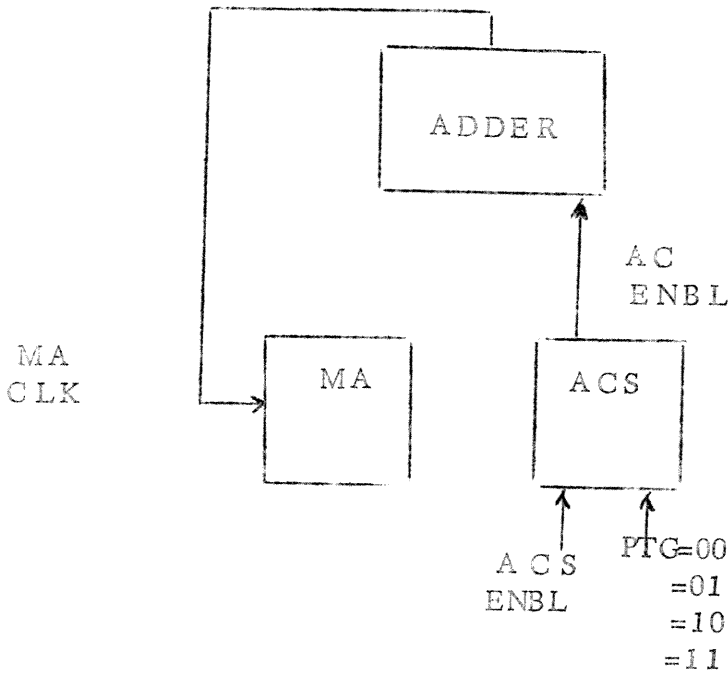
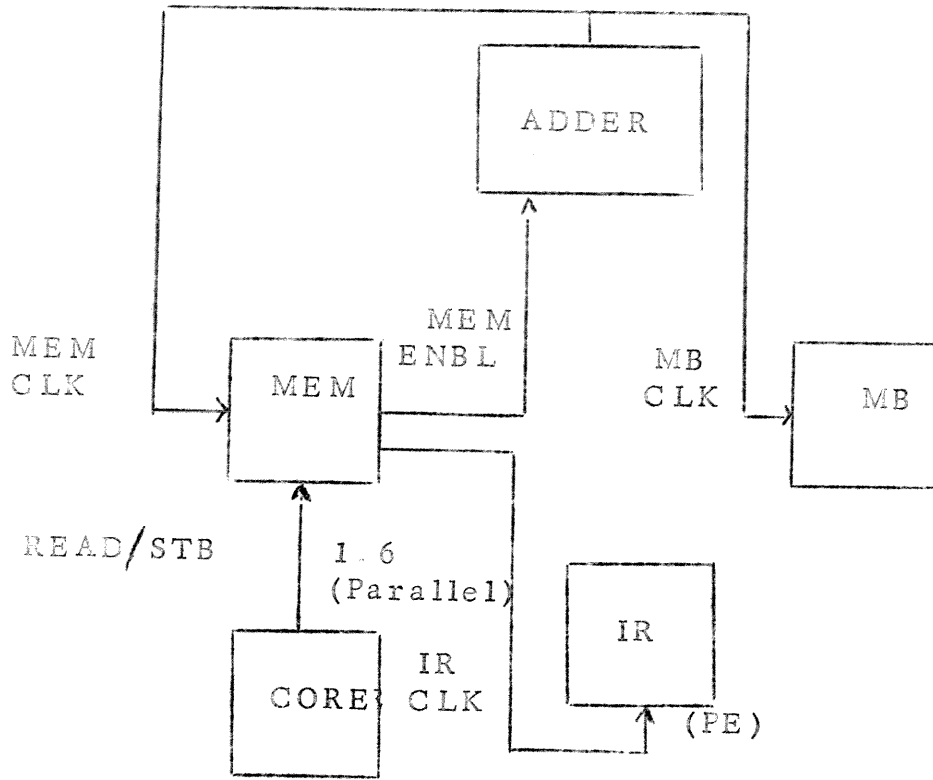


NOVA.

TSO EVENTS
MEM $\xrightarrow{\Sigma}$ MEM, MB
MEM \rightarrow IR

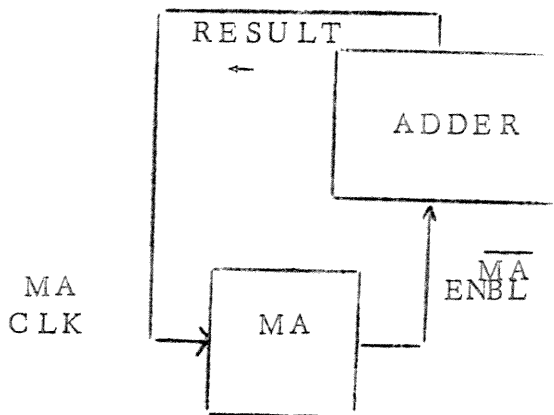


TS1 ACS $\xrightarrow{\Sigma}$ MA

TS 2 - ACD \oplus MA $\xrightarrow{\Sigma}$ MA

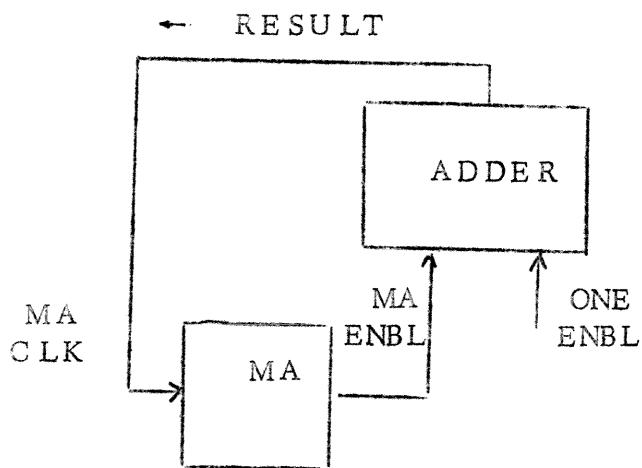
COM (1's Comp)

C (\overline{ACS}) \Rightarrow C (ACD) FCN 000

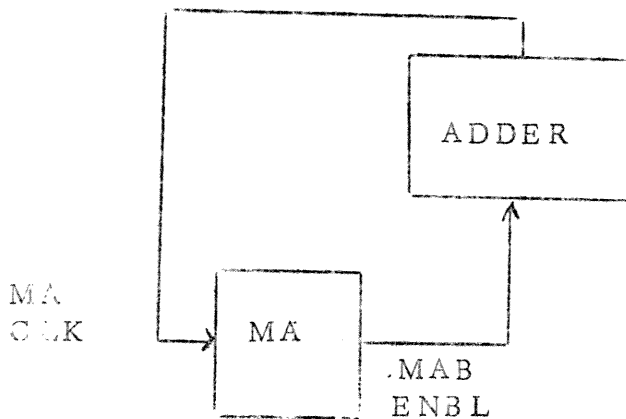


NEG (2's Comp)

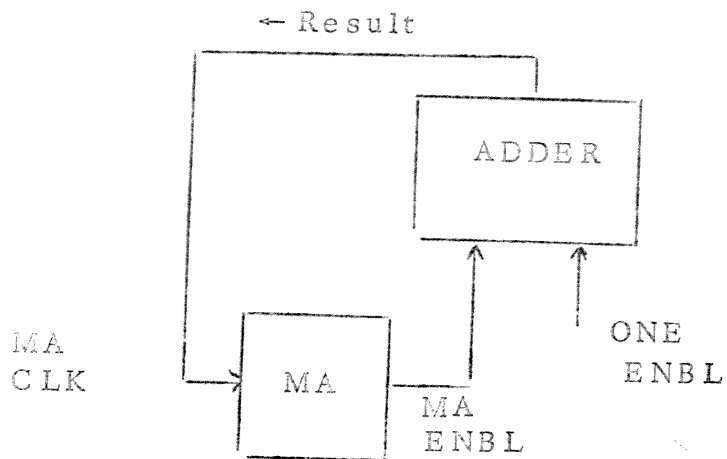
C (\overline{ACS}) \Rightarrow C (ACD) FCN 001



