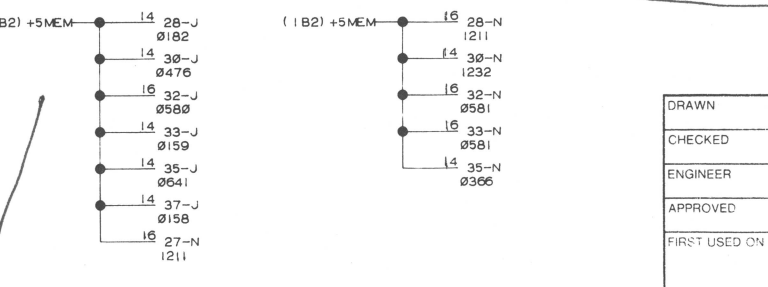
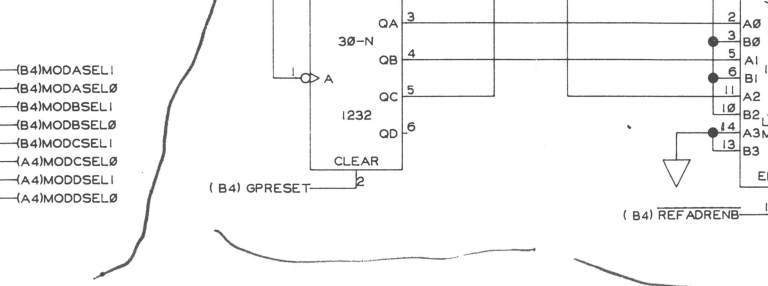
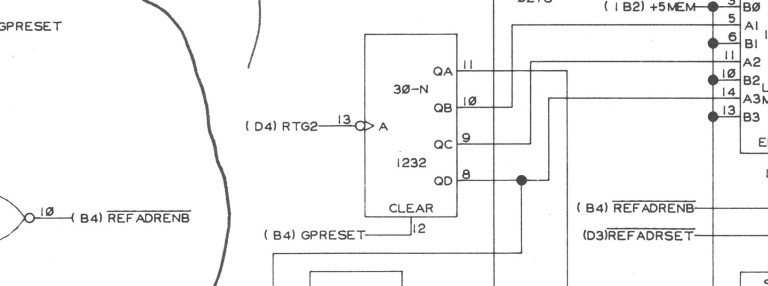
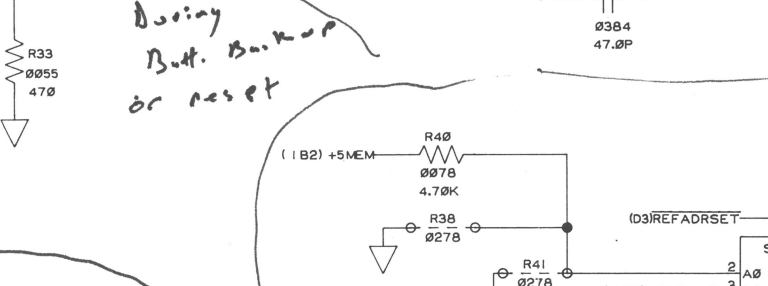
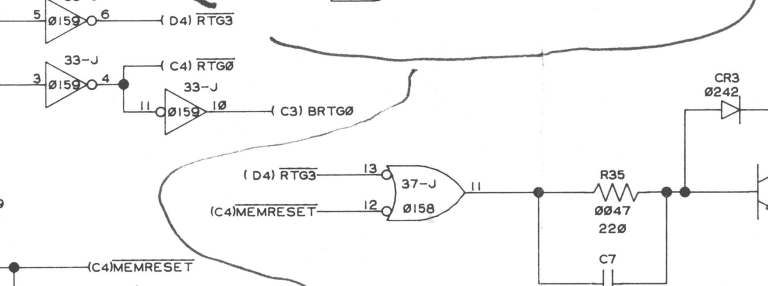
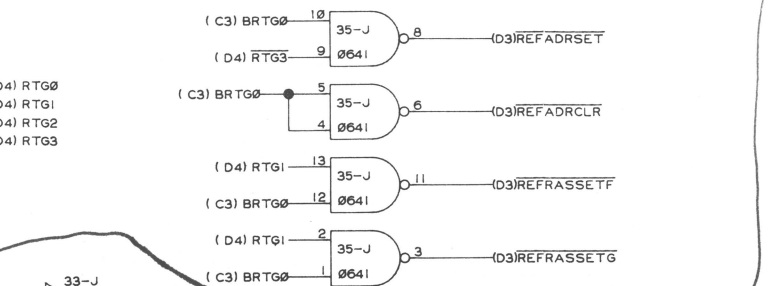
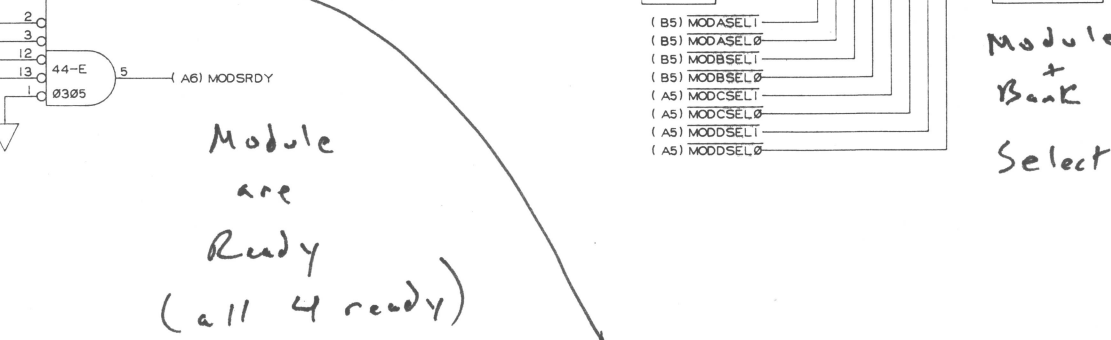
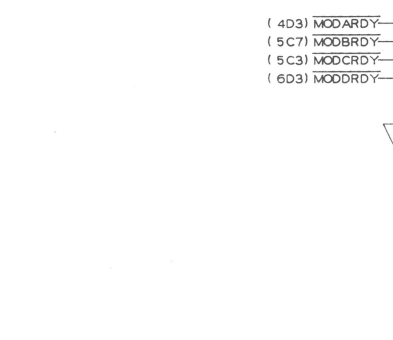
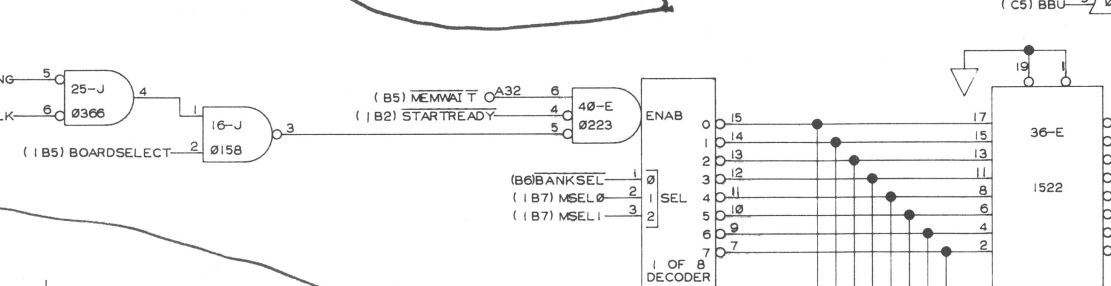
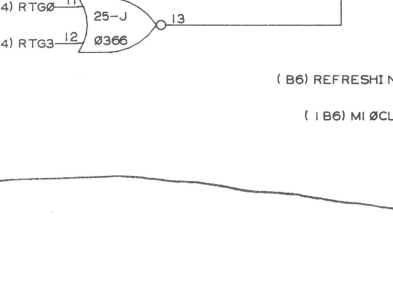
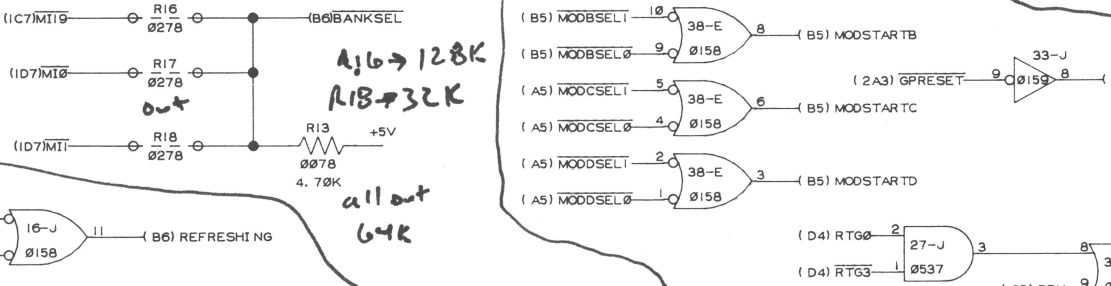
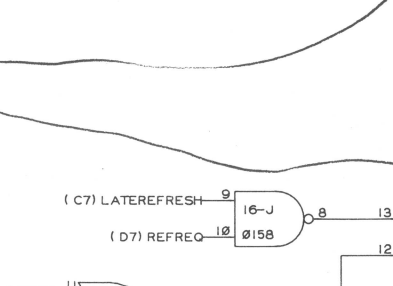
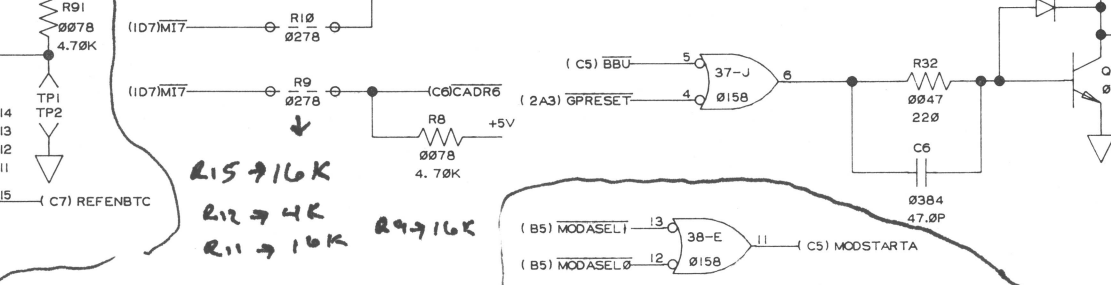
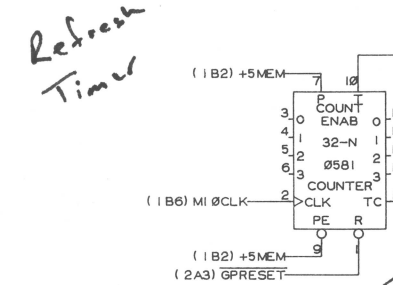
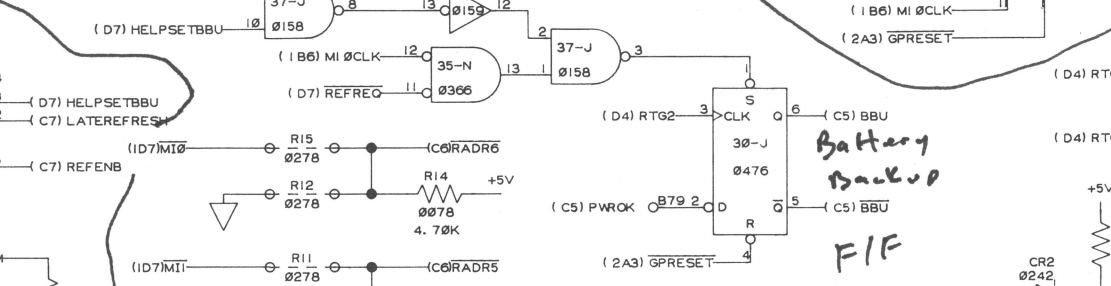
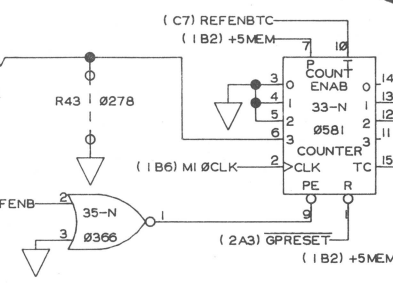
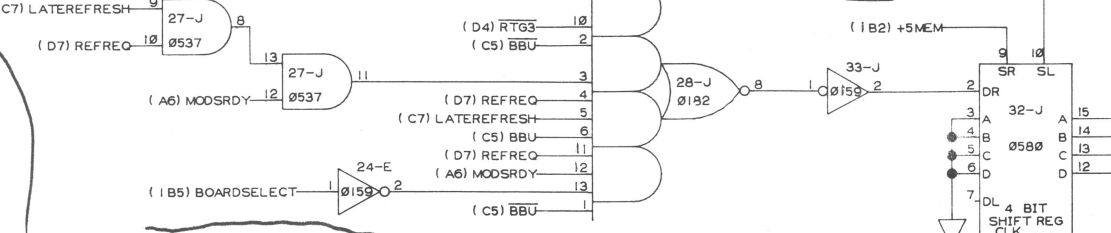
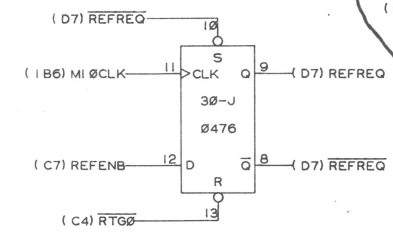
7 6 5 4 3 2 1 SHEET 2 of 8

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REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DA

Refresh Request FIF

Refresh Timing Generator



Module are Ready (all 4 ready)

