



ยี่ห้อสินค้า	ASUSTek Computer Inc.	10/06/2003
รุ่นและรหัสสินค้า	P4S800-MX w.LAN / 12-TWA-FP720	BIOS 1002
ขนาดของสินค้า	MicroATX Form Factor : 9.6" x 9.6" (24.5 cm x 24.5 cm) 	PCB Rev1.02 Winbond I/O W83697HF
สินค้าที่ใกล้เคียง	P4S533-MX, P4P800-VM	
ระบบขั้นต่ำที่ต้องการ	CPU Pentium4 (Socket 478) FSB 400/533/800 MHz	

Package / รูปภาพสินค้าและอุปกรณ์



800 MHz FSB

SOUNDMAX®



ASUS
HEART OF TECHNOLOGY



CD Driver M-352



User Guide E1399



Power LED 2 to 3 Pin

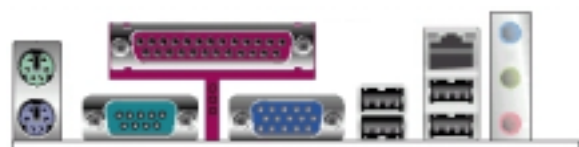
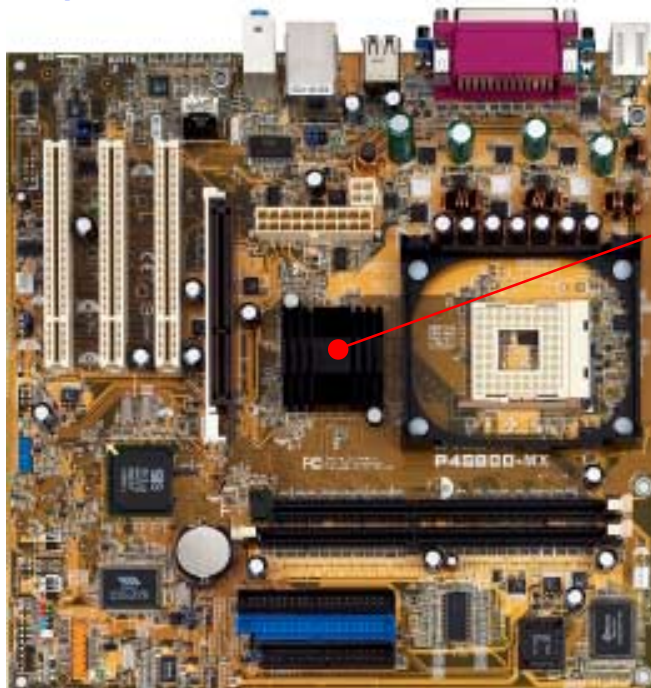


Cable FDD & HDD133/100/66/33



I/O Shield

รูปลักษณะของบอร์ด



Back Panel

Overview Feature / คุณสมบัติ

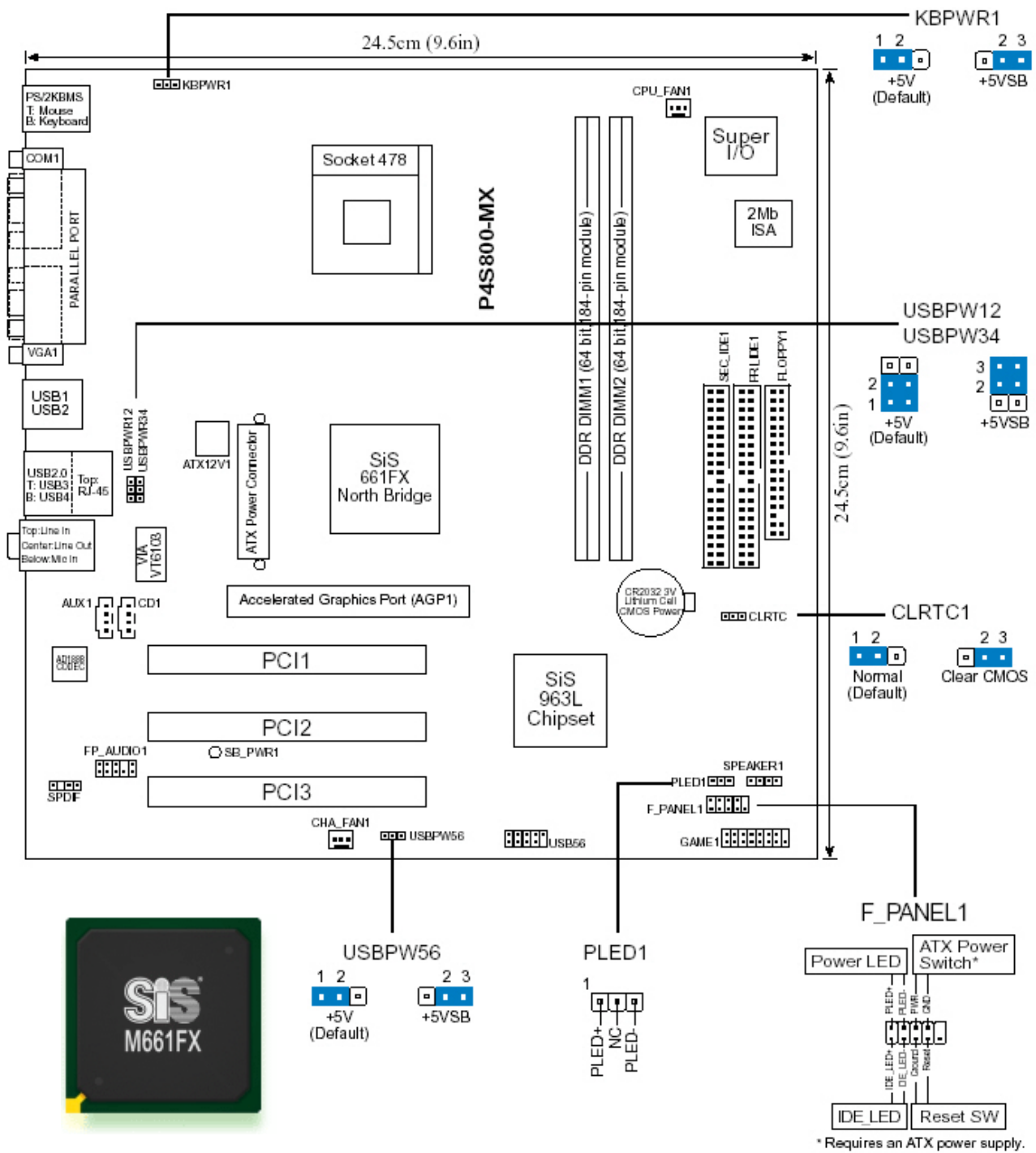


- รองรับการทำงานซีพียูอินเทล Prescott ที่วิ่งด้วยความเร็ว FSB 800MHz อย่างเต็มประสิทธิภาพ
- Crash-Free BIOS การกู้คืนไบออสที่มีปัญหาจากการทำงานที่ผิดพลาดหรือการโอเวอร์คล็อกล้มเหลว
- สนับสนุนการแสดงผลด้วยชิปกราฟฟิค SiS Real256E Share Memory (Ultra-AGP II™ Technology)
- Universal Serial Bus 2.0 จำนวน 6 พอร์ต สามารถต่อพ่วงอุปกรณ์ต่างๆ ได้ถึง 127 อุปกรณ์ 
- ระบบเสียง Surround รอบทิศทาง 6 Channel Audio CODEC