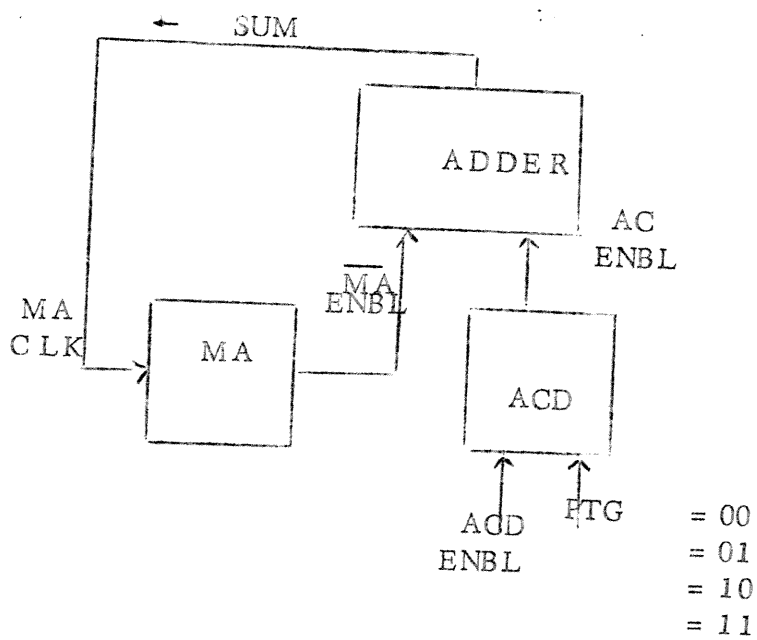
MOV C (ACS) \Rightarrow C (ACD) FCN 010



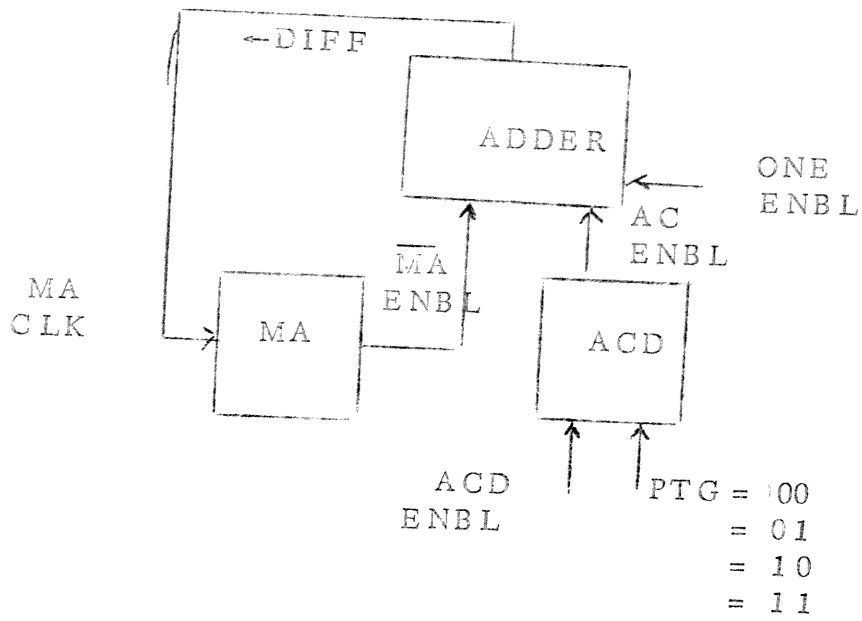
INC C (ACS) + 1 => C (ACD) FCN 011



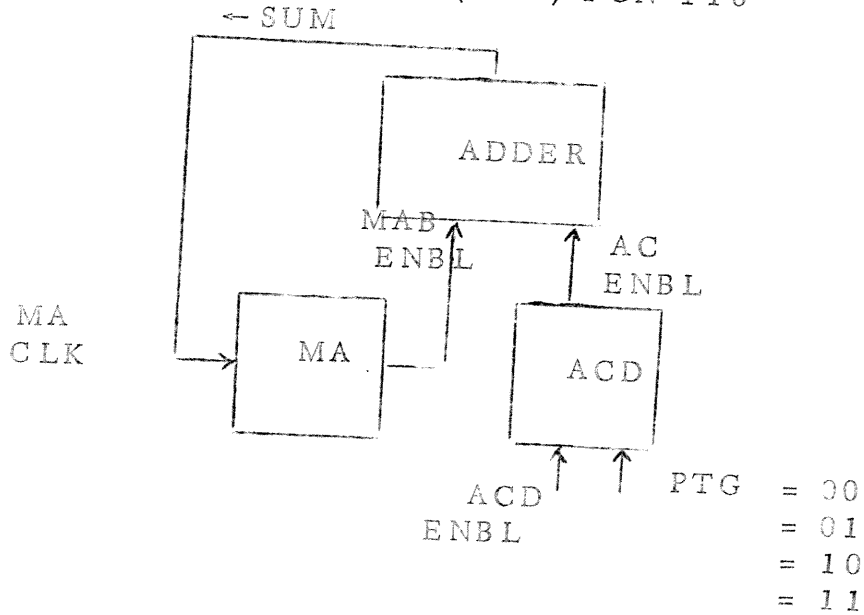
ADC (1's COMP) C (\overline{ACS}) + C (ACD) => C (ACD) FCN 100



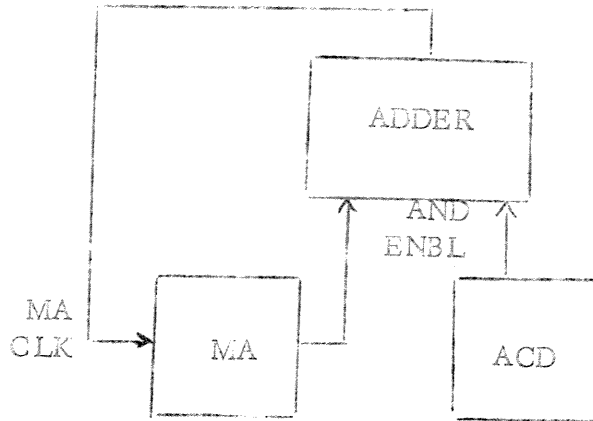
SUB (2's comp) $C(\overline{ACS}) + C(ACD) \Rightarrow C(ACD)$ FCN 101



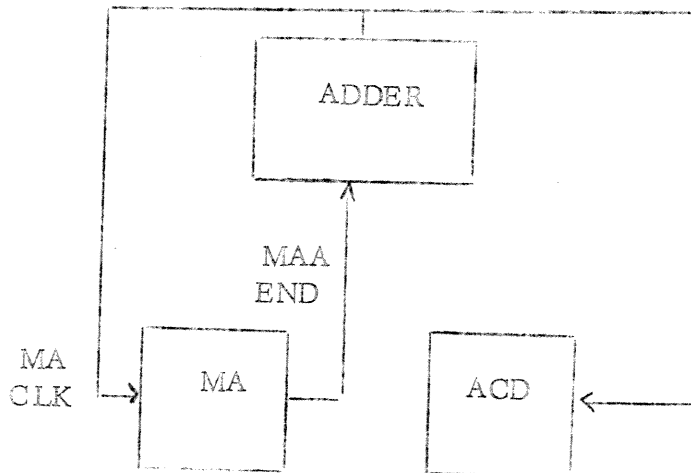
ADD_C $C(ACS) + C(ACD) \Rightarrow C(ACD)$ FCN 110



AND C(ACS) C (ACD) = C (ACD) = FCN 111



T S 3 MA \rightleftharpoons ACD, MA
SHIFT SWAP "NOT"



AC LOAD
(AC WRT
ENBL)

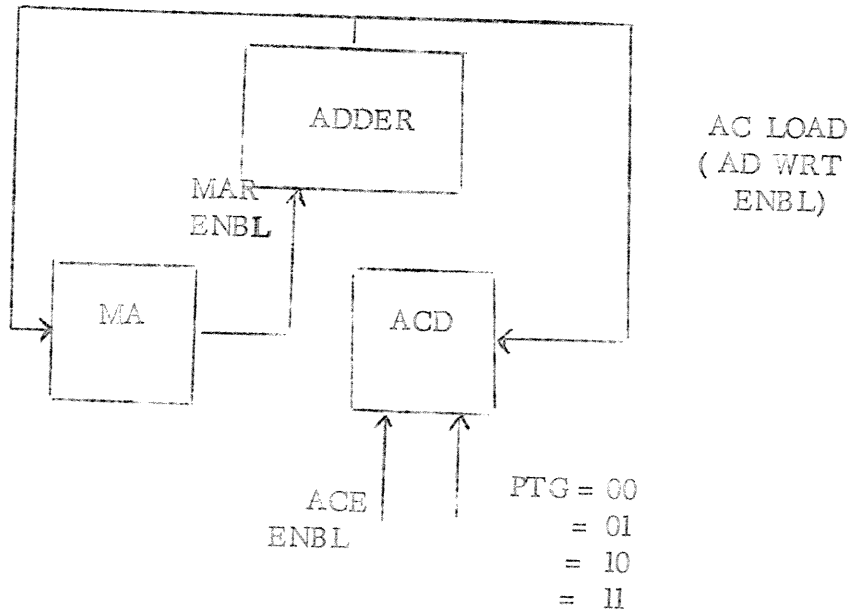
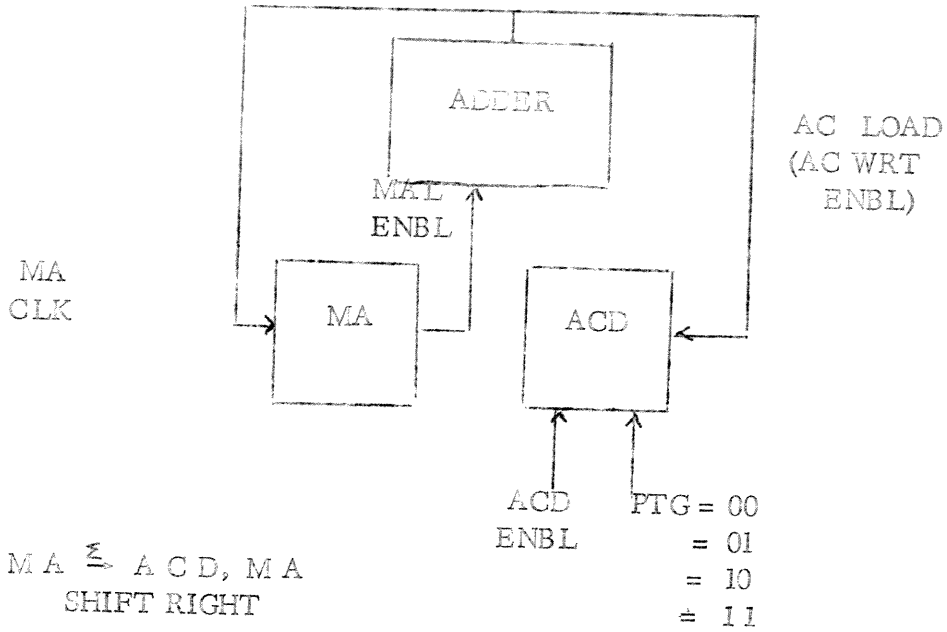
AC BITS

ACD PTG = 00
ENBL = 01
= 10
= 11

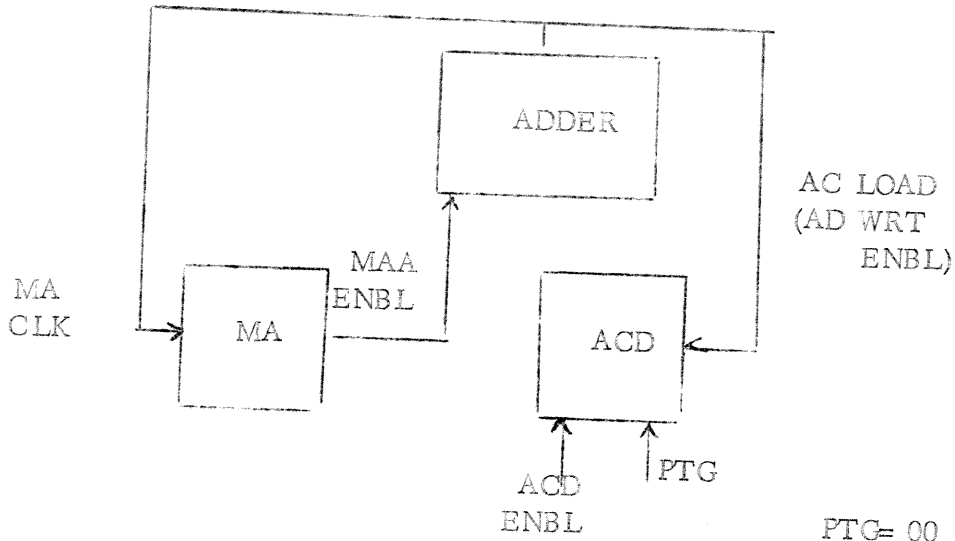
PTG = 00 12-13-14-15
PTG = 01 8-9-10-11
PTG = 10 4-5-6-7
PTG = 11 0-1-2-3

