

**586 AGP-BUS ALL-IN-ONE MOTHER BOARD SPECIFICATION**

**Company  
Profile**

**Product**

**BIOS**

**Driver  
Download**

**Technology  
Support**

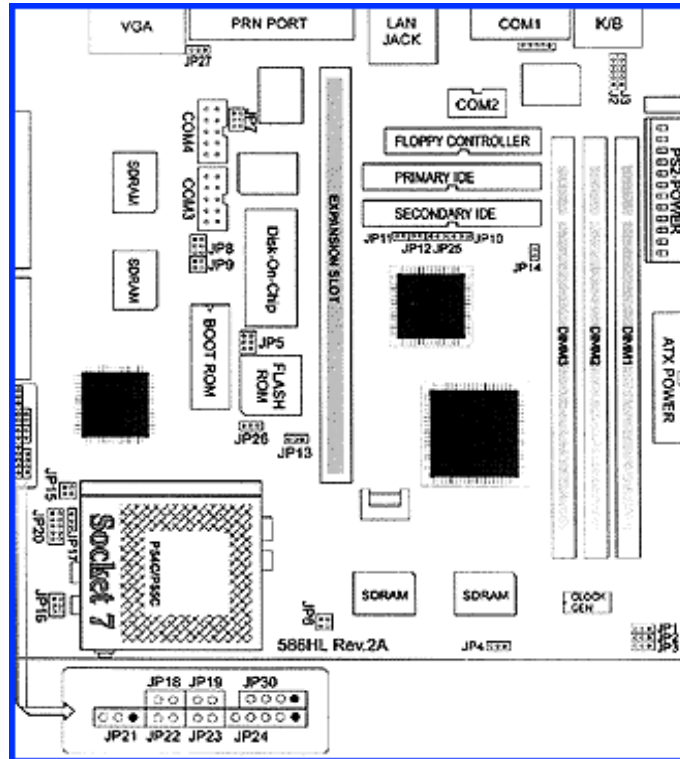
**User  
Manual**

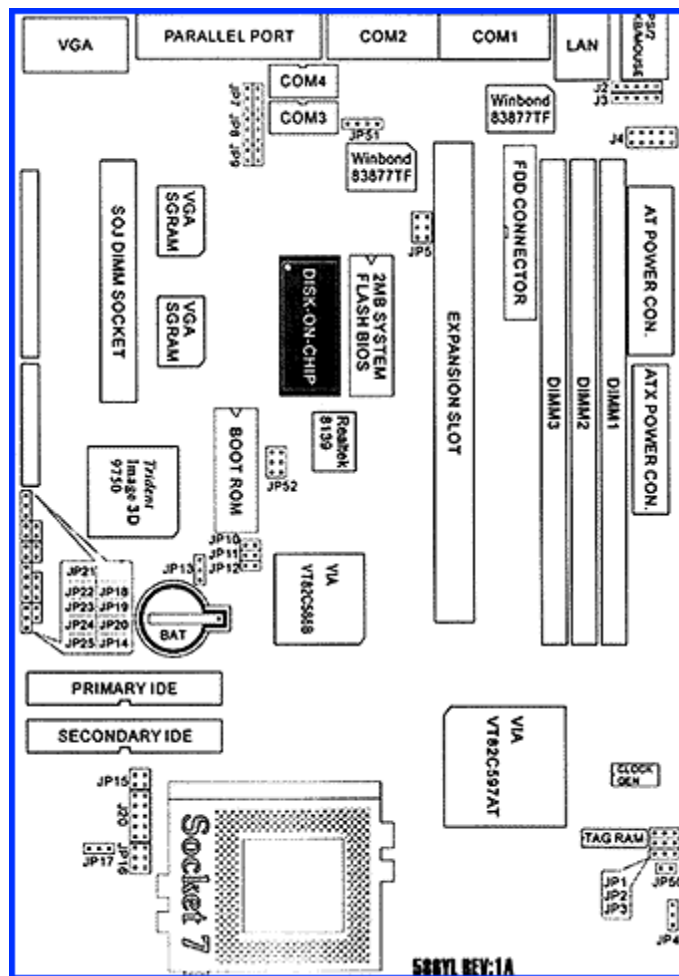
**HOME**

MODEL	ENDAT-586HL	ENDAT-586YL
<b>CPU</b>	Pentium 75-333, MMX, AMD K5/K6, IDT C6, IBM Cyrix 6x86 CPU	Pentium 75-333, MMX, AMD K5/K6, IDT C6, IBM Cyrix 6x86 CPU
<b>ZIF Socket</b>	Yes	Yes
<b>System Chipset</b>	VIA VP3	VIA VP3
<b>System BIOS</b>	2MB FLASH BIO(Award)	2MB FLASH BIO(Award)
<b>VGA Chipset</b>	Trident 9750 AGP1	Trident 9750 AGP1
<b>TV-Out</b>	Optional	Optional
<b>LAN Adapter (10/100BaseT)</b>	Realtek 8139A/8139	NO
<b>FLASH Disk</b>	Socket for DiskOnChip from 2MB to 144MB	Socket for DiskOnChip from 2MB to 144MB
<b>System Memory</b>	Upto 384MB	Upto 384MB
<b>Video RAM</b>	2MB to 4MB SG-RAM	2MB to 4MB SG-RAM
<b>144Pin SOJ DIMM Socket</b>	Optional	Optional
<b>VGA Feature Connector</b>	Yes	Yes
<b>IDE Interface</b>	Ultra DMA33	Ultra DMA33
<b>IrDA Port, USB Port</b>	Yes	Yes
<b>Multi I/O Chipset</b>	Winbond 83877TF Support 4 Serials/1 Parallel Ports	Winbond 83877TF Support 4 Serials/1 Parallel Ports
<b>External Cache</b>	Burst Cache upto 512KB	Burst Cache upto 512KB
<b>Expansion Slot</b>	Extension for PCI/ISA Bus	Extension for PCI/ISA Bus
<b>PCI Slot ID Select, Max. 3 PCI Slot on Riser Card</b>	PCI 1: AD24(INT.A,B,C,D) LAN PCI 2: AD23(INT.B,C,D,A) FREE PCI 3: AD22(INT.C,D,A,B) FREE PCI 4: AD21(INT.D,A,B,C) FREE	PCI 1: AD24(INT.A,B,C,D) LAN PCI 2: AD23(INT.B,C,D,A) FREE PCI 3: AD22(INT.C,D,A,B) FREE PCI 4: AD21(INT.D,A,B,C) FREE
<b>Location of Expansion Slot</b>	On the 6th of Standard MB	On the 7th of Standard MB
<b>Keyboard Jack</b>	PS/2 Type, AT KB Option	Two Mini Din Jack
