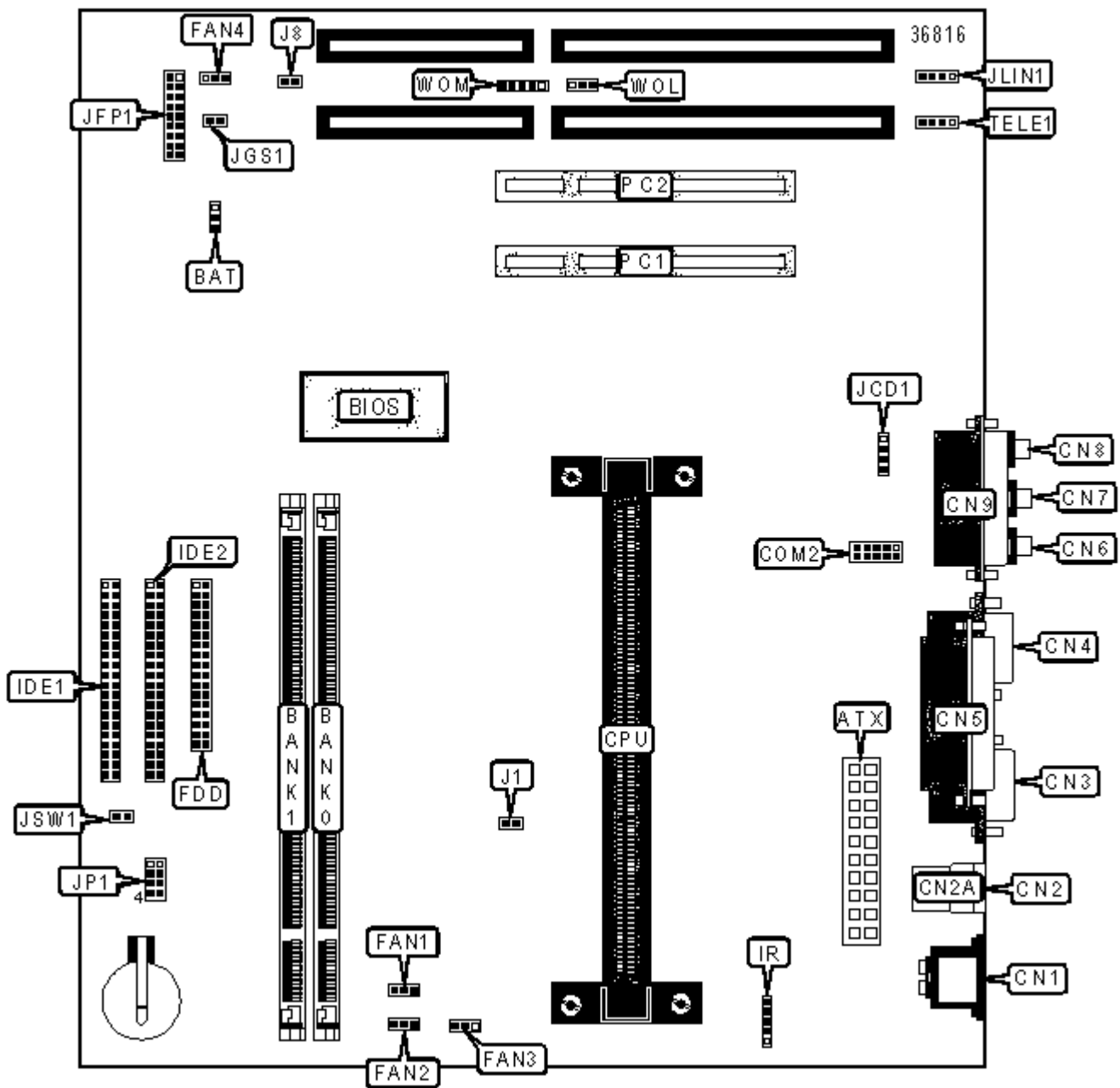


## **MICRO-STAR INTERNATIONAL CO., LTD.**

MS-6140

<b>Device Type</b>	Mainboard
<b>Processor</b>	Pentium II
<b>Processor Speed</b>	233/266/300/333MHz
<b>Chip Set</b>	Intel 440EX
<b>Video Chip Set</b>	ATI
<b>Audio Chip Set</b>	Yamaha
<b>Maximum Onboard Memory</b>	256MB (EDO & SDRAM supported)
<b>Maximum Video Memory</b>	8MB SDRAM
<b>Maximum Audio Memory</b>	Unidentified
<b>Cache</b>	256/512KB (located on the Pentium II CPU)
<b>BIOS</b>	Unidentified
<b>Dimensions</b>	244mm x 190mm
<b>I/O Options</b>	32-bit PCI slots (2), floppy drive interface, game/MIDI port, green PC connector, IDE interfaces (2), parallel port, PS/2 mouse port, serial interface, serial port, VGA port, IR connector, USB ports (2), ATX power connector, line in, line out, microphone in, audio in - CD-ROM, Wake-on LAN connector, Wake-on Modem connector, Modem voice interface, Auxilliary audio in - CD ROM



### CONNECTIONS

Purpose	Location	Purpose	Location
ATX power connector	ATX	IDE interface 2	IDE2
PS/2 mouse port	CN1	IR connector	IR
USB port 1	CN2	CPU temperature sensor	J1
USB port 2	CN2A	Audio in - CD-ROM	JCD1
Serial port 1	CN3	Keylock	JFP1/Pins 1 & 10
VGA port	CN4	IDE interface LED	JFP1/Pins 3 & 12
Parallel port	CN5	Power LED	JFP1/Pins 4 - 6

Line out	CN6	Power switch	JFP1/Pins 7 & 8
Line in	CN7	Speaker	JFP1/Pins 13 - 16
