Mainboard HOT-591P (AT, VIA MVP3, 100MHz)

Specification

- **Special features**
  Host Bus Frequency up to 100 MHz (e.g. for AMD K6-II 3Dnow!)
  with 100MHz host bus frequency the memory clock can set to 66 or 100 MHz
  AGP Slot
  CPU voltage Auto-detecting and setting
  2 SIMM, 2 DIMM, UDMA IDE Interface
  AT- and ATX-Power Supply Connector
- **Chipset**
  VIA VT82C598AT / VT82C586B
- **CPU support**
  AMD K6 3D
  AMD K6 (166 ... 266 MHz)
  AMD K6 (300 MHz) since Board Version 1.2
  AMD K5 (PR75 ... PR166)
  Intel Pentium P54C (75 ... 200 MHz),
  Intel Pentium P55C MMX (166 ... 233 MHz),
  Cyrix/IBM 6x86 (P120+ ... P166+)
  Cyrix/IBM 6x86L (P150+ ... P166+)
  Cyrix/IBM 6x86MX (PR166 ... PR266)
  IDT-C6 (150 ... 200 MHz)
  CPU Voltage Auto-detection and -setting (CPU PnP)
  Multiplier setting from 1.5 to 5.5 for future CPUs
  CPU ZIF Socket Super 7
- **Expansion Slots**
  1 x AGP
  3 x 32 Bit PCI
  3 x 16 Bit ISA
- **Onboard IDE Controller**
  Dual Channel Enhanced PCI IDE Controller for up to 4 IDE devices
  supports "Ultra 33" DMA IDE
  PIO Mode up to 4
  DMA Mode 2 (Busmaster mode)
- **Driver CDROM**
  Spacewalker Windows 95 Patch program to make Win95 able to recognize

chipset etc.
VIA VxD Driver for AGP-support
System Manager Software

- **Other Interfaces**
  1 x Floppies
  1 x Parallel (SSP/EPP/ECP)
  2 x Serial (16550 kompatibel, Fifo)
  1 x Infrared (COM2 can be configured for infrared communication, IrDA-Adapter not included)
  1 x PS/2 Mouse (PS/2-Mouse-Adapter optional)
  2 x USB (USB-Adapter optional)
- **Memory**
  2 Sockets for 72-Pin SIMM Modules in sizes of 4, 8, 16, 32 or 128 MB
  2 Sockets for 168-Pin DIMM Modules in sizes of 8, 16, 32, 64 or 128 MB
  for a total size of up to 256 MB FPM, EDO or SDRAM-Memory.
  128 MB cacheable area with 512kB external Cache.
- **Cache Memory**
  512 kB Pipeline Burst L2-Cache
- **Power Management**
  ACPI (Advanced Configuration and Power Interface)
  Power Management Modes: Doze, Standby and Suspend
  EPMI-Connector
- **BIOS**
  Award PCI BIOS mit Green, PnP and ACPI
  DMI (Desktop Management Interface)
  bundled with Symbios PCI SCSI BIOS (SDMS-Support for 53810 SCSI-Host Controller)
  1 MBit Flash EPROM
- **Advanced Features:**
  CPU Plug&Play (CPU voltage detecting and auto-adjusting function)
  External Power Management Interrupt Pin (SMI)
  Dual function power button (Suspend/Instant off)
  Wake on Lan/Modem
- **Size / format**
  220 x 220 mm AT-Format

Versions

Version-ID is found on the mainboard next to the outer ISA-Slot e.g. Version 1.1, 1.2, ...

Notes

PC/100 Memory?
HOT-591P makes it possible to set the external CPU clock to 100MHz even if normal 66MHz-SDRAM modules are in use. The user can determine, if SDRAMs run synchronous with System Clock (CPU External Clock) or synchronous with AGP

External Clock (60 or 66 MHz). The high quality cache memory always runs with system clock at full speed.

What kind of processor runs with 100MHz external clock rate?
Most Socket-7-Processors are specified for 66 MHz external clock rate. Some Cyrix/IBM 6x86/L/MX processors are also specified for higher frequencies than 66 MHz (75 or even 83 MHz). The first processor which is specified for an external clock rate of 100 MHz is AMD K6-II with 3DNow!-function. The owner of HOT-591P can for example run AMD K6 300MHz at 3x100MHz instead of 4.5x66MHz, but this is beyond the specification. Shuttle recommends to run your processor within specification in order to avoid overheating or even irreparable damage to the processor, instable system or data loss.

Is PCI bus overclocked?
The PCI bus clock rate is specified up to 33 MHz. HOT-591P comes with synchronous PCI clock settings within this specification for all the possible system clock rates: 50, 60, 66, 75, 83, 90 and 100MHz. No PCI device has to be overclocked at any system clock frequency!

Bios-Version
Bios version will prompt on the screen when system boots, e.g.: "591WIQ01".
The first three figures refer to the type of mainboard, here: HOT-591(P).
The letter "I" means that the mainboard is equipped with an "ITE"-I/O-Controllerchip (U2).
The last two figures refer to the version of bios.
(Counting mode is hexadecimal: 0, 1, 2, ..., 9, A, B, C, D, E, F, 10, ...)