Specification / รายละเอียดทางเทคนิค

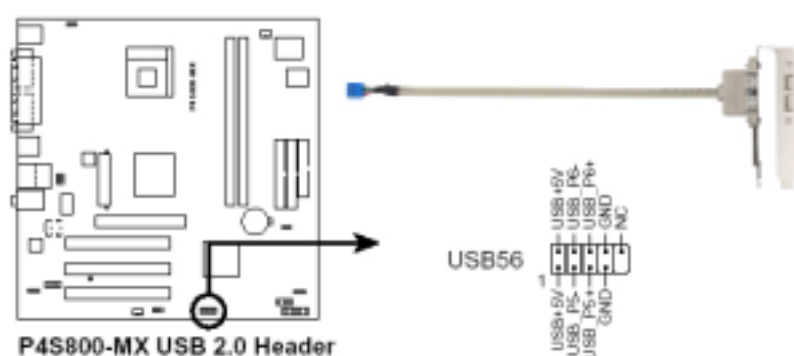
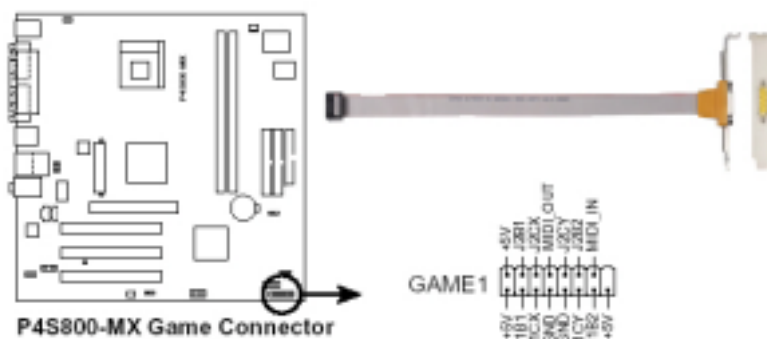
PROCESSOR (Processor Support)	● Socket 478 On-die 512/256KB L2 Cache with full speed (Hyper-Threading Technology) ● Intel Pentium 4 / Intel Pentium 4 Northwood / Prescott CPU 1.4 up to 3.6+ GHz
CHIPSET	● North Bridge : SiS 661FX ● South Bridge : SiS 963L 
System Bus (FSB)	● Supports 800/533/400 MHz
On-board VGA	● Integrated 4X AGP 2D 128-bit / 3D 256-bit SiS Real256E Graphics (SMA 32, 64MB)
EXPANSION SLOTS	● 3 x PCI Slots (32-bit PCI 2.2) ● 1 x AGP 8X/4X (AGP 3.0/3.5) slot (1.5V Only) Lock Card Control
SYSTEM MEMORY	● 2 x 184-pin DDR DIMM Sockets Support PC3200/2700/2100 unbuffered non-ECC ● Total Memory size = 2 GB Max.
Rear panel I/O	● 1 Floppy Port (up to 2.88MB, 3 Mode Floppy Supported & LS-120) 1 Drive A: support ● 1 Serial Ports (16550 Fast UART Compatible) ● 1 PS/2 Mouse, 1 PS/2 Keyboard, 1 Parallel Port (ECP, EPP Port) ● 4 USB 2.0/1.1 Connector (Rev1.1/2.0), Additional 2 USB 2.0/1.1 ● 1 Game/MIDI ports On-board Int. connector (Optional) ● 1 RJ45, 1 S/PDIF Out Int (Optional), Line In / Line Out / Microphone ports
On Board Audio	● ADI AD1888 6-channel AC'97 Compliant (3D) Audio Codec , with S/P DIF-Out
On Board LAN	● Integrated MAC, VIA 6103L 10/100 Mbps LAN PHY controller (00-0B-6A-F4-D8-E8)
ON BOARD PCI IDE	● 2 x UltraDMA133 Bus Master IDE Ports (ATA 133 / 100 / 66 / 33) ● ATAPI IDE CD-ROM, DVD, CDR/RW, LS-120 & Tape Backup Supported
ATX Power Connector	● 3V, 5V and 12V 20-pin ATX Power Connector, Soft Power Off Support, 2 Fans Con.
BIOS Feature	● Award Bios Size 2 Mb Flash EEPROM, PNP , ASUS® JumperFree™ , SM BIOS2.3 ● DMI2.0 / WfM2.0 / Green / TCAV , C.P.R (CPU Parameter Recall), CrashFree BIOS
Special Features	● Power Loss Restart, ASUS® JumperFree, Support Digital audio via an S/PDIF Out Int. ● ASUS MyLogo™, STR (Suspend-to-RAM), ASUS EZ Flash™, Ext. AGP 4X/8X ● Wake-Up-On (LAN, Modem, PCI Device, Keyboard, Mouse, USB) ● 6 USB 2.0/1.1 Ports (Build-in 4 ports + Optional 2 ports)

Motherboard layout :

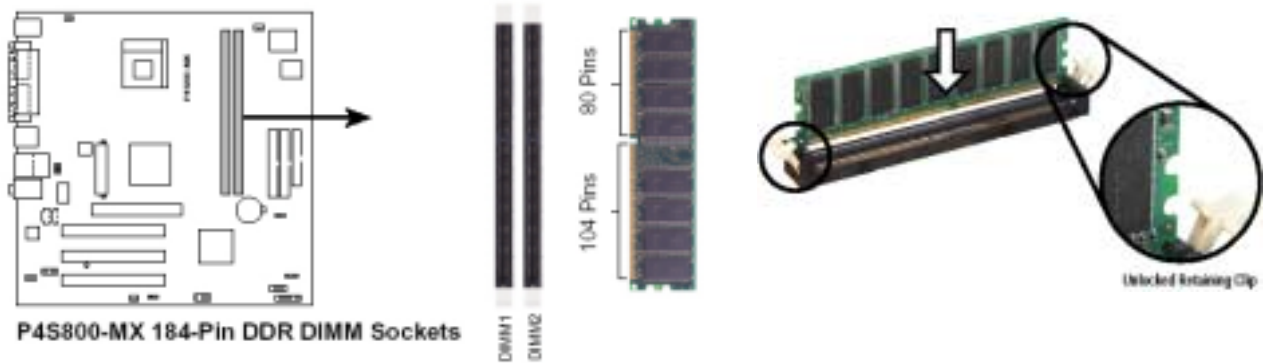


GAME/MIDI connector (16-1 pin GAME1) Optional

USB header (10-1 pin USB56)



Memory Configuration :



P4S800-MX 184-Pin DDR DIMM Sockets

CPU FSB	DDR DIMM Type	Memory Frequency
800 MHz	PC3200/PC2700/PC2100	400/333/266 MHz
533 MHz	PC3200/PC2700/PC2100	400/333/266 MHz
400 MHz	PC3200/PC2700/PC2100	400/333/266 MHz

Bios Setup : CPU Bus Frequency (Auto/Manual)

