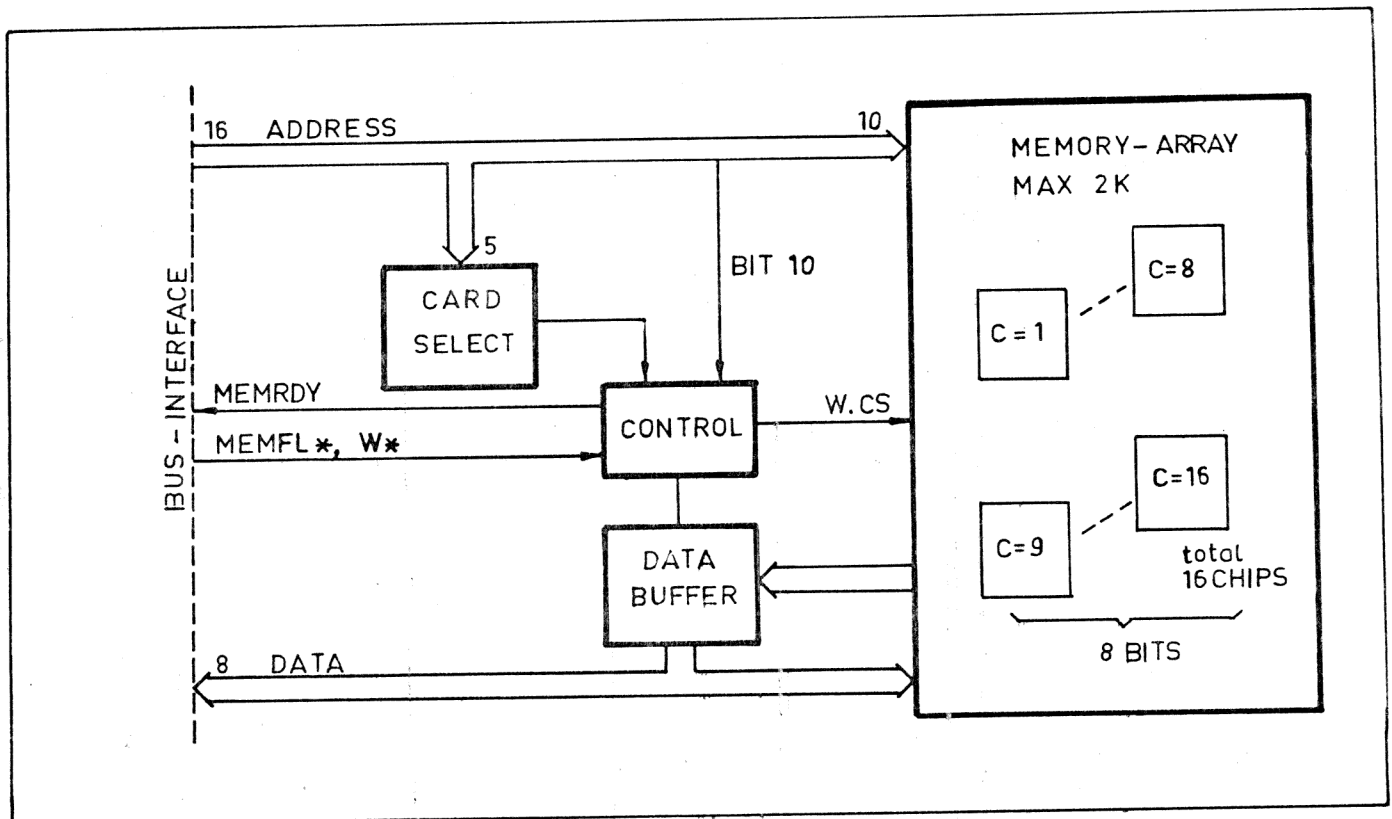


Jan 79



DESCRIPTION

2002 is a memory module for static RAM based on memory circuit 21L02B

- It is delivered with full capacity of 2 kbytes mounted.
- The on-board memory is placed in the 4680 memory map in multiples of 2K segments.
- Address selection is done with an on-board jumper plug.
- Memory circuits are inserted in steps of 1K (8 memory circuits).
- Provides jumper selectable wait-state signalling.

