# ENPC TECHNOLOGY CORPORATION

## EP-PS21 (REV. A)

| | |
|---|---|
| **Device Type** | Mainboard |
| **Processor** | CX 6X86MX/CX M2/AM K5/AM K6/AM K6-2/Pentium/Pentium MMX |
| **Processor Speed** | 90/100/120/133/150/166/180/200/233/266/300/333/350/366/380/400/450/475MHz |
| **Chip Set** | SIS 530 |
| **Video Chip Set** | SIS |
| **Audio Chip Set** | ESS |
| **Maximum Onboard Memory** | 768MB (SDRAM supported) |
| **Maximum Video Memory** | 8MB |
| **Maximum Audio Memory** | Unidentified |
| **Cache** | 512KB |
| **BIOS** | Award |
| **Dimensions** | 220mm x 240mm |
| **I/O Options** | 32-bit PCI slots (3), floppy drive interface, game/MIDI port, IDE interfaces (2), parallel port, PS/2 mouse port, serial port, serial interface, VGA port, IR connector, USB ports (2), ATX power connector, AGP slot, line in, line out, microphone in, audio in - CD-ROMs (2), Wake-on-LAN connector |
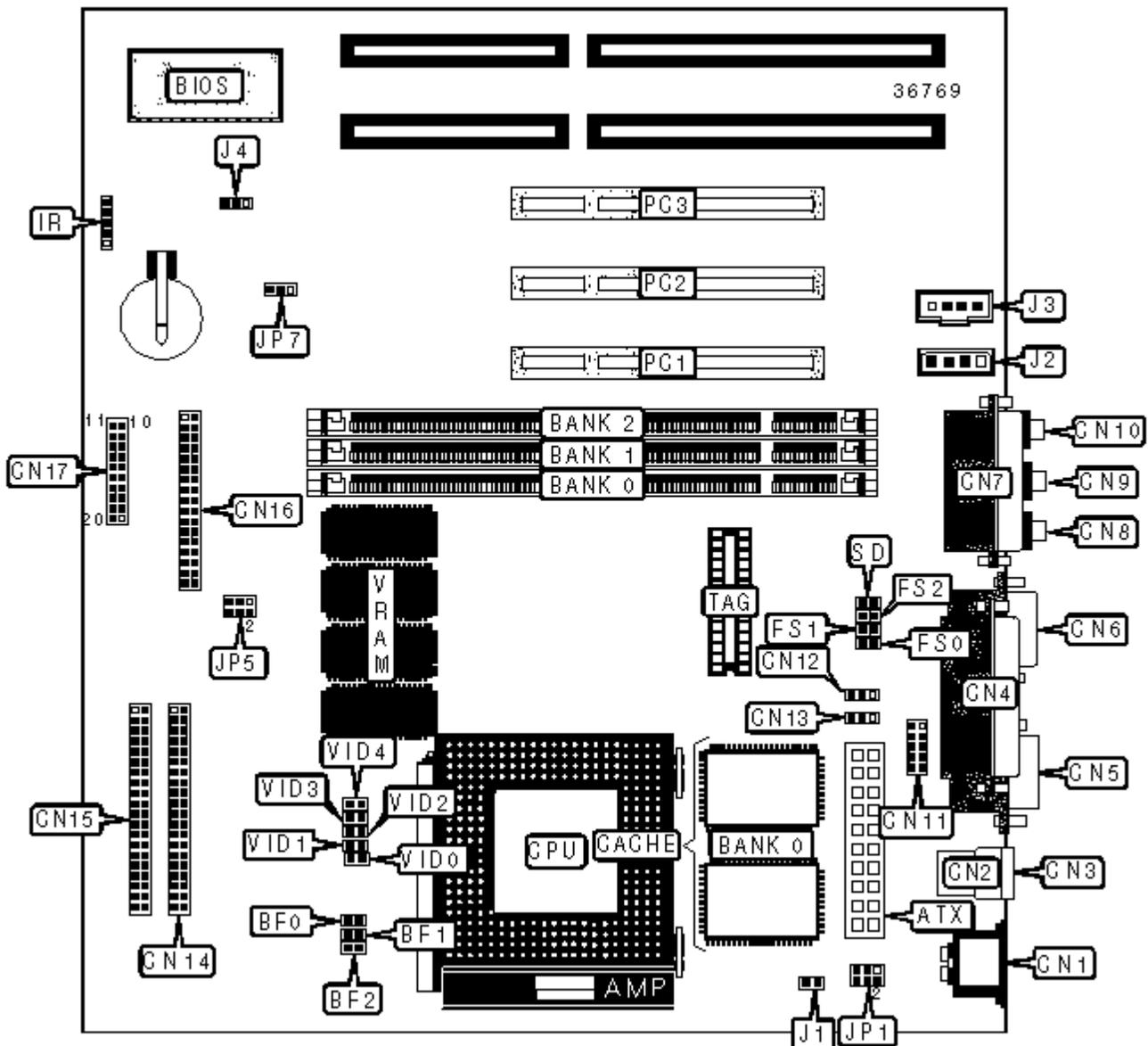
## CONNECTIONS