➤ Advance BIOS Setting CPU Bus Frequency (Auto/Manual)

➤ CPU/Memory Frequency Ratio FSB 400/533/800 MHz

By SPD Auto DDR 400/400/400 MHz

..... [] DDR 333/333/333 MHz

..... [] DDR 266/266/266 MHz

Memory DDR400 Qualified Vendor List (QVL by ASUSTEK)

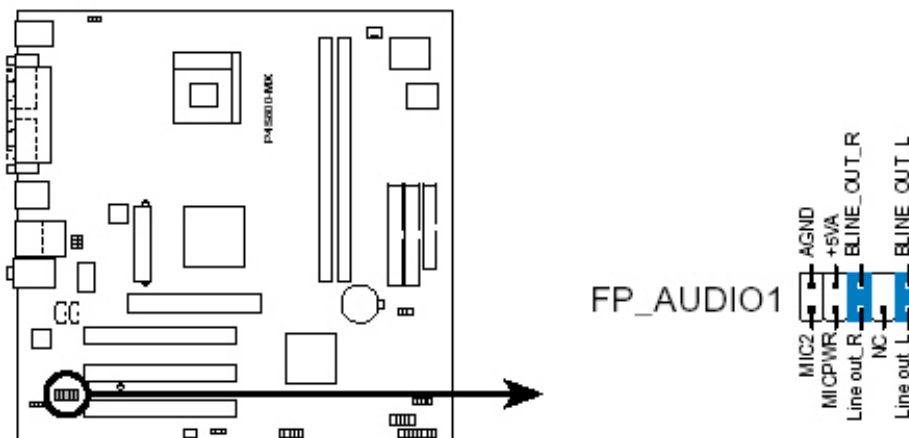
Size	Vendor	Part Number	Chip Brand	Side/s*	Chip Number
512MB	MICRON	MT16VDDT6464AG-40BC4	MICRON	DS	MT46V32M8TG-5BC
512MB	CENTURY	DXV2S8SSCCE3K27E	SAMSUNG	DS	K4H560838E-TCCC
256MB	CENTURY	DXV6S8MC5BC3U27E	MICRON	SS	MT46V32M8TG-5BC
256MB	BRAIN POWER	B6U808-256M-SAM-400	SAMSUNG	SS	K4H560838D-TCC4
256MB	Transcend	TS32MLD64V4F3	MOSEL	SS	V58C2256804SAT5
256MB	Apacer	77.10636.465	SAMSUNG	SS	K4H560838D-TCC4
256MB	ATP	AG32L64T8SQC4S	SAMSUNG	SS	K4H560838D-TCC4
256MB	NANYA	NT256D64S88B1G-5T	NANYA	SS	NT5DS32M8BT-5T
256MB	MICRON	MT8VDDT3264AG-40BC4	MICRON	SS	MT46V32M8TG-5BC
512MB	elixir	M2U25664DS8HB3G-5T	elixir	DS	N2DS25680BT-5T

* Side/s:

DS - Double-sided

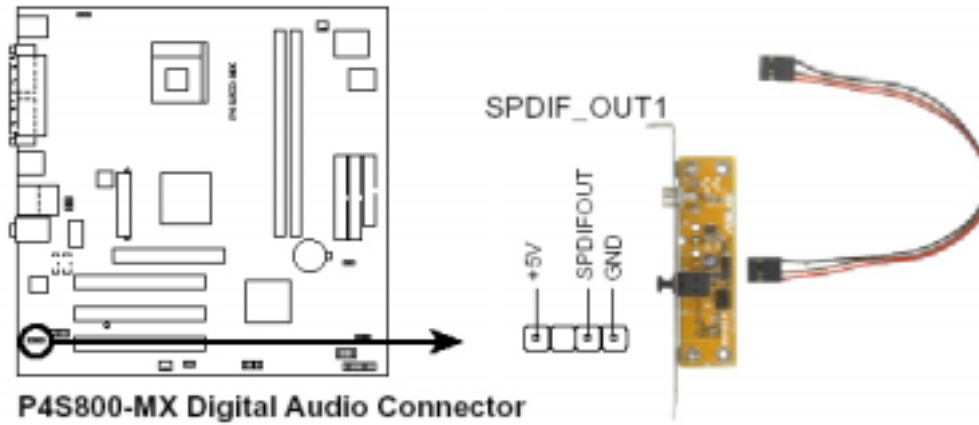
SS - Single-sided

Front panel audio connector (10-1 pin FP_AUDIO1)

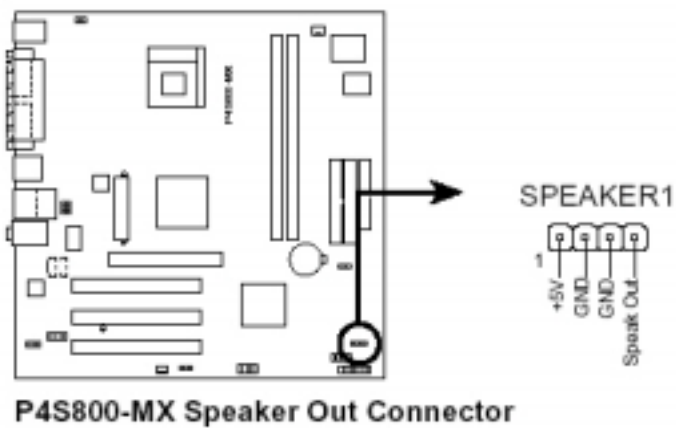


P4S800-MX Front Panel Audio Connector

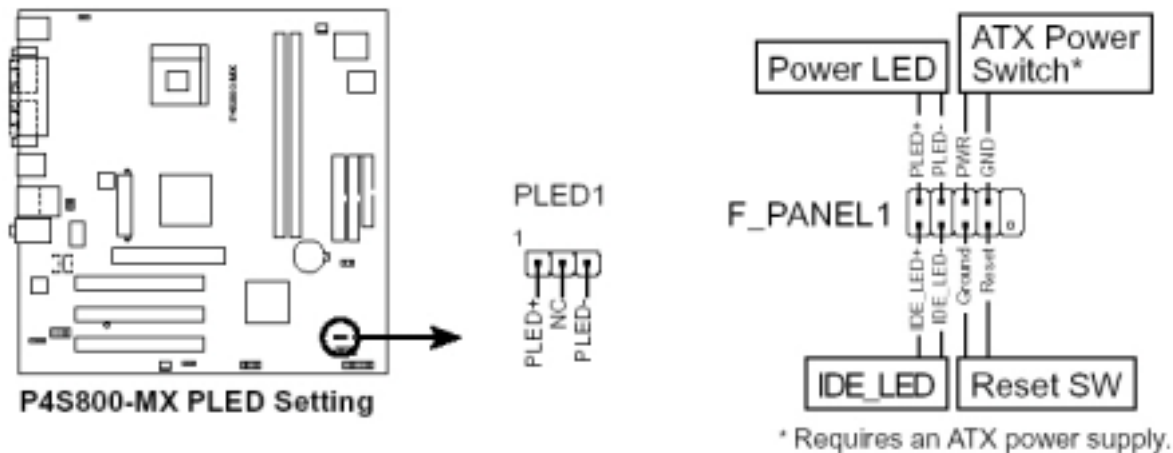
Digital audio connector (4-1 pin SPDIF_OUT1)



