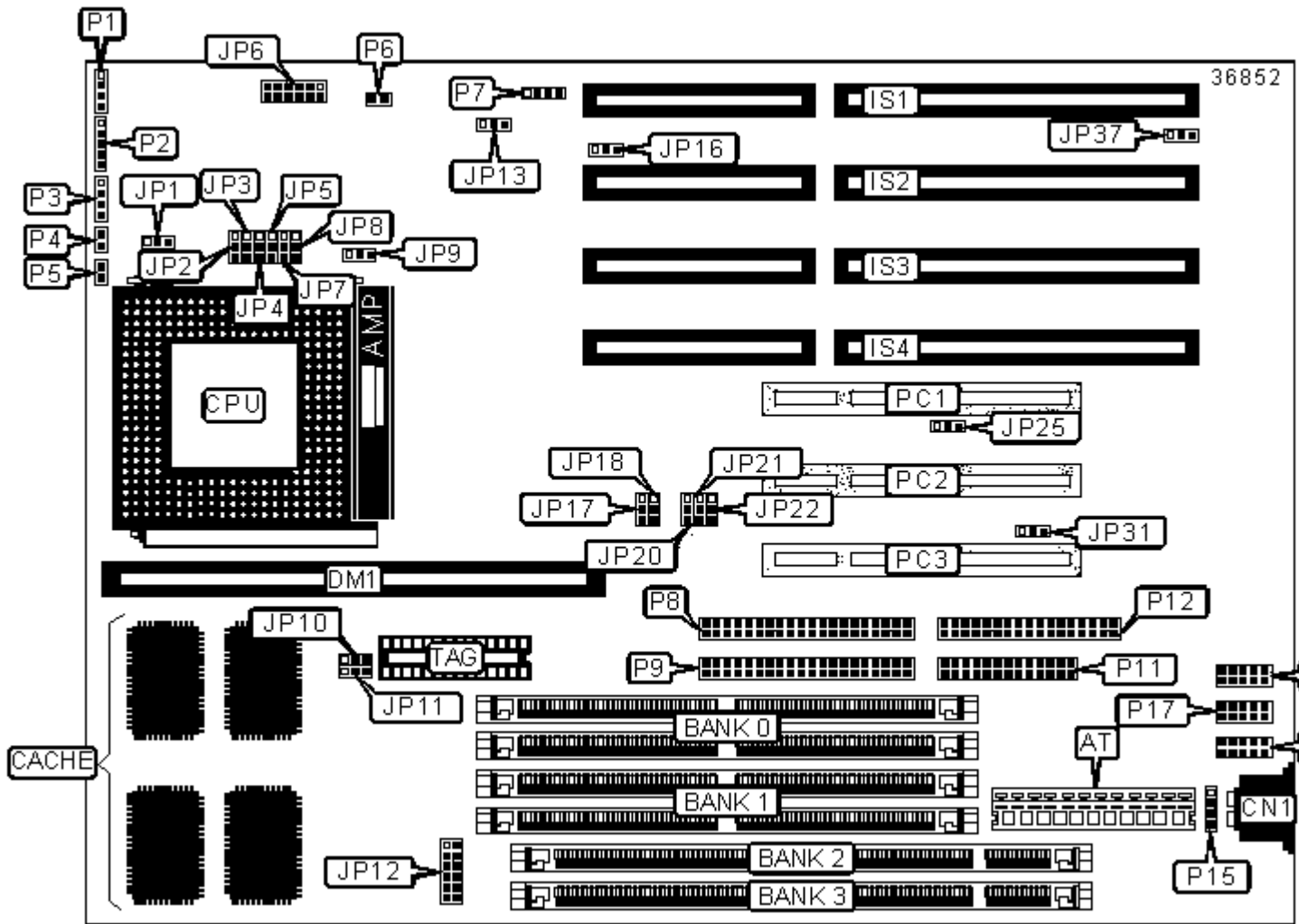


# OCEAN INFORMATION SYSTEMS, INC.

## RHINO 10

<b>Device Type</b>	Mainboard
<b>Processor</b>	CX 6X86/IBM 6X86/CX 6X86L/AM K5/Pentium/Pentium MMX
<b>Processor Speed</b>	75/90/100/120/133/150/166/180/200MHz
<b>Chip Set</b>	Intel 430VX
<b>Maximum Onboard Memory</b>	128MB (EDO & SDRAM supported)
<b>Cache</b>	256/512KB
<b>BIOS</b>	Unidentified
<b>Dimensions</b>	216mm x 279mm
<b>I/O Options</b>	32-bit PCI slots (3), 16-bit ISA slots (4), floppy drive interface, green PC connector, IDE interfaces (2), AT Keyboard port, parallel interface, PS/2 mouse interface, serial interfaces (2), cache slot, USB interface, AT power connector



