Abit BX-20 Info Centre

Features

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Case Connections

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Memory

UDMA-33 & WinNT4
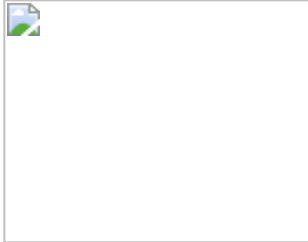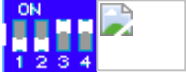
The CPU speed is selected via the DIP switch block - this is a small blue plastic block with eight tiny white switches. The 'on' position is away from the DIMM slots, and it's marked on the switch block.

- Setting the Switches
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Setting the Switches

Switches 1 - 4 set the clock multiplier, but note: this is irrelevant for all recent Intel CPU's due to 'clock-locking' where the multiplier has been set internally at the time of manufacture. Switches 5 - 8 set the FSB (Front Side Bus) speed. The default speeds are 66MHz for Celeron and 100MHz for PentiumIII. If you have a PentiumII, it could be either 66Mhz or 100MHz. A list of settings for specific CPUs is given further down this page.

FSB (MHz)	DIP settings	PCI speed (MHz)		Multiplier	DIP settings
50		25		2	
66		33		2.5	
75*		37.5		3	
83*		41.5		3.5	
100		33		4	
103*		34		4.5	
112*		37		5	
				5.5	
				6	
				6.5	
				7	
				7.5	
				8	

Note: Speeds marked with an asterisk (*) are not guaranteed due to the PCI and chipset specs.

Specific Processors

The following settings are from the BX-20 'Brief Installation Guide'. These can be derived from combining the above bus speeds and multipliers, although they may be useful for less experienced users.

PentiumII/III

PII-233 (66 x 3.5)

PII-266 (66 x 4)

PII-300 (66 x 4.5)

PII-333 (66 x 5)

PII-350 (100 x 3.5)

PII-400 (100 x 4)

PII-450 (100 x 4.5)

PIII-450 (100 x 4)

PIII-500 (100 x 5)

Celeron

C-233 (66 x 3.5)

C-266 (66 x 4)

C-300 (66 x 4.5)

C-333 (66 x 5)

C-366 (66 x 5.5)

C-400 (66 x 6)

C-433 (66 x 6.5)

C-466 (66 x 7)

C-500 (66 x 7.5)

Overclocking

The non-standard bus speeds supported by the BX-20 provide some scope for over-clocking, although nowhere near as much as many newer BX boards. Most CPU's with a 66MHz bus speed are likely to run at the 75Mhz speed, and some (Celeron in particular) may operate at 83Mhz or 100Mhz. However, the author recommends avoiding 83MHz if possible due to the high PCI bus speed. Whilst everything may run fine at this speed on *your particular system*, using an 83Mhz bus has been known to affect AGP cards and hard disk controllers, and in an extreme case cause damage to the motherboard.

If you find yourself repeatedly changing those DIP switches, you may be interested in SoftFSB from H. Oda. This program allows you to adjust the bus speed from Windows. The system will continue to boot at the speed you set the DIP switches to, but you can then increase or decrease this after Windows has loaded using SoftFSB. An additional 133Mhz speed is only accessible using this method. If you want to use this handy software then you must set the target clock generator to: ICS9150xx-08.

On a final note, the author has had a good deal of experience with overclocking on the BX-20. I was pleased to find that a GlobalWin FDP-32 would fit on my

Asus Slocket on the BX-20 without modifications and without obscuring any memory slots. When I came to add a 68W thermo-electric cooler I had to file two of the fins down by around 5mm to avoid a capacitor, but still all of the DIMM slots were usable. If you're serious about overclocking and you're using a Slocket on this board, then make sure you get one with voltage adjustment. As far as I know the BX-20 will only supply the voltage 'requested' by the CPU, so you need a Slocket which can request something different (usually higher).