TS3 MA Σ ACD, MA

SHIFT LEFT

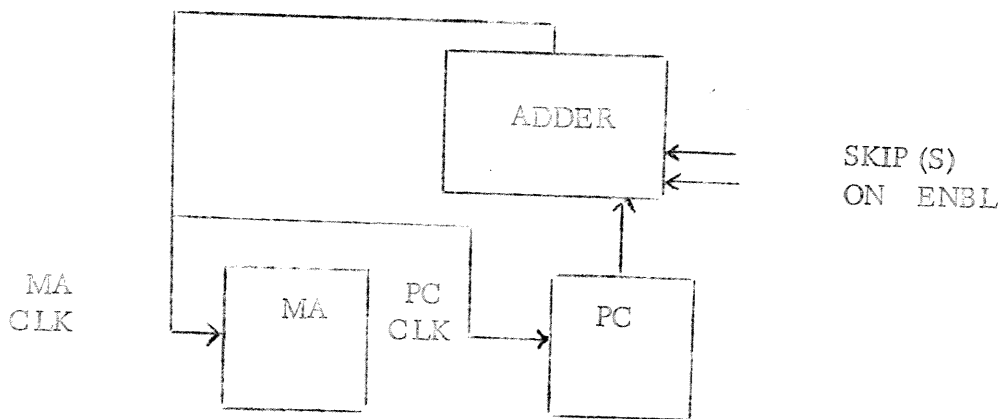


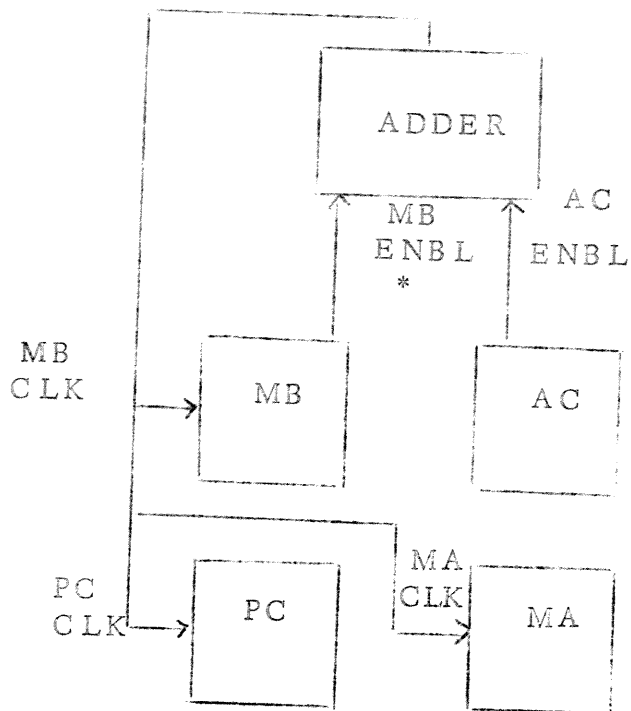
TS 3 MA $\xrightarrow{\Sigma}$ ACD, MA
 SWAP



PTG= 00 4-5-6-7
 PTG= 01 0-1-2-3
 PTG= 10 12-13-14 15
 PTG= 11 8-9-10-11

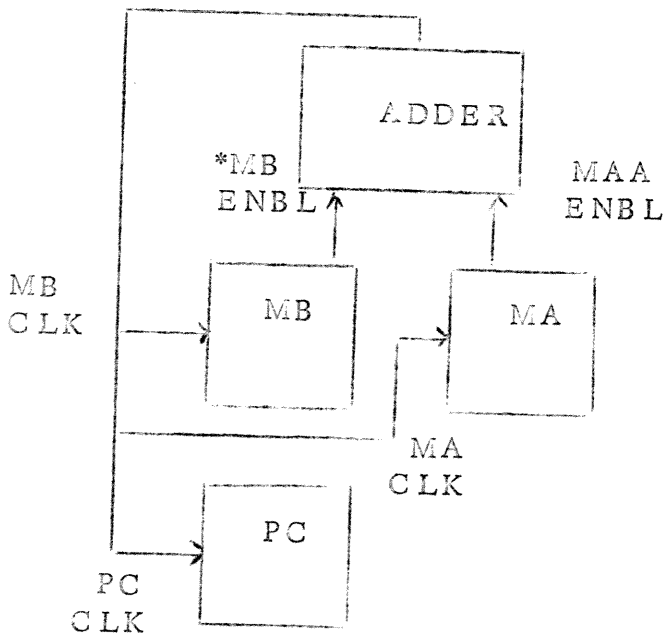
TS 4 PC + S + 1 $\xrightarrow{\Sigma}$ MA, PC



