



**BUTECH
ELECTRONICS**

P.O. Box: 58 Vinkeveen
The Netherlands

*formerly VIM-1

B.E.M.-4K+

VERY LOW COST ADD-ON RAM CARD
(for: *SYM-1, AIM-65, KIM-1)

GENERAL DESCRIPTION

The BEM-4K+ ADD ON RAM CARD is specially designed to be used in combination with the SYM-1 (Synertek), AIM-65 (Rockwell) or KIM-1 (MOS - Technology) SINGLE BOARD MICRO COMPUTERS.

The BEM-4K+ will expand the on board RAM capacity of those micro computers with another 4K byte simply by plugging the card on to the systems expansion connector. For this purpose the BEM-4K+ is provided with a fixed 44-pin socket connector in line with the plane of the printed circuit *.

Without modifications the BEM-4K+ can be used with the SYM-1 and the AIM-65. The add-on RAM field will be located from \$1000 to \$1FFF (Hex.).

However, if used with the KIM-1 3 jumpers have to be soldered (see side 2) to shift the add-on RAM field to the locations from \$0400 to \$13FF (Hex.).

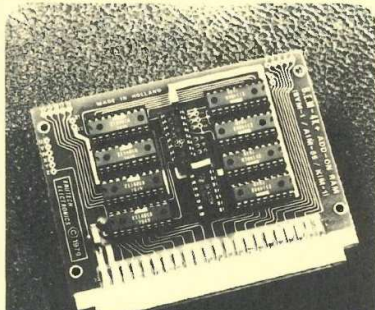
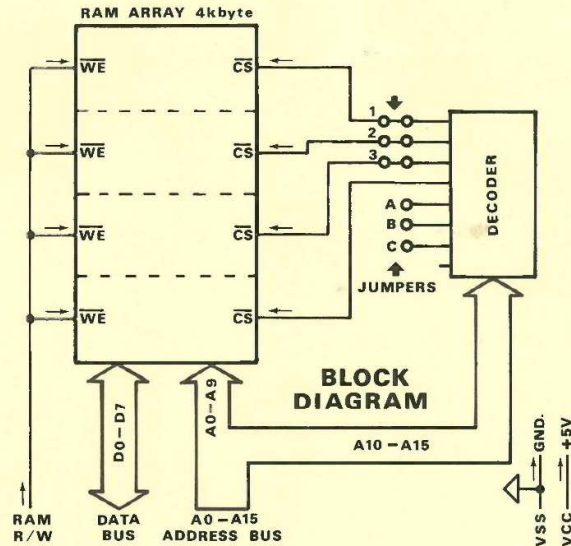
The BEM-4K+ CARD will be supplied with 450 nsec. Low Power Static RAM's (2114L or equivalent) mounted in sockets in standard version. The worst case supply current (VCC= 5.25V TA= 0°C) will be less than 400 mA. Typical current will be less than 300 mA.

* On request the BEM-4K+ can be delivered with discrete connector (not soldered to the printed circuit).

FOR MICROPROCESSOR APPLICATIONS

FEATURES

- * VERY LOW COST 4K BYTE RAM EXPANSION CARD
- * SUITABLE FOR SYM-1, AIM-65 AND KIM-1
- * PLUGS DIRECTLY INTO THE MICRO COMPUTER BOARDS
- * SMALL SIZE (88 X 110 mm., INCL. CONNECTOR)
- * STANDARD VERSION WITH LOW POWER STATIC RAM's (2114L)
- * SINGLE POWER SUPPLY REQUIRED (+5V)
- * DECODER WITH LOW POWER SCHOTTKY IC's
- * ALL IC's MOUNTED IN SOCKETS
- * GENEROUS OEM DISCOUNTS AVAILABLE

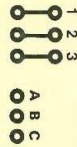


EXPANSION CONNECTOR PINS USED BY B.E.M.-4K+

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	*	12	DB 3	A	AB 0	N	AB 11
2	*	13	DB 2	B	AB 1	P	AB 12
3	*	14	DB 1	C	AB 2	R	AB 13
4	*	15	DB 0	D	AB 3	S	AB 14
5	*	16	*	E	AB 4	T	AB 15
6	*	17	*	F	AB 5	U	*
7	*	18	*	H	AB 6	V	*
8	DB 7	19	*	J	AB 7	W	*
9	DB 6	20	*	K	AB 8	X	*
10	DB 5	21	VCC +5V	L	AB 9	Y	*
11	DB 4	22	VSS GND	M	AB 10	Z	RAM R/W

