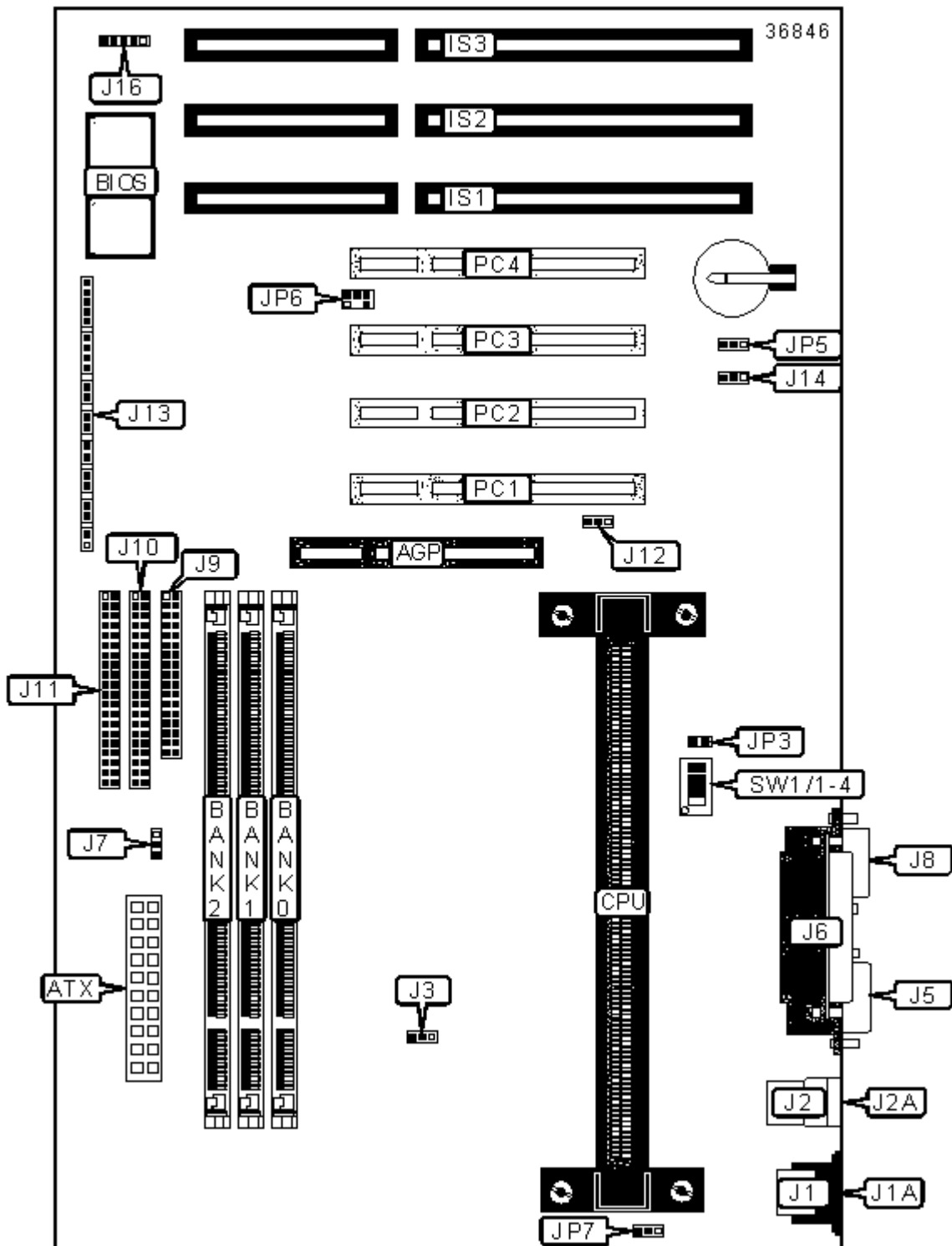


OCEAN INFORMATION SYSTEMS, INC.