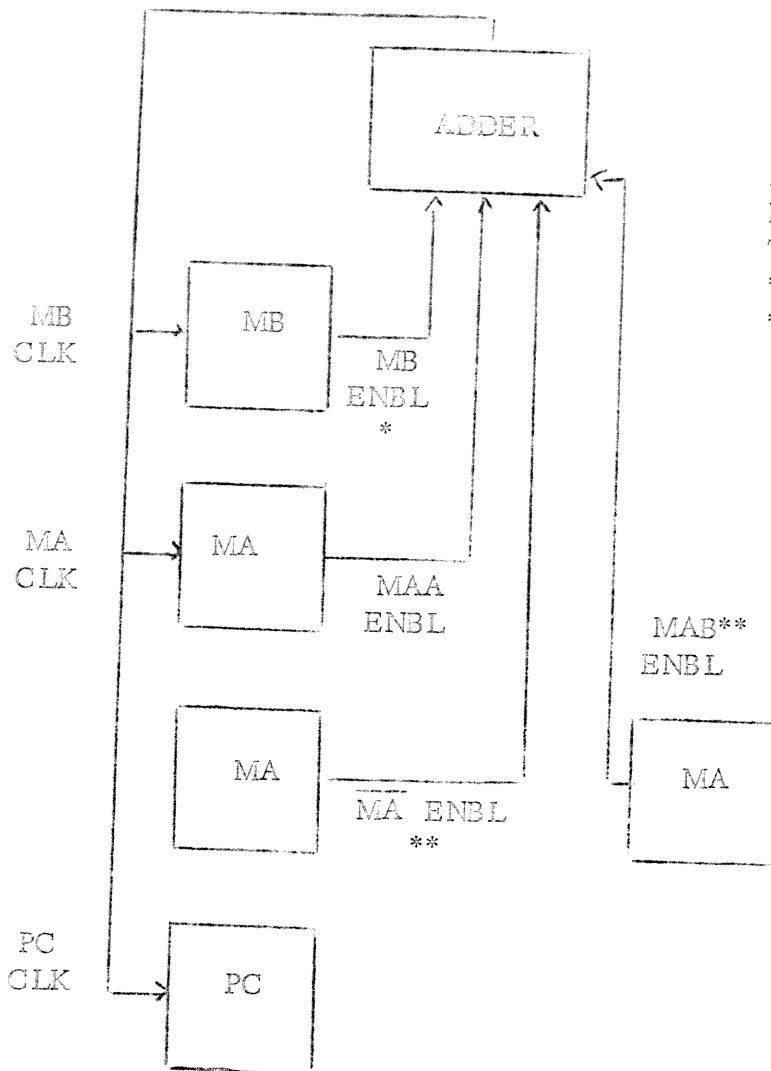


BASE ADDRESS MODE
 TS4 EFA \cong MA, PC, MB

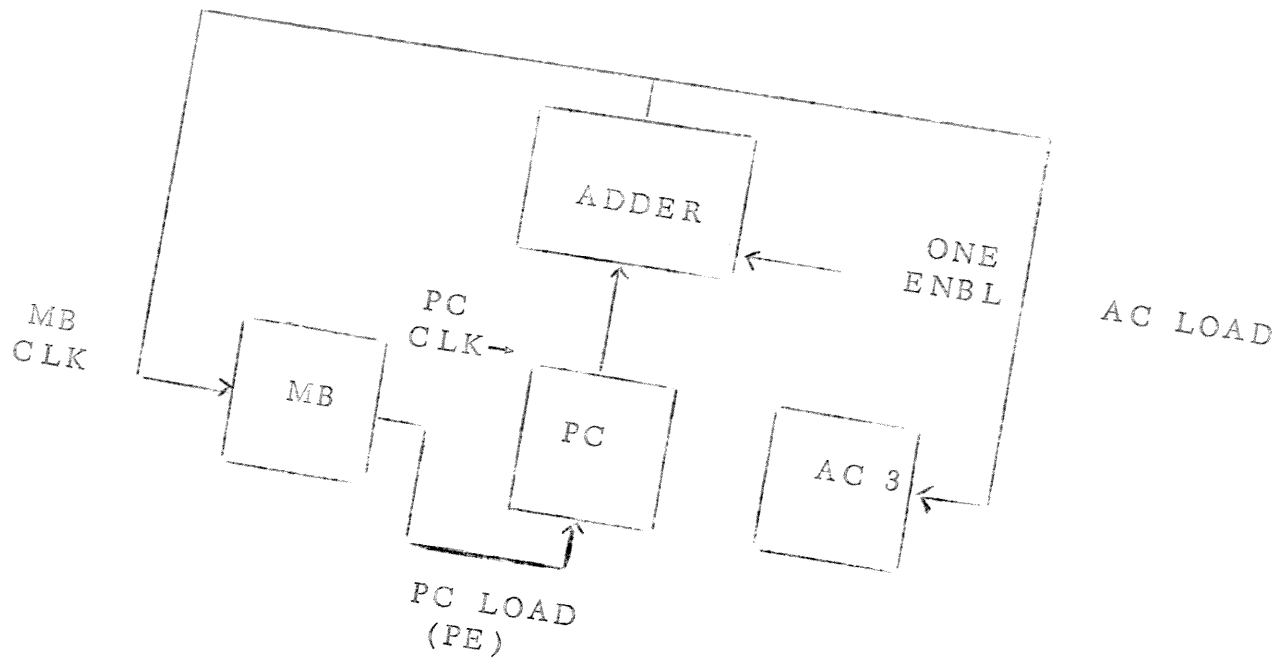
* FIRST TWO NIBBLES ONLY



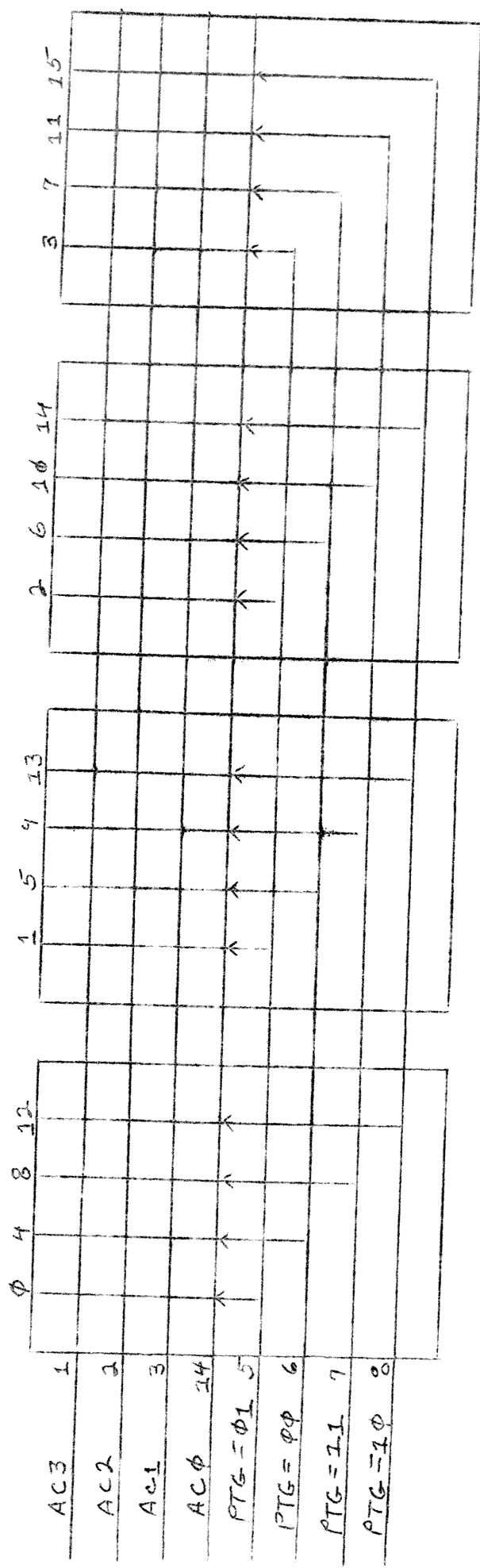
REL ADDRESS MODE
 POSITIVE DISPLACEMENT
 TS4 EFA \cong MA, PC, MB
 * FIRST TWO NIBBLES ONLY



REL ADDRESS MODE
 NEGATIVE DISPLACEMENT
 TS4 EFA \Rightarrow MA, PC, MB
 * FIRST TWO NIBBLES ONLY
 ** LAST TWO NIBBLES ONLY

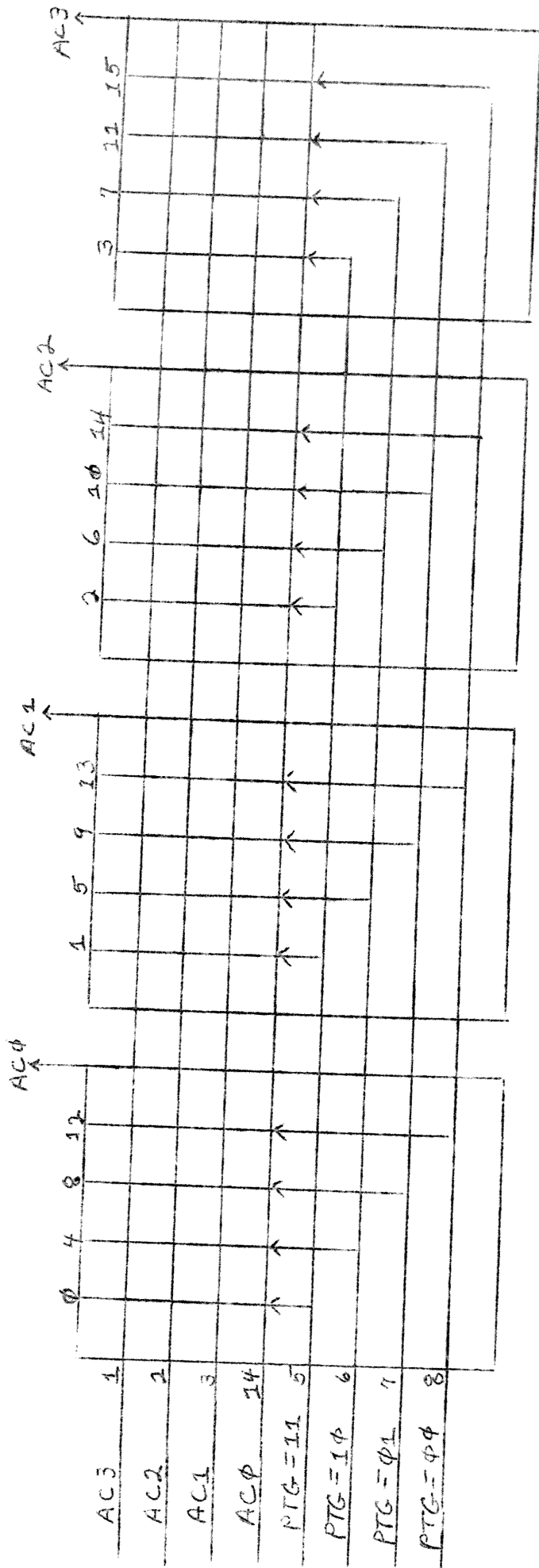


FETCH. JSR. TS5
PC+1 \approx AC 3, MB
MB \rightarrow PC



PTG = nibble Bits Loaded into

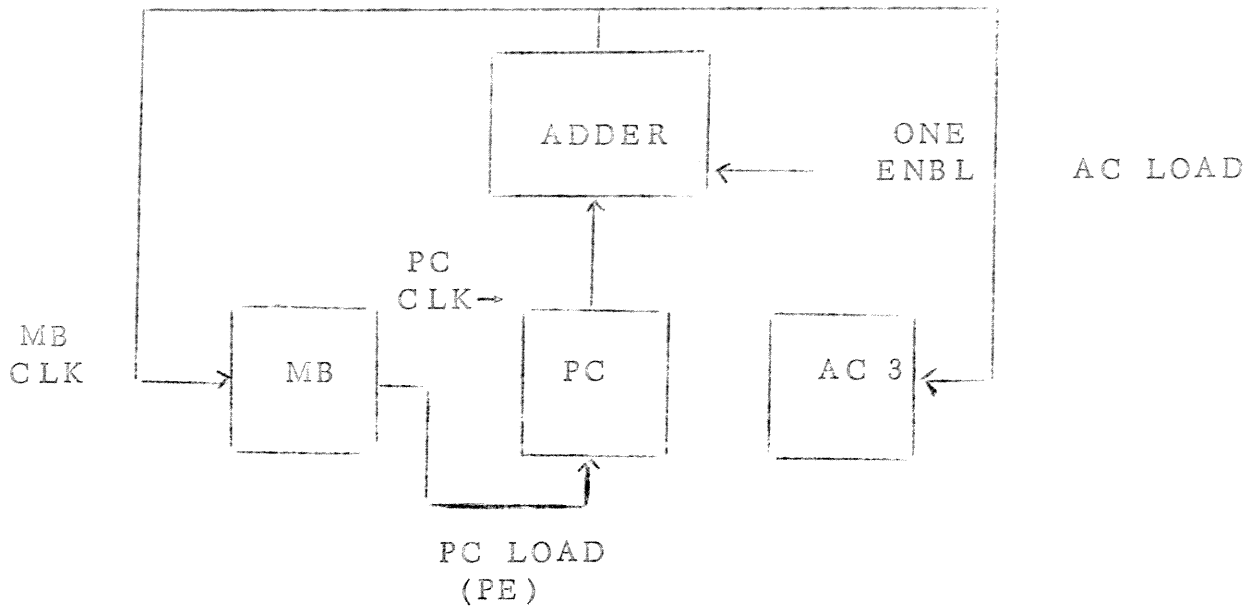
PTG	nibble	Bits	Loaded into
φφ	1st	12 13 14 15	4 5 6 7
φ1	2nd	8 9 10 11	φ 1 2 3
1φ	3rd	4 5 6 7	12 13 14 15
11	4th	φ 1 2 3	8 9 10 11