Module + Bank Select

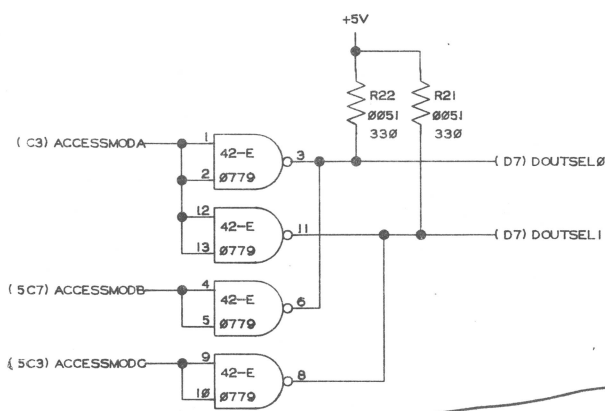
Refresh Row Address Counter

Refresh Row Address Counter

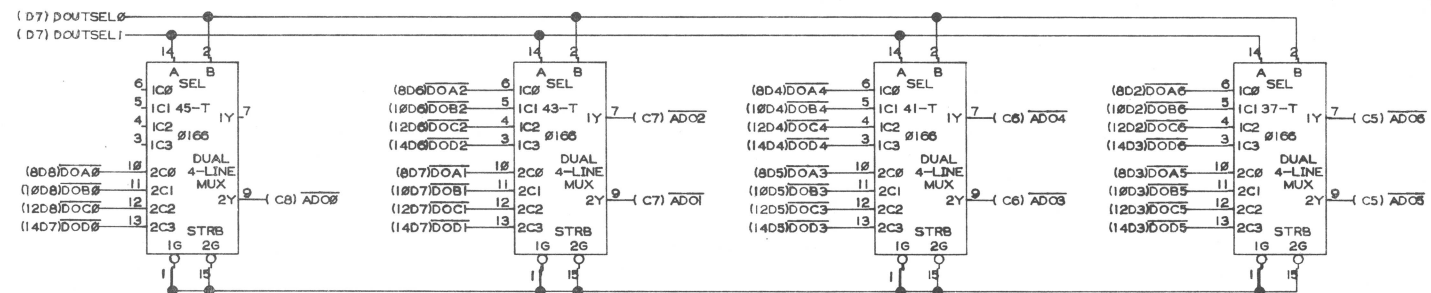
DRAWN		DATA GENERAL CORPORATION SOUTH BORO, MASSACHUSETTS 01772 TITLE DGC BBU MEMORY	
CHECKED			
ENGINEER			
APPROVED			
FIRST USED ON			
SIZE	CODE	DRAWING NUMBER	REV
D		001001229	03

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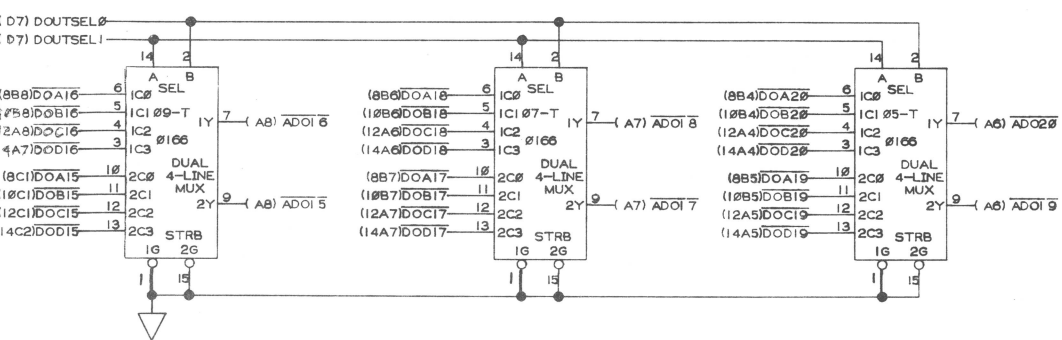
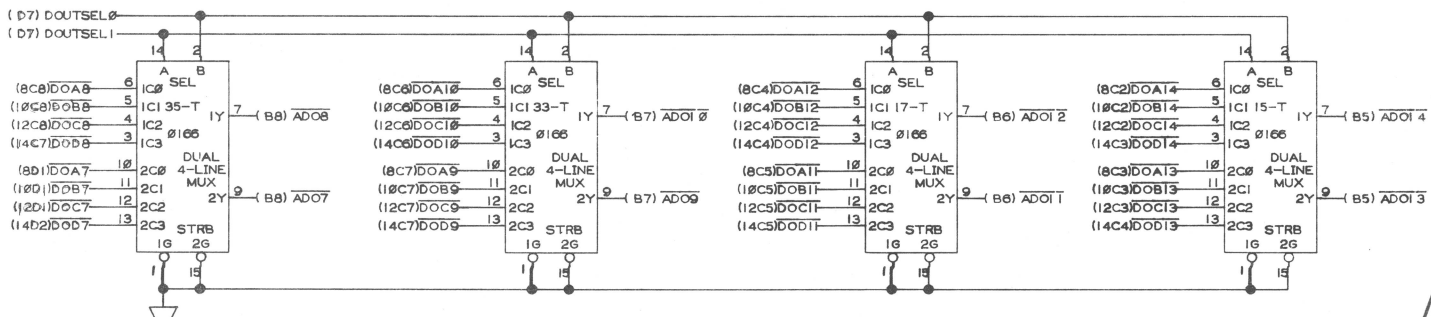
REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DATE



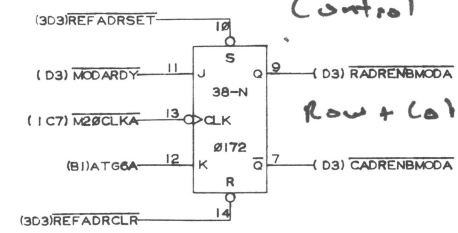
4 to 1 output Mux Control



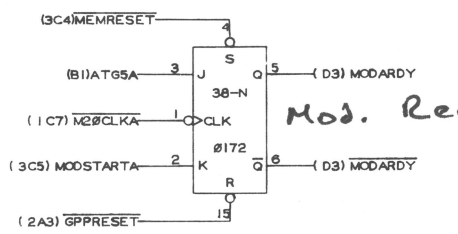
4 to 1 Output Mux's



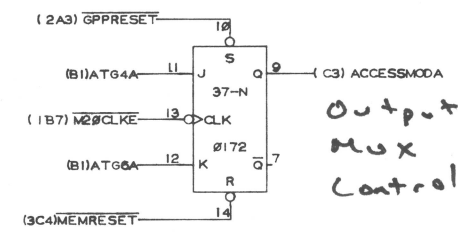
Module A Control & Timing



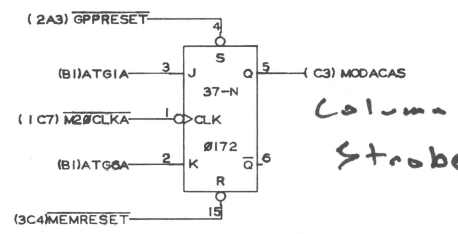
Row + Col. add enable



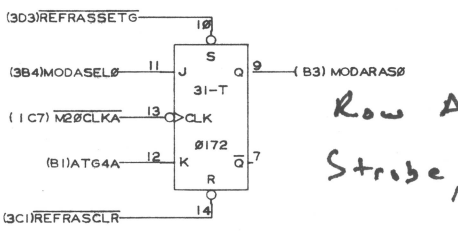
Mod. Ready



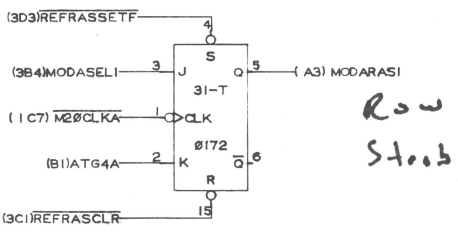
Output Mux Control



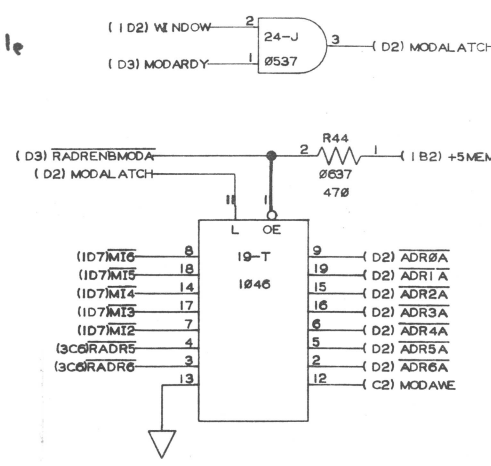
Column Address Strobe



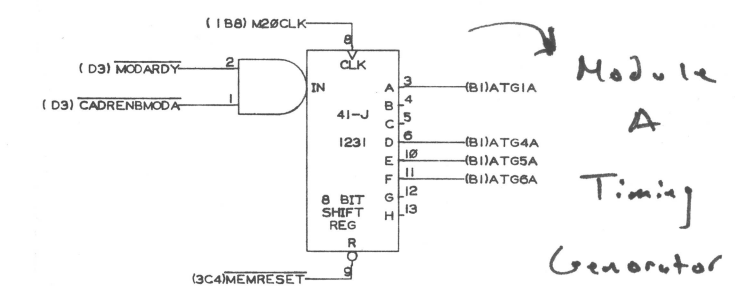
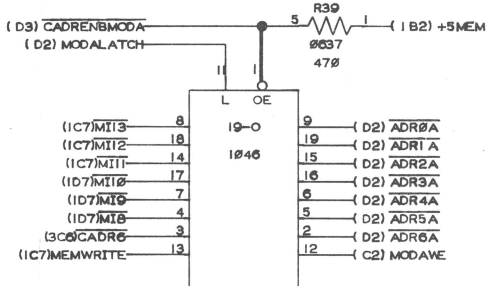
Row Add. Strobe, Bank 0



Row Add. Strobe, Bank 1



Row + Col Address Latch



Module A Timing Generator

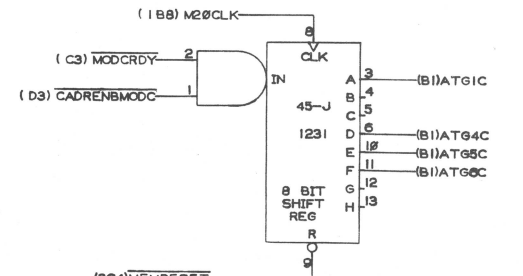
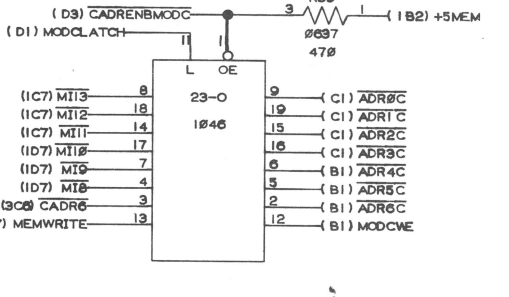
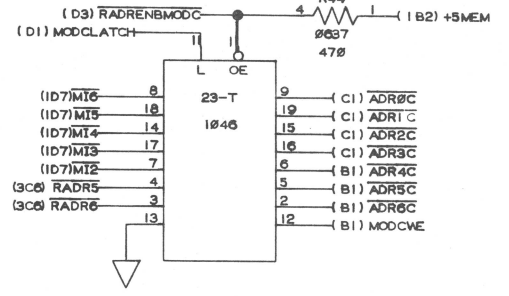
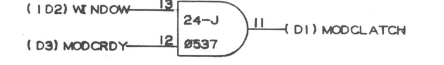
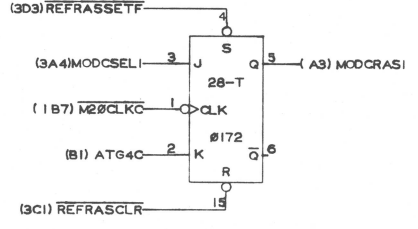
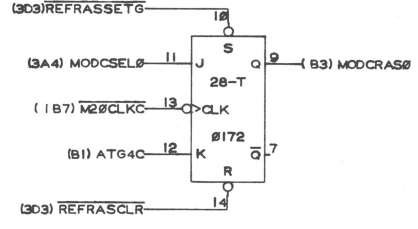
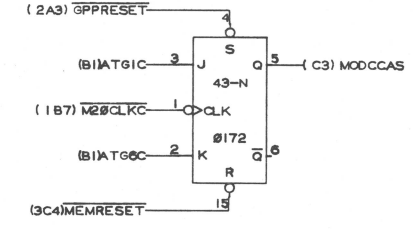
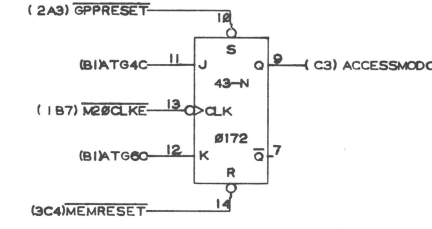
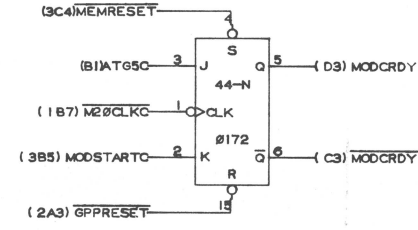
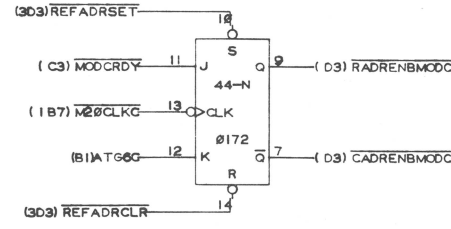
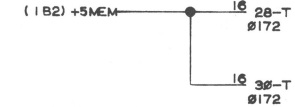
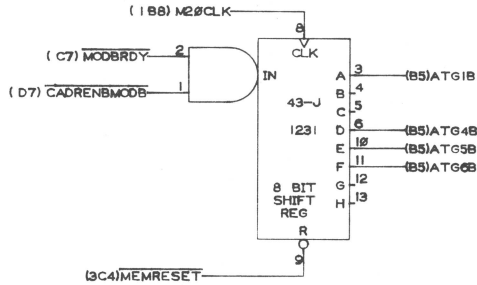
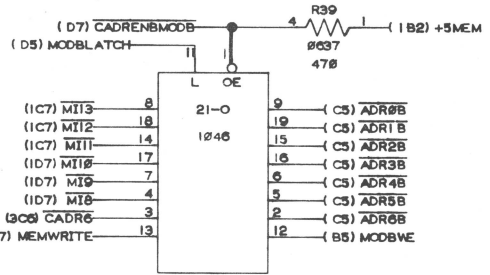
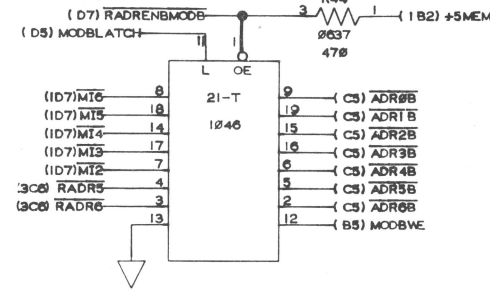
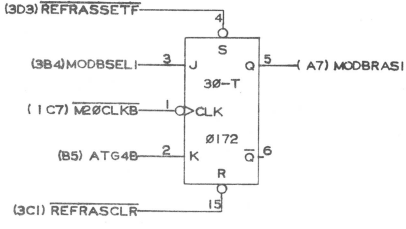
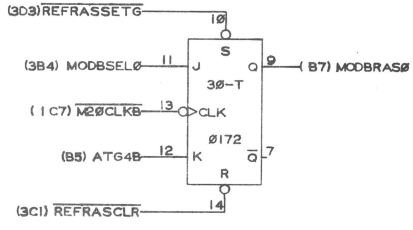
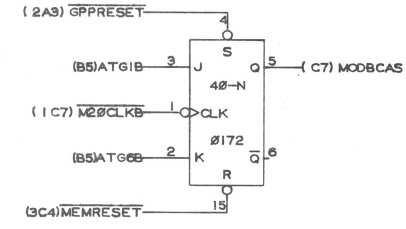
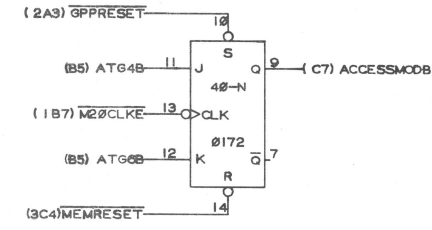
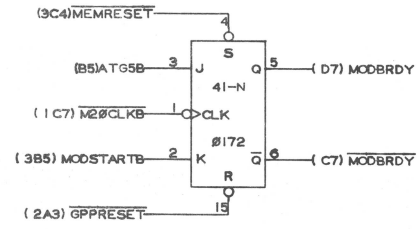
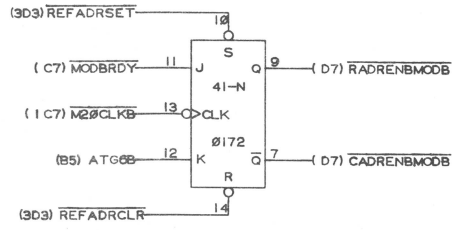
(1B2) +5MEM 16 31-T 0172