<b>PS/2 Mouse Pin Header</b>	Optional	Yes
<b>VGA, I/O Pin Header</b>	Yes	Yes

<b>RAM Socket</b>	168pin DIMMx3	168pin DIMMx3
<b>Remote Ring Detect</b>	Yes	Yes
<b>ATX Power Connector</b>	Yes	Yes
<b>Form Factor</b>	PC/AT-6 Layers	WD/LPX-4 Layers
<b>Board Size</b>	223x220mm(8.77"x8.66")	198x280mm(7.79"x11.02")

### 1-1 Motherboard Layout





## Chapter 2. SETUP THE MOTHERBOARD

This chapter describes getting your motherboard ready for operation.

- Installing a CPU upgrade
- Installing DIMM memory and Video memory. Make sure the correct CPU operating voltage, jumpers setting and frequency
- Double check the insertion and orientation of the CPU before applying power, improper installation will result in permanent damage to the CPU

### 2-1. Jumpers and Connectors

#### Jumpers/Connectors Overview:

Function	Jumpers
CPU: CPU Internal Frequency	JP1, JP2, JP3
CPU Power Type(Single/Dual)	JP17
CPU Ratio	JP16
CPU Vcore Voltage	JP20
Power for CPU Cooling Fan	JP25 (12V)
Power Supply: Type (AT/ATX)	JP10
ATX Power on Switch	JP11
Power Good	JP21
VGA Adapter Dis/Enabled	JP26

LAN Adapter Dis/Enabled	JP27(586HL ONLY)
DiskOnChip Memory Address	JP8,JP9
Clear CMOS	JP13
FLASH ROM Select	JP12
Modem Ring Detect	JP12
HDD LED	J14
TV-Out	JP7
Hardware Reset	JP18
External Speaker	JP30
Buzzer Dis/Enabled	JP22
Key Lock	J24
IR	JP51(for 586YL only)
LAN LED	JLED(for 586HL only)
PS/2 Keyboard Header	J2
PS/2 Mouse Header	J3
USB	J4

### JP1, JP2, JP3: CPU Internal Frequency Setting

JP1	JP2	JP3	FREQUENCY	PCI BUS
1-2	1-2	1-2	66.6 MHz	1/2 CPU
1-2	1-2	2-3	60.0 MHz	1/2 CPU
1-2	2-3	1-2	75.0 MHz	1/2 CPU
1-2	2-3	2-3	83.3 MHz	33.3 MHz
2-3	1-2	1-2	68.5 MHz	1/2 CPU
2-3	1-2	2-3	83.3 MHz	1/2 CPU
2-3	2-3	1-2	75.0 MHz	32.0 MHz
2-3	2-3	2-3	50.0 MHz	1/2 CPU