PTG = nibble AC BIT

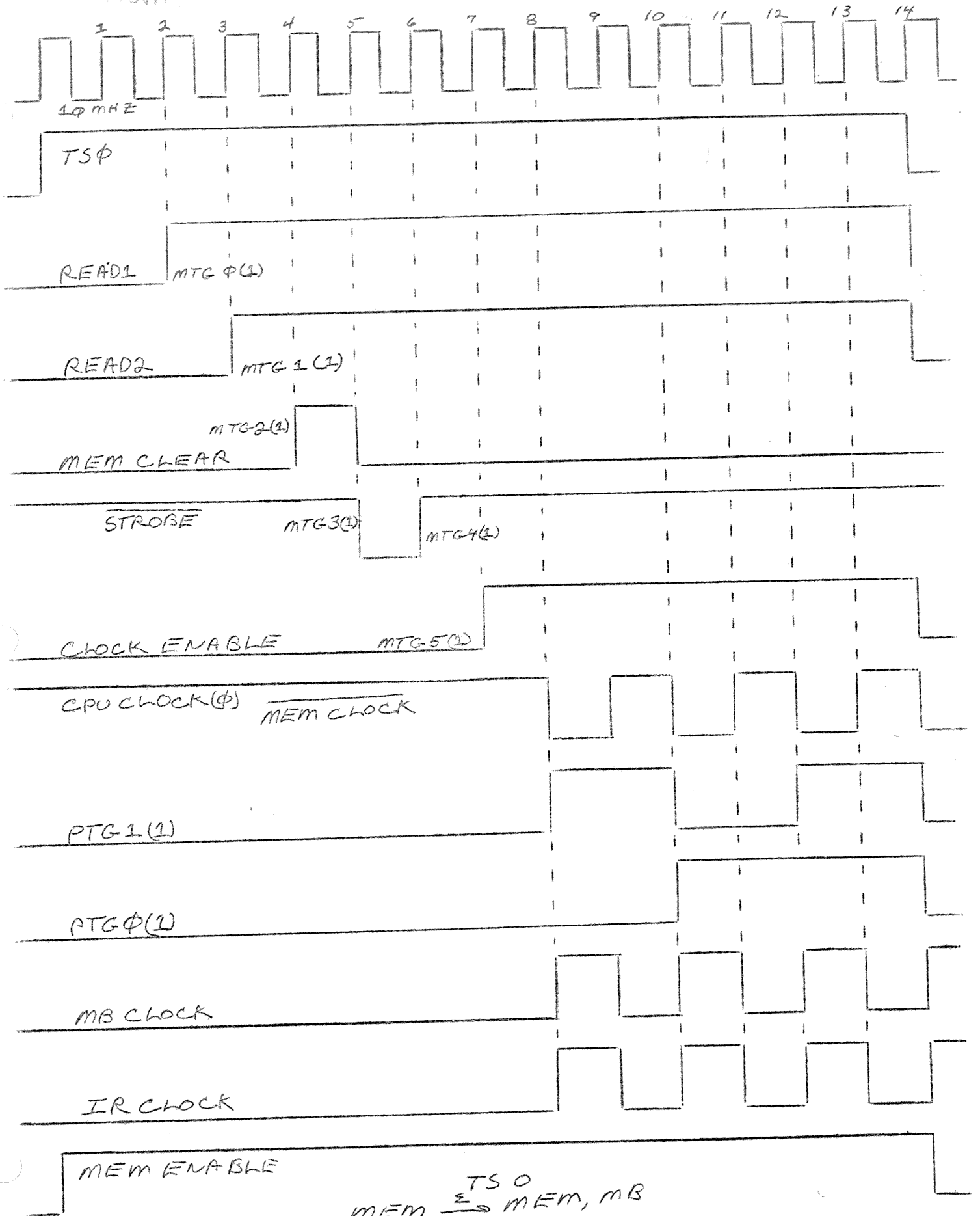
PTG	AC BIT
00	12 13 14 15
01	8 9 10 11
10	4 5 6 7
11	0 1 2 3

AC bit selection on READ
OR WRITE (LOAD) and NO
SWAP. PTG CLK selects.

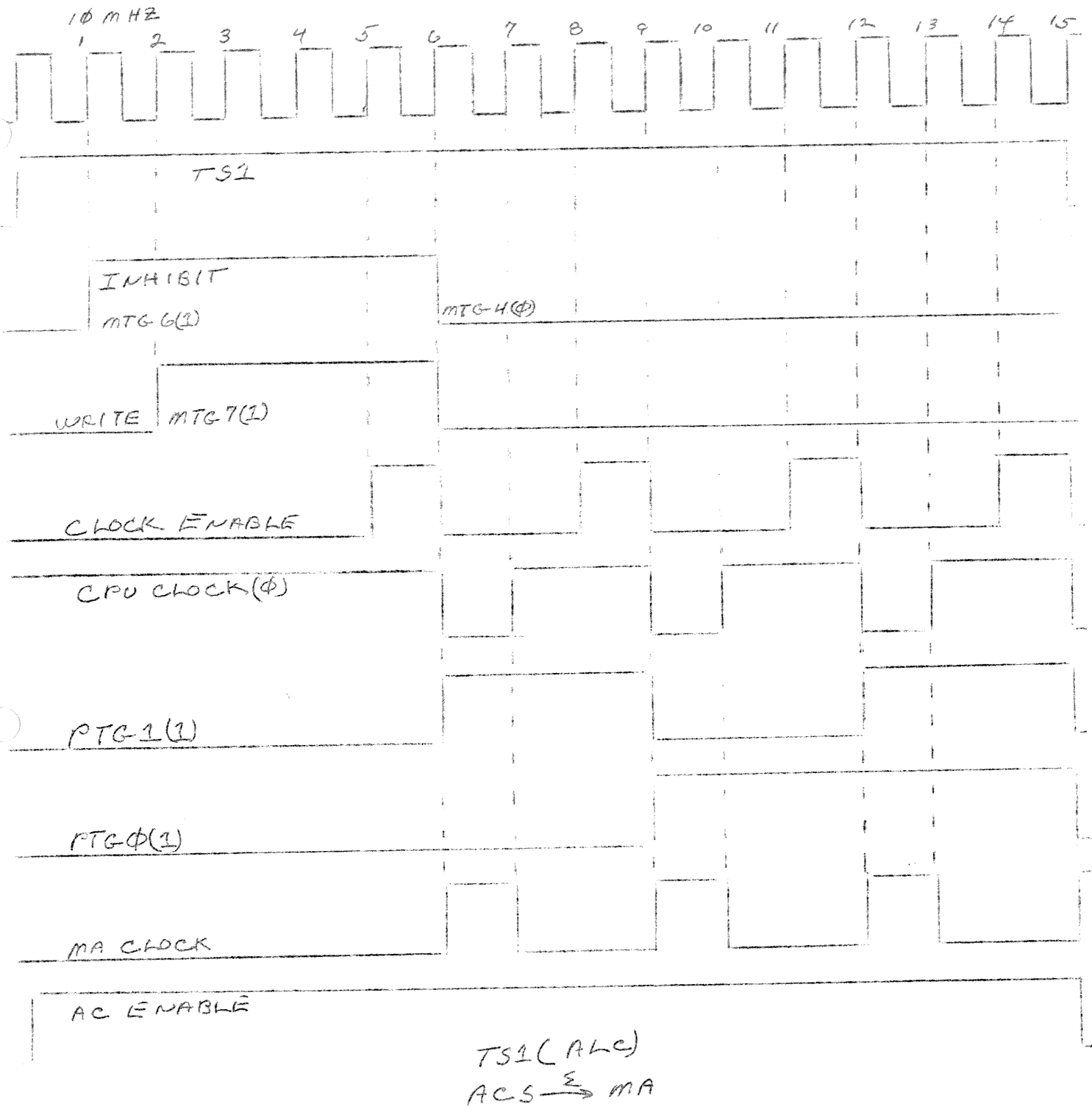


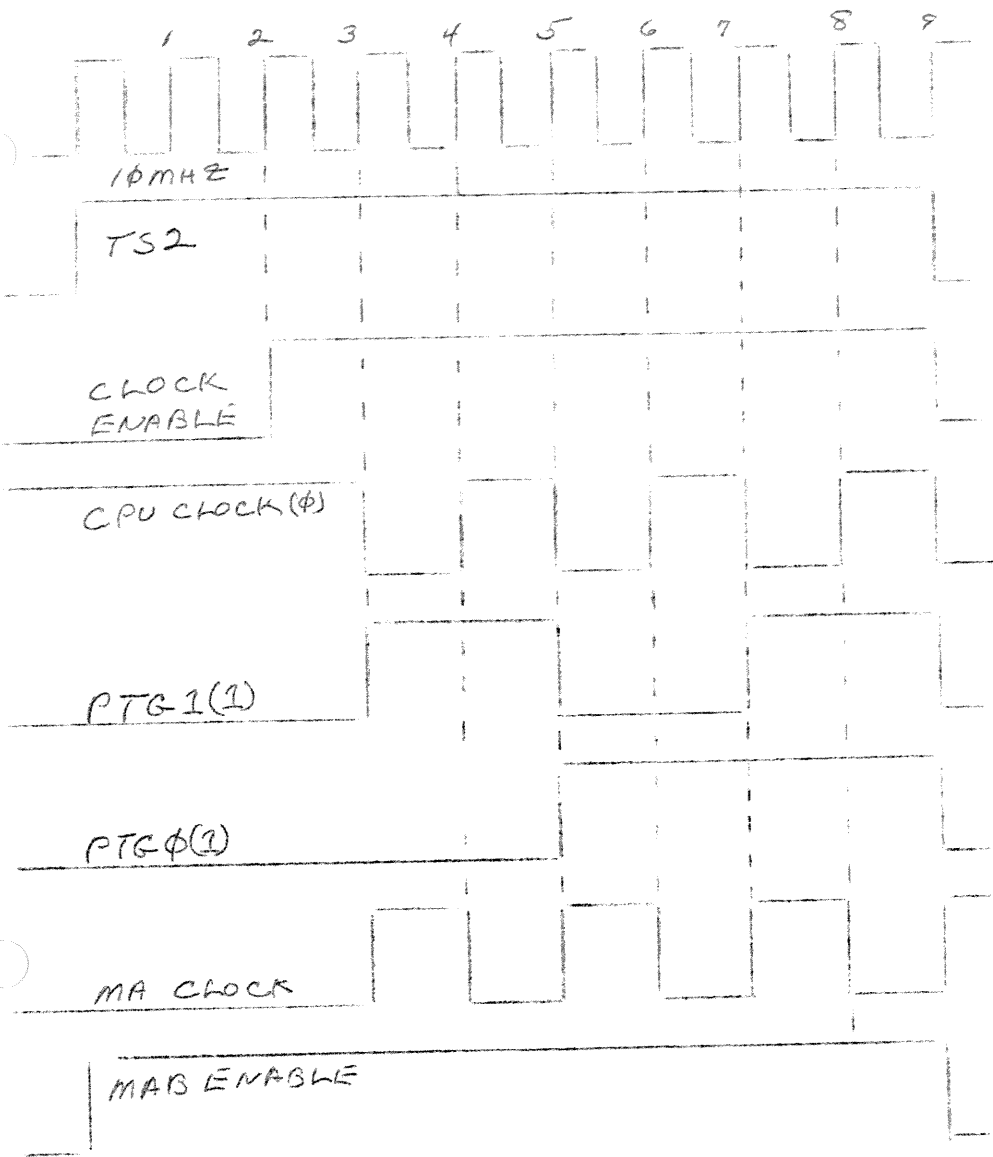
FETCH. JSR. TS5
 PC+1 \approx AC 3, MB
 MB \rightarrow PC

