

# İP³XÍÓ İŞB ÀŠÒà

ç0ÍÓË\_çYİqÁaÔçDzÃÔ% À»»RÔ»Ã ÀfÀ ÀŠÒaË'ÃÔÂİè»R×è×eÓ ÀæÑíÍ, ÂáÂSa[ÂíÂŠ  
Òà»T



×è%f%â: ESD (Electrostatic Discharge) ÆËÚcÓ,,Ã  
Ó,,%ÃÑ\_»RçèÃ Û€B Ó,,Ò (IC) ÅöÈvÃ Â Â ÚcÓ,,Ña  
ÚÍÃÔÔ%Be»RÃnÃÓÑ"ÂéÑ]ÍŚÌ' ØÓ»RÔèÔèØ »RÜi çc  
çu%æÂpç]ÃÔÔ†ç Â Â ÐaÈq»TÆË%WÓŠÃØÚcÓ,,Ã Ó,,  
ÂíÑ}ÝrİÓ% »R×èÛ ÀÆ%fÃTÃÔÔŠÃØËÓÆZ»X

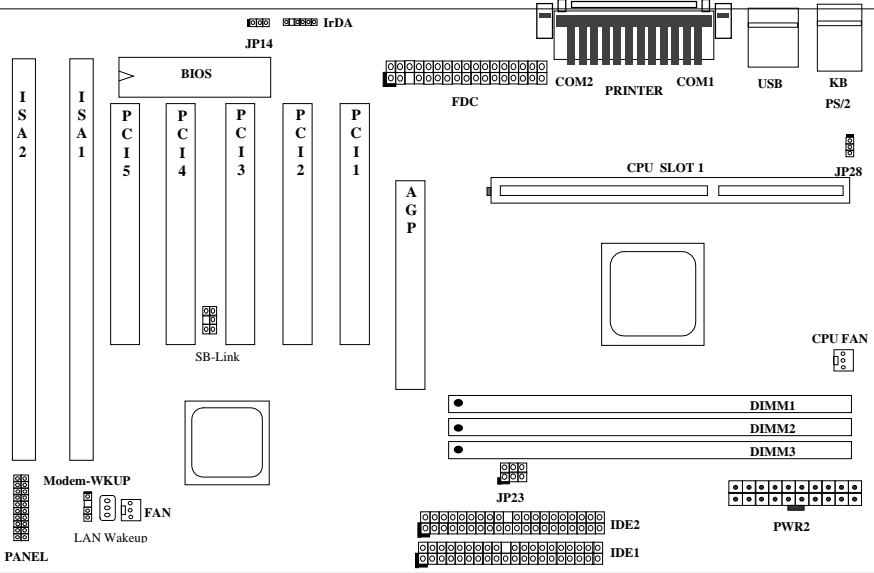
1. Ê%ÅUË' %ŠÑaÍaÀ€Ç€Ð"Ã}ÀŠÒaÓ†ç »RÁpÂy%uðf  
%4Ç€Ë\_Ó†ç ÀõÃØÚcÓ,,çnÒa%ØÂ çi»T

2. ÀsË' ÀŠÒaÓ†ç Èã»RÍæÀ€Ër%hÃÍËİÃr×^ÃÔ%âi  
Ú »R%4Í»ç ÃÔÔ,,%4Ó†ç À Í%ÃÍÀs× »TÀfÃXÃdÃÍ  
%âiÚ »R×èÂéçèç À çzçYÃØ% ÚcÓ,,ÃÔİÚç\_Ã•»RÃí  
ÔaÂ†İèÓ†ç %æçUØ Â`Ëİİİ»T

# İŞB ÅŠÒà

## 2.1 Jumper ÕaËİÚj ÄÔÀ Ò~

¿Y%f Æ¿U0 Ä`%4Jumper Ä^ËİÚj (connector) ÄÔË¿Ò~Óé»X



## Jumpers:

JP14:	Clear CMOS
JP23:	AGP Ratio
JP28:	Keyboard/Mouse Wake Up

## ĖİŲj:

PS2:	PS/2 Ña0AĖİŲj
KB:	PS/2 Ūp×J ĖİŲj
COM1:	COM1 ĖİŲj
COM2:	COM2 ĖİŲj
PRINTER:	ÀJĀ 0 ĖİŲj
PWR2:	ATX Ó„Ñ×ĖİŲj
USB:	USB ĖİŲj
FDC:	Floppy ĖİŲj
IDE1:	İĐ%Qİi IDE Í†ĖİŲj
IDE2:	İĐ%Xİi IDE Í†ĖİŲj
CPUFAN:	CPU ÇÑĖĖĖİŲj
FAN:	0 İuÇÑĖĖĖİŲj
IrDA:	IrDA (Æ ĸ•×ˆ) Í†ĖİŲj
PANEL:	Åv¼ ÇĖĀ` Å Ūp0aŪ` 00Í†ĖİŲj
WOM:	Wake On Modem ĖİŲj
WOL:	Wake On LAN ĖİŲj
SB-LINK:	Sound Blaster Link ĖİŲj