### CONNECTIONS

Purpose	Location	Purpose	Location
AT power connector	AT	External battery connector	P7
AT keyboard port	CN1	IDE interface 1	P8
Cache slot	DM1	IDE interface 2	P9

16-bit ISA slots	IS1 - IS4	Parallel interface	P11
IDE interface LED	P1	Floppy drive interface	P12
Power LED & keylock	P2	PS/2 mouse interface	P15
Speaker	P3	USB interface	P16
Reset switch	P4	Serial interface 2	P17
Turbo LED	P5	Serial interface 1	P18
Green PC connector	P6	32-bit PCI slots	PC1 - PC3

### USER CONFIGURABLE SETTINGS

Function		Label	Position
»	Factory configured - do not alter	JP1	Unidentified
»	On-board battery selected	JP13	Pins 1 & 2 closed
	External battery selected	JP13	Pins 2 & 3 closed
»	CMOS memory normal operation	JP16	Pins 1 & 2 closed
	CMOS memory clear	JP16	Pins 2 & 3 closed
»	External battery power good selected	JP25	Pins 1 & 2 closed
	On-board battery power good selected	JP25	Pins 2 & 3 closed
»	Factory configured - do not alter	JP31	Unidentified
»	PS/2 mouse enabled	JP37	Pins 1 & 2 closed
	PS/2 mouse disabled	JP37	Pins 2 & 3 closed

### SIMM CONFIGURATION

Size	Bank 0	Bank 1
8MB	(2) 1M x 36	None
16MB	(2) 2M x 36	None
16MB	(2) 1M x 36	(2) 1M x 36
24MB	(2) 2M x 36	(2) 1M x 36
32MB	(2) 4M x 36	None
32MB	(2) 2M x 36	(2) 2M x 36

40MB	(2) 4M x 36	(2) 1M x 36
48MB	(2) 4M x 36	(2) 2M x 36
64MB	(2) 8M x 36	None
64MB	(2) 4M x 36	(2) 4M x 36
72MB	(2) 8M x 36	(2) 1M x 36
80MB	(2) 8M x 36	(2) 2M x 36
96MB	(2) 8M x 36	(2) 4M x 36
128MB	(2) 8M x 36	(2) 8M x 36

Note: Bank 0 and Bank 2 cannot be installed with memory at the same time.  
Note: Bank 1 and Bank 3 cannot be installed with memory at the same time.

### DIMM CONFIGURATION

Size	Bank 2	Bank 3
8MB	(1) 1M x 64	None
16MB	(1) 2M x 64	None
16MB	(1) 1M x 64	(1) 1M x 64
24MB	(1) 2M x 64	(1) 1M x 64
32MB	(1) 4M x 64	None
32MB	(1) 2M x 64	(1) 2M x 64
40MB	(1) 4M x 64	(1) 1M x 64
48MB	(1) 4M x 64	(1) 2M x 64
64MB	(1) 8M x 64	None
64MB	(1) 4M x 64	(1) 4M x 64
72MB	(1) 8M x 64	(1) 1M x 64
80MB	(1) 8M x 64	(1) 2M x 64
96MB	(1) 8M x 64	(1) 4M x 64
128MB	(1) 8M x 64	(1) 8M x 64

Note: Bank 0 and Bank 2 cannot be installed with memory at the same time.  
Note: Bank 1 and Bank 3 cannot be installed with memory at the same time.

**DIMM/SIMM VOLTAGE CONFIGURATION**

Voltage		JP12
»	3.3V	Pins 1 & 2, 3 & 4, 5 & 6 closed
	5V	Pins 7 & 8, 9 & 10, 11 & 12 close

**CACHE CONFIGURATION**

Size	DM1	TAG
256KB	None	(1) 8K x 8/32K x 8
512KB	256KB module installed	(1) 32K x 8

**CACHE JUMPER CONFIGURATION**

Size	JP10	JP11
» 256KB	Pins 2 & 3 closed	Open
512KB	Pins 1 & 2 closed	Pins 2 & 3 closed

