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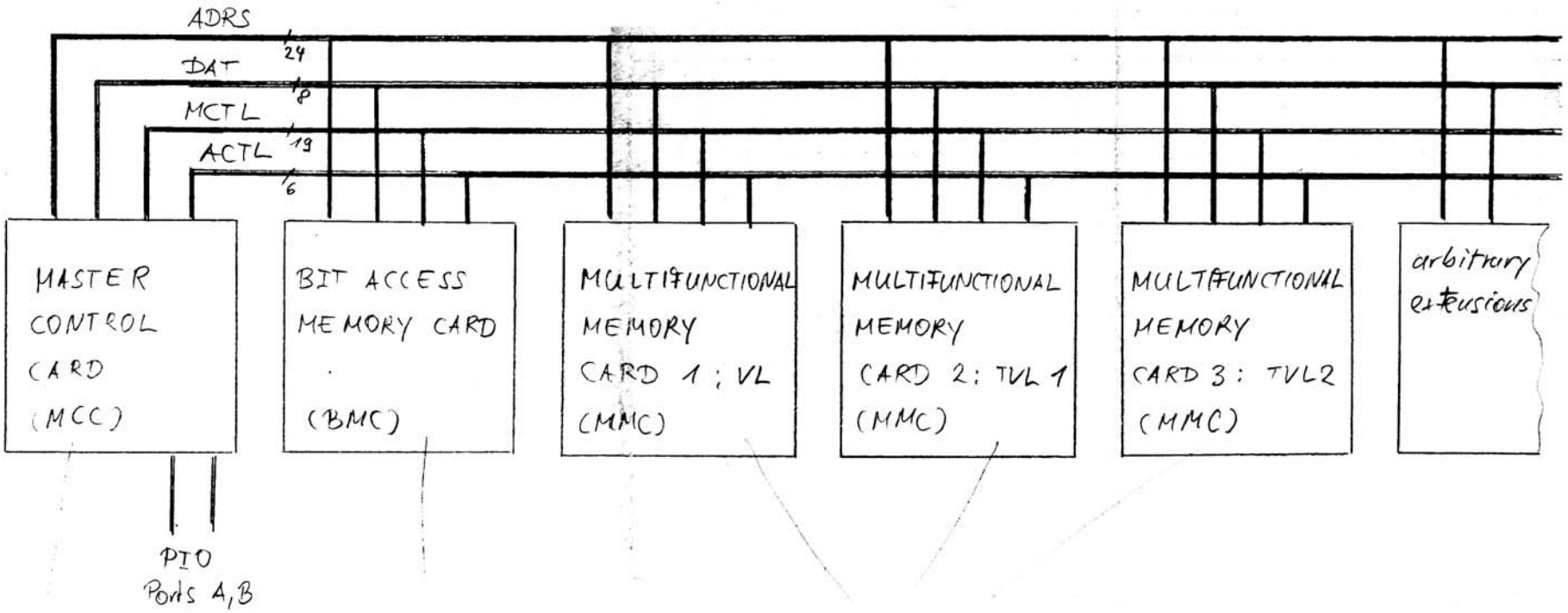
009.A INDUSTRIAL CONTROL SYSTEM OVERVIEW