# İŞB AŞÖa

## 2.2 Jumpers

İ, D ÇU0 Ä`Æ ÈPçèI jumper İncf»RÈu»QÄ0 jumper Æ İ`È CMOS»RÄpçUÇèÆ Çè Ä ÄèÈ` È\`xi Ä0ÈäÇi»T

### 2.2.1 Ü Â CPU Úhİ%

İ, D ÇU0 Ä`ÇÇYÄ0ÈäÈÖİ CPU Ö„Ü%»R ÄYÇSÇÇYB È`Äs CMOS setup ÇÄİmŠ CPU Úhİ%»RÄİİ]DÄéçèÄ jumper»Tçç•»R»vçYÍ`Ó] ÇÄYÍ`Ä»RÈ\_ÇÜxèÄ0 CPU ò ÈèÈ` Ü Â EEPROM ÇÇ»TÄfÄ0»QÄİ»RÖf»Q MOS Ü ÇÇ»RÈ`Î ÇÇèÖüÇÄİn CPU Ö„Ü`Èäçi ÇÄÈÜ »RÇÇÇÇİÄÉÇhÄ0ÇİD`Ö„ÖÇ İüÜaİ CPU ÖöY ÇÄ»TÄİİ, ÇÄÈ ÇQÉ ÈPçèI jumper İncfÄ0 Pentium ÇU0 Ä`ÇUÇèÄ0È÷YU»T

İmŠ CPU Úhİ`Ä0 ÇÄ|Æ »X

#### BOIS Setup à Chipset Features Setup à CPU Clock Frequency

(ÇÈüÄ0İmŠÇäÄİ 66.8, 68.5, 75, 83.3, 100, 103, 112, 117, 124, 129, 133.3, 138, 143, 148, 153 MHz)

#### BOIS Setup à Chipset Features Setup à CPU Clock Ratio

(ÇÈüÄ0İmŠÇäÄİ 1.5x»S2x»S2.5x»S3x»S3.5x»S4x»S4.5x»S5x»S5.5x»S6x»S6.5x»S7x»S7.5x Öa 8x)

CPU ÇÖİ»Úhİ% = ÇÜÜh Ç x Ç•Úh

CPU	CPU ÇÖİ»Úhİ%	ÇÜÜh Ç	Ç•Úh
Pentium II - 233	233MHz =	3.5x	66MHz
Pentium II - 266	266MHz =	4x	66MHz
Pentium II - 300	300MHz =	4.5x	66MHz
Pentium II - 333	333MHz =	5x	66MHz
Pentium II - 350	350MHz=	3.5x	100MHz
Pentium II - 400	400MHz=	4x	100MHz
Pentium II - 450	450MHz=	4.5x	100MHz
Pentium III - 450	450MHz=	4.5x	100MHz
Pentium III - 500	500MHz=	5x	100MHz
Celeron 266	266MHz=	4x	66MHz
Celeron 300	300MHz=	4.5x	66MHz
Celeron 300A	300MHz=	4.5x	66MHz

## İŞB ÅŠòà

CPU	CPU »Œİ»Ūİ%	ÇÜŪh%	ç•Ūh
Celeron 333	333MHz=	5x	66MHz
Celeron 366	366MHz=	5.5x	66MHz
Celeron 400	400MHz=	6x	66MHz



ÞİÁz: INTEL 440BX İŒ% İİİæÄçz»İÄ 100MHz CPU ç•Ūh»RÁ ÊÄÄŒ  
İnÄŠĐaÄ»Œİ»İ Œİ çè»Tİ, ÄaİnÄŠÇa»ŠĐhçİ BX İŒ% İİÄŒŒİhÈ »R çzÉú  
Œ“Œ ÄİİèİŒÄŒ}Eq»T

### 2.2.2 İnÄŠ CPU Œ„Ū½

çŒçUŒ Ä`»İÄPentium II / Pentium III / Celeron VID çİŒú»RçzÄŒÊaÊŒİ CPU Èð  
»ŒŒ„Ū½»RÄp»uİ Äs 1.3V Ä 3.5V »ÄĐ»»T

ÆÊ»ÄÊĐhŪhÄ çİ¼ Ä`»Rİ,Đ çUŒ Ä`ŪŒçzBIOS Setup »¼»İŒç CPU Œ„Ū½»T

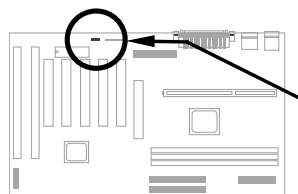
**Chipset Features à CPU Voltage Set to**

»ÄŒŒ]»èÄqŒ\_»Rçİ¼Œ„Ū½çzÉúŒŒ È`ÄŒ CPU İŒÄŒŒ}Eq»T

### 2.2.3 İ^Ê½CMOS

JP14	İ^Ê½CMOS
1-2	çŪÊç»Äf (ŒŠİn)
2-3	İ^Ê½CMOS

ÄfÄXÈ`ÄèÈ`Äİ İnÄŠÄŒÄİèÈ`»İ Èa»RçİĐŒç È  
[aBEI İnÄİ C>Đ»Rİ^Ê`ÄYÇÄİn T^`dİ ÄŒİnÄŠÇa  
Äú»R»ÉúÇÄŒĐ`Œ »T