DRAWN		DATA GENERAL CORPORATION SOUTHBORO, MASSACHUSETTS 01772 TITLE DGC BBU MEMORY
CHECKED		
ENGINEER		
APPROVED		
FIRST USED ON		
SIZE	D	CODE 001001229 DRAWING NUMBER 03 REL 03

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SAME AS Previous Page
Except "B" Module

REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DATE



DRAWN		DATA GENERAL CORPORATION		
CHECKED		SOUTHBORO, MASSACHUSETTS 01772		
ENGINEER		TITLE		
APPROVED		DGC BBU MEMORY		
FIRST USED ON		DRAWING NUMBER		
		001001229	03	REV
		D	CODE	REV

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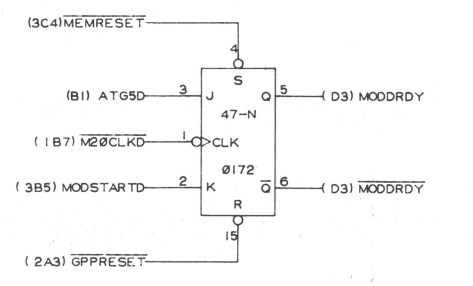
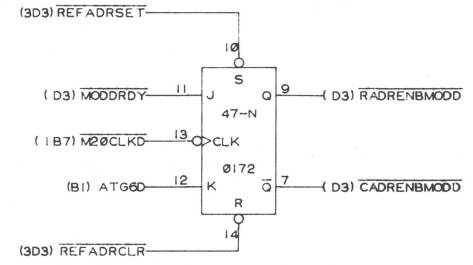
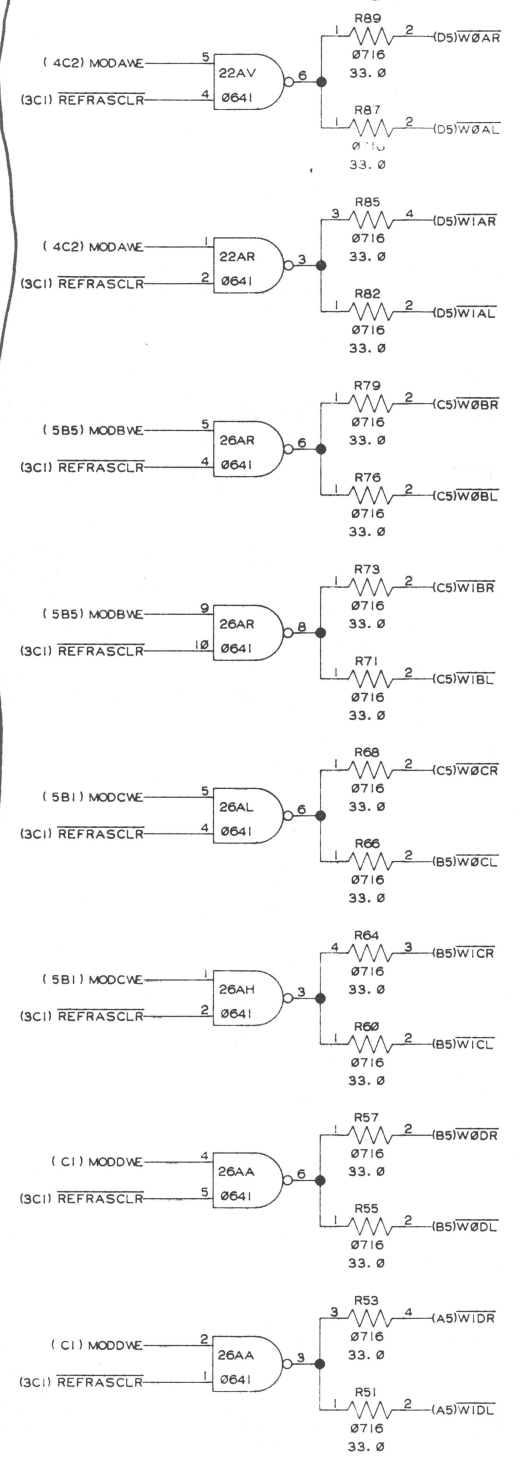
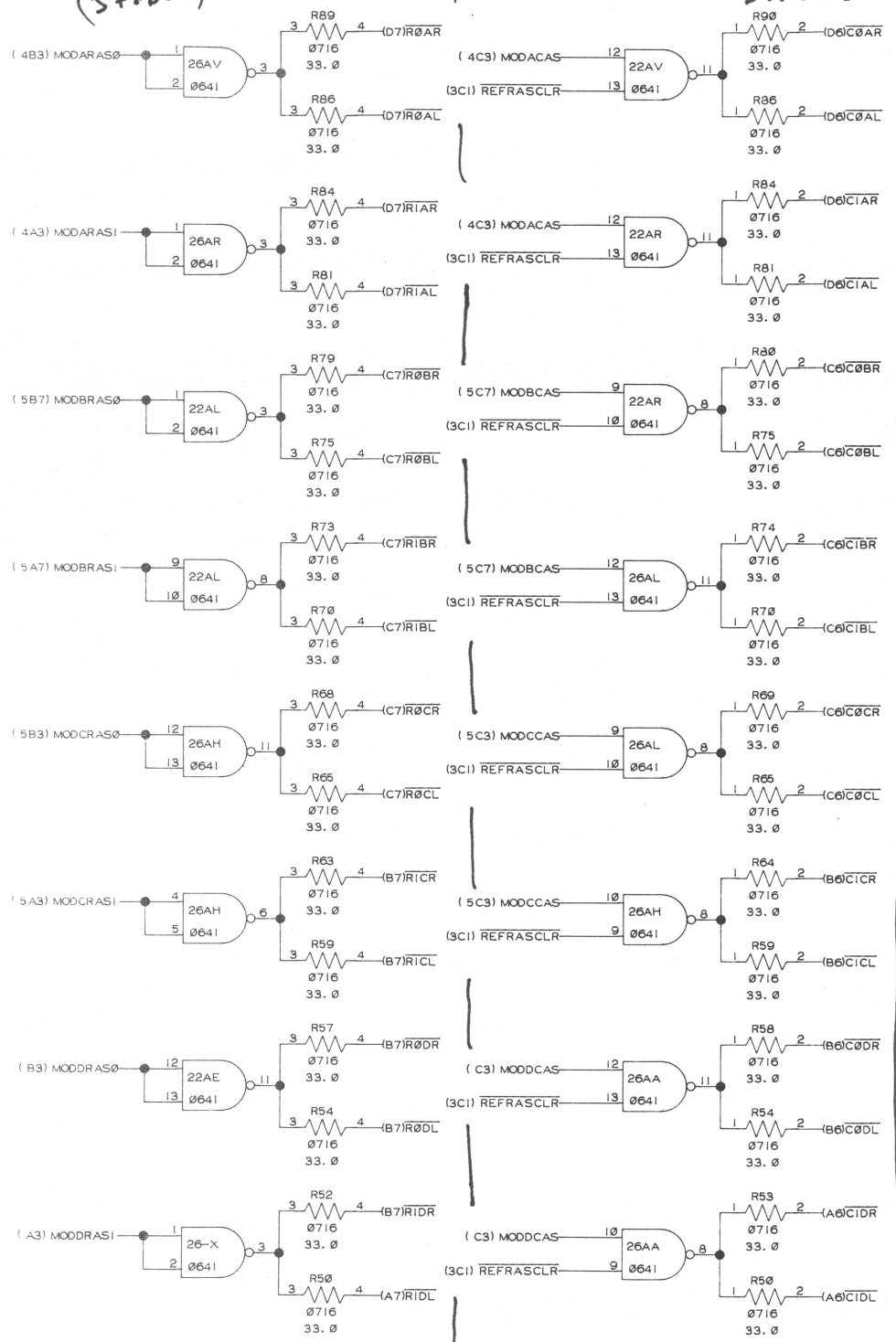
Mod. D Control + Timing

Write Enable

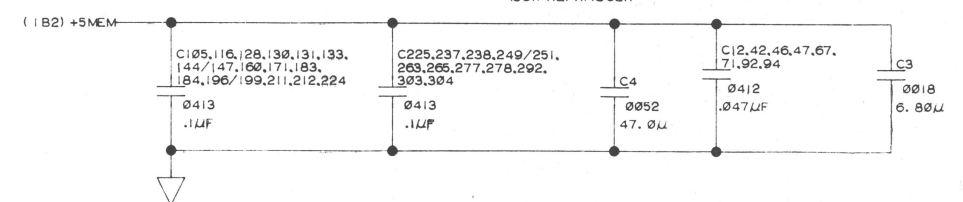
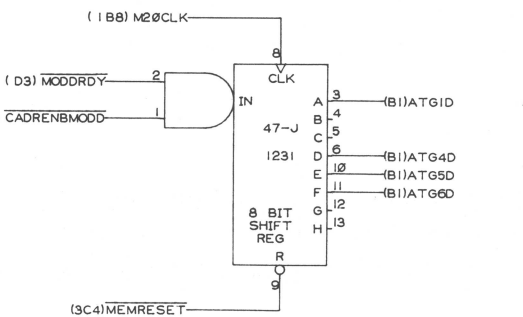
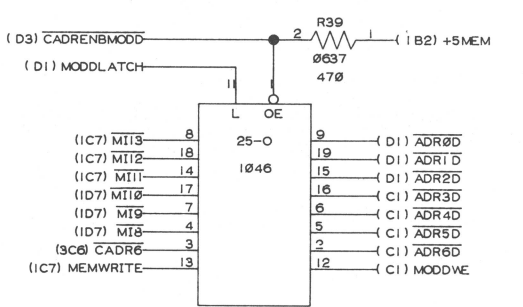
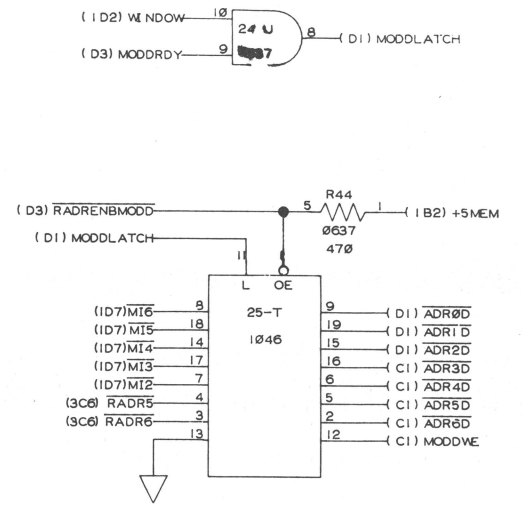
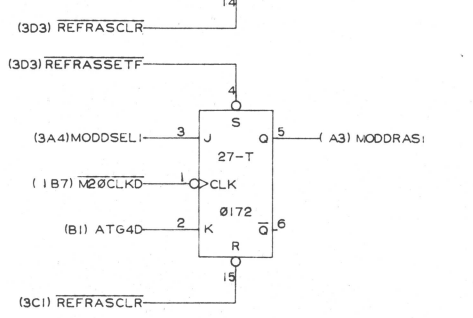
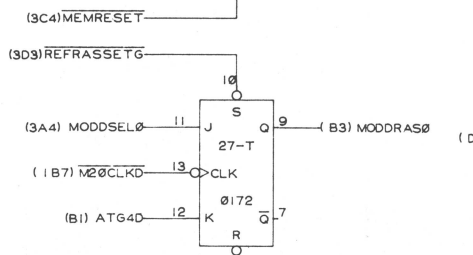
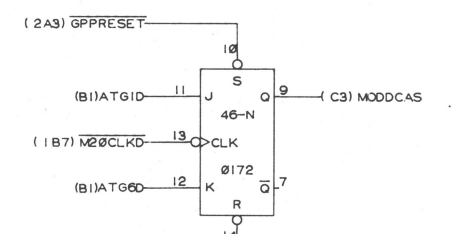
REVISIONS			
REV	DESCRIPTION	DRFTG	APP BY DATE