- CPU
- CTC
- PIO
- 2 k ROM
- 2 k RAM
- SEQUENCER

- 8k RAM
- 16 + 4 bit BIT ADR. SEGMENT RAM
- BIT/BYTE-ACCESS LOGIC

- UP TO 1284 BYTES MEMORY
- TVL COMPARE LOGIC
- ADRS GENERATOR

MMC FUNCTIONS

a.) UNIVERSAL MEMORY

b.) VARIABLE LIST MEMORY

c.) TVL MEMORY

CONTROL BUS LINES

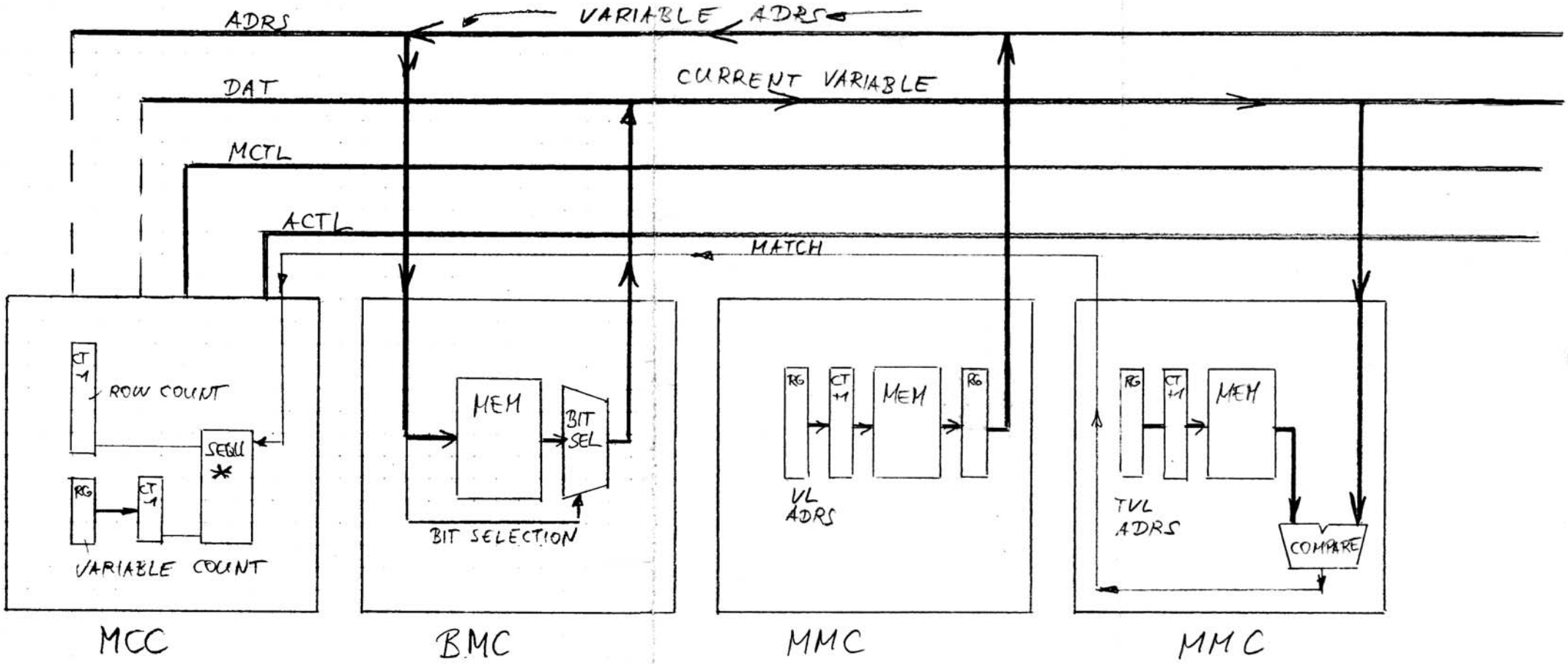
a.) MICROPROCESSOR (MCTL)

- MREQ
- IORQ
- M1
- RD
- WR
- RFSH
- BUSRQ
- BUSAK
- HALT
- WAIT
- READY
- CLOCK
- RESET
- INT
- NMI
- IEI
- IEO
- MEMDI
- IODI

b.) CONTROLLER AUGMENTATION (ACTL)

- MODE 3-0
- STB
- MATCH

009.A COMPARE MODE BASIC INFORMATION FLOW



* steuert:

MREQ, RD

MODE 3-0

STB

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009. A ADDRESS INTERPRETATION

