

Notes from EKB @ Vogons

JP2 - keyboard type select:

1-2 pin33 of Jetkey BIOS to +5V via 1k Ω ;

2-3 pin33 of Jetkey BIOS to GND;

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JP5: (why it is necessary is not clear, does not affect anything)

pin1 - pin23 of Jetkey BIOS;

pin2 - GND;

pin3 - pin24 of Jetkey BIOS;

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JP9 - parity / ECC On/Off

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JP10: Power Good

1-2 Detect from power supply;

2-3 Detect from board;

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JP11: (gets the actual power good signal setting for ancient power supplies)

pin1 - power good;

pin2 - via 470 ohms to pin3 of JP10;

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JP12 - Read RAM wait state 0/1

JP13 - FPU clock Fast/Slow (toggles the divider from the main clock)

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Memory:

JPA1; JPB1; JPC1 - Memory control:

A1:

1-2 Takes 128 KB away, probably for either EMS Memory or shadow RAM;

2-3 - OFF;

B1:

1-2 Enabling the second memory bank;

2-3 - OFF;

C1:

1-2 - The volume of each memory chip is 256x1 kBit (or a multiple of this number if 4-bit, determines the type of matrix of each chip);

2-3 - The volume of each memory chip is 1024x1 kbit (or a multiple of this number if 4-bit);

As a result, if we assume that the connection of pins 1-2 is "0", and 2-3 is "1" we get the following:

A1 B1 C1

0 0 0 - 512kb;

1 0 0 - not supported;

1 1 0 - 896kB;

0 1 0 - 1024kb;

1 0 1 - 1920kB;

0 0 1 - 2048kb;

1 1 1 - 3968kB.

0 1 1 - 4096kB;

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JPA/B/C - Software memory counting limit up to: 512kb, 640, 896, 1024kb, I didn't check for more.

It is useless to add SIPP/SIMM until you remove all DIP-memory, because the layout is parallel.

1 Mb RAM = JPA 2-3, JPB 1-2, JPC 2-3

2 Mb RAM = JPA Open, JPB 2-3, JPC Open

4 Mb RAM = JPA 2-3, JPB 1-2, JPC 1-2 link

Replaced the resistor R26 with 5 kOhm, instead of the standard 200-400 ohms. This improves compatibility with all keyboards (according to the GOST standard for agreeing the input-output of the DIN-5 keyboard connector). Resistor R26 is located near the coprocessor connector.