## AMERICAN MEGATRENDS, INC.

## MERLIN DP

Processor<br>Processor Speed<br>Chip Set<br>Video Chip Set<br>Maximum Onboard Memory<br>Maximum Video Memory<br>Cache<br>BIOS<br>Dimensions<br>1/O Options

Pentium Pro
150/166/180/200MHz
Intel
None
512 MB (EDO supported)
None
256/512KB (located on Pentium Pro CPU)
AMI
$330 \mathrm{~mm} \times 218 \mathrm{~mm}$
32-bit PCI slots (4), floppy drive interface, green PC connector, IDE interfaces
(2), parallel port, PS/2 mouse interface, serial ports (2), VRM connectors (2), USB connectors (2)
None

## NPU Options



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| Cocation |  |  |  |
| :--- | :---: | :--- | :---: |
| Purpose |  | Purpose | Location |
| Floppy drive interface | J2 | USB connector 2 | Green PC connector |
| Parallel port | J3 | Turbo LED | J29 |
| Chassis fan power | J5 | Reset switch | J30 |
| Chassis fan power | J7 | IDE interface LED | J32 |
| PS/2 mouse interface | J8 | Speaker | J34 |
| Serial port 1 | J9 | Power LED \& keylock | J35 |
| Serial port 2 | J10 | 32-bit PCI slots | J36 |
| IDE interface 2 | J12 | VRM connector | PC1 - PC4 |
| IDE interface 1 | J13 | VRM connector | VRM |
| USB connector 1 |  |  | VRM |


| Uunction |  |  |  |
| :--- | :---: | :---: | :---: |
| Label |  |  |  |
| Position |  |  |  |
| í Factory configured - do not alter | J20 | Unidentified |  |
| PS/2 mouse IRQ12 enabled | J23 | Pins $1 \& 2$ closed |  |
| PS/2 mouse IRQ12 disabled | J23 | Pins 2 \& 3 closed |  |
| í Factory configured - do not alter | J31 | Unidentified |  |
| í Factory configured - do not alter | J33 | Unidentified |  |


| DRAM CONFIGURATION |  |  |
| :---: | :---: | :---: |
| Size | Bank 0 | Bank 1 |
| 8MB | (2) $1 \mathrm{M} \times 36$ | None |
| 16MB | (2) $2 \mathrm{M} \times 36$ | None |
| 16MB | (2) $1 \mathrm{M} \times 36$ | (2) $1 \mathrm{M} \times 36$ |
| 24MB | (2) $2 \mathrm{M} \times 36$ | (2) $1 \mathrm{M} \times 36$ |
| 32 MB | (2) $4 \mathrm{M} \times 36$ | None |
| 32MB | (2) $2 \mathrm{M} \times 36$ | (2) $2 \mathrm{M} \times 36$ |
| 40MB | (2) $4 \mathrm{M} \times 36$ | (2) $1 \mathrm{M} \times 36$ |
| 48 MB | (2) $2 \mathrm{M} \times 36$ | (2) $4 \mathrm{M} \times 36$ |
| 64 MB | (2) $8 \mathrm{M} \times 36$ | None |
| 64 MB | (2) $4 \mathrm{M} \times 36$ | (2) $4 \mathrm{M} \times 36$ |
| 72 MB | (2) $8 \mathrm{M} \times 36$ | (2) $1 \mathrm{M} \times 36$ |
| 80MB | (2) $2 \mathrm{M} \times 36$ | (2) $8 \mathrm{M} \times 36$ |
| 96MB | (2) $8 \mathrm{M} \times 36$ | (2) $4 \mathrm{M} \times 36$ |
| 128 MB | (2) $16 \mathrm{M} \times 36$ | None |
| 128 MB | (2) $8 \mathrm{M} \times 36$ | (2) 8 M x 36 |
| 136 MB | (2) $16 \mathrm{M} \times 36$ | (2) $1 \mathrm{M} \times 36$ |
| 144MB | (2) $16 \mathrm{M} \times 36$ | (2) $2 \mathrm{M} \times 36$ |
| 160 MB | (2) $16 \mathrm{M} \times 36$ | (2) $4 \mathrm{M} \times 36$ |
| 192MB | (2) $16 \mathrm{M} \times 36$ | (2) $8 \mathrm{M} \times 36$ |
| 256MB | (2) $32 \mathrm{M} \times 36$ | None |
| 256MB | (2) $16 \mathrm{M} \times 36$ | (2) $16 \mathrm{M} \times 36$ |