JP14



Normal Operation  
(default)


JP14



Clear CMOS

## İŞB ÅŠ0à

İ^Ê½CMOS Ä0İ' Áá:

1. Ý ÍÄÄİëÓ„Ñ»T
2. ÅöËÖ PWR2 %ÄÄÖATX Ó„Ñ»^»T
3. Äþçİ JP14 ÄİÄSÄÖÄ 0~»RË\_D ×ÄİfÖmä %ÄÄİ»RÄ È^Ä-3 0"Ä %Ä»T
4. %QÑ"ÄüËäD»Äü»RÄ %ÄD ×ÄİfÖmÄÄÑİ^ ÄoÄ 1-2 0"Ä %Ä»RÄ İpÄÄÇ ÄİÄÖÄÄÖR»T
5. Ë\_ATX Ó„Ñ»×^ËİÄo PWR2»T
6. ÇÄÑİçİD"Ó„0!Ö„Ñ»T
7. ÄfÄXÑbÇİÄÄŠÑİÄÖÄİëË×i »RçZÄSÄİëËÈ ÄäËä»RÄ %Ä  ÜþDz%Ä BIOS Setup İvÇË%Ä»RÄÄ ÄŠÑİÄÖË×i »T



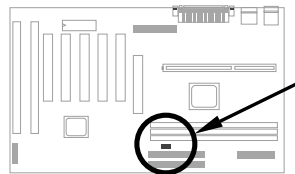
İ½ö: ÄfÄXË' ÄÖÄİëÄÄÄÄÜhÄİÑ ÈÖÄëİ]Ä|D"Ø »RçZçYİ^Ê½ CMOS»RB ÄİëÄoÄ ÖŠİÄÖÄÄÖR»T

İ½ö: È½ÄÄéçè JP14 %Äç•»R È' %ÄçZçYçè <Home> ÜþÄİİ^Ê½ CMOS»T%Ä Ä|ÄÄ Ä <Home> Üþİ^ÄüD"Èİ Ó„Ñ»D"Ý »Rİ, ÖäÄİëİ\_Ñ" ÄöËäË\_CPU İÄÄ Pentium II 233MHz»TËİ%ÄÄİ»RË' çZÄÄÄö ÖöÄÄf»R DZ%Ä BIOS Setup İÄÄŠ CPU Ühİ%»T

## 2.2.4 AGP Ratio

JP23	AGP Ratio
1-2	Auto (default)
3-4	2/3
5-6	1/1

çÖçU0 Ä`ççYË(Ä AGP çu0a CPU 100 MHz (ÄaLöÁ  
 ÈÄ) ç•ÜhÄaÄS»RçYİ¼ÄQÄİèÈÈÉú»T¾40] Ö÷ÄqÑ\_ÄÖÆ»R  
 AGP ÄÖÍhÈ ÍæÄç`çzÄö 66Mhz clock»RÍ, Ö ÈİçzÉúÑ«  
 ÀÐhçİ ÍhÈ »RÄíÄéÄİèİ¼ç¾4ÄÇÄÖÄÄf»TÄnÖÁóÇæÄò  
 ÞÍÈ'ÄéçèÄÖçmúÄv»RÚÍç[İíİ Ä AGP çuÄÖÐhÜhÉú¾»T  
 ÄÍÄá AGP çuÑÄn]Ä|ÄíÄ 100MHz ç•ÜhÄí0äÇaðhÜh  
 ç¼Èè»T



JP23	JP23	JP23
2 4 6 1 3 5 Auto (Default)	2 4 6 1 3 5 2/3	2 4 6 1 3 5 1/1

BX çU0 Ä`¾ÄÍ¾QÈ66/100" Èe00x^»RçzB İ0¾ İiÄöÈäÄaÄ` CPU ÄÖÝ ÄÆ»RçYÄ^  
 ÄS AGP clock»TÇj ÄéçèÄÖÆ 66MHz ç•ÜhÄÖPentium II CPU»Rçp0 İ0¾ ÑÈ\_  
 CPU ç•Üh0aAGP ÍnÈÄaÄS»TÄnÄÖÑ È'È\_ CPU ÐhÜhÄ100MHz Èä»RAGP ¾ÄÑ  
 ÐnÄ 100MHz»T

Çj ÄéçèÄÖÆ 100MHz Pentium II CPU»Rçp0 İ0¾ ÄyÑÈ\_ AGP ÍnÄö 2/3 CPU ç•  
 Üh»T¾ÄÍ\_Æ Ö»»RÈÌÄÇCPU Ðn 100MHz ÄÖ0ö»RAGP Î\_Ðn66MHz»T