Microphone in	CN8	Reset switch	JFP1/Pins 17 & 18
Game/MIDI port	CN9	Green PC connector	JGS1
Serial interface 2	COM2	Auxilliary audio in - CD-ROM	JLIN1
CPU fan power	FAN1	Remote power switch	JSW1
Power supply power	FAN2	32-bit PCI slots	PC1 - PC2
Chassis fan power	FAN3	Internal voice modem interface	TELE1
Fan power	FAN4	Wake-on-LAN connector	WOL
Floppy drive interface	FDD	Wake-on-Modem connector	WOM
IDE interface 1	IDE1		

#### USER CONFIGURABLE SETTINGS

Function		Label	Position
»	CMOS memory normal operation	BAT	Pins 1 & 2 closed
	CMOS memory clear	BAT	Pins 2 & 3 closed
	Immediate power on mode selected	J8	Closed
	Last-state power on mode selected	J8	Open

#### DIMM CONFIGURATION

Size	Bank 0	Bank 1
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) 16M x 64	None
128MB	(1) 8M x 64	(1) 8M x 64
136MB	(1) 16M x 64	(1) 1M x 64
144MB	(1) 16M x 64	(1) 2M x 64
160MB	(1) 16M x 64	(1) 4M x 64
192MB	(1) 16M x 64	(1) 8M x 64
256MB	(1) 16M x 64	(1) 16M x 64

### CACHE CONFIGURATION

Note: 256KB/512KB cache is located on the Pentium II CPUs.

### CPU SPEED SELECTION

CPU speed	Clock speed	Multiplier	JP1/Pins 1 & 2	JP1/Pins 3 & 4	JP1/Pins 5 & 6	JP1/Pins 7 & 8
200MHz	66MHz	3x	Closed	Closed	Open	Closed
233MHz	66MHz	3.5x	Closed	Open	Open	Closed
266MHz	66MHz	4x	Closed	Closed	Closed	Open
300MHz	66MHz	4.5x	Closed	Open	Closed	Open
333MHz	66MHz	5x	Closed	Closed	Open	Open