Speak out connector (4-pin SPEAK1)

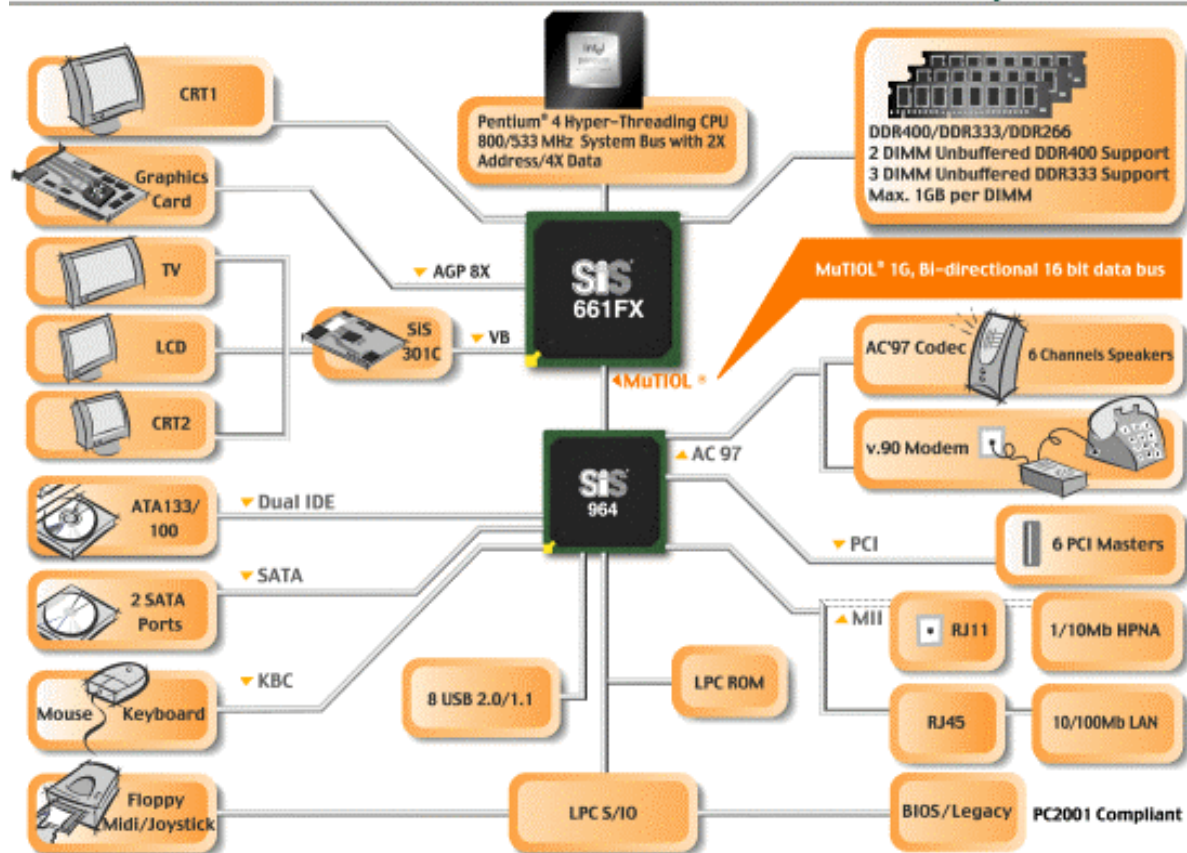


Power LED Lead (3-1 pin PLED1) * มีเฉพาะรุ่นตั้งแต่ PCB 1.03 ขึ้นไปจะให้ 2 Connectors สำหรับใช้งานต่อไฟหน้าเคส



Block Diagram Chipset : SiS661FX / SiS963L

SiS661FX / SiS964—SiS Pentium® 4 Chipset



Chipset Information Status :

CPU-Z

CPU | Cache | Mainboard | Memory | About

Processor

Name	Intel Pentium 4		
Code Name	Northwood	Brand ID	9
Package	mPGA-478		
Technology	0.13 μ	Voltage	1.584 v

Specification

Intel(R) Pentium(R) 4 CPU 2.80GHz			
Family	F	Model	2
Ext. Family	0	Ext. Model	0
Stepping	9	Revision	D1
Instructions	MMX, SSE, SSE2		

Clocks

Core Speed	2800.7 MHz
Multiplier	x 14.0
FSB	200.1 MHz
Bus Speed	800.2 MHz

Cache

L1 Data	8 KBytes
L1 Trace	12 Kops
Level 2	512 KBytes
Level 3	

Processor Selection: CPU #1 (selected), CPU #2 (Logical), APIC ID: 0

Version 1.20

CPU-Z Refresh OK

CPU-Z

CPU | Cache | Mainboard | Memory | About

Motherboard

Manufacturer	ASUSTeK Computer INC.		
Model	P4S800MX	REV	1.xx
Chipset	SiS	661	Rev. 11
Southbridge	SiS	SiS963	
Sensor	Winbond	W83697HF	

BIOS

Brand	Award Software, Inc.		
Version	ASUS P4S800MX ACPI BIOS Revision 1002		
Date	10/06/2003		