È¼¾ÄhÇ' Auto ÍnÄSÄÖÈ»Äf¾Äç•»RÈ'¾ççYÄöÄ ÍnÄS 2/3 Äè 1/1»R¾Ä ÄÄÄèÈè  
 Äi»X

CPU Type	66/100 signal	Bus clock	AGP clock	JP23
66MHz	Low	66MHz	66MHz	1-2
66MHz	Low	100MHz	100MHz	1-2
66MHz	Low	100MHz	66MHz	3-4
100MHz	High	100MHz	66MHz	1-2
100MHz	High	100MHz	66MHz	3-4
100MHz	High	100MHz	100MHz	5-6
100MHz	High	133MHz	88.6MHz	1-2
100MHz	High	133MHz	88.6MHz	3-4
100MHz	High	133MHz	133MHz	5-6

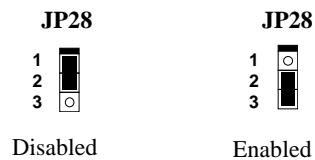
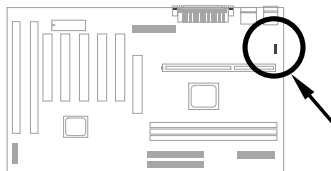
## İŞB ÅŠÒà



ÞÍÁz: Çj ç•Üh¼Ã 66MHz»RÁüÍ, Çí jumper ÍnÆ 1/1 çzÉúÑ“  
ÍQAAA†İèÑ}Eq»T

### 2.2.5 KB/MS WKUP

JP28	KB/MS WKUP	çèÁi Èi çèÛp× /ÑàÓÁÐ”Ø çü»TÇj ÍnÆ Enabled»R È’ÜóÐÑÈ,, BIOS Setup ¼¼ÍnÅŠÐ”Ø ÕiÀ»»TÇ€Áéçè ÀÓçü»R5V Stand By Ó„ÆÇİÐÑ¼Ã 800mA»RÁi çYÆj ÁaÓ„Ñ×ØÓçÉúÑ”İ]Ä Áéçè»T ×èÁqÑ_»Rç^ÁÍ PS/2 ÑàÓÁ¼pİÄÑàÓÁÐ”Ø »T
1-2	Disabled	
2-3	Enabled	





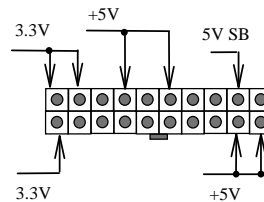
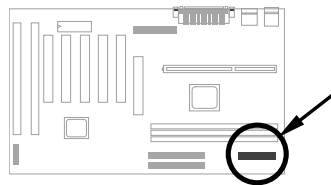
## 2.3 Í†ËÏÚj

### 2.3.1 Ó„Ñ×Í†ËÏ×^

ATX Ó„Ñ×Í†ËÏÚj ÅéçèÀf%Ä Å020-pin Í†ËÏÚj »R×ê×eÅŠË'Í»%4Ä0% ÄgÆ çÛ×eÄ0»T



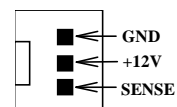
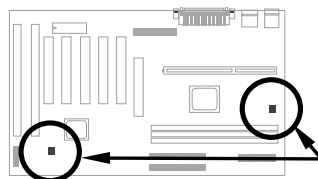
×ê×e%4%â: ÅÍ†ËÏÄeÄ0Ë%0„Ñ×Í†ËÏ×^%ÄÄv»R×êç Ý  
ÍÄ†İeÓ„Ñ×»T



PWR2

### 2.3.2 ÇÑÈÈ

ÅçU0 Å`%4»RAÍ%ÇÇİ0ëÇCPUFAN1 Õa%ÇÇİ0ëç0ÆFAN1 Å0ÇÑÈÈÏÚj »T



CPUFAN1  
FAN1

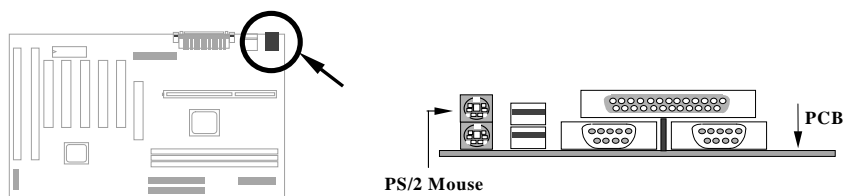


Ä İ : Í, ÄüÇİÇÑÈÈÏÚj Í½ççY%ÄİÄİŞB ÕaÈÈçmÉu (hardware  
monitor)»T

## İŞB ÅŠÒà

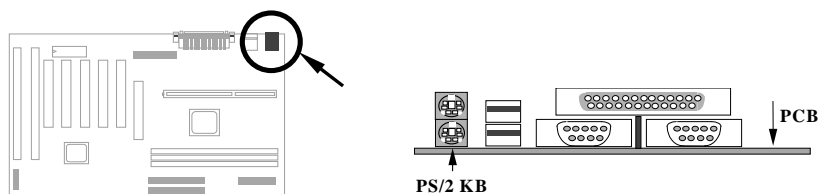
### 2.3.3 PS/2 ÑàÓĀ

×ēĬ†ĒĬ PS/2ĬÑàÓĀĀ ŐēçöĀĒPS2 MSIĀŐĒĬŬj ¼Ĥ»T



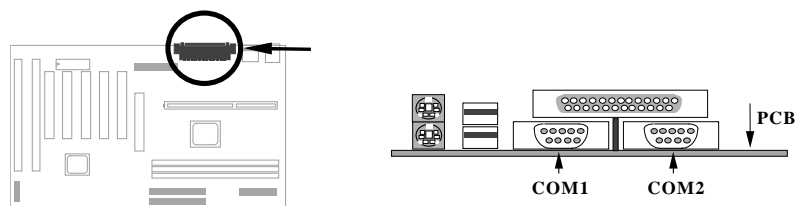
### 2.3.4 Ŭp×]