Row Address Drivers (Strobe)

Column Address Drivers



Mod. D Control + Timing



DRAWN		DATA GENERAL CORPORATION	
CHECKED		SOUTHBORO, MASSACHUSETTS 01772	
ENGINEER		TITLE	
APPROVED		DGC BBU MEMORY	
FIRST USED ON		SIZE	CODE
		D	00100122903
		DRAWING NUMBER	6.80μ
		REV	1

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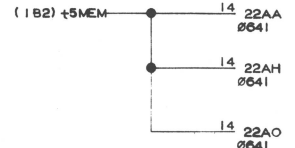
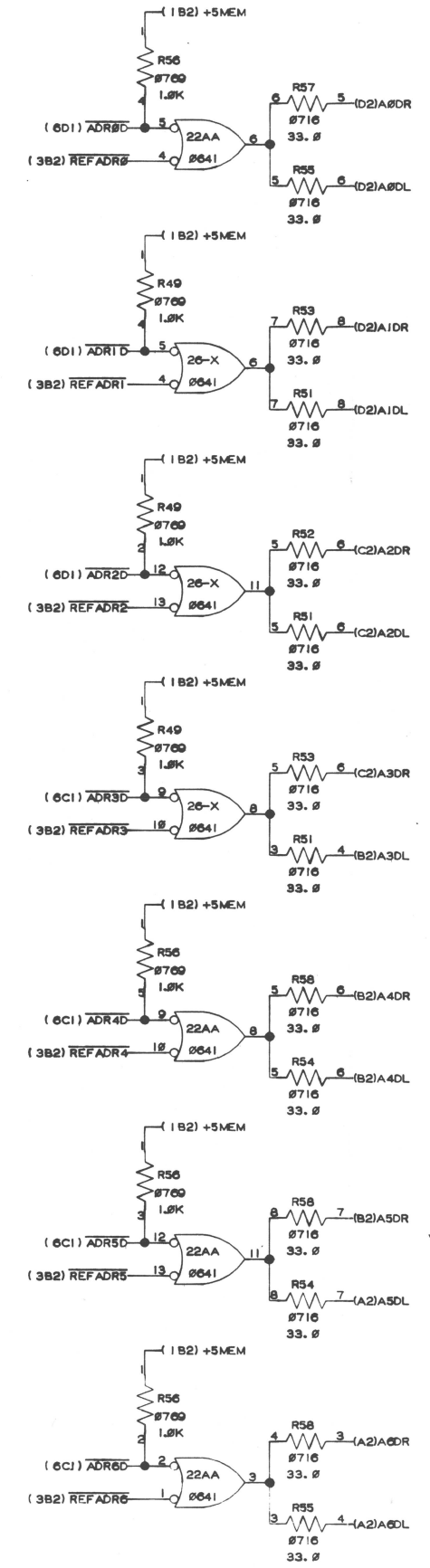
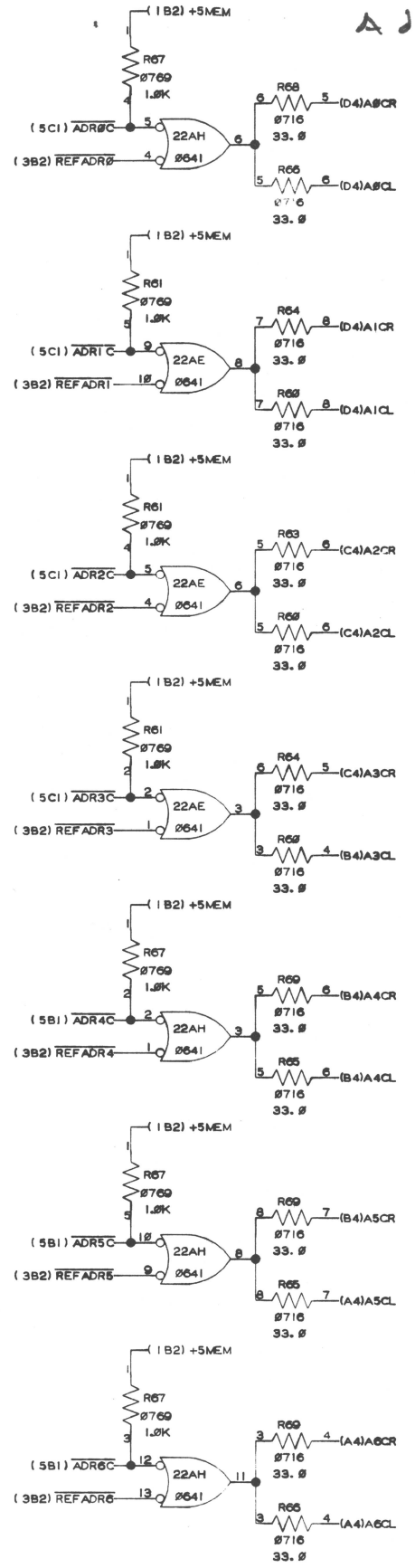
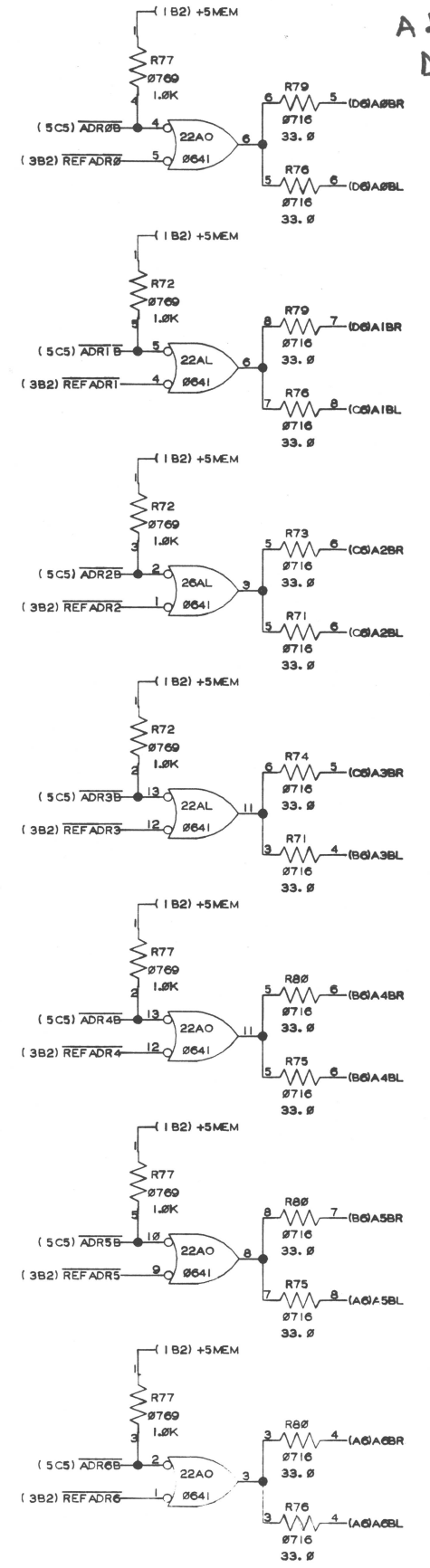
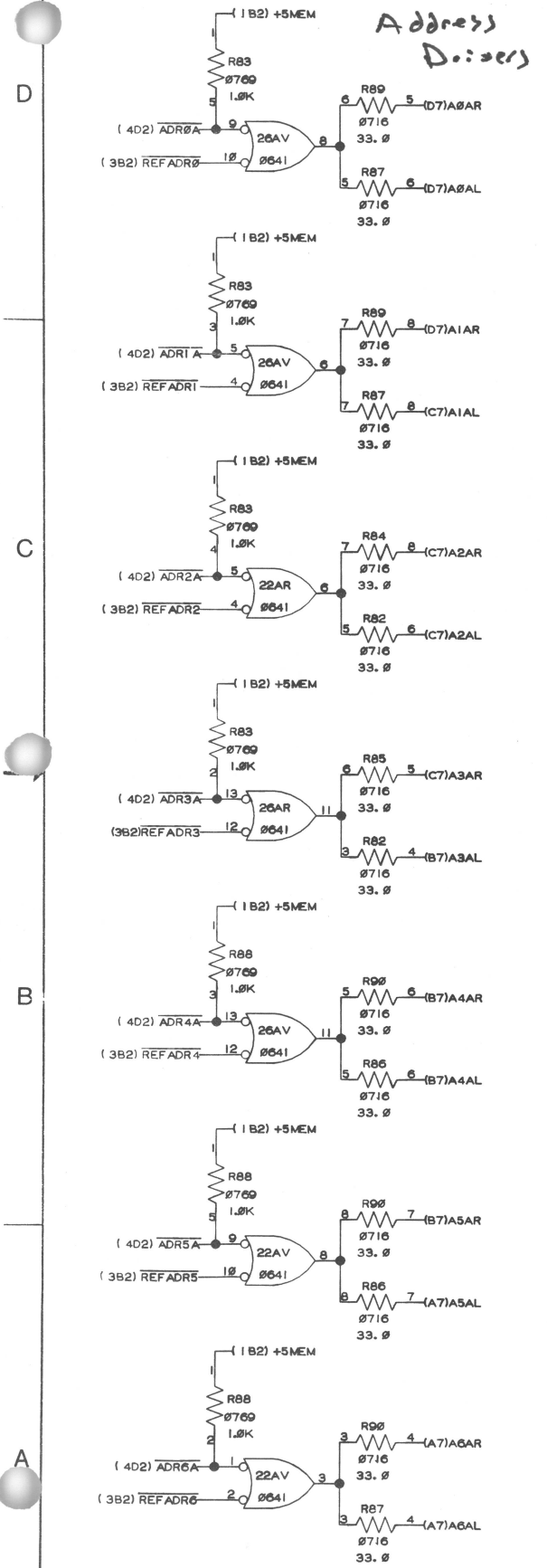
REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DATE