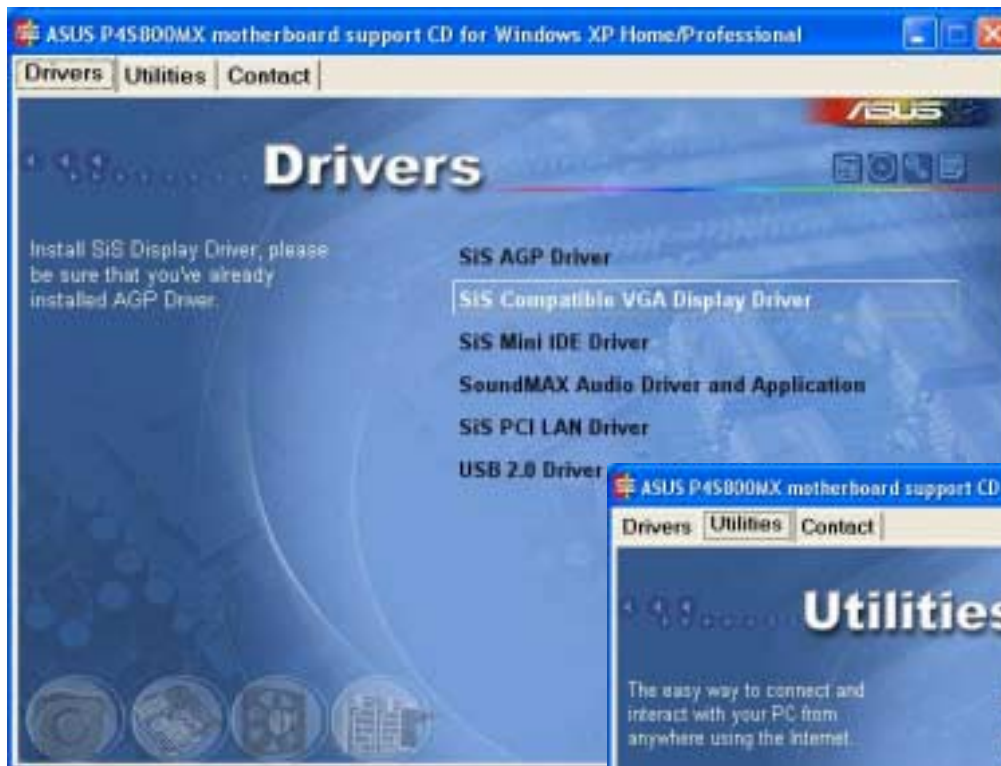
AGP

Revision		Data Transfer Rate	
Aperture Size		Side Band Addressing	

Version 1.20

CPU-Z Refresh OK

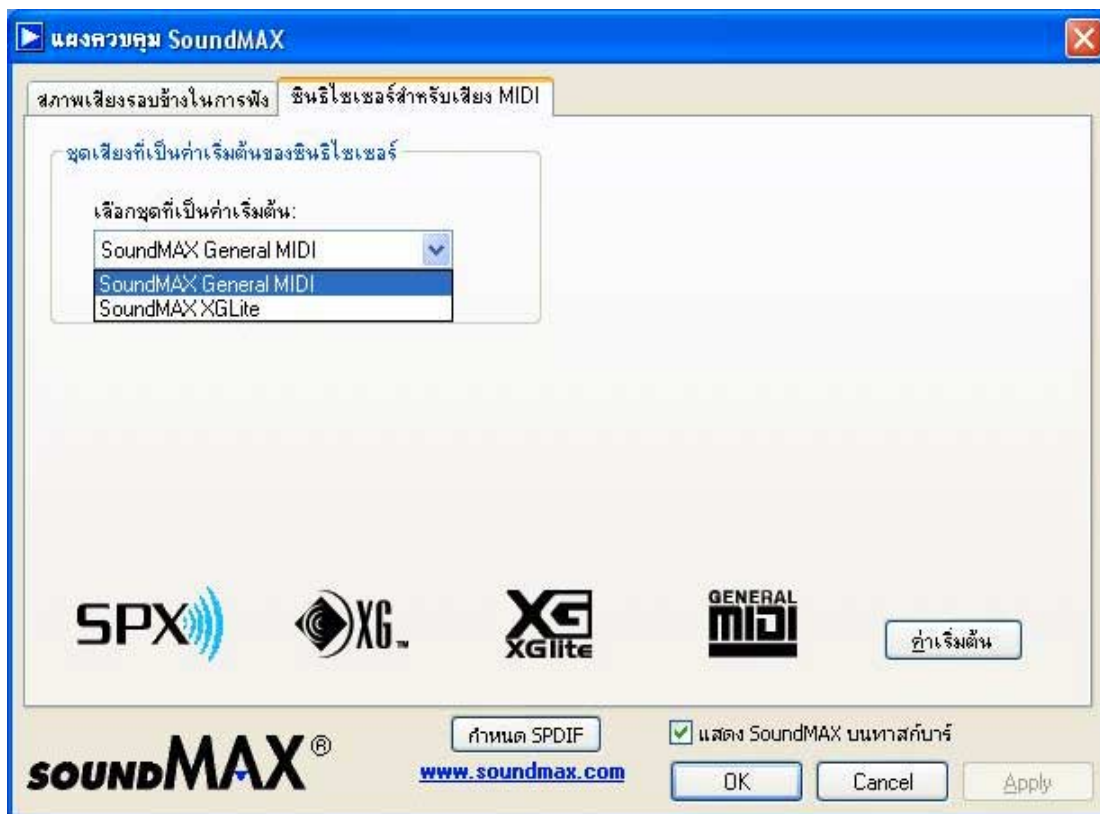
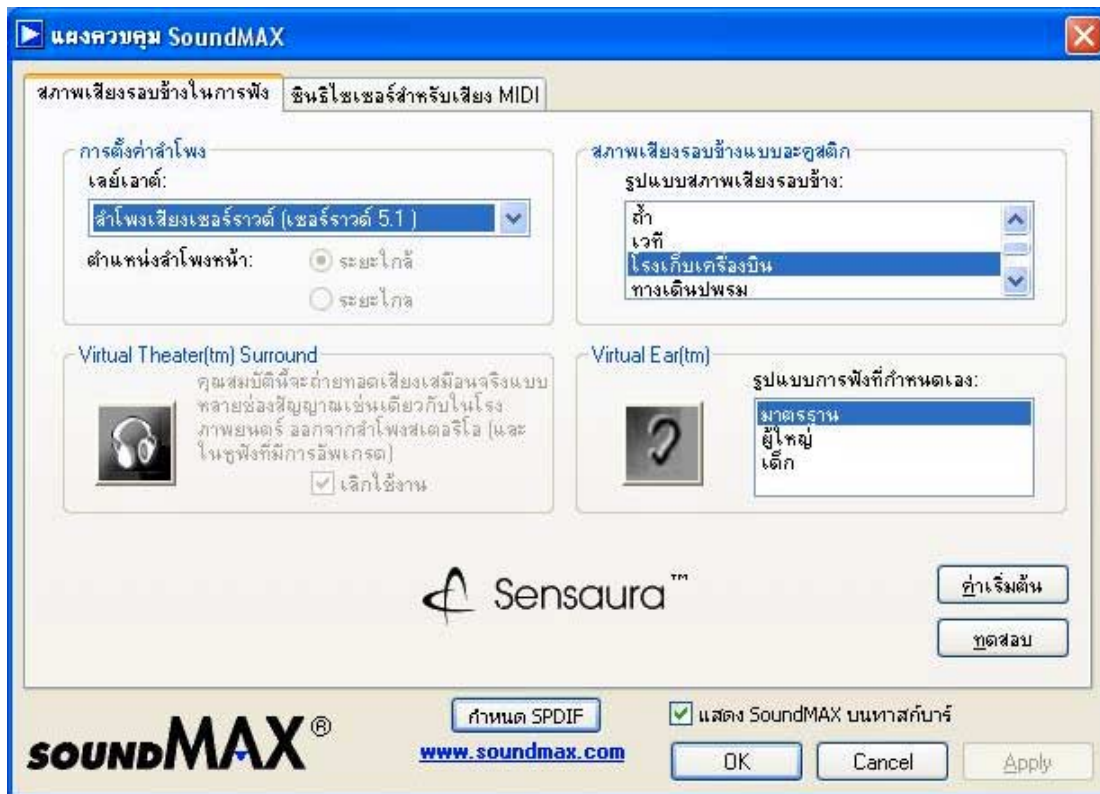
Installation / การติดตั้งและการใช้งาน CD Driver Rev.66.01 (M352)



My Computer System Device Managers

- Display adapters
 - SiS 661FX
- + DVD/CD-ROM drives
- + Floppy disk controllers
- + Floppy disk drives
- IDE ATA/ATAPI controllers
 - Primary IDE Channel
 - Secondary IDE Channel
 - SiS 5513 IDE UDMA Controller
- + Keyboards
- + Mice and other pointing devices
- + Monitors
- Network adapters
 - SiS 900-Based PCI Fast Ethernet Adapter
- Ports (COM & LPT)
 - Communications Port (COM1)
 - ECP Printer Port (LPT1)
- + Processors
- Sound, video and game controllers
 - Audio Codecs
 - Legacy Audio Drivers
 - Legacy Video Capture Devices
 - Media Control Devices
 - SoundMAX Integrated Digital Audio
 - Standard Game Port
 - Video Codecs
- + Storage volumes
- + System devices
- Universal Serial Bus controllers
 - SiS 7001 PCI to USB Open Host Controller
 - SiS 7001 PCI to USB Open Host Controller
 - SiS PCI to USB Enhanced Host Controller

SoundMAX ADI AD1888 6-Channel AC'97 Audio Codec (การตั้งค่าลำโพงใหม่ ต้องรีสตาร์ทเครื่องใหม่ทุกครั้ง)



	Headphone /2-Speaker	4-Speaker	6-Speaker
Light Blue	Line In	Line In	Bass/Center
Lime	Line Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Rear Speaker Out	Rear Speaker Out



Windows® 98SE only supports 2-channel speaker configuration.