×ēĒ\_PS/2 Ŭp×]ĒĬĀ ŐēçöĀĒKB ĀŐĬ†ĒĬŬj ¼Ĥ»T



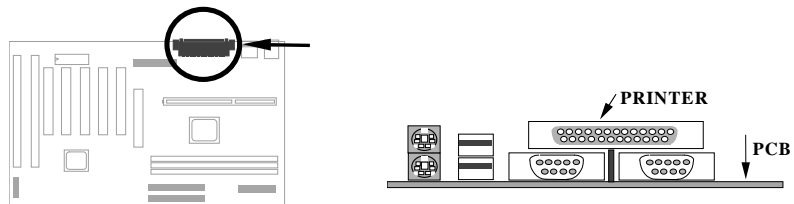
### 2.3.5 Ā ĀĤĒ (COM1/COM2)

Āŭ¼ ÇĒĀ` ¼ĤĬĬĀŭçĬĬŐēçöĀĒCOM1 Őa COM2 ĀŐ 9-pin D-ĀĒĒĬŬj »RççēĀĬĬ†ĒĬĀ ĀĤĒ ÑàÓĀ(serial mouse) ĀēĒ ŐàŐŐŐ »TĀp¼Ĭp¼QçĬĀ ĀĤĒĒĬŬj ŐēçöĀĒCOM1»ŬĬp ¼XçĬĀyŐēçöĀĒCOM2»T



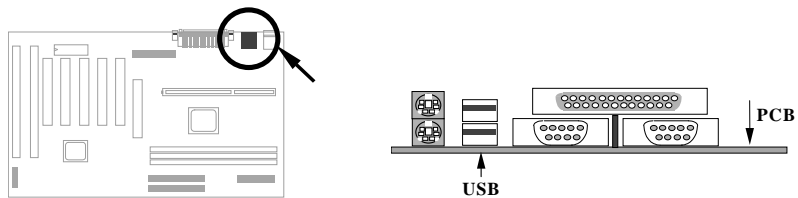
## 2.3.6 À]Ä Ø

çUØ Ä` Äü% ÇÄÄ` %hÄÍ%QÇiÖêö~~Ä~~PRINTER ÄÖ 25-pin D-ÄÄÜj »RçèÄíÄŠİ»ÄYÄT  
Ä»Ä]Ä Ø »T



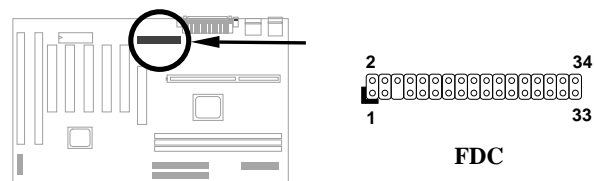
## 2.3.7 USB ÖàÖ~

Ë`çË\_ USB ÖàÖ~İ†ËİÄ USB ËÜj »RÍ, Ð çUØ Ä` %hÄÍÄüQ1USB ËÜj »RÖêöÄ~~Ä~~  
USB»T



## 2.3.8 Í€ÖêØ

ÄsçUØ Ä` %hÄÍ%QÇiÖêö~~Ä~~FDC ÄÖ 34-pin ËÜj »RççèÄíİ†ËİÄüç<Í€ÖêØ »T



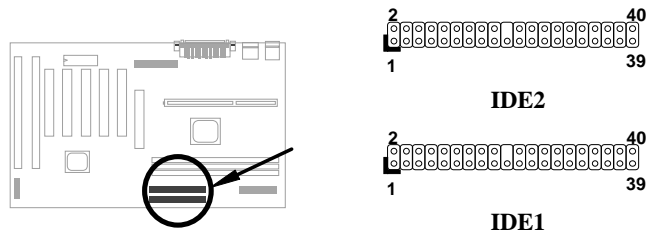
# İŞB AŞÖa

## 2.3.9 IDE İŞÖeØ Őa CDROM

AsçUØ Ä` %4ı»RÊİAİAuÇiÖeçöMIDE1 Ä^ IDE2 ÄÖ 40-pin ÈaÈŞ»Rçz%4Ä` İ†EİÄüÇi  
IDE 0a0~»RİæAyçİ†Eİç“Çi IDE 0a0~»R%QÉ IDE1 %d06ÆEçUİ„ÖU (primary  
channel)»RIDE2 %d06ÆEÄÖİ„ÖU (secondary channel)»T