The total access time of the memory module in a system is determined by the memory circuit chosen and the delays ($3T_{TTL} + \text{bus}$). If the access time does not match the concerned CPU then the memory module is adapted with the signal **MEMRDY***, which requests for wait-state(s). For more information refer to the System Manual and data sheets on the CPU-card.

The DataBoard requirements for 4680-bus signalling are contained.



SPECIFICATIONS

POWER

+ 5V $\pm$ 5%

480 mA

SIZE

Standard Europe card 100 x 160 mm

CONNECTOR

64 pin two-row standard Europe connector (DIN 41612)

CONNECTION

Any slot on the memory-side of the 4680-bus.

PIN NUMBERING

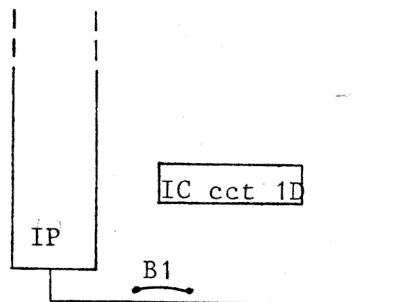
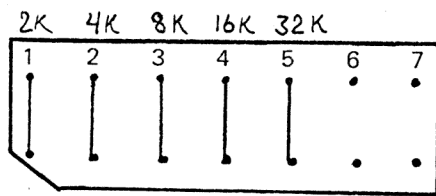
See System Manual

SIGNALLING CPU-2002

- 16 bits addressbus
- 8 bits tristate databus
- MEMRDY* to be selected by the user for wait-state signalling
- MEMFL* , the memory read signal

JUMPERS

BASEADDRESS is selected by a jumper plug-on-board location 1B - as shown by the figure. The principle of coding is described in the System Manual.