การทดสอบ

- ทดสอบติดตั้งกับ OS-Software Application ต่างๆดังนี้ Win98SE, WinME, W2K SP3, WinXP Pro SP1
- ทดสอบติดตั้งกับ CPU Speed Pentium 4 Socket478 1.9GHz / 2.4B GHz / 2.80C GHz
- ทดสอบกับ VGA Card Asustek V9950/TD DDR 128MB AGP8X
- ทดสอบกับ Hard Disk ST340014A
- ทดสอบกับ Memory ติดตั้ง Memory ทุก BANK
- ทดสอบประสิทธิภาพของ Main Board โดยใช้ Software Benchmark

Testing / ผลการทดสอบ :

CPU Pentium IV 1.9GHz (Socket478) FSB400 Pentium IV 2.4BGHz (Socket478) FSB533 Pentium IV 2.80C GHz (Socket478) FSB800	Pass Pass Pass	M/B Temperature : 25-30 องศา C CPU Temperature : 35-48 องศา C
Memory DDR400 Support FSB 533/800 MHz 2x DDR SDRAM 256MB PC2700 Kingmax 1x DDR SDRAM 256MB PC3200 Kingmax MBAR 2x DDR SDRAM 256MB PC3200 Samsung PAA	Pass Pass Pass	
VGA High Performance 333MHz RAMDAC Onboard Share Memory (32MB / 64 MB)	Max. Res. 2048x1536x32@75 Hz Pass For Win NT4.0 (Driver Non-Support, Non-Include)	
External AGP VGA Card 4X/8X Support ASUS V9950/TD AGP8X DDR 128MB	Pass	
HardDisk ST340014A ATA100 PATA	For Win ME, Win2000 Pro SP4 , Win98SE, WinXP Pro SP1 Pass	
Integrated LAN PHY On-board Controller VIA® 6103L 10/100 Mbps Fast Ethernet	Pass	
Sound On-board ADI AD1888 6-CH AC'97 CODEC Audio	Pass	
CD-ROM LiteOn 52X	For Win ME, Win2000 Pro , Win98SE, WinXP Pro SP1 Pass	
USB Onboard SiS 963L USB 2.0/1.1 6 Ports	Pass (KingMax USB Flash Drive 128 MB)	
Software OS Windows ME / 98SE / NT4.0 Windows 2000Pro SP3 / XP Pro SP1 Linux TLE 5.0 (Kernel 2.40) Nick Karaoke Pro	Pass Pass Pass Pass	

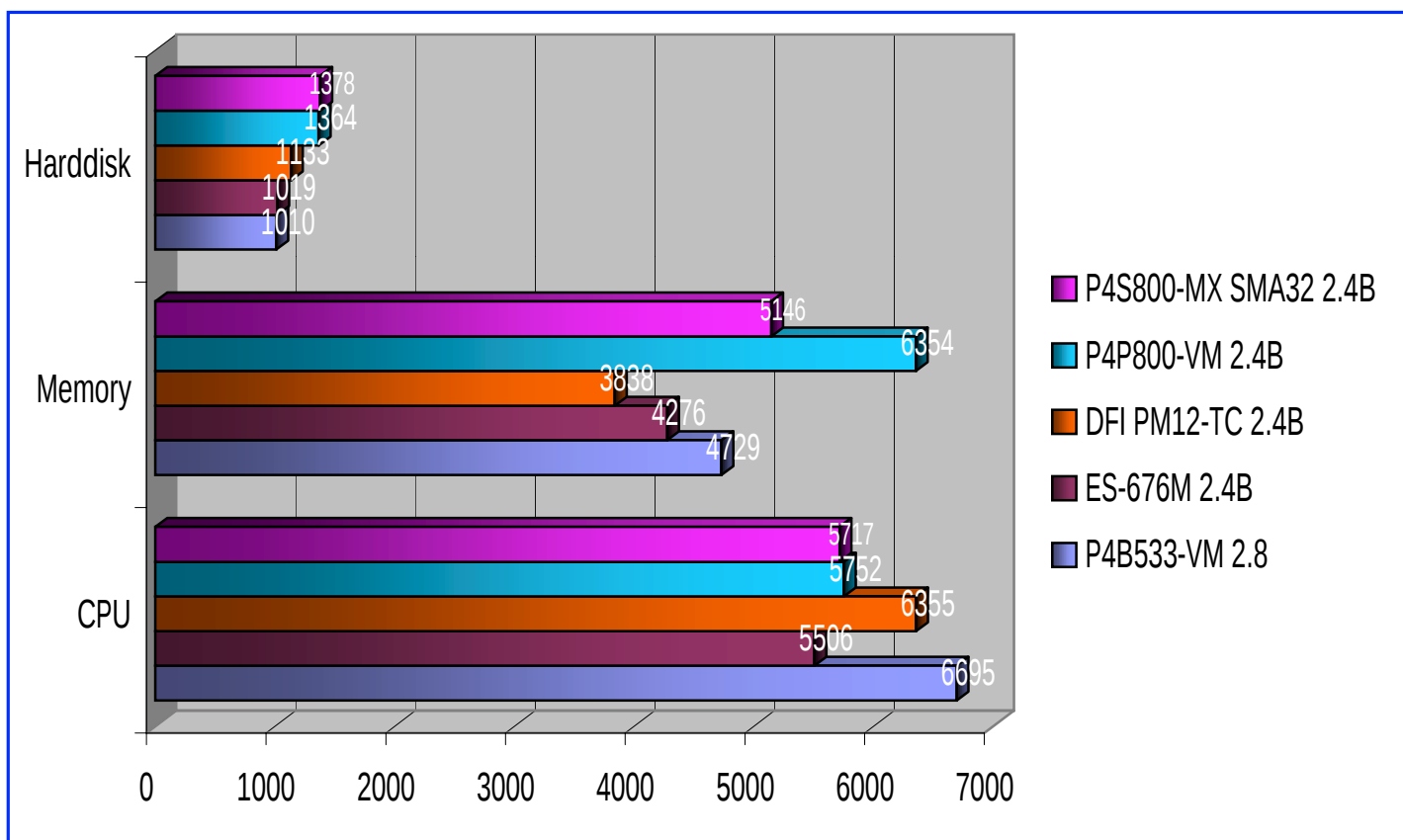
Spec ในการทดสอบประสิทธิภาพ

SPEC ในการทดสอบ
CPU Pentium IV 2.4B / 2.80C GHz FSB 533/800 MHz
Windows ME/XP Pro SP1 , DirectX (8.1,9.0b) , Driver VGA ASUS 44.71 Non-WHQL
VGA On-board SiS Real256E Share Memory 32MB,64MB AGP4X
VGA Asustek V9950TD DDR 128MB AGP8X
Hard Disk ST340014A 7200 rpm
DDR SDRAM 2x256MB PC3200 KINGMAX MPXB62D-38KX3 PAA Gold PCB