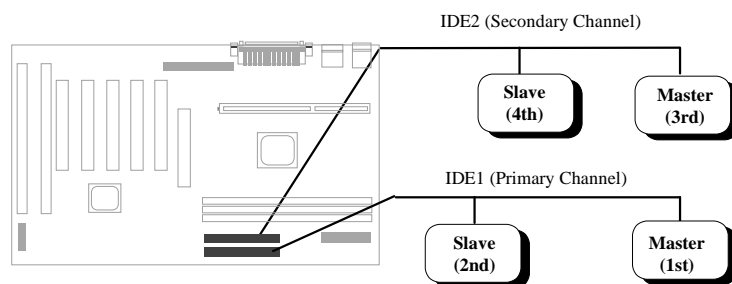
İ†EİÄ ç %Qİ„ÖUÄÖİP%Qç<0a0~çİDNİnM master mode»WİP%Xç<0a0~çİDNİnM  
slave mode»Tç %QÇi0a0~Ä»zÆİSÖeØ Äeç ÖeØ »T

«êĚ\_ĚİP%Qç<0a0~İnM master mode ÂYĖİÄ IDE1»RİP%Xç<0a0~İnM slave  
mode ÄaÖaEİÄ IDE1»TÄfÄXE'ÄİP%eç<%èİPç“ç<»R«êÄaÄaEİÄÄ IDE2 ÄÖ master  
%e slave mode»T



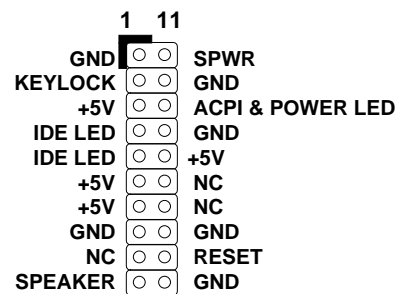
«ê%f%u: IDE İhÈ ÄoPİÈa«İæÄ %4çzDhÖ] 46 %  
%Ä (18ÇoÀe)»RçYÄ\Ö ÈaBaÜ %4Ä”»T

«ê%f%u: ÆÊÖWÄ İæÄeÄÖAYÖÖÄ•x »RÈa«İæÖNÖ÷ÄÖ  
0a0~İæÄEİnÄÄ master mode»RÄYÄæNi %fÖeÄoPİÄÖ  
DÖÄaÄSÖaN†0a0~»T

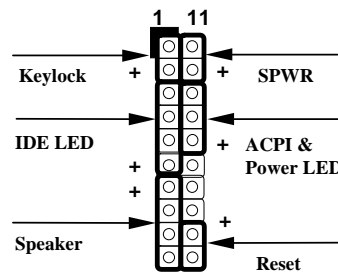
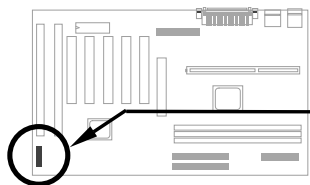


## 2.3.10 Àv¾ ÇĖÄ`ĖİÚj

Àv¾ ÇĖÄ`ĖİÚj 20-pin ĖàĖŠ »R ŖĖ ĺö ÅÅ  
**PANEL** »TÀŖĖà×^ĖİÚj ĺzACPI & Power  
 LED Å ĺöŮ` »RŮp×]Ů (keylock)»RÇÄŇĐ`Ů  
 (reset) Å Đ†»RĪŮĺ` (speaker) Īĺ»TĖ`ĺȺY  
 ÅæȺ|ŖĖÄİÀŠŖà»T  
 Çj Ė`ÄİÀs BIOS ¾¾ÄİÄŠ “suspend mode”»R  
 Äy Ň Đz¾ suspend Ŗi À»Ėä »RACPI &  
 Power LED Å ĺöŮ` Å\ŇĐ”ÄjĖ`Ý` »T



10 20  
PANEL



10 20  
PANEL

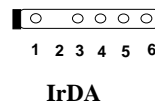
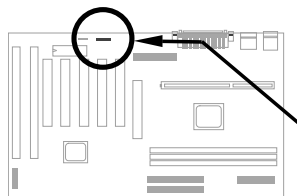
# İŞB AŞÖa