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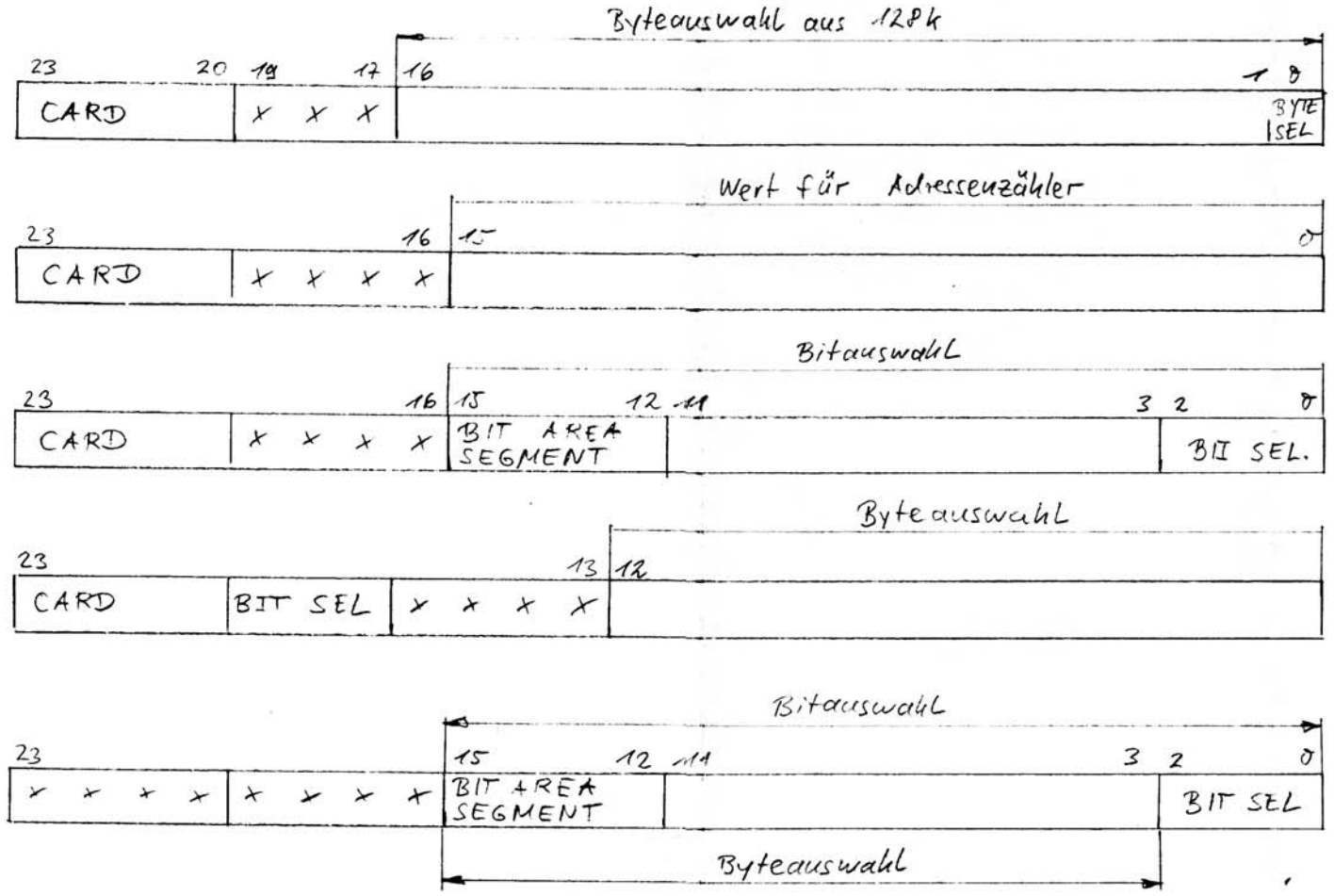
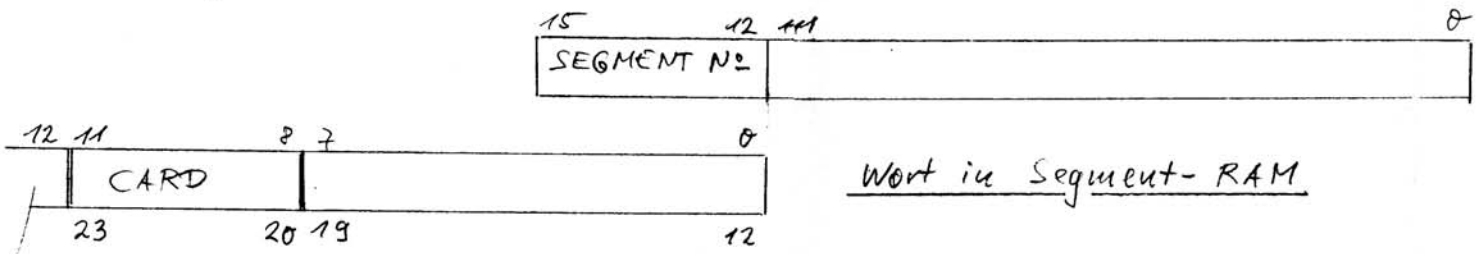
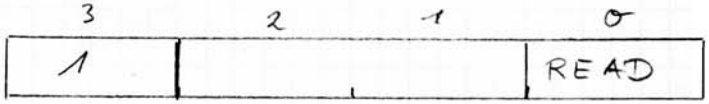