RHINO II BX (ATX)

| | |
|-------------------------------|--|
| Device Type | Mainboard |
| Processor | Celeron/Pentium II |
| Processor Speed | 233/266/300/333/350/400/450MHz |
| Chip Set | Intel 440BX |
| Maximum Onboard Memory | 384MB (SDRAM supported) |
| Cache | 0/128/256/512KB (located on the CPU) |
| BIOS | Award |
| Dimensions | Unidentified |
| I/O Options | 32-bit PCI slots (4), 16-bit ISA slots (3), floppy drive interface, green PC connector, IDE interfaces (2), parallel port, PS/2 mouse port, PS/2 keyboard port, serial ports (2), IR connector, USB ports (2), ATX power connector, AGP slot, SB-link connector, Wake-on-LAN connector |



CONNECTIONS

| Purpose | Location | Purpose | Location |
|---------------------|-----------|-------------------|----------------|
| AGP slot | AGP | IDE interface 1 | J11 |
| ATX power connector | ATX | AGP fan power | J12 |
| 16-bit ISA slots | IS1 - IS3 | Power LED | J13/Pins 1 & 2 |
| PS/2 mouse port | J1 | IDE interface LED | J13/Pins 4 & 5 |

| | | | |
|------------------------|-----|-----------------------|------------------|
| PS/2 keyboard port | J1A | Green PC LED | J13/Pins 7 & 8 |
| USB port 1 | J2 | Power switch | J13/Pins 10 & 11 |
| USB port 2 | J2A | Green PC connector | J13/Pins 13 & 14 |
| Chassis fan power | J3 | Reset switch | J13/Pins 16 & 17 |
| Serial port 1 | J5 | PC speaker | J13/Pins 19 - 22 |
| Parallel port | J6 | Power LED & keylock | J13/Pins 24 - 28 |
| CPU fan power | J7 | Wake-on-LAN connector | J14 |
| Serial port 2 | J8 | IR connector | J16 |
| Floppy drive interface | J9 | SB-link connector | JP6 |
| IDE interface 2 | J10 | 32-bit PCI slots | PC1 - PC4 |

USER CONFIGURABLE SETTINGS

| Function | | Label | Position |
|----------|--|-------|-------------------|
| » | Front side bus speed set automatically | JP3 | Closed |
| | Front side bus speed set to 100MHz | JP3 | Open |
| » | CMOS memory normal operation | JP5 | Pins 1 & 2 closed |
| | CMOS memory clear | JP5 | Pins 2 & 3 closed |
| » | Wake-on-mouse/keyboard disabled | JP7 | Pins 1 & 2 closed |
| | Wake-on-mouse/keyboard enabled | JP7 | Pins 2 & 3 closed |

Note: Setting JP3 to overclock a 66MHz CPU is not recommended.

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) 16M x 64 | (1) 8M x 64 | (1) 8M x 64 |
| 384MB | (1) 16M x 64 | (1) 16M x 64 | (1) 16M x 64 |

Note: Board supports SDRAM memory.

CACHE CONFIGURATION

Note: 256KB/512KB cache is located on the Pentium II CPUs. 128KB cache is located on the Celeron 300A and greater CPUs.

CPU SPEED SELECTION (PENTIUM II)

| CPU speed | Clock speed | Multiplier | SW1/1 | SW1/2 | SW1/3 | SW1/4 |
|-----------|-------------|------------|-------|-------|-------|-------|
| 233MHz | 66MHz | 3.5x | Off | Off | On | On |
| 266MHz | 66MHz | 4x | On | On | Off | On |
| 300MHz | 66MHz | 4.5x | Off | On | Off | On |

| | | | | | | |
|--------|--------|------|-----|-----|-----|----|
| 333MHz | 66MHz | 5x | On | Off | Off | On |
| 350MHz | 100MHz | 3.5x | Off | Off | On | On |
| 400MHz | 100MHz | 4x | On | On | Off | On |
| 450MHz | 100MHz | 4.5x | Off | On | Off | On |

CPU SPEED SELECTION (CELERON)

| CPU speed | Clock speed | Multiplier | SW1/1 | SW1/2 | SW1/3 | SW1/4 |
|------------------|--------------------|-------------------|--------------|--------------|--------------|--------------|
| 266MHz | 66MHz | 4x | On | On | Off | On |
| 300MHz | 66MHz | 4.5x | Off | On | Off | On |
| 300MHz | 66MHz | 4.5x | Off | On | Off | On |
| 333MHz | 66MHz | 5x | On | Off | Off | On |