Module A
Address Drivers

Mod. B
Address Drivers

Mod. C
Address Drivers

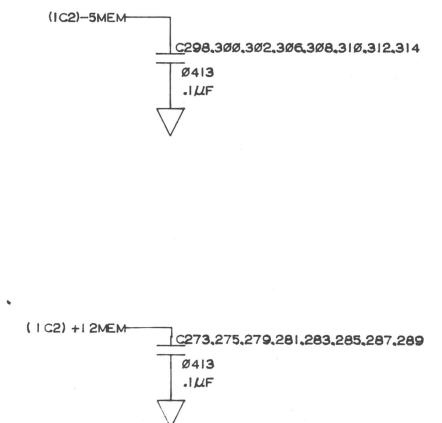
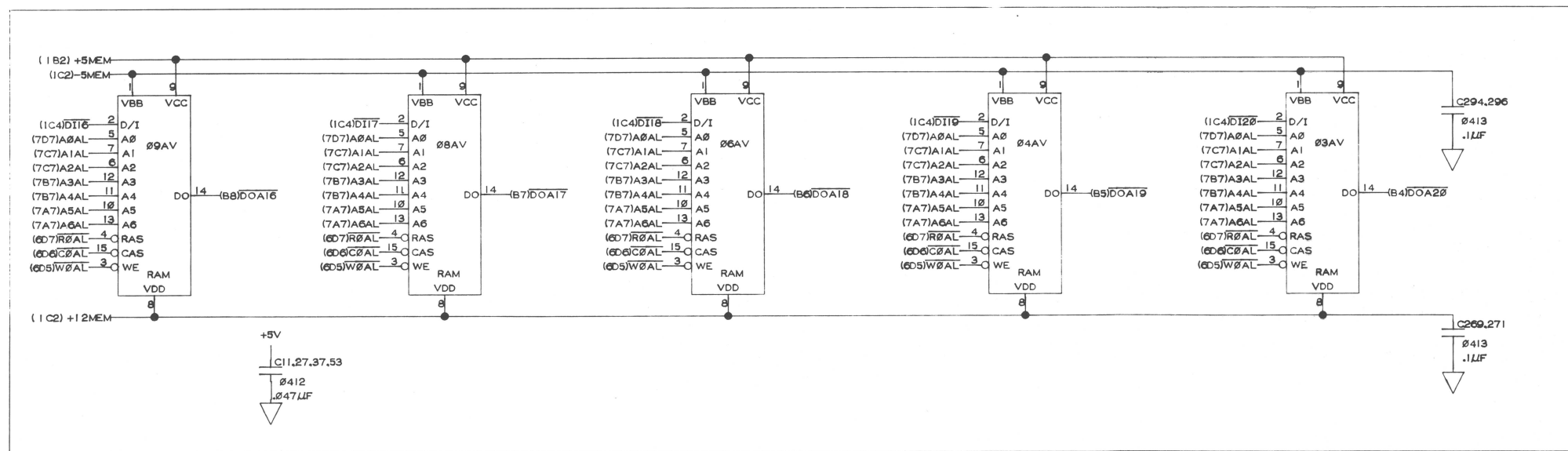
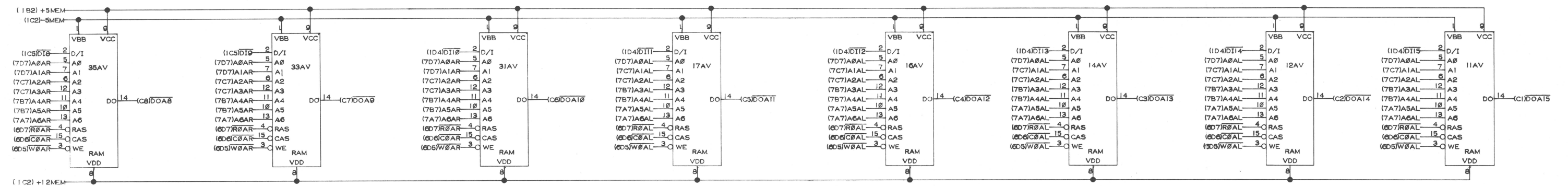
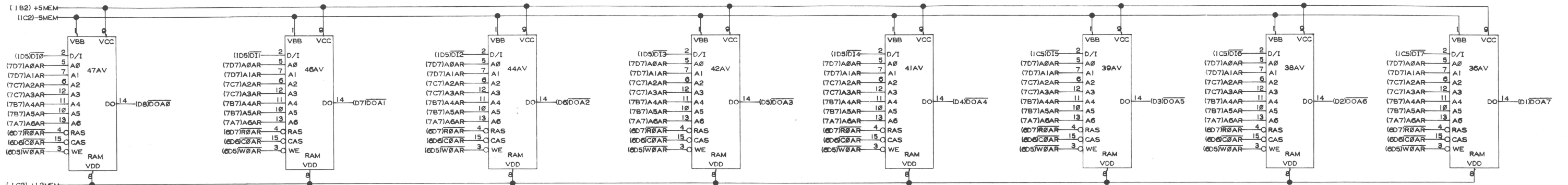
Mod. D
Address Drivers



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CHECKED			
ENGINEER			
APPROVED			
FIRST USED ON			
SIZE	CODE	DRAWING NUMBER	REV
D		00100122903	

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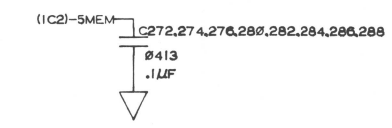
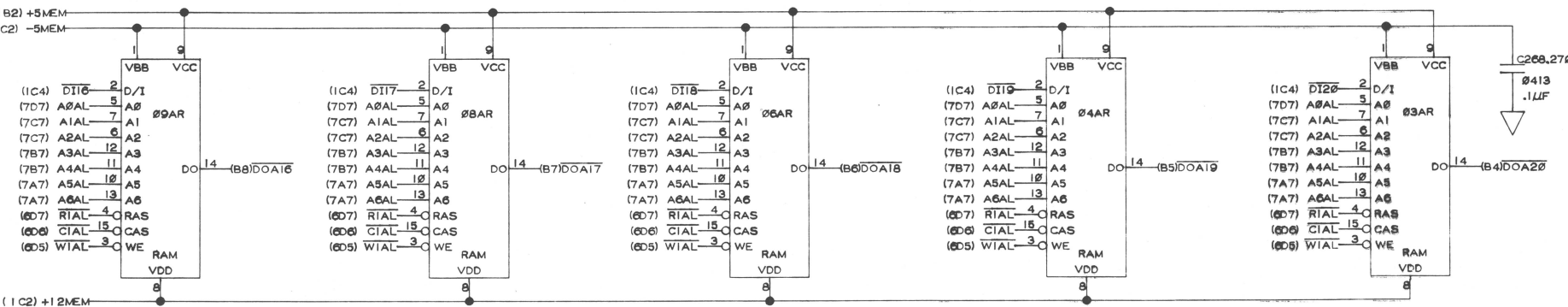
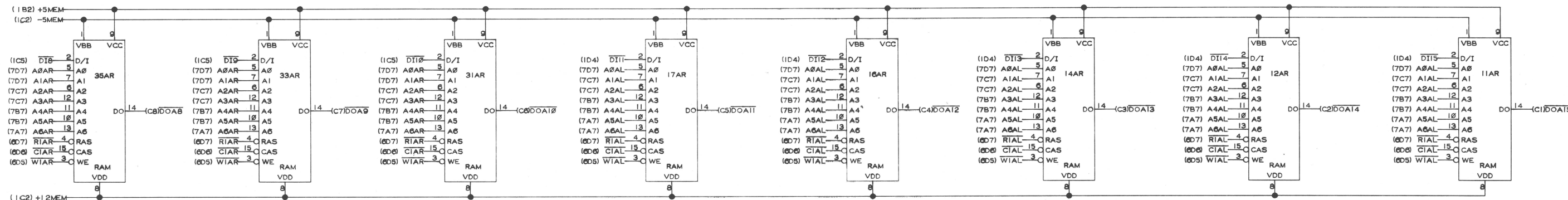
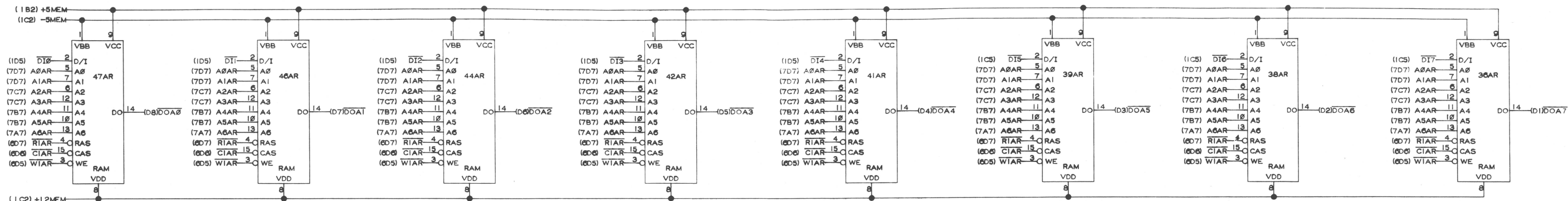


Module A, Bank 0
(whole page)

DRAWN		DATA GENERAL CORPORATION SOUTHBORO, MASSACHUSETTS 01772 TITLE DGC BBU MEMORY	
CHECKED			
ENGINEER			
APPROVED			
FIRST USED ON			
SIZE	CODE	DRAWING NUMBER	REV
D		001001229	03

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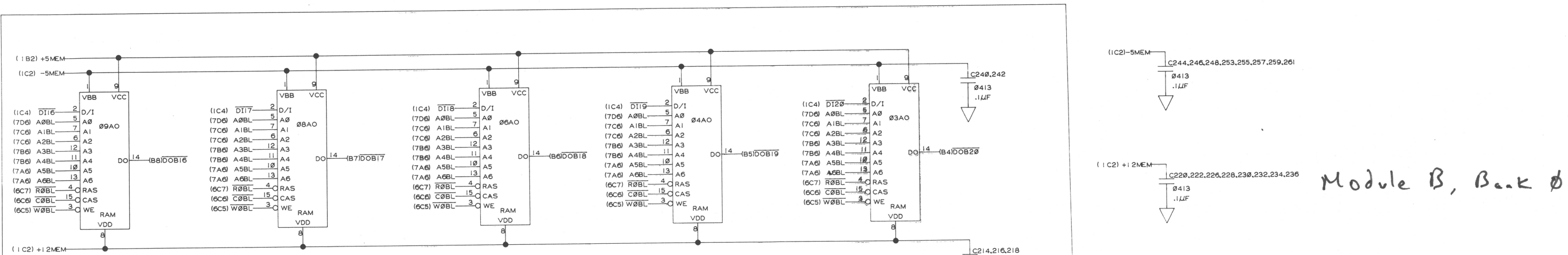
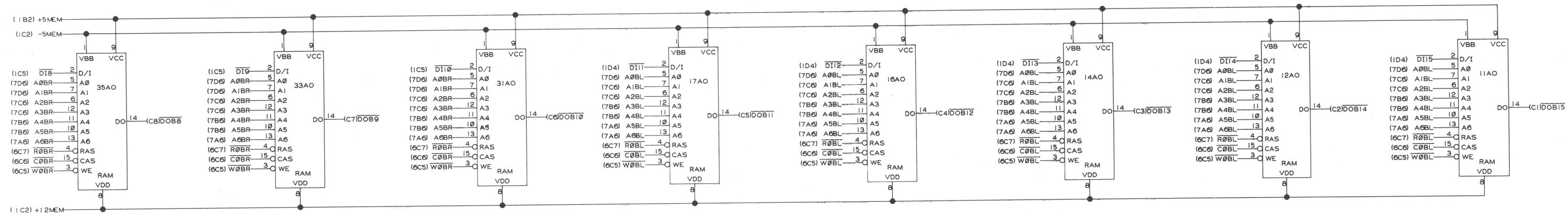
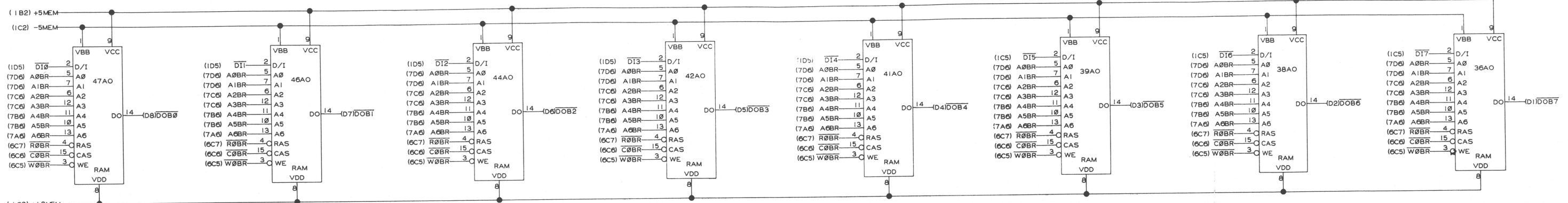


Module A, Bank 1

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ENGINEER		
APPROVED		
FIRST USED ON		
SIZE	D	CODE 001001229
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		REV 03

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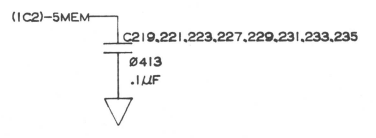
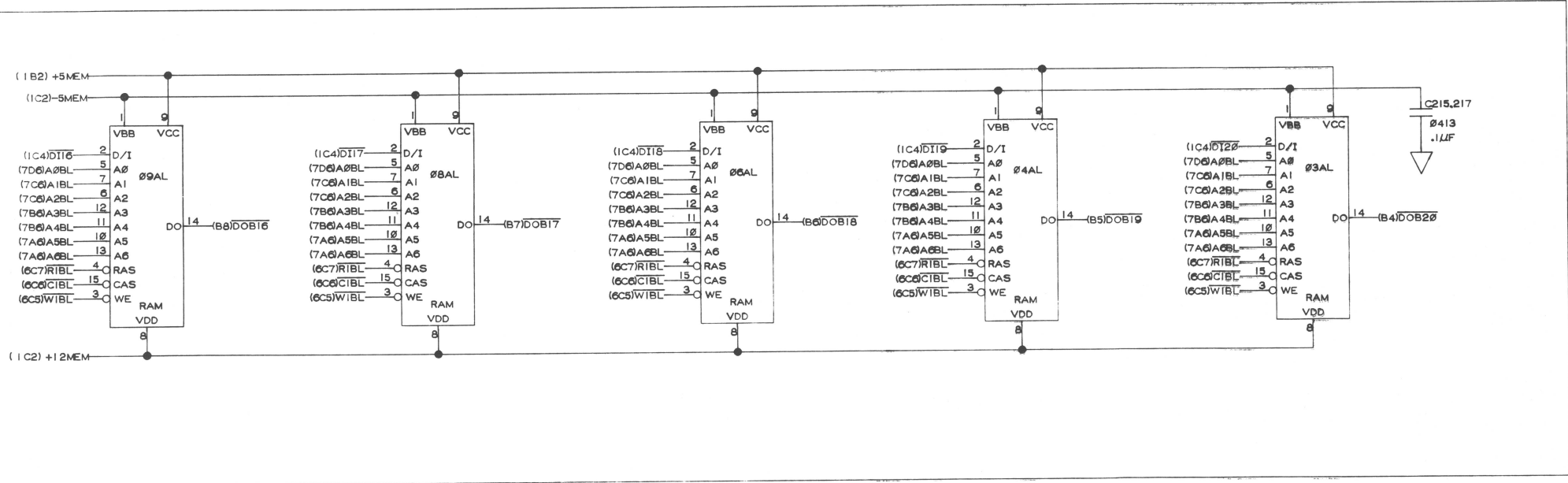
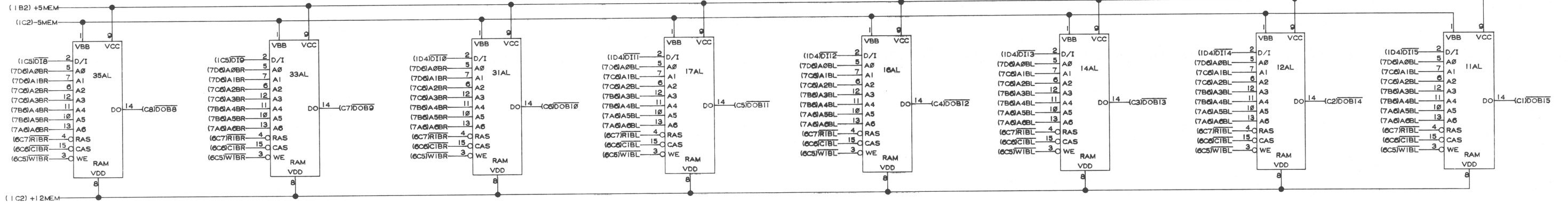
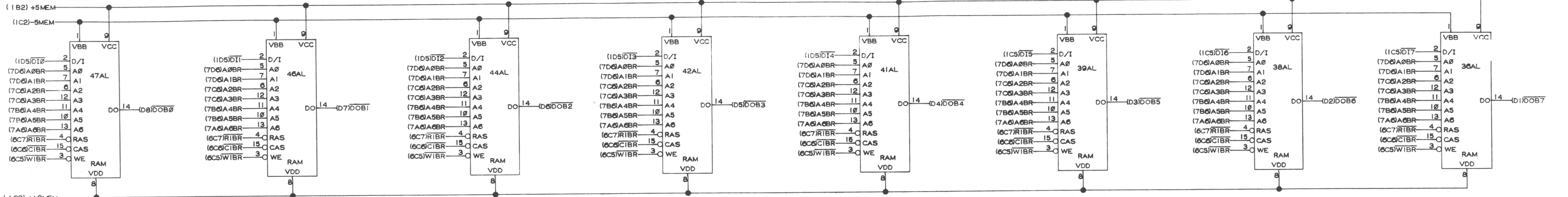