NOVA

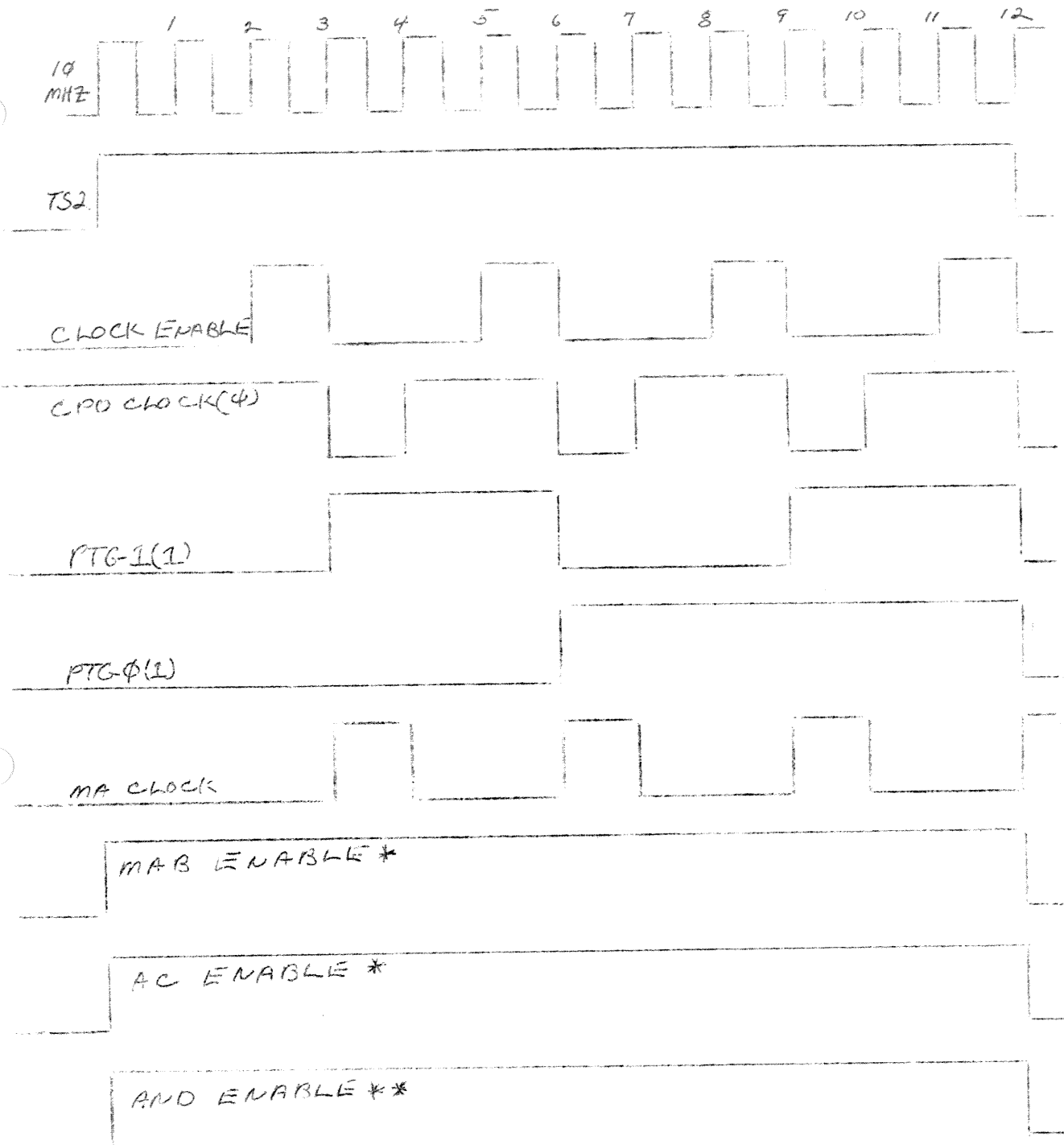


TSP
 MEM → MEM, MB
 MEM → IR



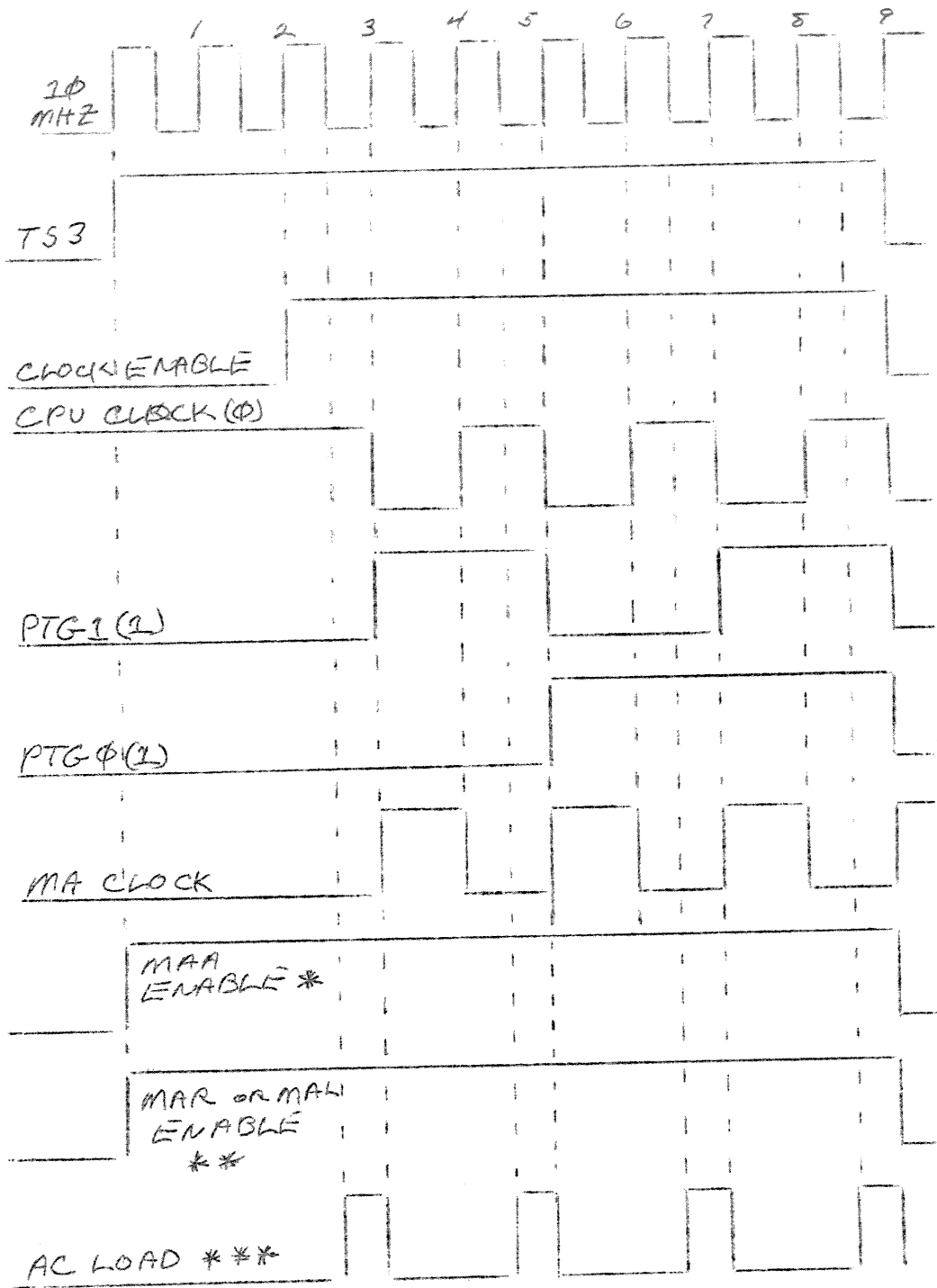


TS2(ALC)
 ACD ⊕ MA $\xrightarrow{\Sigma}$ MA
 .9 μs for;
 COM
 NEG
 MOV
 INC



TSI (ALC)
 $ACD \oplus MA \xrightarrow{\epsilon} MA$
 1, 2 ns for:
 ADC
 SUB
 ADD
 AND