## 2.3.11 A İ•x^ĐaÜ Ê (IrDA)

İÖİUØ Ä` ÄÖİP%XA ÀTÊ (serial port 2) İZİİÄ IrDA A İ•x^Öİİİ»TÄİÜñ IrDA (Infrared Data Association) Ç İÖE İë HP»SCompaq»SIBM İİÜfÄİ ÄÄzüÄÖ%Q ÇİİİÜİ»RİëÄİËÜÖtÖSİëE İ•x^Đa×^Ö ÈaÄÖÄİ\_ÖaÜİİè»TÄüÄİİÊP ÄİÖİÊİİİ İ»R IrDA Ä\Í%ÄSÄeÄÄE İ•x^ĐaÜ ÄÖÖeÑa»Tİ^ÇEË`ÄÖÖ„Ö%ÄyİäA İ•x^ĐaÜ İm Éú»RİSİBÄİ IrDA İmÄŞ»Rİ\_ÉúÊ Äs%QÄŞĐkÜ %Ö»R%4Ö=ÇEİİİ×^%Äİİİİ»RÄj İÄöÈaÖaİÄÊ`ÄÄÖ„Ö%ÄeÇİ%YÖaÄ Äfİ` (PDA) Äö%Äİİ×^»SĐaÖÖÜaÈñÖ ÈaÄeÊ\_ %İ İvÄ İİÄ IrDA ÄÖÄ]Ä Ø ÄTÄ]»TİÖİUØ Ä` İZİİÄHPSIR (115Kbps, 1 meter) Öa ASK-IR (56Kbps) İİİhÈ »T

ÄŞÖaÈa»R×eË IrDA A İ•x^ÖİİİÄŞİ»Ä İU Ø Ä` İİÖeÄİİrDA ÄÖÈaÈŞ»TÄŞÖa%ÄÄü»RË` ÜöİİÖ÷Đ"ÈİİSZ dİdvİ fİÖÄÖE İ•x^İmü»R İİÜÈqİÄQ»T

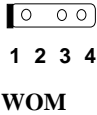
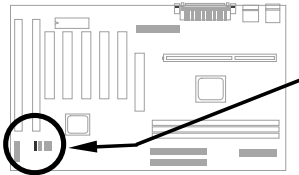
Pin	Description
1	+5V
2	NC
3	IRRX
4	GND
5	IRTX
6	NC



2.3.12 Wake on Modem EİÜj

İÖİU0 Ä` %hÄyÄİEdÈ x`ð İncf»Rİz%pİÄÖa060 0ÖEED"0  
(0V Wake On Modem) İmü»R%ÖEİÄ» (AOpen MP56) Äè  
İ•EİÄ»Öa060 Ä»İz0Rİè»TİèÄ Äèèè%ÖEİÄ»Öa06İuÄÖ0ö»RİÇ  
Eä%ÄÖ=ÉİD` Ó„N«»RÄİİYÄöÇæ% ð ÄoPİE'Äèèè»TÇj È'EPİèÄÖ  
Æ AOpen MP56»RÄy«èÄèèè 4-pin İİİİx`»Rİİİİ MP56  
ÄÖ RING EİÜj 0aİU0 Ä` %hÄWOM EİÜj »T

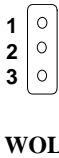
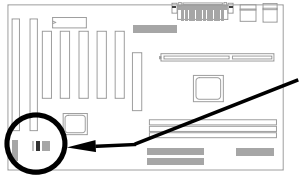
Pin	Description
1	+5V SB
2	NC
3	RING
4	GND



2.3.13 Wake on LAN EİÜj

İÖİU0 Ä` ÄyÄİWOL EİÜj »R ÇEÄèèèWake On LAN İm  
Éü»RİİDNNİİpİÄÄ0İmüÄÖ0 ð İu0a0 0öİEB »T

Pin	Description
1	+5V SB
2	GND
3	LID

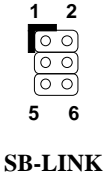
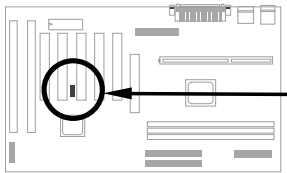


# İŞB ÅŠ0à

## 2.3.14 Sound Blaster LINK

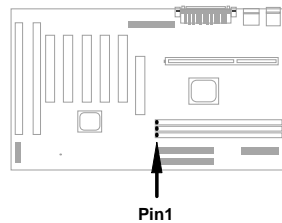
**SB-LINK** ççèâİİ†ĖĬ Creative ÅĖñÄŎ PCI ÇĬĖPçu»T Çj Ė‘ÅŠ0à%Ű, ŎðÇĬĖPçu»RĬ\_çĬŇÄéçèÂ Ĭ, ÇiĖĬŰj »RçY Å\ÅsDOS Ű Ŏi%ŒÉúĖ ÅĖĖ»T

Pin	Description
1	GNT#
2	GND
3	NC
4	REQ#
5	GND
6	SIRQ#





## 2.4 ÅŠòà¿UÊ`Øêß



Í, Ð ¿UØ Ä`ÄÍ 3 Ê DIMM (Dual-in-line Memory Module) Î»Öë»R¿¿Y³pÎÄ SDRAM (Synchronous DRAM) ¾e Registered SDRAM»R ÍæÄÄÈvÐ„¿0WÄ 768MB. Ä ×ê Äqñ\_»RSDRAM Ä^ Registered SDRAM Æ ¾4Euİgİ»Ä0»RË' ¿EuÄŠòàÄa¾Q0ÐRAM»T