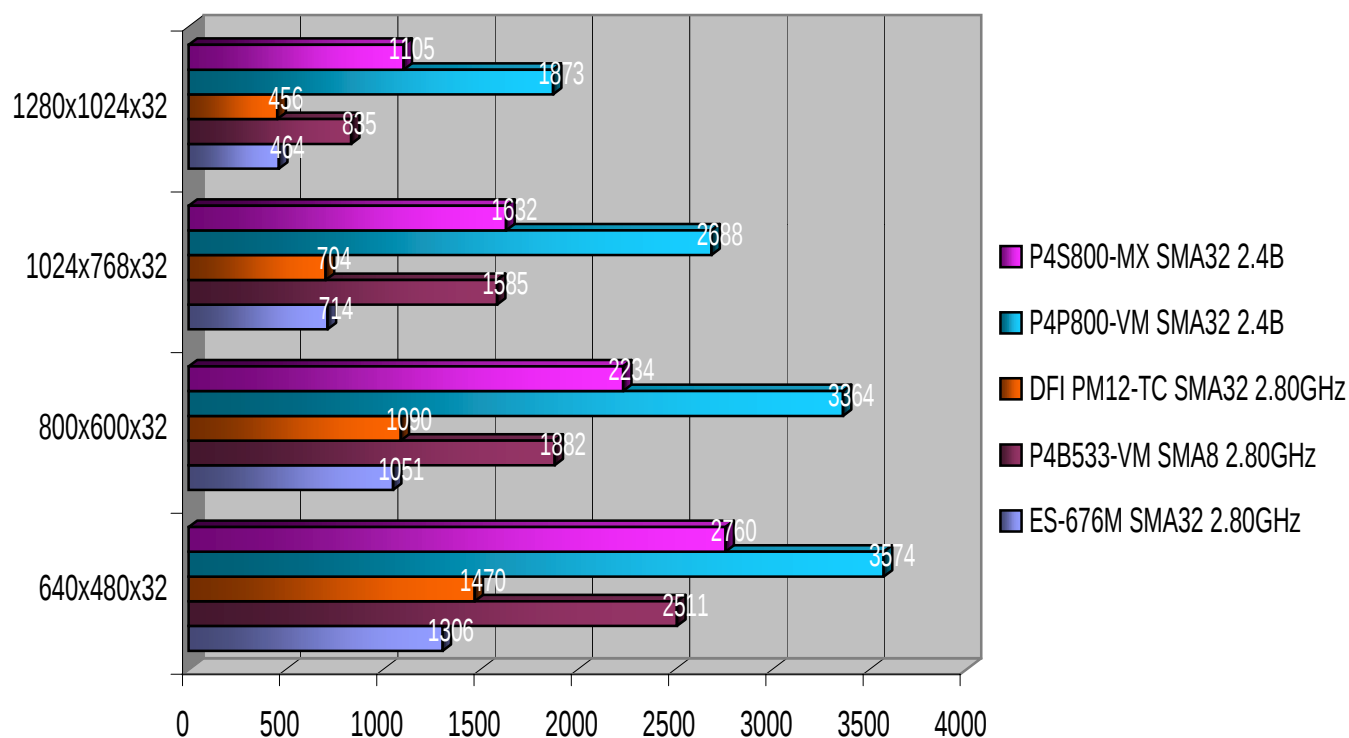
Performance / ประสิทธิภาพในการทำงาน

Sisoft Sandra Pro 2003.1.9.26	P4B533-VM 2.8	P4P800-VM 2.4B	P4S800-MX 2.4B	ES-676M 2.4B
CPU Arithmetic Benchmark	4916 / 1839 / 3695	4124 / 1558 / 3094	4087 / 1563 / 3100	4575 / 1824 / 3670
CPU Multi-Media Benchmark	11205 / 14223	9360 / 11911	9382 / 11940	11106 / 14107
File System Benchmark	27556	36598	35915	27897
Memory Bandwidth Benchmark	1622 / 1559	3058 / 2890	2375 / 2372	1570 / 1491
Cache & Memory Benchmark	30758	25888	25963	30576