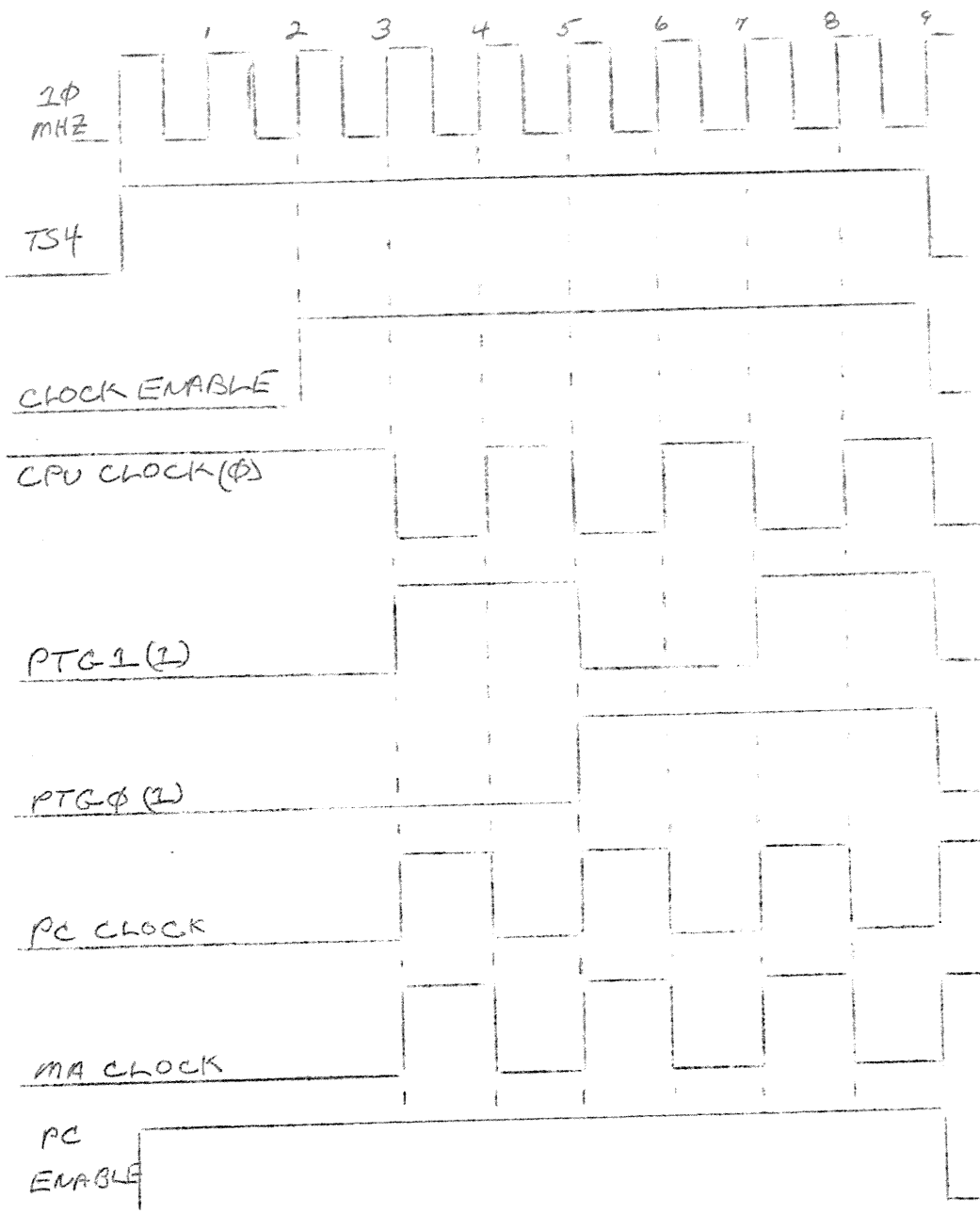
* All less Instruction AND
 ** AND Instruction only



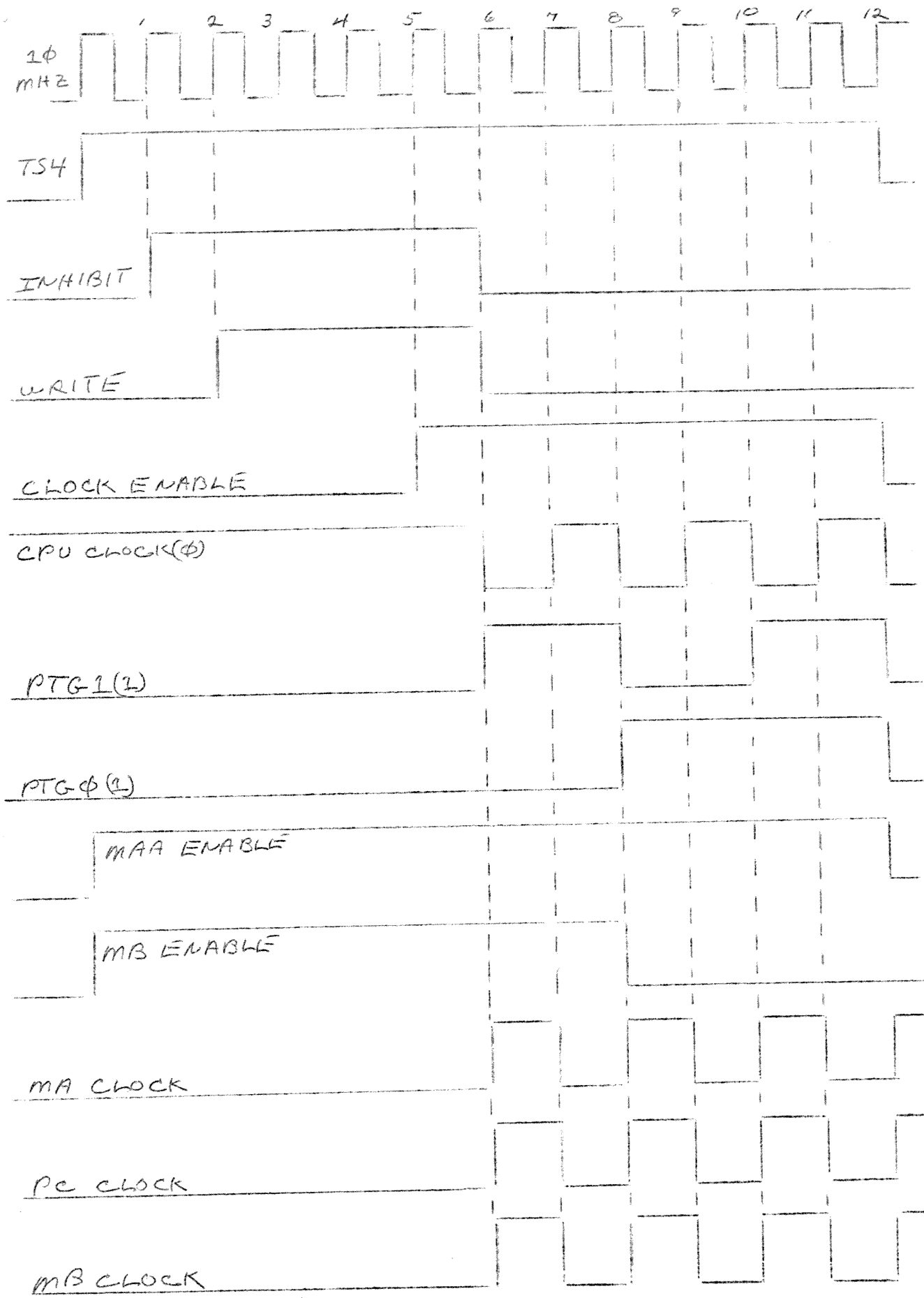
T53 (ALC)

MA $\xrightarrow{\Sigma}$ MA, ACD

- * NO shift or swap
- ** shift right or left
- *** Load option (MB12(Φ))