### JP16: CPU Frequency Ratio Setting

Pin 1-2 (BFO)	Pin 3-4 (BF1)	Pin 5-6 (BF2)	RATIO
OPEN	CLOSE	CLOSE	5.0x
OPEN	OPEN	CLOSE	5.5x
OPEN	CLOSE	OPEN	3.0x
OPEN	OPEN	OPEN	3.5x/1.5x
CLOSE	CLOSE	CLOSE	4.5x
CLOSE	OPEN	CLOSE	4.0x
CLOSE	CLOSE	OPEN	2.5x
CLOSE	OPEN	OPEN	2.0x

### JP17: CPU Power Select

--	--

Pin1-2	for P55C(Dual Power)
Pin2-3	for P54C(Single Power)

**JP20: CPU Vcore Voltage select**

Pin 9-10	Pin 7-8	Pin 5-6	Pin 3-4	Pin 1-2	Vcore
CLOSE	CLOSE	CLOSE	CLOSE	CLOSE	3.5V
CLOSE	CLOSE	CLOSE	CLOSE	OPEN	3.4V
CLOSE	CLOSE	CLOSE	OPEN	CLOSE	3.3V
CLOSE	CLOSE	CLOSE	OPEN	OPEN	3.2V
CLOSE	CLOSE	OPEN	CLOSE	CLOSE	3.1V
CLOSE	CLOSE	OPEN	CLOSE	OPEN	3.0V
CLOSE	CLOSE	OPEN	OPEN	CLOSE	2.9V
CLOSE	CLOSE	OPEN	OPEN	OPEN	2.8V
CLOSE	OPEN	CLOSE	CLOSE	CLOSE	2.7V
CLOSE	OPEN	CLOSE	CLOSE	OPEN	2.6V
CLOSE	OPEN	CLOSE	OPEN	CLOSE	2.5V
CLOSE	OPEN	CLOSE	OPEN	OPEN	2.4V
CLOSE	OPEN	OPEN	CLOSE	CLOSE	2.3V
CLOSE	OPEN	OPEN	CLOSE	OPEN	2.2V
CLOSE	OPEN	OPEN	OPEN	CLOSE	2.1V
CLOSE	OPEN	OPEN	OPEN	OPEN	2.0V
OPEN	OPEN	CLOSE	OPEN	OPEN	1.9V
OPEN	OPEN	OPEN	CLOSE	CLOSE	1.8V
OPEN	OPEN	OPEN	CLOSE	OPEN	1.7V
OPEN	OPEN	OPEN	OPEN	CLOSE	1.6V

**AMD CPU Type/Clock Selector**

System Clock	CPU Type	JP1	JP2	JP3	JP16 1-2	JP16 3-4	JP16 5-6
50MHz x 1.5	PR75	2-3	2-3	2-3	Open	Open	Open
60MHz x 1.5	PR90	1-2	1-2	2-3	Open	Open	Open
66MHz x 1.5	PR100	1-2	1-2	1-2	Open	Open	Open
60MHz x 1.5	PR120	1-2	2-3	2-3	Open	Open	Open
66MHz x 1.5	PR133	1-2	2-3	1-2	Open	Open	Open
60MHz x 2.5	PR150	1-2	1-2	2-3	Close	Close	Open
66MHz x 2.5	PR166	1-2	1-2	1-2	Close	Close	Open

**IDT C6 CPU Type/Clock Selector**

System Clock	CPU Type	JP1	JP2	JP3	JP16 1-2	JP16 3-4	JP16 5-6
60MHz x 3	C6-180	1-2	1-2	2-3	Open	Close	Open
66MHz x 3	C6-200	1-2	1-2	1-2	Open	Close	Open

75MHz x 3	C6-225	1-2	2-3	1-2	Open	Close	Open
60MHz x 4	C6-240	1-2	1-2	2-3	Close	Open	Close

### Intel Pentium/MMX, AMD K6 CPU Type/Clock Selector

System Clock	CPU Type	JP1	JP2	JP3	JP16 1-2	JP16 3-4	JP16 5-6
50MHz x 1.5	75MHz	2-3	2-3	2-3	Open	Open	Open
60MHz x 1.5	90MHz	1-2	1-2	2-3	Open	Open	Open
66MHz x 1.5	100MHz	1-2	1-2	1-2	Open	Open	Open
60MHz x 2.0	120MHz	1-2	1-2	2-3	Open	Open	Open
66MHz x 2.0	133MHz	1-2	1-2	1-2	Open	Open	Open
60MHz x 2.5	150MHz	1-2	1-2	2-3	Close	Close	Open
66MHz x 2.5	166MHz	1-2	1-2	1-2	Close	Close	Open
60MHz x 3.0	180MHz	1-2	1-2	2-3	Open	Close	Open
66MHz x 3.0	200MHz	1-2	1-2	1-2	Open	Close	Open
66MHz x 3.5	233MHz	1-2	1-2	1-2	Open	Open	Open
66MHz x 4.0	266MHz	1-2	1-2	1-2	Close	Open	Close