Bildung der 24-Bit-Adresse



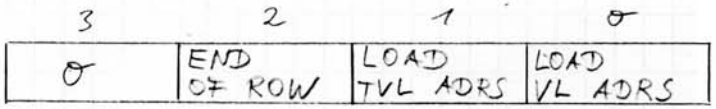
009. A MODE INTERPRETATION

a.) ACCESS MODE



MODE	BMC	MMC
8	WRITE BYTE	WRITE BYTE
9	READ BYTE	READ BYTE
A	WRITE BIT	-
B	READ BIT	-
C	WRITE MODE REG	WRITE MODE REG.
D	READ BIT SEGMENT ADRS	READ MATCH
E	WRITE BIT SEGMENT ADRS	WRITE ADRS
F	DO NOTHING	DO NOTHING

b.) COMPARE MODE



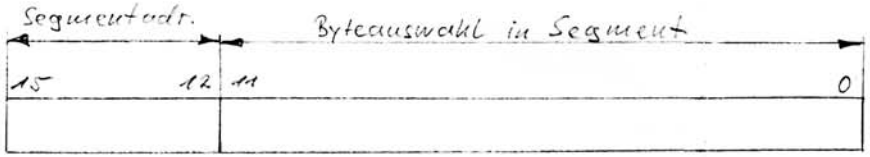
MODE REG INTERPRETATION

CONTENT	BMC	MMC
0	NORMAL ACCESS	DO NOTHING (NORMAL ACCESS ONLY)
1	VERTICAL BIT ACCESS	VL MEMORY
2	VA MEMORY, BINARY	TVL MEMORY 1)
3	VA MEMORY, TERNARY	TVL MEMORY 2)

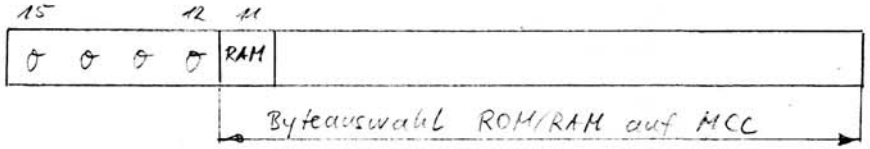
1) MATCH <= /MATCH FLIPFLOP

2) MATCH <= MATCH FLIPFLOP

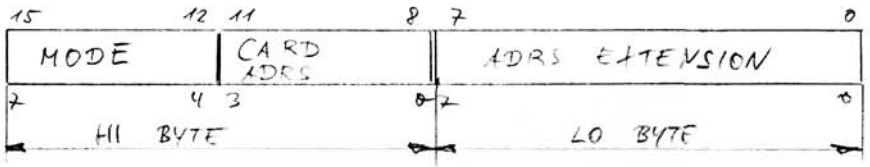
009. A CPU ADRS INTERPRETATION



Segment 0 (ROOT SEGMENT)