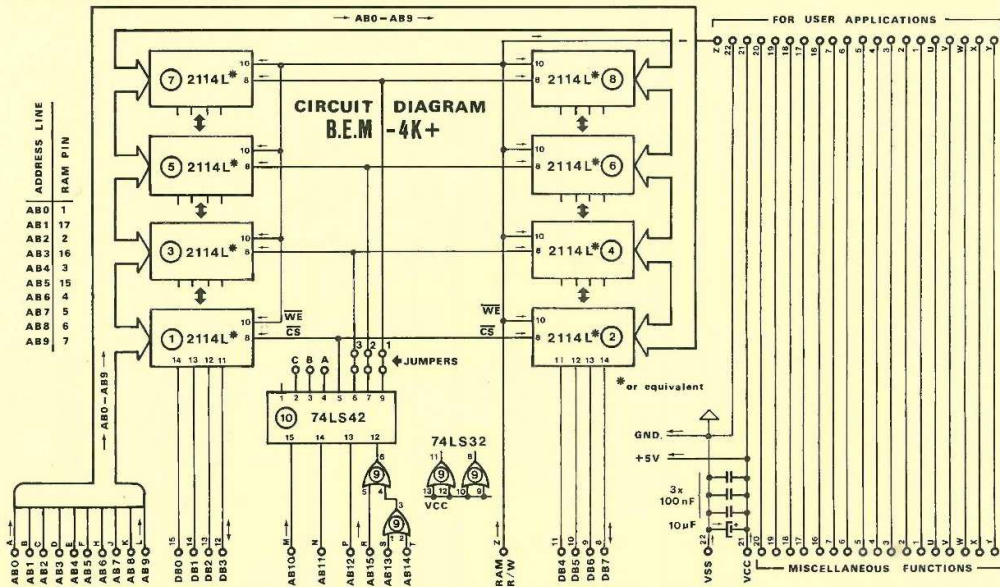
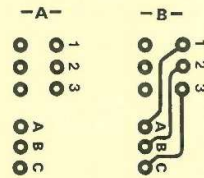
JUMPERS

In standard version the 4K RAM field is located from \$1000 to \$1FFF and can be used without modifications with SYM-1 and AIM-65.



For KIM-1 applications the straps have to be removed (A). (e.g. with a sharp knife) and be replaced by jumpers. (1-A), (2-B) and (3-C).

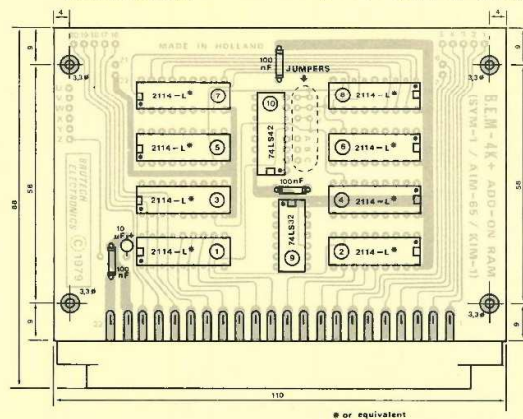
* The 4K RAM field is located now from \$0400 to \$13FF.



MECHANICAL SPECIFICATIONS

- 1) PRINTED CIRCUIT: 1.6 mm. epoxy glass fiber reinforced in format (110 X 76 mm.). Double sided metallized with plated through holes finally covered with epoxy masks on both sides.
- 2) CONNECTOR: 44-pin gold plated connector soldered to the printed circuit (MIL-C-21097). On request the BEM-4K+ can be delivered with discrete connector (not soldered to the card). Please contact factory or nearest representative for more details.
- 3) STANDARD version with IC sockets
- 4) MAXIMUM THICKNESS: 12.5 mm.
Solder side: - 2.0 mm.
Component side: + 8.8 mm.

MECHANICAL LAY-OUT (dimensions in mm.)



representatives:

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