Module B, Bank 0

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ENGINEER			
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FIRST USED ON			
SIZE	D	DRAWING NUMBER	00100122903
		REV	

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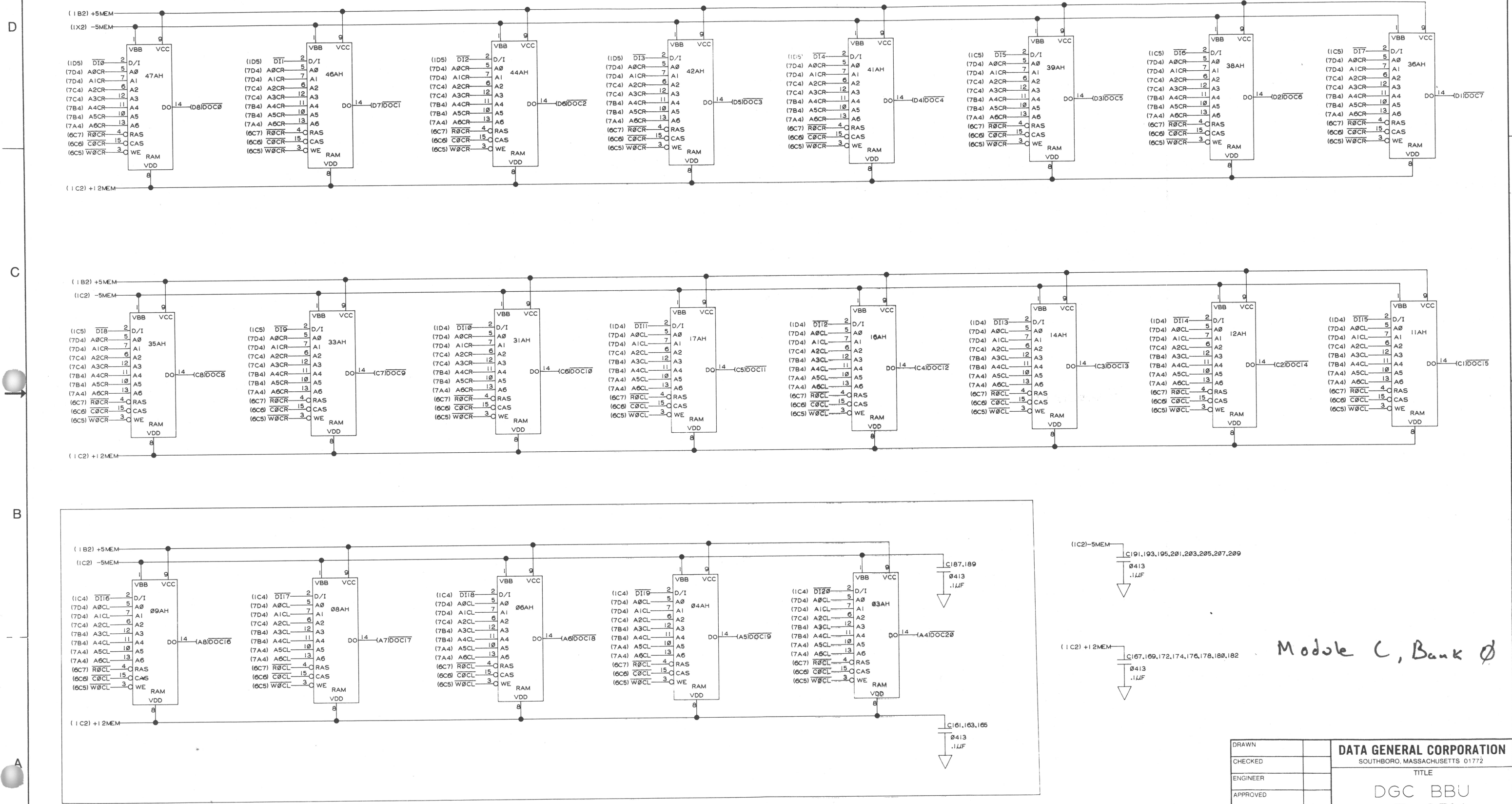


Module B, Bank 1

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APPROVED					
FIRST USED ON					
SIZE	D	DRAWING NUMBER	00100122903	REV	

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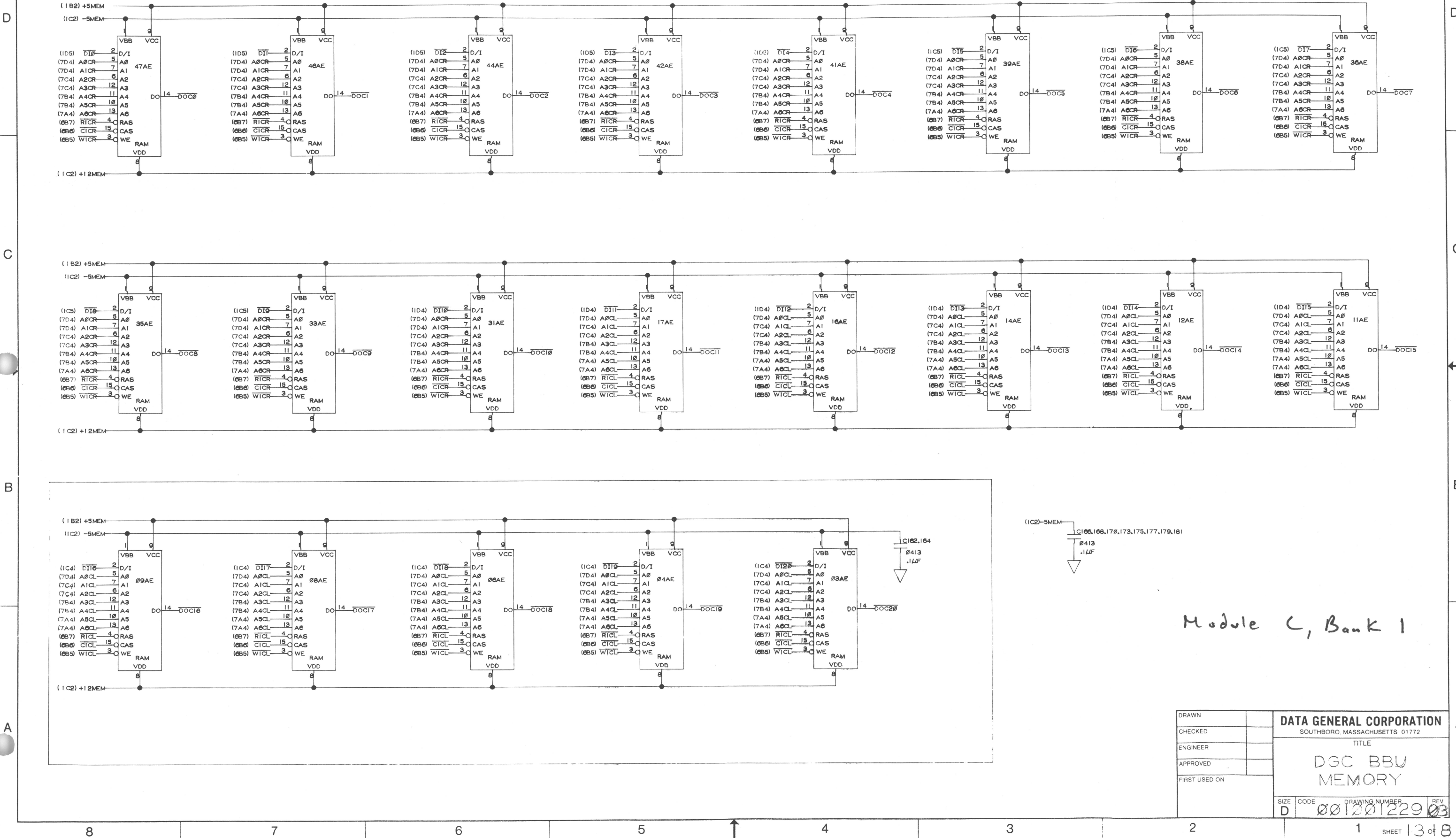
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REV	DESCRIPTION	DRFTG	APP BY	DATE



DRAWN		DATA GENERAL CORPORATION SOUTHBORO, MASSACHUSETTS 01772 TITLE DGC BBU MEMORY	
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APPROVED			
FIRST USED ON			
SIZE	CODE	DRAWING NUMBER	REV
D		001001229	03

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REVISIONS				
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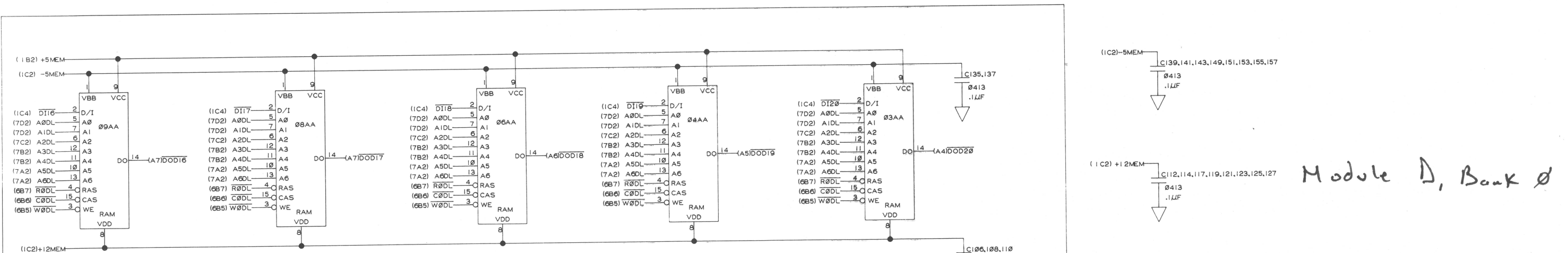
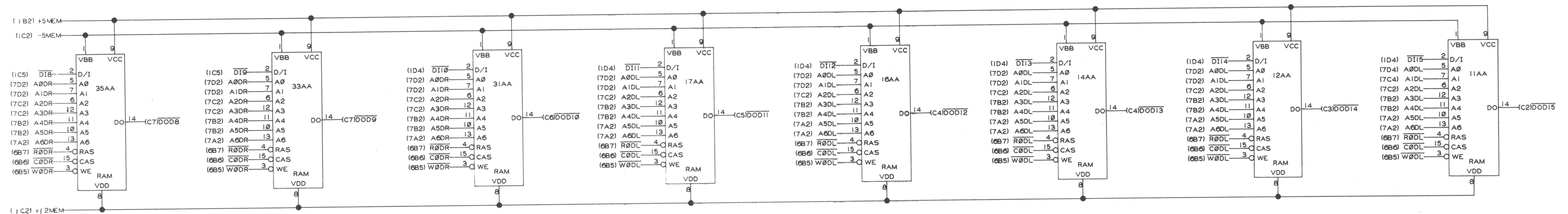
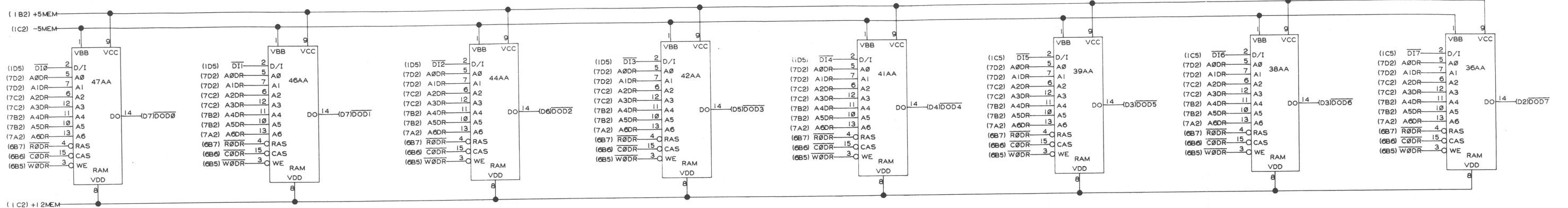