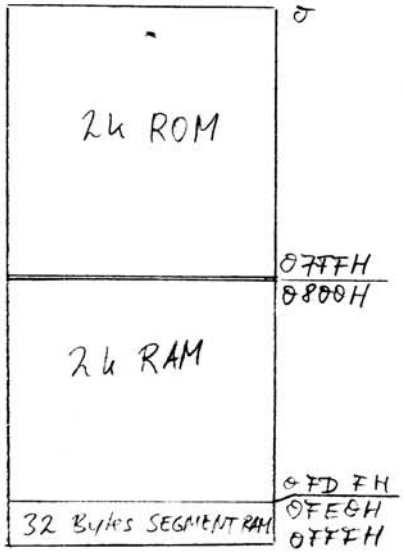
Inhalt des SEGMENT RAM



MODE FIELD FOR INTERNAL ACCESS

9 - LOAD ROW COUNT LO
A - LOAD ROW COUNT HI
B - LOAD VAR COUNT LO
C - LOAD VAR COUNT HI
D - READ STATUS

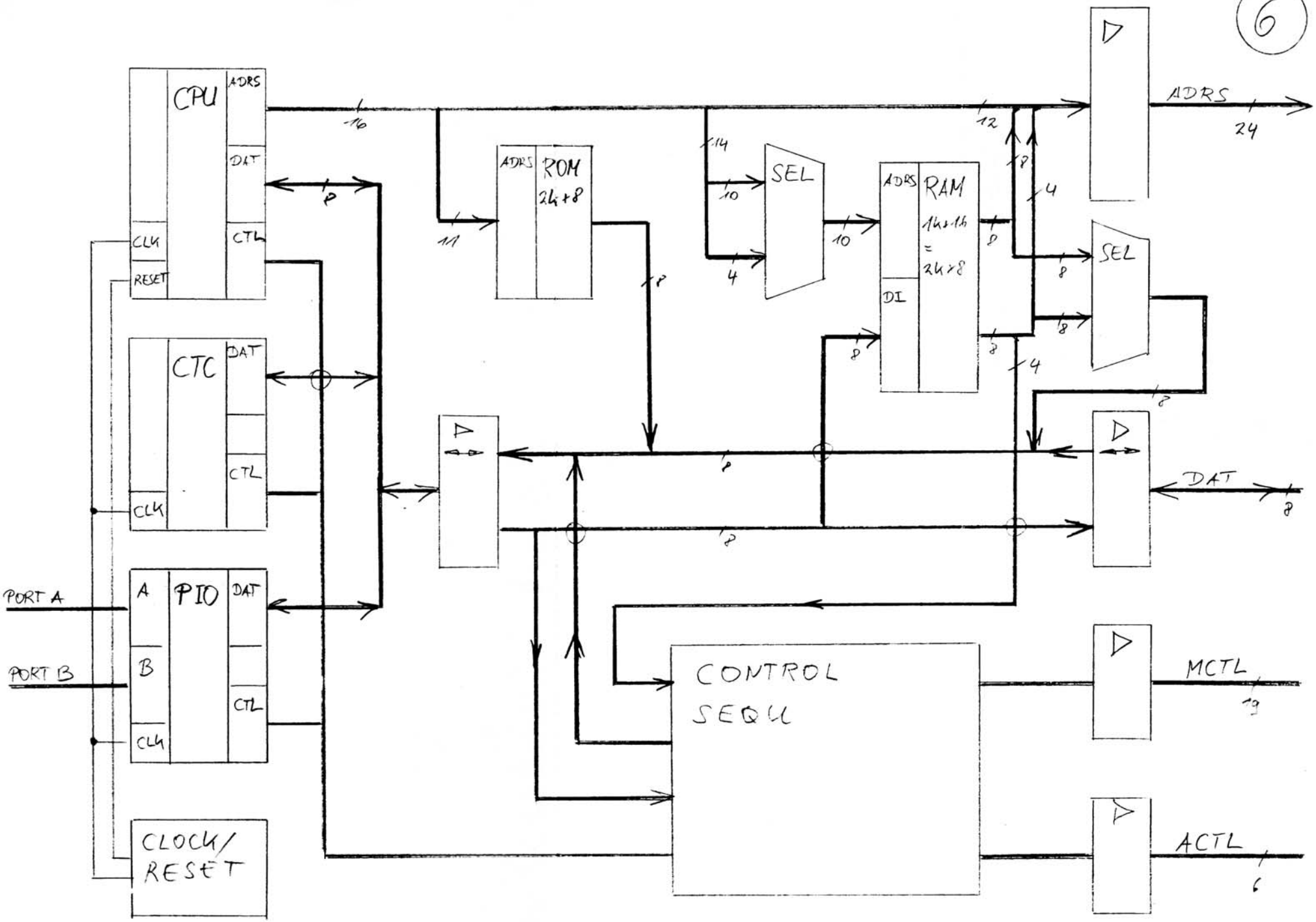
Speicheraufteilung auf MCC



MODE FIELD INTERPRETATION

CONTENT	BMC	MMC
0	BYTE ACCESS	BYTE ACCESS
1	BIT ACCESS	-
2	MODE REG ACCESS	MODE REG ACCESS
3	BIT SEGMENT ADRS ACCESS	READ MATCH / WRITE ADRS
E	COMPARE	COMPARE
F	DO NOTHING	DO NOTHING