**CPU SPEED SELECTION (CX 6X86)**

CPU speed	Clock speed	Multiplier	JP9	JP17	JP18	JP20	JP21	JP22
120MHz	50MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2	1 & 2
133MHz	55MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2	2 & 3
150MHz	60MHz	2x	2 & 3	1 & 2	2 & 3	2 & 3	1 & 2	1 & 2
166MHz	66MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	2 & 3	1 & 2

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (CX 6X86L)**

CPU speed	Clock speed	Multiplier	JP9	JP17	JP18	JP20	JP21	JP22
150MHz	60MHz	2x	2 & 3	1 & 2	2 & 3	2 & 3	1 & 2	1 & 2
166MHz	66MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	2 & 3	1 & 2

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (IBM 6X86)**

CPU speed	Clock speed	Multiplier	JP9	JP17	JP18	JP20	JP21	JP22
120MHz	50MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2	1 & 2
133MHz	55MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2	2 & 3
150MHz	60MHz	2x	2 & 3	1 & 2	2 & 3	2 & 3	1 & 2	1 & 2
166MHz	66MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	2 & 3	1 & 2

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (AM K5)**

CPU speed	Clock speed	Multiplier	JP9	JP17	JP18	JP20	JP21	JP22
75MHz	50MHz	1.5x	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2
90MHz	60MHz	1.5x	2 & 3	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2
100MHz	66MHz	1.5x	1 & 2	1 & 2	1 & 2	1 & 2	2 & 3	1 & 2
120MHz	60MHz	1.5x	2 & 3	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2
133MHz	66MHz	1.5x	1 & 2	1 & 2	1 & 2	1 & 2	2 & 3	1 & 2
150MHz	60MHz	2.5x	2 & 3	1 & 2	2 & 3	2 & 3	1 & 2	1 & 2
166MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	1 & 2	2 & 3	1 & 2

Note: Pins designated should be in the closed position.

**CPU SPEED SELECTION (PENTIUM)**

CPU speed	Clock speed	Multiplier	JP9	JP17	JP18	JP20	JP21	JP22
75MHz	50MHz	1.5x	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2
90MHz	60MHz	1.5x	2 & 3	1 & 2	1 & 2	2 & 3	1 & 2	1 & 2
100MHz	66MHz	1.5x	1 & 2	1 & 2	1 & 2	1 & 2	2 & 3	1 & 2
120MHz	60MHz	2x	2 & 3	1 & 2	2 & 3	2 & 3	1 & 2	1 & 2
133MHz	66MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2	2 & 3	1 & 2
150MHz	60MHz	2.5x	2 & 3	2 & 3	2 & 3	2 & 3	1 & 2	1 & 2

166MHz	66MHz	2.5x	1 & 2	2 & 3	2 & 3	1 & 2	2 & 3	1 & 2
180MHz	60MHz	3x	2 & 3	2 & 3	1 & 2	2 & 3	1 & 2	1 & 2
200MHz	66MHz	3x	1 & 2	2 & 3	1 & 2	1 & 2	2 & 3	1 & 2

Note: Pins designated should be in the closed position.

<b>CPU VOLTAGE SELECTION (DUAL)</b>							
<b>Voltage</b>	<b>JP2</b>	<b>JP3</b>	<b>JP4</b>	<b>JP5</b>	<b>JP6</b>	<b>JP7</b>	<b>JP8</b>
2.5V	1 & 2	1 & 2	1 & 2	1 & 2	Open	1 & 2	1 & 2
2.6V	1 & 2	1 & 2	1 & 2	1 & 2	11 & 12	1 & 2	1 & 2
2.7V	1 & 2	1 & 2	1 & 2	1 & 2	9 & 10	1 & 2	1 & 2
2.8V	1 & 2	1 & 2	1 & 2	1 & 2	7 & 8	1 & 2	1 & 2
2.9V	1 & 2	1 & 2	1 & 2	1 & 2	5 & 6	1 & 2	1 & 2

Note: Pins designated should be in the closed position.

<b>CPU VOLTAGE SELECTION (SINGLE)</b>							
<b>Voltage</b>	<b>JP2</b>	<b>JP3</b>	<b>JP4</b>	<b>JP5</b>	<b>JP6</b>	<b>JP7</b>	<b>JP8</b>
» 3.3V	2 & 3	2 & 3	2 & 3	2 & 3	3 & 4	2 & 3	2 & 3
3.5V	2 & 3	2 & 3	2 & 3	2 & 3	1 & 2	2 & 3	2 & 3

Note: Pins designated should be in the closed position.