Module C, Bank 1

DRAWN		DATA GENERAL CORPORATION SOUTHBORO, MASSACHUSETTS 01772 TITLE DGC BBU MEMORY	
CHECKED			
ENGINEER			
APPROVED			
FIRST USED ON			
SIZE	CODE	DRAWING NUMBER	REV
D		001001229	03

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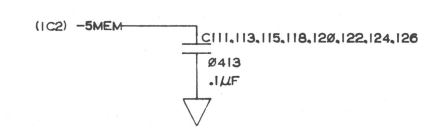
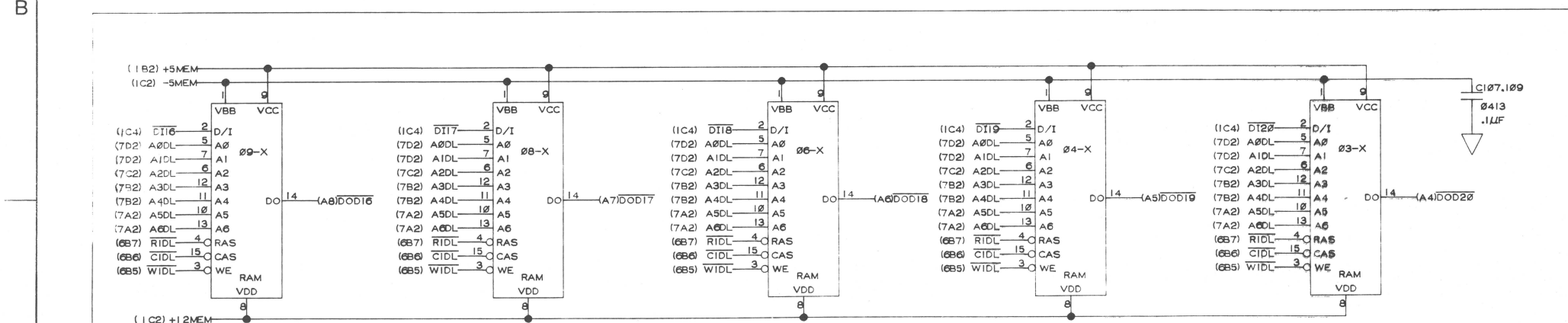
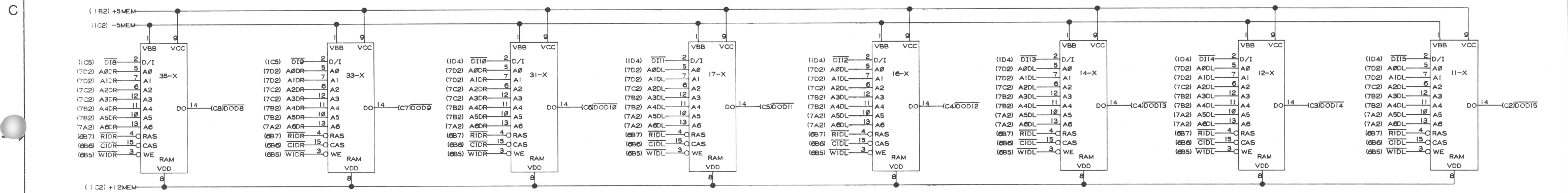
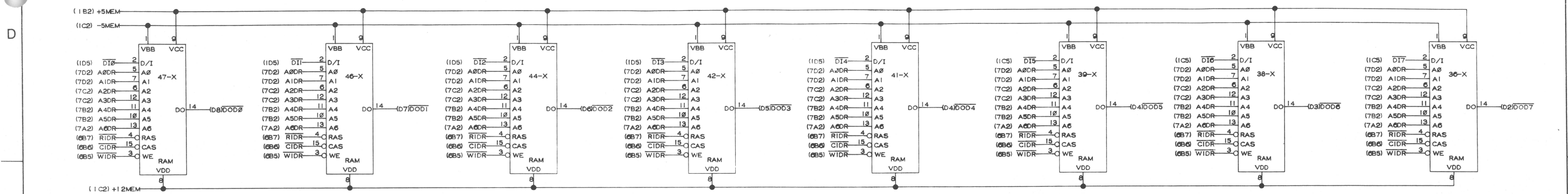
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REV	DESCRIPTION	DRFTG	APP BY	DATE



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ENGINEER		
APPROVED		
FIRST USED ON		
SIZE	D	CODE 001001229 DRAWING NUMBER 03 SHEET 1418

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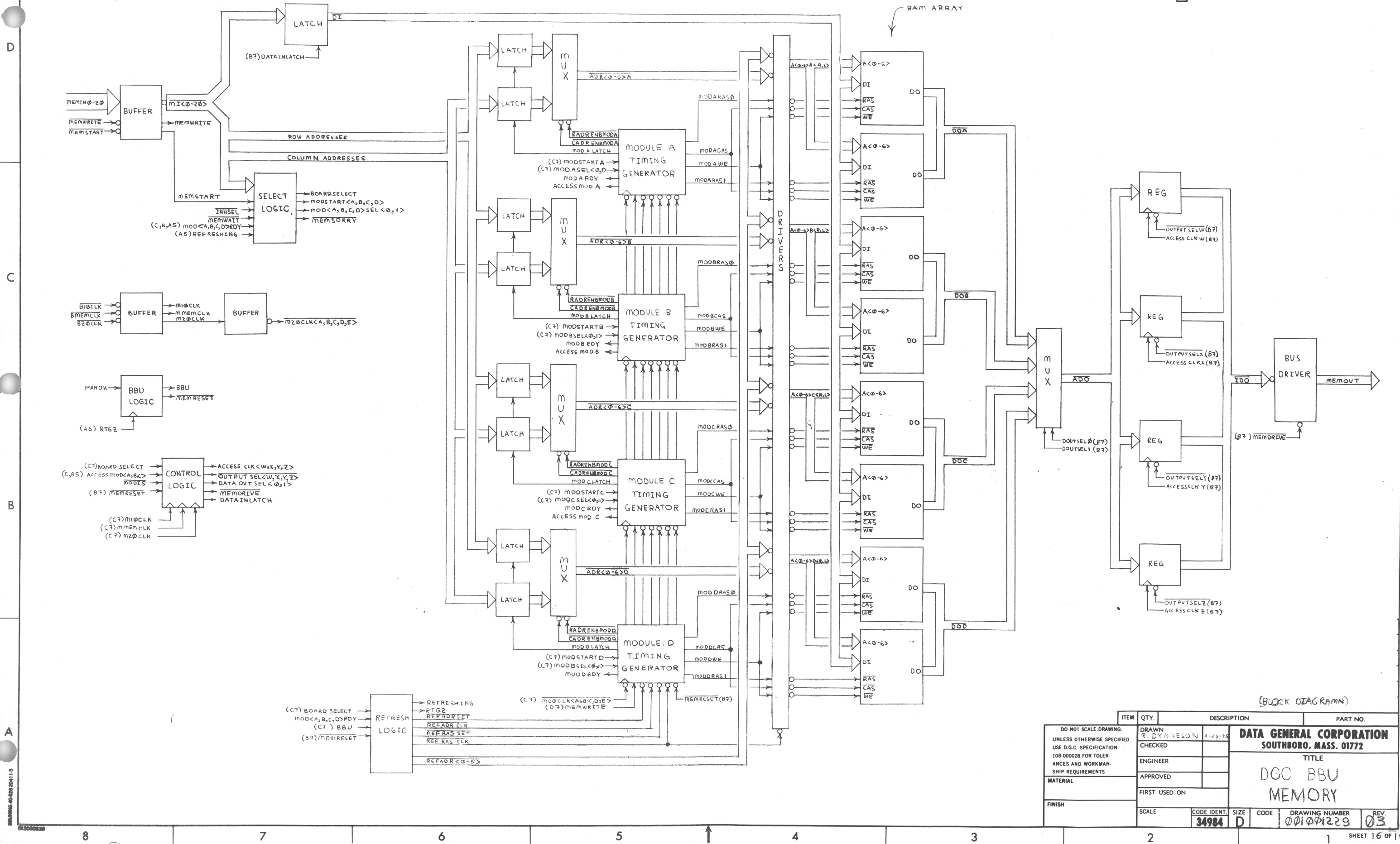


Module D, Bank 1

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ENGINEER		
APPROVED		
FIRST USED ON		
SIZE	D	CODE 00100122903 DRAWING NUMBER REV

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REVISIONS				
REV.	DESCRIPTION	DRFTG.	APP. BY	DATE
REV. ECO				



(BLOCK DIAGRAM)

ITEM	QTY.	DESCRIPTION	PART NO.
DO NOT SCALE DRAWING.			
UNLESS OTHERWISE SPECIFIED USE D.G.C. SPECIFICATION 108-000028 FOR TOLERANCES AND WORKMANSHIP REQUIREMENTS			
DRAWN R. DYNWESON 4/28/78		CHECKED	
MATERIAL		APPROVED	
FINISH		FIRST USED ON	
SCALE		CODE IDENT. 34984	SIZE D
DRAWING NUMBER 001001229		REV. 03	

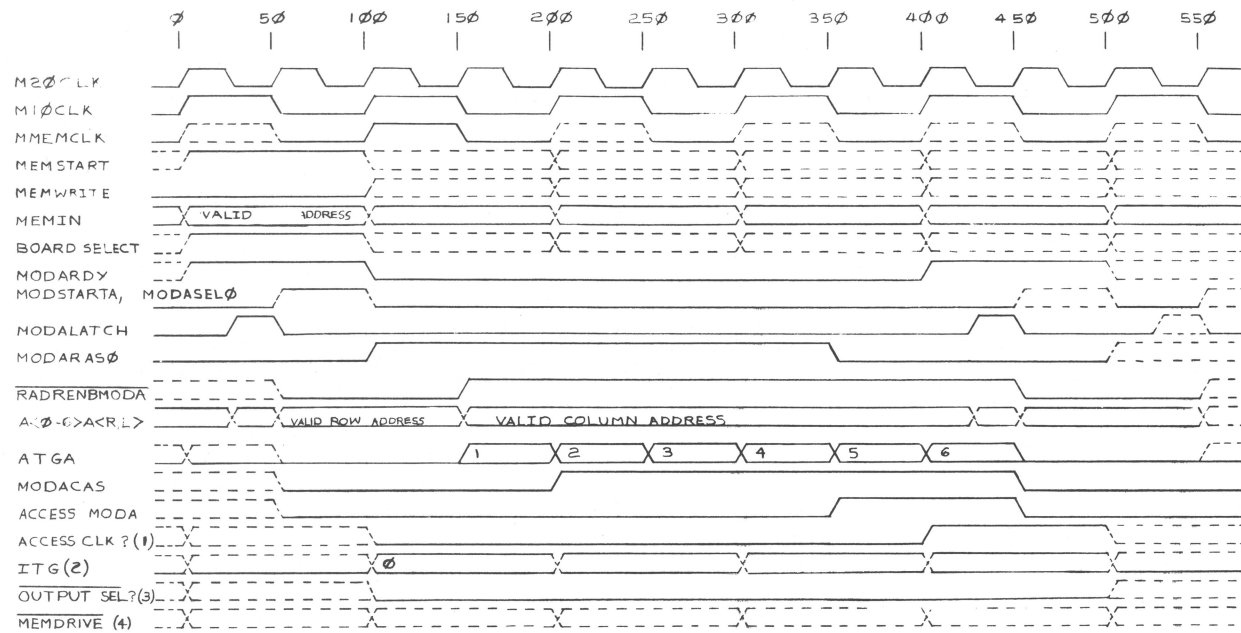
DATA GENERAL CORPORATION
SOUTHBORO, MASS. 01772

TITLE
DGC BBU MEMORY

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REVISIONS				
REV.	DESCRIPTION	DRFTG.	APP. BY	DATE

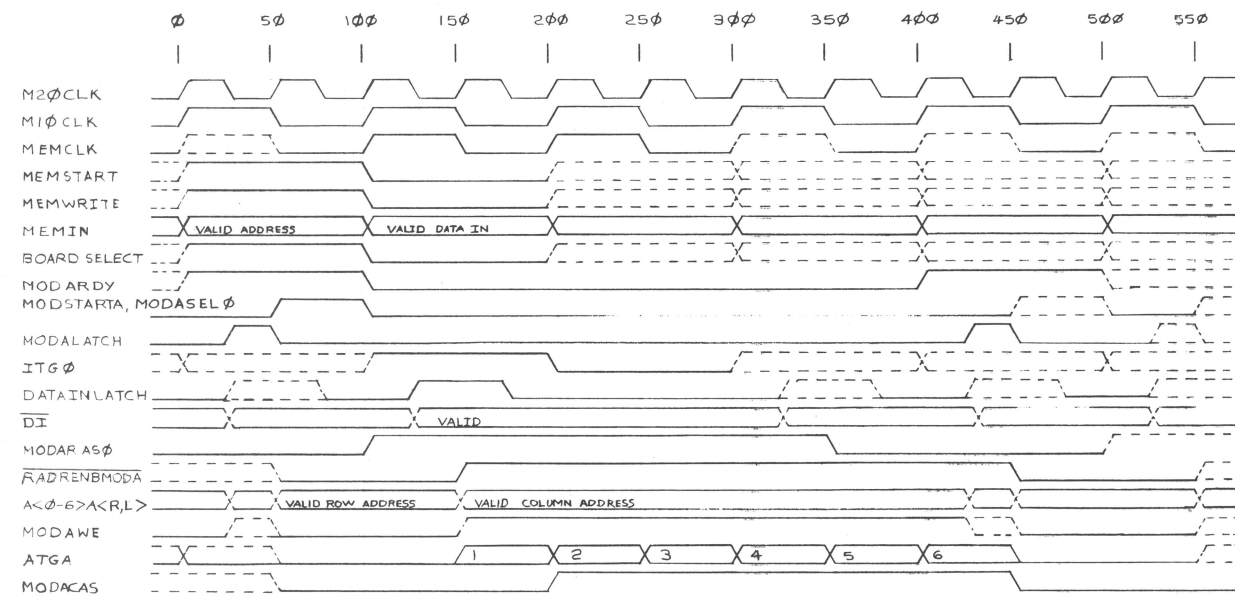
READ FROM MODULE A



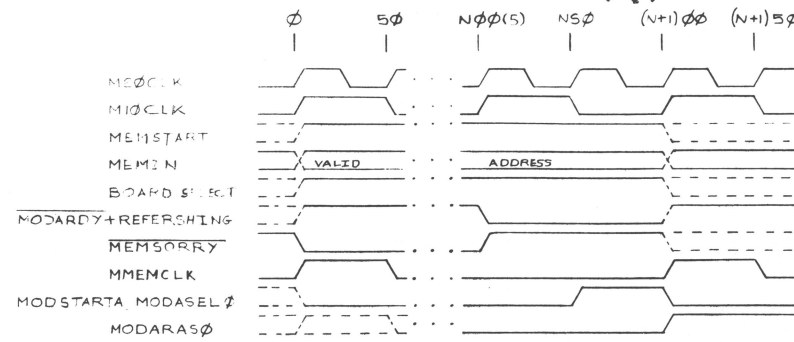
NOTES:

- (1) ? MAY BE W, X, Y, OR Z.
- (2) THE ITG REGISTER IS CLOCKED BY MMEMCLK.
- (3) ? IS THE SAME (W, X, Y OR Z) AS IN (1). OUTPUT SEL ? OCCURS DURING ITG3.
- (4) THE MEMDRIVE OF INTEREST OCCURS DURING ITG3 WHEN MOD3 IS NOT ASSERTED.

WRITE TO MODULE A



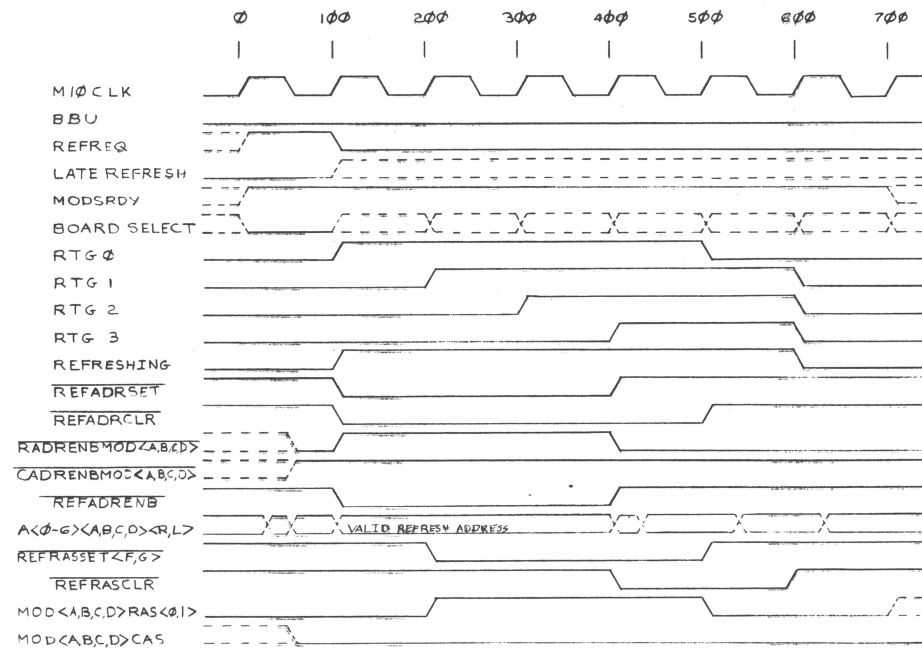
READ FROM OR WRITE TO MODULE A DEFERRED



NOTE:

(5) N IS THE NO. OF 100 NS CYCLES THAT START IS DEFERRED.

NORMAL REFRESH



(TIMING)

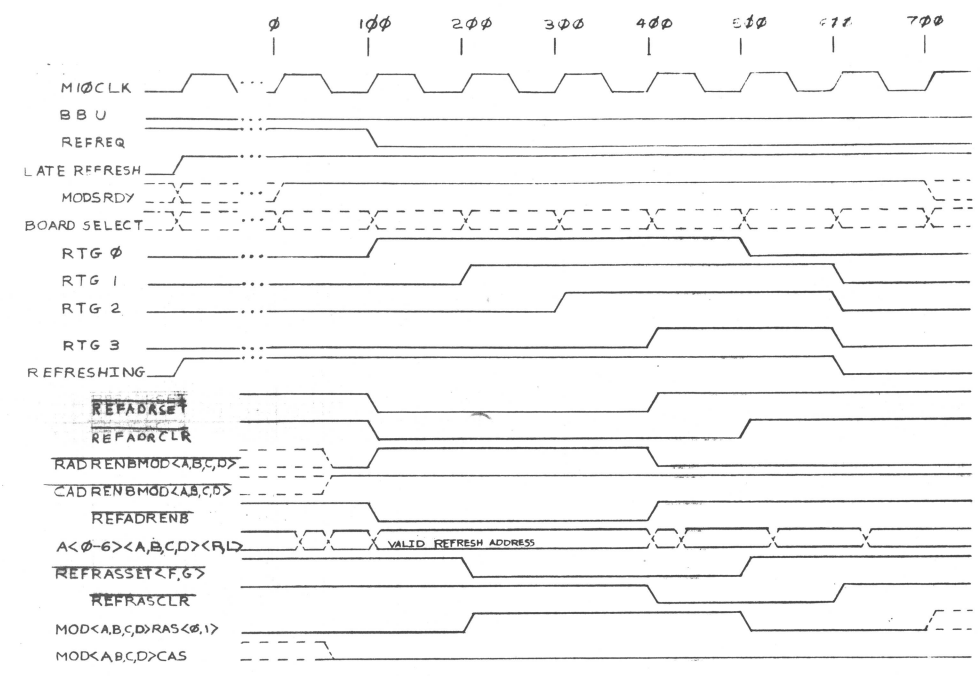
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DO NOT SCALE DRAWING.			
UNLESS OTHERWISE SPECIFIED USE D.G.C. SPECIFICATION 108-000028 FOR TOLERANCES AND WORKMANSHIP REQUIREMENTS			
DRAWN	5-17-75	DATA GENERAL CORPORATION SOUTHBORO, MASS. 01772	
CHECKED		TITLE DGC BBU MEMORY	
ENGINEER		FIRST USED ON	
APPROVED		SCALE	
MATERIAL		CODE IDENT. 34984	SIZE D
FINISH		CODE 000	DRAWING NUMBER 001229
			REV 03

DRAWING 40-526 2D411-5

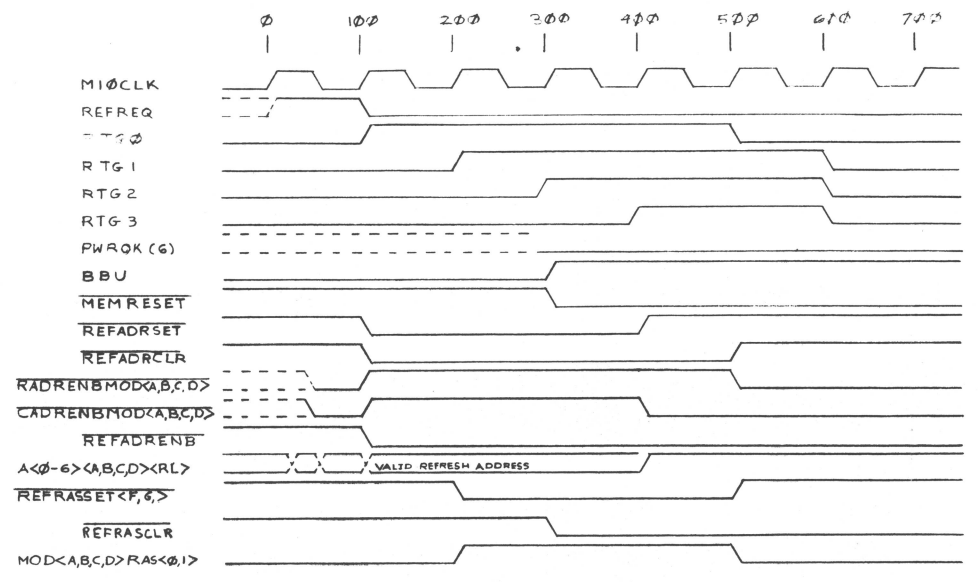
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REVISIONS				
REV.	DESCRIPTION	DRFTG.	APP. BY	DATE

LATE REFRESH

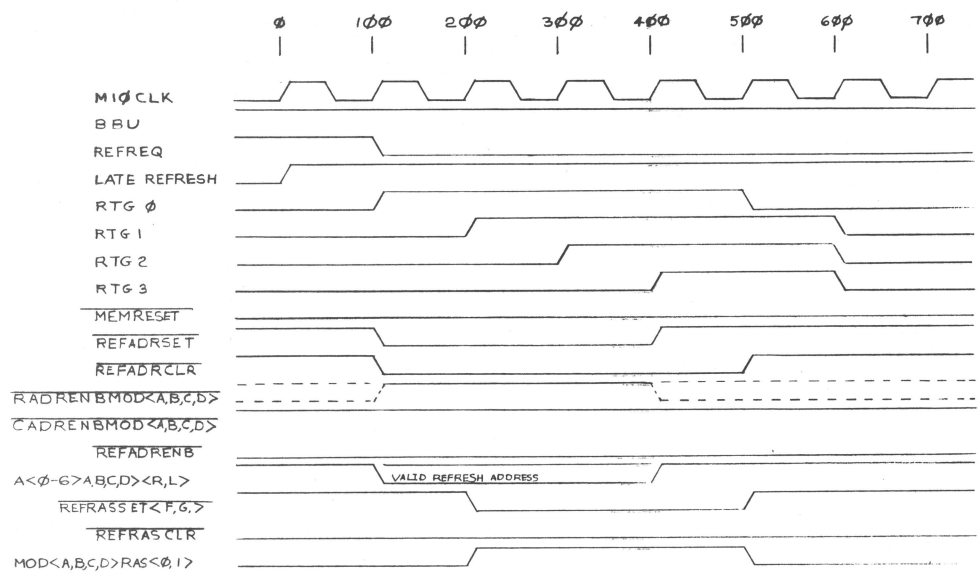


SWITCHING INTO BBU

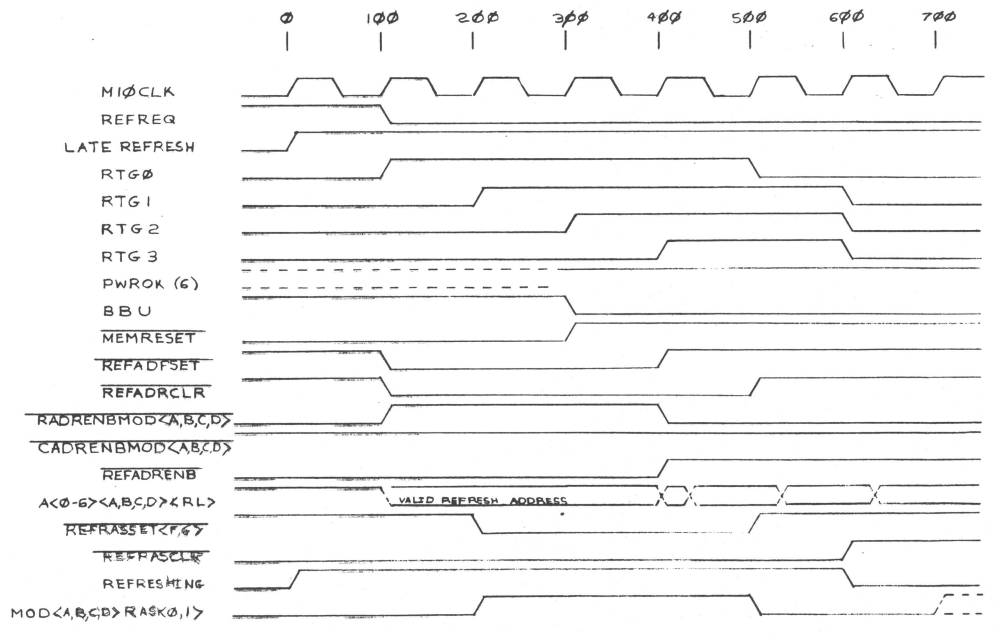


NOTE: (6) PWROK IS AN ASYNCHRONOUS SIGNAL

REFRESH DURING BBU



SWITCHING OUT OF BBU



(TIMING)

ITEM	QTY.	DESCRIPTION	PART NO.
DO NOT SCALE DRAWING. UNLESS OTHERWISE SPECIFIED USE D.G.C. SPECIFICATION 108-000028 FOR TOLERANCES AND WORKMANSHIP REQUIREMENTS.			
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CHECKED		TITLE DGC BBU MEMORY	
ENGINEER		FIRST USED ON	
APPROVED		SCALE	CODE IDENT. SIZE CODE DRAWING NUMBER REV
MATERIAL		34984	D 001 001229 03
FINISH		SHEET 18 OF 18	