009. A MASTER CONTROL CARD (MCC) -DATA FLOW OVERVIEW-



009. A BIT ACCESS MEMORY CARD (BMC) -DATA FLOW OVERVIEW-

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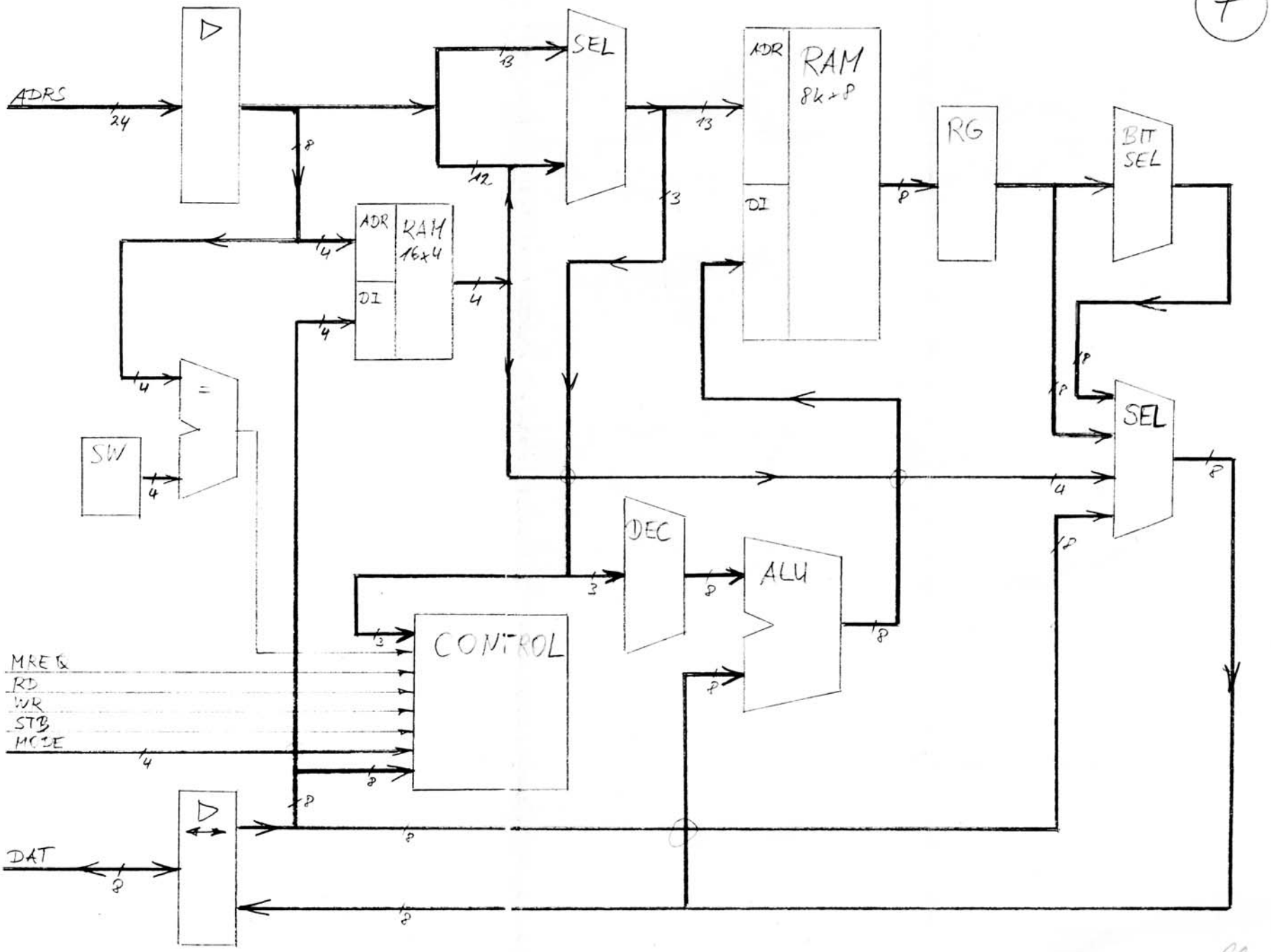