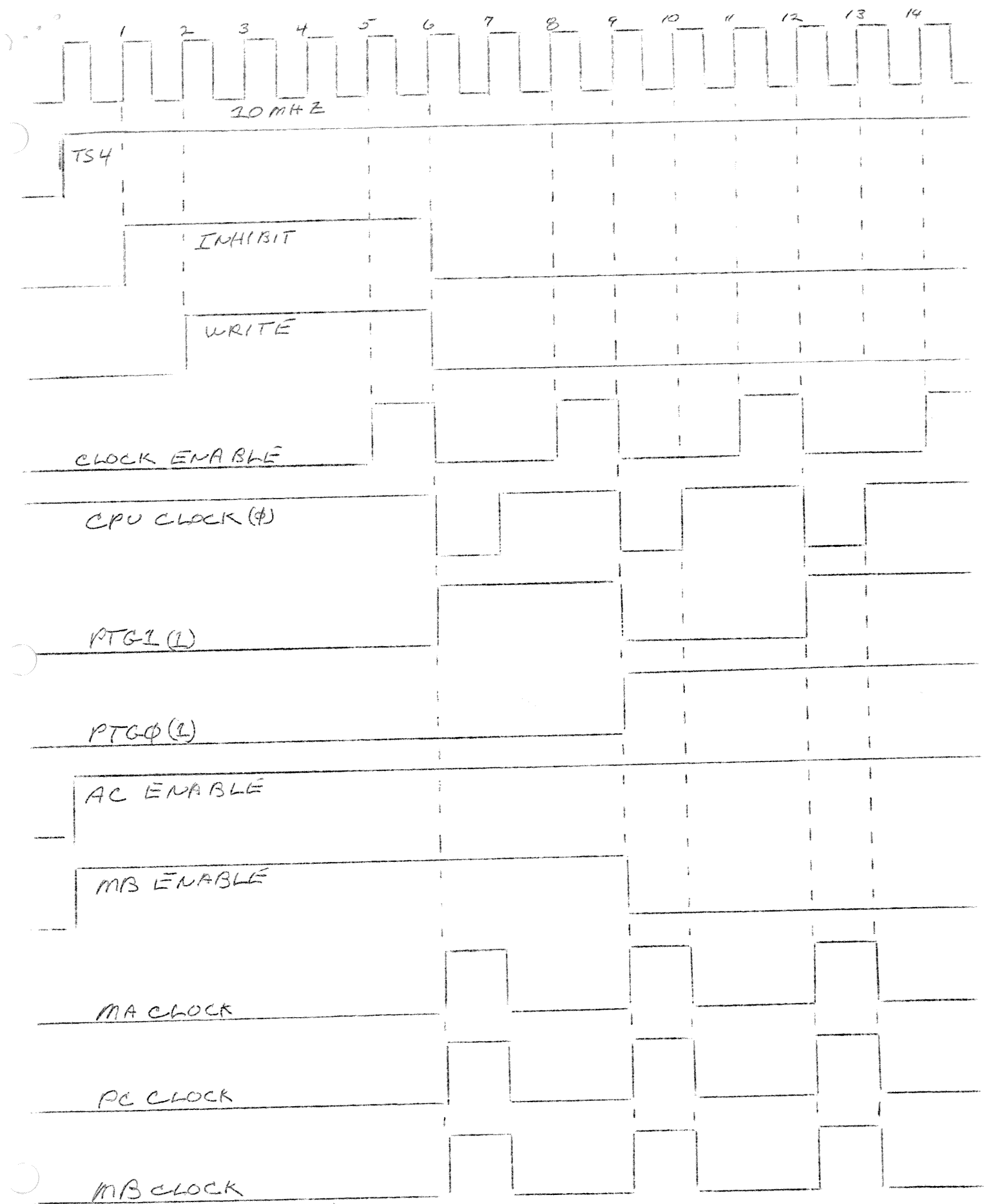


TS4 (ALC)
 $PC + S + 1 \xrightarrow{Z} PC, MA$



TS4 (MEM REF)
REL MODE, POSIT DISP

EFA $\xrightarrow{\Sigma}$ MA, PC, MB



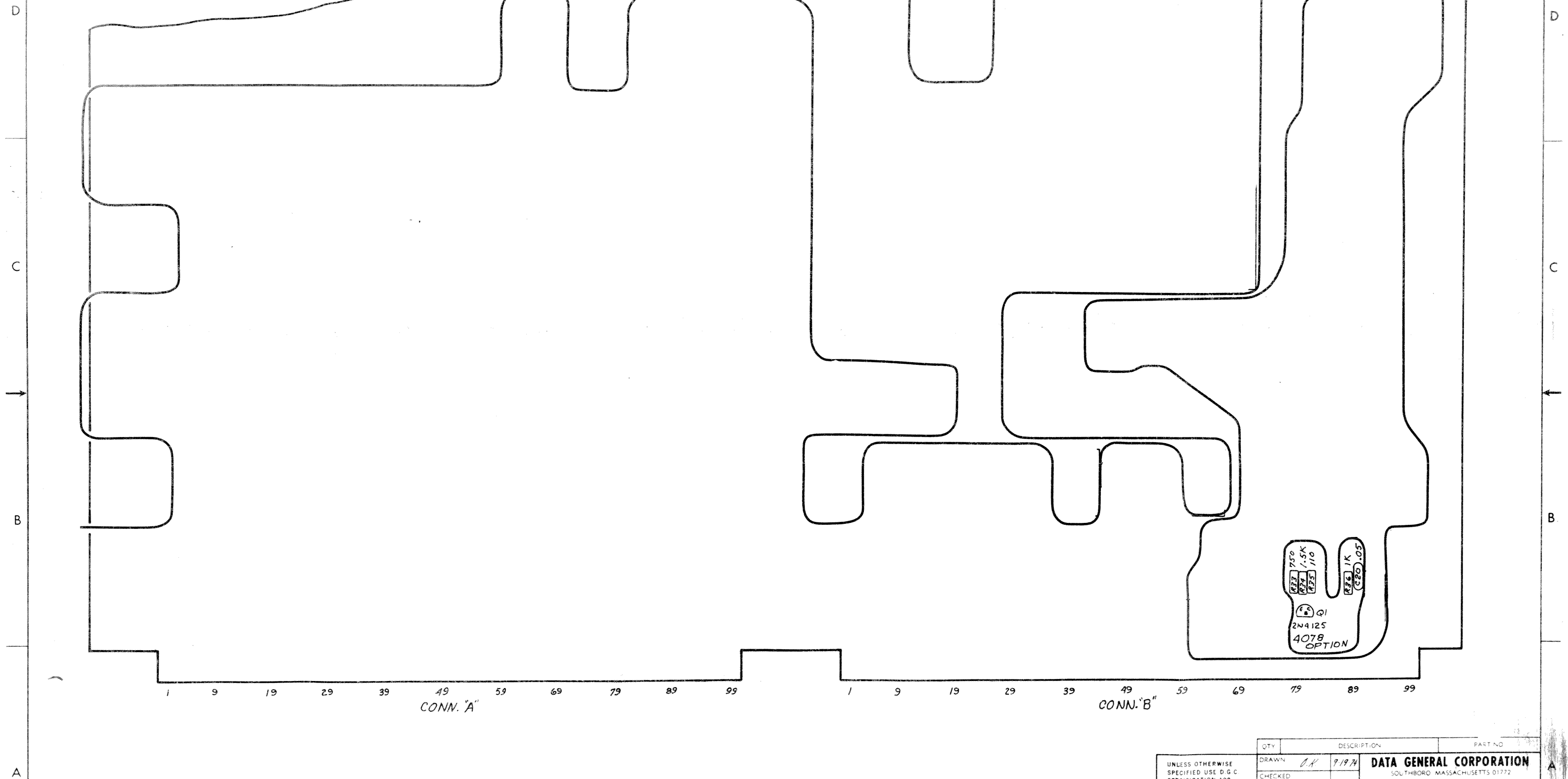
TSH (MEM REF)
 BASE MODE, POSIT DISP

EFA $\xrightarrow{\Sigma}$ MA, PC, MB

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DATA GENERAL CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

003-0000151-24
107-0000151-17

REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DATE
01	ECO 2715	OK	J.P.	1/10/74



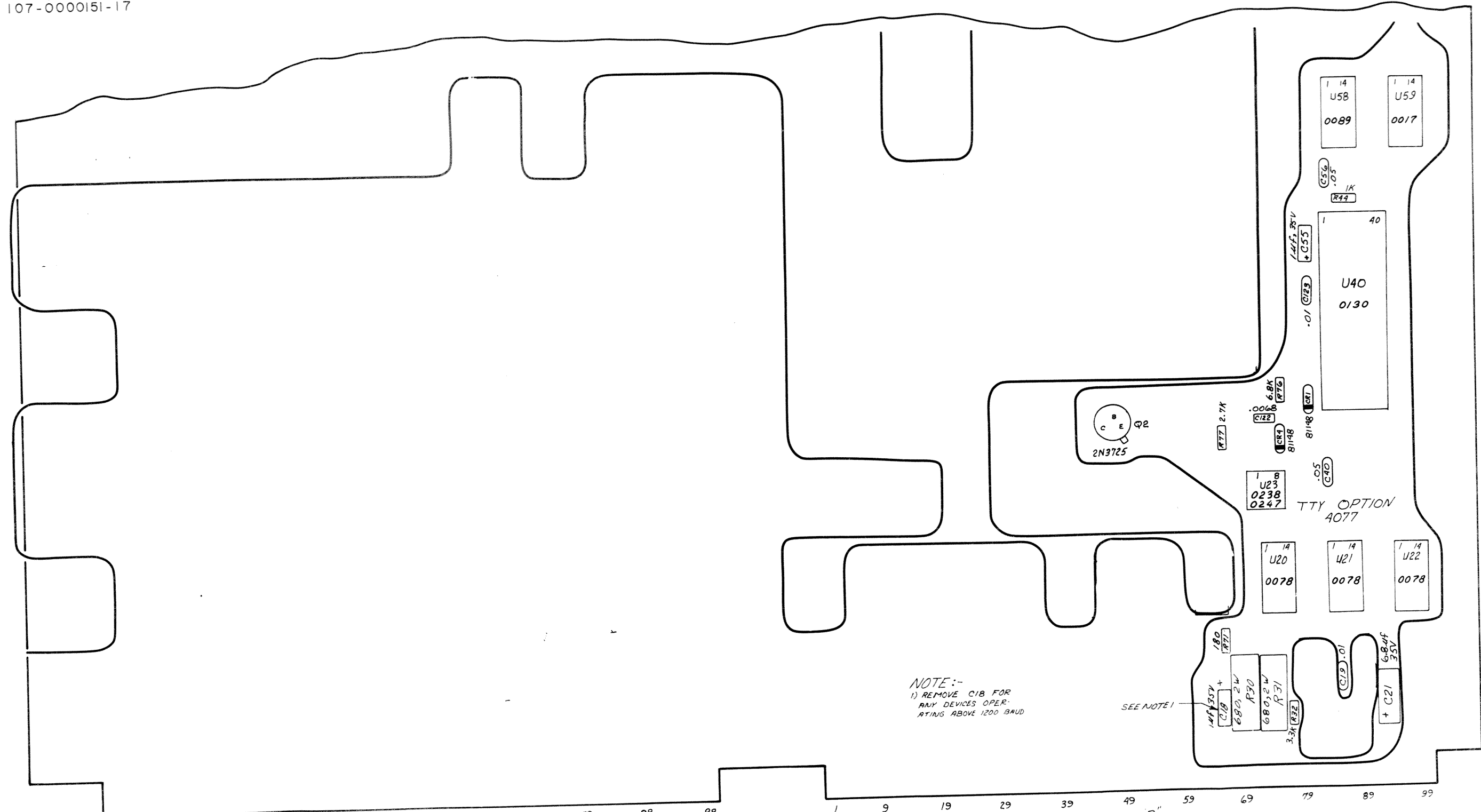
QTY	DESCRIPTION	PART NO
	UNLESS OTHERWISE SPECIFIED USE D.G.C. SPECIFICATION 108 000028 FOR TOLERANCES AND WORKMANSHIP REQUIREMENTS	
DRAWN	OK 9/19/74	DATA GENERAL CORPORATION SOUTH BORO, MASSACHUSETTS 01772
CHECKED		TITLE
ENGINEER		EIA OPTION FOR 4077
APPROVED		
MATERIAL	FIRST USED ON 4078	
FINISH	005-001038	
SCALE	D 016	DRAWING NUMBER
		000063
		REV
		01

BRUNING 40-526 20411

THE DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DATA GENERAL CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR IN WHOLE OR IN PART AS THE BASIS FOR MANUFACTURE OR SALE OF EQUIPMENT WITHOUT WRITTEN PERMISSION.

003-0000151-24
107-0000151-17

REVISIONS				
REV	DESCRIPTION	DRFTG	APP BY	DATE
01	ECO 2715	JK		



NOTE:-
1) REMOVE C18 FOR
ANY DEVICES OPER-
ATING ABOVE 1200 BAUD

SEE NOTE 1

BRUNING 40526 20411

UNLESS OTHERWISE SPECIFIED USE D G C SPECIFICATION 108 000028 FOR TOLERANCES AND WORKMANSHIP REQUIREMENTS	DRAWN	OK 9/19/74	DATA GENERAL CORPORATION SOUTH BORD MASSACHUSETTS 01761
	CHECKED		
	ENGINEER		
	APPROVED		
MATERIAL	PART USED ON 4077		TITLE TELETYPE I/O INTERFACE FOR 4075
FINISH	005-001036		
	REV	CODE	DRAWING NUMBER
	D	016	000062
			REV
			01