| Purpose | Location | Purpose | Location |
|---------|----------|---------|----------|
| ATX power connector | ATX | IDE interface 2 | CN14 |
| PS/2 mouse port | CN1 | IDE interface 1 | CN15 |
| USB port 1 | CN2 | Floppy drive interface | CN16 |
| USB port 2 | CN3 | Reset switch | CN17/Pins 1 & 2 |
| Parallel port | CN4 | Power switch | CN17/Pins 5 & 6 |
| Serial port | CN5 | ACPI LED | CN17/Pins 7 & 8 |
| VGA port | CN6 | IDE interface LED | CN17/Pins 9 & 10 |
| Game/MIDI port | CN7 | Speaker | CN17/Pins 11-14 |
| Line out | CN8 | Power LED & keylock | CN17/Pins 15-19 |
| Line in | CN9 | IR connector | IR |
| Microphone in | CN10 | Audio in - CD-ROM 2 | J2 |
| Serial interface | CN11 | Audio in - CD-ROM 1 | J3 |
| CPU fan power | CN12 | Wake-on-LAN connector | J4 |
| Chassis fan power | CN13 | 32-bit PCI slots | PC1 - PC3 |

## USER CONFIGURABLE SETTINGS

| | Function | Label | Position |
|---|----------|-------|----------|
| » | Cache toggle mode | J1 | Open |
| | Cache linear mode | J1 | Closed |
| » | CMOS memory normal operation | JP7 | Pins 2 & 3 closed |
| | CMOS memory clear | JP7 | Pins 1 & 2 closed |

## DIMM CONFIGURATION

| Size | Bank 0 | Bank 1 | Bank 2 |
|------|--------|--------|--------|
| 8MB | (1) 1M x 64 | None | None |
| 16MB | (1) 1M x 64 | (1) 1M x 64 | None |
| 16MB | (1) 2M x 64 | None | None |

| | | | |
|---|---|---|---|
| 24MB | (1) 1M x 64 | (1) 1M x 64 | (1) 1M x 64 |
| 32MB | (1) 2M x 64 | (1) 2M x 64 | None |
| 32MB | (1) 4M x 64 | None | None |
| 32MB | (1) 2M x 64 | (1) 1M x 64 | (1) 1M x 64 |
| 48MB | (1) 2M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 48MB | (1) 4M x 64 | (1) 1M x 64 | (1) 1M x 64 |
| 64MB | (1) 4M x 64 | (1) 4M x 64 | None |
| 64MB | (1) 8M x 64 | None | None |
| 64MB | (1) 4M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 80MB | (1) 8M x 64 | (1) 1M x 64 | (1) 1M x 64 |
| 96MB | (1) 4M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 96MB | (1) 8M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 128MB | (1) 8M x 64 | (1) 8M x 64 | None |
| 128MB | (1) 16M x 64 | None | None |
| 128MB | (1) 8M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 144MB | (1) 16M x 64 | (1) 1M x 64 | (1) 1M x 64 |
| 160MB | (1) 16M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 192MB | (1) 8M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 192MB | (1) 16M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 256MB | (1) 16M x 64 | (1) 16M x 64 | None |
| 256MB | (1) 32M x 64 | None | None |
| 256MB | (1) 16M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 272MB | (1) 32M x 64 | (1) 1M x 64 | (1) 1M x 64 |
| 288MB | (1) 32M x 64 | (1) 2M x 64 | (1) 2M x 64 |
| 320MB | (1) 32M x 64 | (1) 4M x 64 | (1) 4M x 64 |
| 384MB | (1) 16M x 64 | (1) 16M x 64 | (1) 16M x 64 |
| 384MB | (1) 32M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 512MB | (1) 32M x 64 | (1) 32M x 64 | None |
| 512MB | (1) 32M x 64 | (1) 16M x 64 | (1) 16M x 64 |