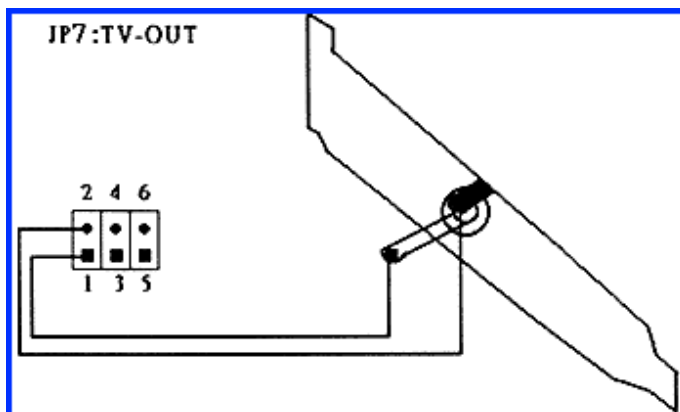
### Cyrix/IBM M1/M2 CPU Type/Clock Selector

System Clock	CPU Type	JP1	JP2	JP3	JP16 1-2	JP16 3-4	JP16 5-6
60MHz x 2.0	6x86-P150	1-2	1-2	2-3	Close	Open	Open
66MHz x 2.0	6x86-P166	1-2	1-2	1-2	Close	Open	Open
75MHz x 2.0	6x86-P200	1-2	2-3	1-2	Close	Open	Open
66MHz x 2.0	M2-PR166	1-2	1-2	1-2	Close	Open	Open
60MHz x 2.5	M2-PR166	1-2	1-2	2-3	Close	Close	Open
75MHz x 2.0	M2-PR200	1-2	2-3	1-2	Close	Open	Open
66MHz x 2.5	M2-PR200	1-2	1-2	1-2	Close	Close	Open
75MHz x 2.5	M2-PR233	1-2	2-3	1-2	Close	Close	Open
66MHz x 3.0	M2-PR233	1-2	1-2	1-2	Open	Close	Open
75MHz x 3.0	M2-PR266	1-2	2-3	1-2	Open	Close	Open
66MHz x 3.5	M2-PR266	1-2	1-2	1-2	Close	Open	Open

Note: Without a CPU cooling fan, the CPU could be overheat and cause damage to both the CPU and the motherboard

### JP5 : Flash ROM Select

Pin 1-3 /4-6	2MB 12V Flash ROM
Pin 1-3 /2-4	2MB 5V Flash ROM
Pin 3-5 /4-6	1MB 12V Flash ROM
Pin 3-5 /2-4	1MB 5V Flash ROM



**JP8 / JP9 : DiskOnChip Memory Address Select**

JP8	JP9	Memory Address
Pin 1-2	Pin 1-2	0C800H - 0C9FFH
Pin 1-2	Pin 3-4	0CC00H - 0CDDFFH
Pin 3-4	Pin 1-2	0DCCCH - 0D1FFH
Pin 3-4	Pin 3-4	0D400H - 0D5FFH
Pin 5-6	Pin 1-2	0D800H - 0D9FFH
Pin 5-6	Pin 3-4	0DC00H - 0DDFFH

**JP10: Power Supply type select**

Pin 1-2	AT Power
Pin 2-3	ATX Power

**JP11: Power-On switches for ATX power supply  
(work with closing Pin2-3 of JP10)**

**JP12: Modem Ring detects (12/2/98)**

**JP13: CMOS Data Clear**

Pin 1-2	Normal
Pin 2-3	Clear CMOS Data

**JP14: HDD LED**

**JP18: Hardware Reset Switch**

**JP21: Power Good source select**

Pin 1-2	Internal Power Good
Pin 2-3	External Power Good

**JP22: On-Board Buzzer On / Off switch ( default = On)**

**JP24: Key Lock / Power - Led**

**JP25: CPU Cooling Fan Power Connector**

Pin 1,3	Ground
Pin 2	+12V

**JP26: VGA Dis/Enable**

Pin 1-2	Enabled On-board VGA Adapter
Pin 2-3	Disabled On-board VGA Adapter

**JP27: LAN Dis/Enable**

Pin 1-2	Enabled On-board VGA Adapter
Pin 2-3	Disabled On-board VGA Adapter

**JP30 : External Speaker Connector**