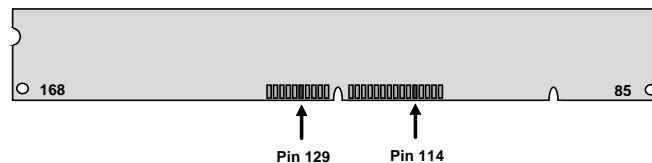
×e¾f¾u: ¿Ö¿UØ Ä`ÄY¾4¾pÎÄ EDO DRAM»T

DIMM Öiİi¿¿¿Y¾fİi Öö¾ Ä»Êe¾U»X

- I. ¾¾¾: Í ÇËÆ 1Mx64 (8MB)»S2Mx64 (16MB)»S4Mx64 (32MB)»S8Mx64 (64MB)»S16Mx64 (128MB)»WÄi Ü ÇËÆ 1Mx64x2 (16MB)»S2Mx64x2 (32MB)»S4Mx64x2 (64MB)»S8Mx64x2 (128MB)»T



Î½ö: ÄÍÇi¾ Ä|¿¿¿YÜaÆuË' ÄÖ DIMM Æ Í ÇËÜöÆ Ü ÇË -- Æ÷Æ÷DIMM ¾hÇËÄÖ pin 114 Öa pin 129»RÄfÄX ÄÍÊ†Ö-Ö„Ö »RÍ, Ê DIMM ¿ZÉúİ\_Æ Ü ÇËÄÖ»WApÄy İ\_Æ Í ÇËÄÖ»T×eÊeÑi¾fÇËÄÖÖeöê»T



×eÄqñ\_: Ç€0WÄ 768MB ÄÖÊ`Øêß ÈvÐ„»Rİ\_¿İÐÑÜ ¿è 128M bit ÄÖ Registered SDRAM»T

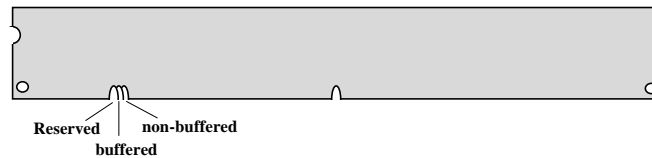
- II. Í†Äñ: ¾QÉ Æ Öe¿öÄf-12 Í, ÖöÄÄ»»RÍ, Ä ¿öÄ†Ä Í†Äñ (clock cycle time) Æ 12ns»RÄi¿YÄÖSDRAM Íæ¾ÄÖ clock Æ 83MHz»TÜöÄÍ¿¾Q0öÖe¿öÆ ÄfÄa-67 Í, ÖöÄÄ»»RÄ ¿öÄaÄSÖ ÈaÐaÜ ÍæÄö¿Ä 67MHz»T

## İŞB AŞÖa



×ê%f%â: 10 SDRAM 100 MHz  
CPU 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz

III. Buffered 0a non-buffered: 100 MHz 100 MHz 100 MHz 100 MHz  
DIMM 100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz



100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz

IV. 2-clock 0a 4-clock: 100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz



100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz

V. 100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz

VI. 100 MHz SPD: BIOS 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz

BIOS 100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz  
100 MHz 100 MHz 100 MHz 100 MHz

Total Memory Size = Size of DIMM1 + Size of DIMM2 + Size of DIMM3

## İŞB ÅŠ0à

¿Y%FÀT¿ÀoPÍÂé¿èÄÖ DRAM İiAi »X

DIMM Data chip	Bit size per side	Single/ Double side	Chip count	DIMM size	Recommended
1M by 16	1Mx64	x1	4	8MB	Yes
1M by 16	1Mx64	x2	8	16MB	Yes
2M by 8	2Mx64	x1	8	16MB	Yes
2M by 8	2Mx64	x2	16	32MB	Yes
4M by 16	4Mx64	x1	4	32MB	Yes
4M by 16	4Mx64	x2	8	64MB	Yes
8M by 8	8Mx64	x1	8	64MB	Yes.
8M by 8	8Mx64	x2	16	128MB	Yes.

DIMM Data chip	Bit size per side	Single/ Double side	Chip count	DIMM size	Recommended
2M by 32	2Mx64	x1	2	16MB	Yes, but not tested.
2M by 32	2Mx64	x2	4	32MB	Yes, but not tested.

¿Y%FÀT¿ÀoPÍÂé¿èÄÖ DRAM İiAi »X

DIMM Data chip	Bit size per side	Single/ Double side	Chip count	DIMM size	Recommended
4M by 4	4Mx64	x1	16	32MB	No
4M by 4	4Mx64	x2	32	64MB	No
16M by 4	16Mx64	x1	16	128MB	No

Às 100MHz Âé¿Y%hÄÖ¿•Úh¿f»RÇ€È, Â Ò À€ÄÖÈÈúÖaÝÇÁŠÄä»RÁoÇaaÄoPÍÈ' Íaa€Ú  
¿èPC 100 SDRAM»T

¿Ö¿UØ Ä`Æ ¿Parity check ¼ À»ÊÖÎ Ê`Øèß Û Ö•»TÈ'¿İĐŇÂé¿è 72 bit DIMM (64 bit data + 8 bit parity) Âí¿PİÂ parity check»RBIOS ¿zÄöÊäÊÖÄÖ 72 bit parity DIMM»R¼Ä÷İŞB ÍmŠ»T