| 768MB | (1) 32M x 64 | (1) 32M x 64 | (1) 32M x 64 |
|---|---|---|---|
| Note:  Board supports SDRAM memory. | | | |

| CPU SPEED SELECTION | | | | | |
|---|---|---|---|---|---|
| CPU clock speed | SDRAM clock speed | FS0 | FS1 | FS2 | SD |
| 66MHz | 89MHz | Closed | Closed | Closed | Closed |
| 66MHz | 66MHz | Closed | Closed | Closed | Open |
| 75MHz | 75MHz | Open | Closed | Closed | Open |
| 83MHz | 66MHz | Open | Closed | Closed | Closed |
| 83MHz | 83MHz | Closed | Open | Closed | Open |
| 95MHz | 63MHz | Closed | Open | Closed | Closed |
| 95MHz | 95MHz | Open | Open | Closed | Open |
| 100MHz | 66MHz | Open | Open | Closed | Closed |
| 100MHz | 100MHz | Closed | Closed | Open | Open |
| 112MHz | 75MHz | Open | Closed | Open | Closed |
| 112MHz | 112MHz | Open | Closed | Open | Open |

| CPU MULTIPLIER SELECTION | | | |
|---|---|---|---|
| Multiplier | BF0 | BF1 | BF2 |
| 1.5x | Open | Open | Open |
| 2x | Closed | Open | Open |
| 2.5x | Closed | Closed | Open |
| 3x | Open | Closed | Open |
| 3.5x | Open | Open | Open |
| 4x | Closed | Open | Closed |
| 4.5x | Closed | Closed | Closed |
| 5x | Open | Closed | Closed |
| 5.5x | Open | Open | Closed |

| 3.3V POWER SOURCE SELECTION | | | |
| --- | --- | --- | --- |
| Setting | JP1/Pins 1 & 2 | JP1/Pins 3 & 4 | JP1/Pins 5 & 6 |
| Power supply | Closed | Closed | Closed |
| 3.3V | Open | Open | Open |

Note:   If JP1 is set to Power Supply, the 3.3V power regulator should be removed.
Note:  3.3v setting is dependant on JP5

| CPU VOLTAGE SELECTION | |
| --- | --- |
| Setting | JP5 |
| 3.3V | Pins 1 & 2 closed |
| 3.5V | Pins 3 & 4 closed |

Note:   JP5/Pins 5 & 6 are removed

| CPU VOLTAGE SELECTION | | | | | |
| --- | --- | --- | --- | --- | --- |
| Voltage | VID0 | VID1 | VID2 | VID3 | VID4 |
| 1.8V | Open | Closed | Open | Closed | Closed |
| 2.0V | Open | Closed | Closed | Closed | Closed |
| 2.2V | Open | Closed | Open | Open | Open |
| 2.5V | Closed | Open | Closed | Open | Open |
| 2.8V | Open | Open | Open | Closed | Open |
| 2.9V | Closed | Open | Open | Closed | Open |
| 3.1V | Closed | Closed | Open | Closed | Open |
| 3.2V | Open | Open | Closed | Closed | Open |
| 3.3V | Closed | Open | Closed | Closed | Open |
| 3.5V | Closed | Closed | Closed | Closed | Open |

| MISCELLANEOUS TECHNICAL NOTES |
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| Processor speeds listed include the speeds available for the Cyrix 6X86MX CPU, which is synonymous with the Cyrix M1 CPU. |