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| DRAM CONFIGURATION (CON'T) |  |  |
| :---: | :---: | :---: |
| Size | Bank 0 | Bank 1 |
| 264 MB | $(2) 32 \mathrm{M} \times 36$ | $(2) 1 \mathrm{M} \times 36$ |
| 272 MB | $(2) 32 \mathrm{M} \times 36$ | $(2) 2 \mathrm{M} \times 36$ |
| 288 MB | $(2) 32 \mathrm{M} \times 36$ | $(2) 4 \mathrm{M} \times 36$ |
| 320 MB | $(2) 32 \mathrm{M} \times 36$ | $(2) 8 \mathrm{M} \times 36$ |
| 384 MB | (2) $32 \mathrm{M} \times 36$ | (2) $16 \mathrm{M} \times 36$ |
| 512 MB | (2) $32 \mathrm{M} \times 36$ | (2) $32 \mathrm{M} \times 36$ |
| Note: $\quad$ Board accepts EDO memory. Board also accepts $\times 32$ SIMMs. Banks are interchangeable. |  |  |

## CACHE CONFIGURATION

Note: $256 \mathrm{~KB} / 512 \mathrm{~KB}$ cache is located on the Pentium Pro CPU.

## CPU SPEED SELECTION

| CPU speed | Clock speed | Multiplier | J16 | J17 | J22 | J26 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 150 MHz | 60 MHz | $2.5 x$ | Open | Closed | $1 \& 2$ | $3 \& 4,5 \& 6,7 \& 8$ |
| 166 MHz | 66 MHz | $2.5 x$ | Closed | Open | $1 \& 2$ | $3 \& 4,5 \& 6,7 \& 8$ |
| 180 MHz | 60 MHz | $3 x$ | Open | Closed | $1 \& 2$ | $1 \& 2,5 \& 6,7 \& 8$ |
| 200 MHz | 66 MHz | $3 x$ | Closed | Open | $1 \& 2$ | $1 \& 2,5 \& 6,7 \& 8$ |

Note: Pins designated should be in the closed position.

| CPU VOLTAGE SELECTION |  |  |
| :---: | :---: | :---: |
| Voltage | J4 | J6 |
| None | Open | Open |
| 2.1v | Pins 7 \& 8 closed | Pins 7 \& 8 closed |
| 2.2 v | Pins 5 \& 6 closed | Pins 5 \& 6 closed |
| 2.3 v | Pins 5 \& 6, 7 \& 8 closed | Pins 5 \& 6, 7 \& 8 closed |
| 2.4 v | Pins 3 \& 4 closed | Pins 3 \& 4 closed |
| 2.5 v | Pins 3 \& 4, 5 \& 6 closed | Pins 3 \& 4, 5 \& 6 closed |
| 2.6 v | Pins 3 \& 4, 5 \& 6 closed | Pins 3 \& 4, 5 \& 6 closed |
| 2.7 v | Pins 3 \& 4, 5 \& 6, 7 \& 8 closed | Pins 3 \& 4, 5 \& 6, 7 \& 8 closed |
| 2.8 v | Pins $1 \& 2$ closed | Pins $1 \& 2$ closed |
| 2.9 v | Pins 1 \& 2, 7 \& 8 closed | Pins 1 \& 2, 7 \& 8 closed |
| 3.0 v | Pins 1 \& 2, 5 \& 6 closed | Pins 1 \& 2, 5 \& 6 closed |
| 3.1 v | Pins 1 \& 2, 5 \& 6, 7 \& 8 closed | Pins 1 \& 2, 5 \& 6, 7 \& 8 closed |
| 3.2 v | Pins $1 \& 2,3 \& 4$ closed | Pins $1 \& 2,3 \& 4$ closed |
| í3.3v | Pins 1 \& 2, 3 \& 4, 7 \& 8 closed | Pins 1 \& 2, 3 \& 4, 7 \& 8 closed |
| 3.4 v | Pins $1 \& 2,3$ \& 4, 5 \& 6 closed | Pins $1 \& 2,3$ \& 4, 5 \& 6 closed |
| 3.5 v | Pins 1 \& 2, 3 \& 4, 5 \& 6, 7 \& 8 closed | Pins 1 \& 2, 3 \& 4, 5 \& 6, 7 \& 8 closed |