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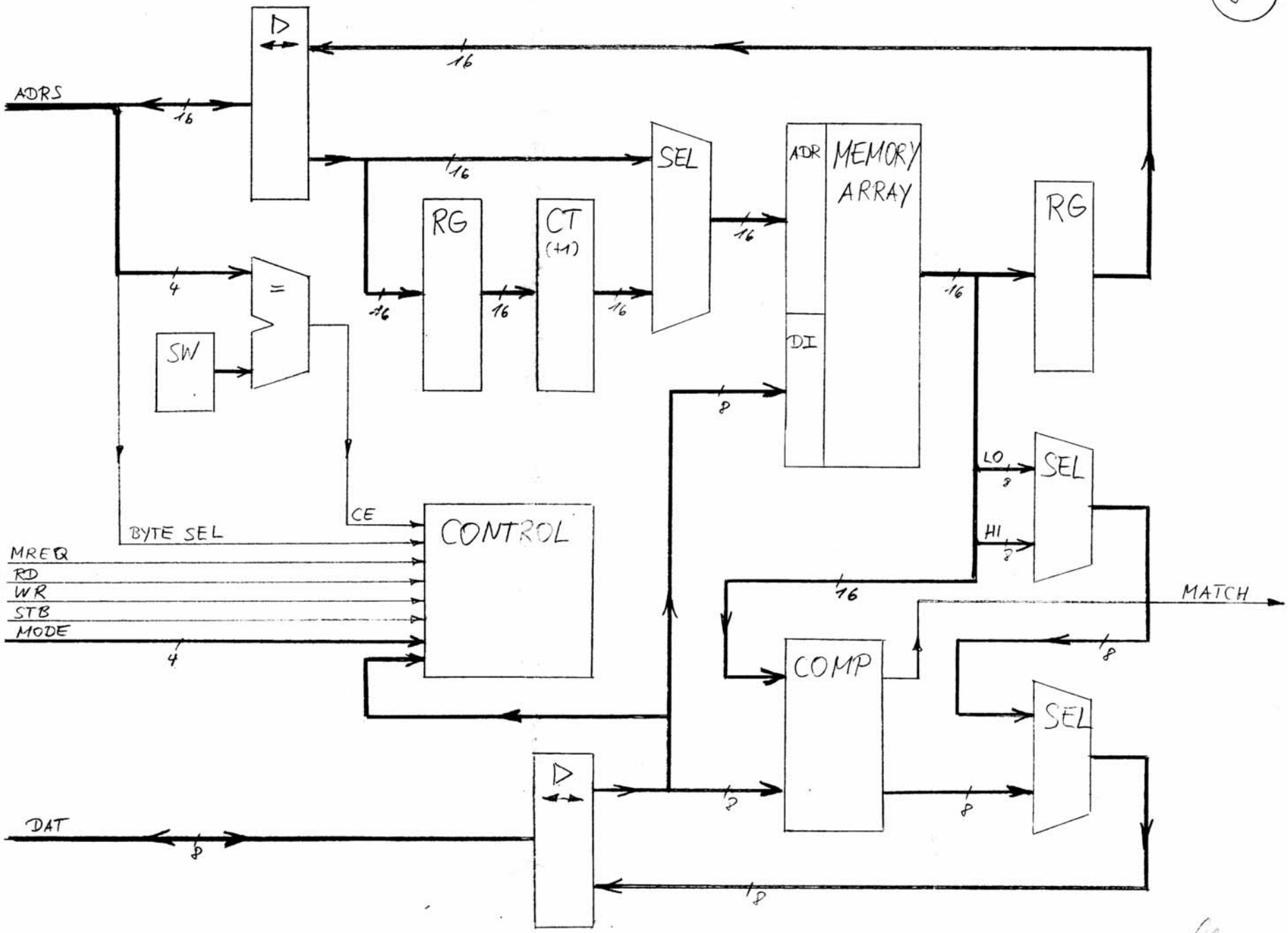
009. A MULTIFUNCTION MEMORY CARD (MMC) – DATA FLOW OVERVIEW –



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