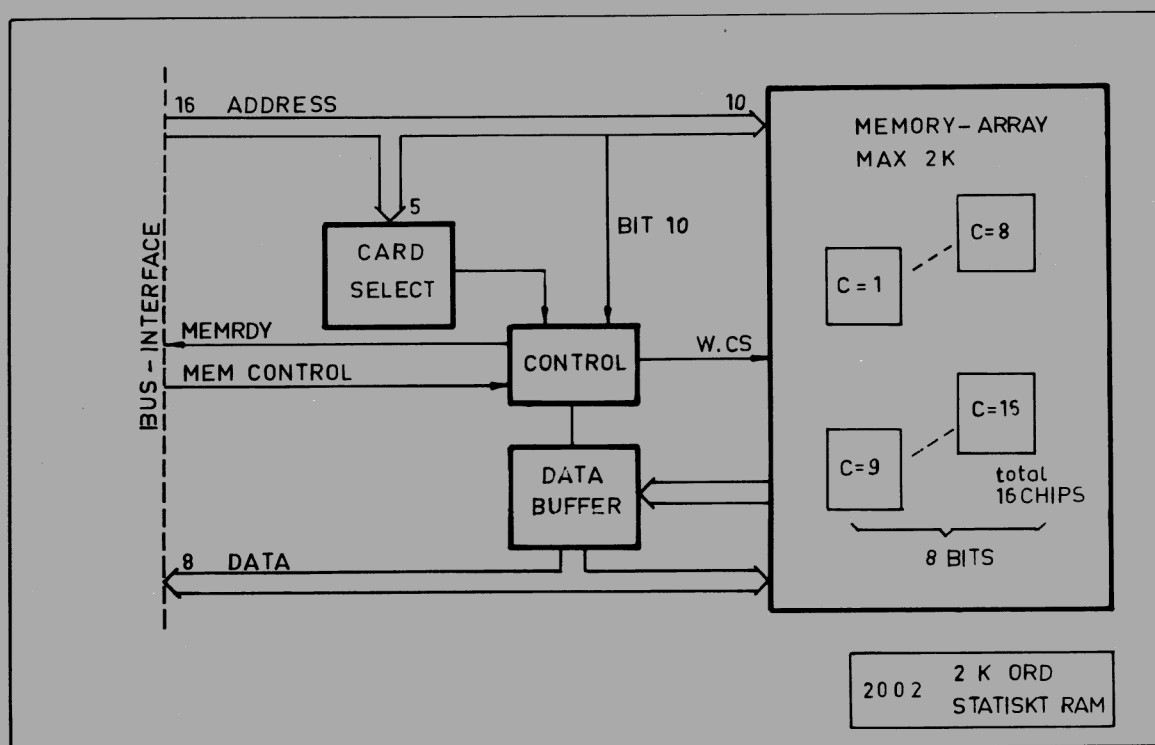


The MEMRDY* -signal is connected to the bus-connector by jumper B1 located directly beneath the IC-circuit 1D.

ON-BOARD LOCATION OF MEMORY CIRCUITS

	<u>bit 7</u>	<u>bit 6</u>	<u>bit 5</u>	<u>bit 4</u>	<u>bit 3</u>	<u>bit 2</u>	<u>bit 1</u>	<u>bit 0</u>
Range 0—1K =	3B	4B	5B	6B	3A	4A	5A	6A
Range 1—2K =	3D	4D	5D	6D	3C	4C	5C	6C

April 1978



BESKRIVNING

2002 är ett statiskt RAM som baserats på minneskrets 21L02B.

- Det är vid leverans fullt bestyckat med 2 kbyte (1024 x 1 bitar per kapsel)
- Det kan läggas valfritt inom 64K med multipel av 2K.

Adressval sker med bygglingsplugg.

- Det kan bestyckas i steg av 1 kbyte.

Kortet uppfyller buss-normerna för last- och drivförmåga i

DataBoard 4680.



TEKNISKA DATA:

- Matningsspänning: 5V $\pm$ 5%
- Strömförbrukning fullt bestyckad: 480 mA
- Accesstid: Nominellt 400 nsek för typ 21LO2B
- Mått: Enkelt europakort 100 x 160 mm
- Kontakt: B 64 pol. tvåradigt europadon 41612

KONTAKTNUMRERING:

Se systembeskrivning

SIGNALER mellan

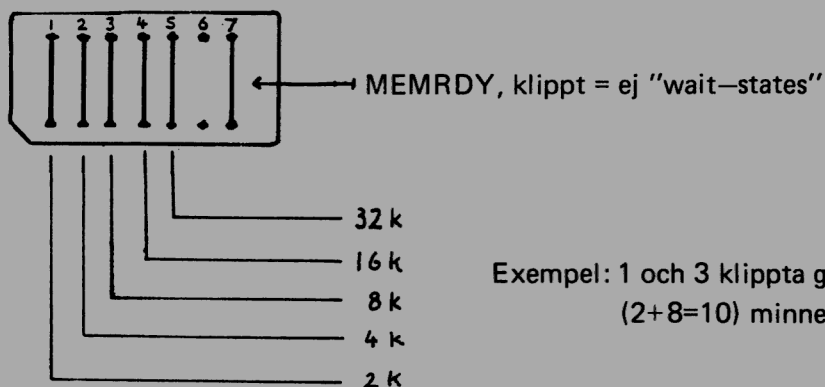
CPU och RAM-kort:

- 16 bitars adressbuss
- 8 bitars tristate databuss
- MEMRDY är konstruerad för att begära två "wait-states" av CPU
- "MEM control" innehåller signalerna för läsning, MEMFL och skrivning

Anm. Systembeskrivningen beskriver bussignalerna och anger villkoren för MEMRDY.

Byglingar:

Minnets placering i minnesarean väljs med bygglingsplugg.



Exempel: 1 och 3 klippta ger
(2+8=10) minnesarean 10 – 12K