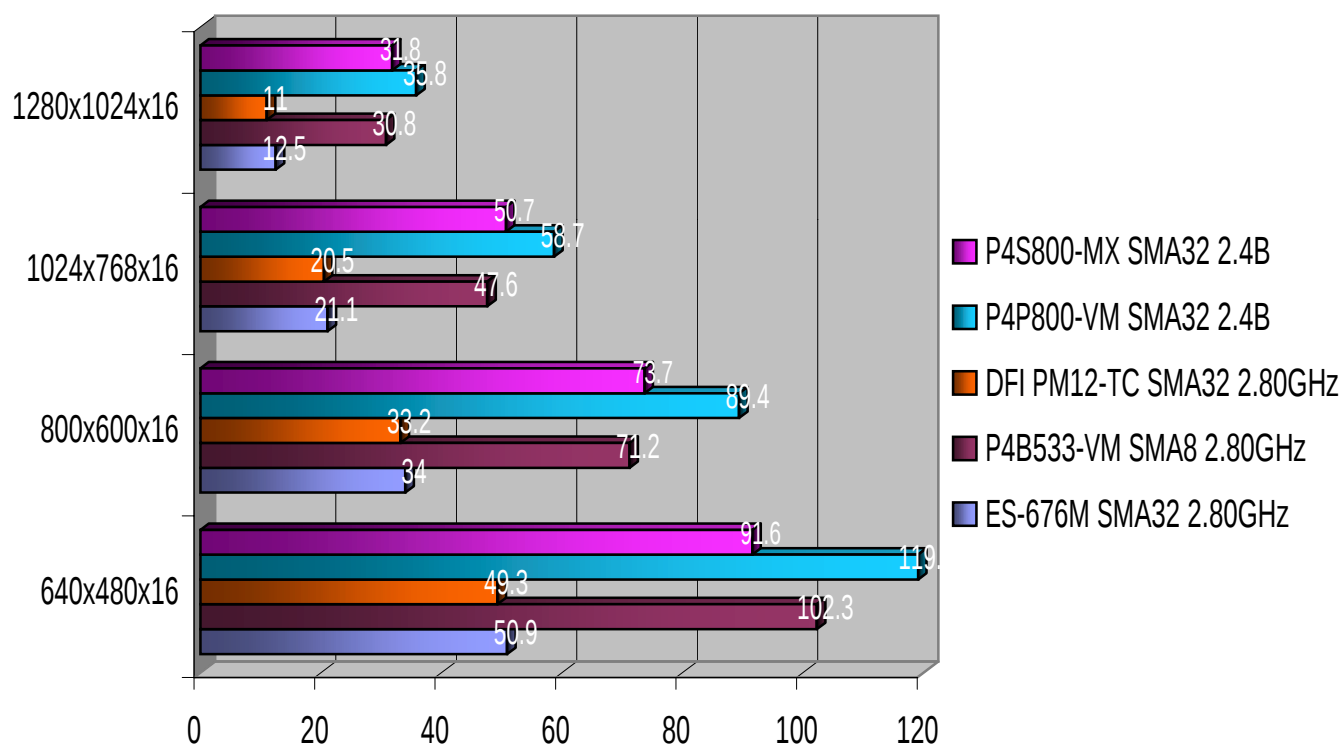
PC Mark 2002 Pro Build 100



3D Mark 2001SE Build 330



Quake III Arena 1.11



Comparison / ตารางเปรียบเทียบ Main Board



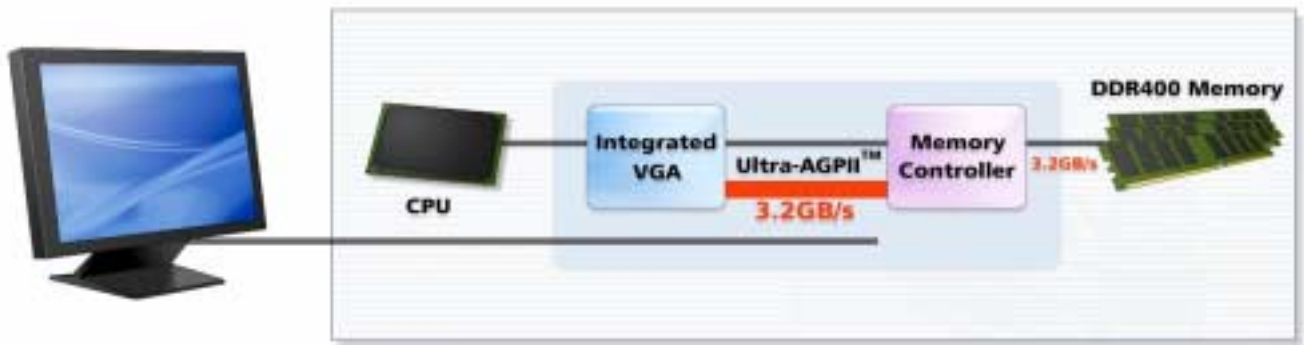
Model	P4PE-X	P4S800-MX	P4V800-X	P4P800-VM
North Bridge	82845PE MCH	SiS 661FX	VIA PT800	82865G GMCH
South Bridge	82801DB ICH4	SiS 963L	VIA VT8237	82801EB ICH5
North / South Bridge	266MB/s	533MB/s	533MB/s	266MB/s
Processor	Pentium 4 HYPT	Pentium 4 HYPT	Pentium 4 HYPT	Pentium 4 HYPT
Front Side Bus	800*/533/400 MHz	800/533/400 MHz	800/533/400 MHz	800/533/400 MHz
Memory DDR	PC3200/2700/2100/1600	Singel DDR PC3200	Singel DDR PC3200	Dual DDR PC3200
Max. Memory	4 GB	2GB	3GB	4GB
AGP Support	AGP 4X 1.5V Only	AGP 8X 1.5V Only	AGP 8X 0.8/1.5V Only	AGP 8X 0.8/1.5V Only
IDE	ATA100	ATA 133	ATA 133	ATA 100
Sound Onboard	ADI AD1980 6-CH AC'97 Codec, S/P DIF-Out	ADI AD1888 6-CH AC'97 Codec, S/P DIF-Out	ADI AD1980 6-CH AC'97 Codec, S/P DIF-Out	ADI AD1980 6-CH AC'97 Codec, S/P DIF-Out
PCI Device / Slot	6	3 PCI	5 PCI	3 PCI
LAN	BroadCOM 4401	VIA 6103L 10/100	Realtek RTL8201BL	Intel 82562EZ 10/100
Serial Port	2	1	1	2
USB	6 USB 2.0/1.1	6 USB 2.0/1.1	8 USB 2.0/1.1	8 USB 2.0/1.1
VIA IEEE 1394	-	-	-	-
Serial-ATA	-	-	Yes	Yes
Bios Features	JumperFree™, CrashFree Bios2 & CPR EZ-Flash Over Clocking	JumperFree™, CrashFree Bios & CPR EZ-Flash	JumperFree™, CrashFree Bios 2 & CPR EZ-Flash Over Clocking	JumperFree™, CrashFree Bios 2 & CPR EZ-Flash
Special Features	MyLogo S/P DIF out interface Power Loss Restart	Power Loss Restart S/PDIF out interface EZ Flash™ Single-Channel Memory MyLogo™	Power Loss Restart S/PDIF out interface EZ Flash™ SATA RAID 0,1, JBOD Single-Channel Memory MyLogo2™	Power Loss Restart S/PDIF out interface EZ Flash™ Serial-ATA Dual-Channel Memory



Model	P4P800S	P4P8X	P4P800	P4C800
North Bridge	82848P MCH	82865P MCH	82865PE MCH	82875P
South Bridge	82801EB ICH5	82801EB ICH5	82801ER ICH5R	82801ER ICH5R
North / South Bridge	266MB/s	266MB/s	266MB/s	266MB/s
Processor	Socket 478 Pentium 4 HYPT Prescott CPU up to 3.6 GH+			
Front Side Bus	800/533/400 MHz	800*/533/400 MHz	800/533/400 MHz	800/533/400 MHz
Memory DDR	Single DDR PC3200/2700	Dual DDR PC3200/2700	Dual DDR PC3200	Dual DDR PC3200
Max. Memory	2GB	4GB	4GB	4GB
AGP Support	AGP 8X 0.8/1.5V Only	AGP 8X 0.8/1.5V Only	AGP 8X 0.8/1.5V Only	AGP 8X 0.8/1.5V Only
IDE	ATA 100	ATA 100	ATA 100	ATA 100
Sound Onboard	ADI1888 6-CH AC'97	ADI1985 6-CH AC'97	ADI1985 6-CH AC'97	ADI1985 6-CH AC'97
PCI Device / Slot	5 PCI, 1 WiFi	5 PCI, 1 WiFi	5 PCI, 1 WiFi	5 PCI, 1 WiFi
LAN	Realtec RTL8100C 10/100	3COM 3C940 Gbit	3COM 3C940 Gbit	3COM 3C940 Gbit
Serial Port	1	2	2	2
USB	8 USB 2.0/1.1	8 USB 2.0/1.1	8 USB 2.0/1.1	8 USB 2.0/1.1
VIA IEEE 1394	-	-	-	-
Serial-ATA	✓	✓	✓	✓
Bios Features	JumperFree™ , CrashFree Bios 2 & CPR EZ-Flash AI Over Clocking	JumperFree™ , CrashFree Bios 2 & CPR EZ-Flash AI Over Clocking	JumperFree™ , CrashFree Bios 2 & CPR EZ-Flash AI Over Clocking	JumperFree™ , CrashFree Bios 2 & CPR EZ-Flash AI Over Clocking
Special Features	Instant Music~Lite Power Loss Restart S/PDIF out interface EZ Flash™ Q-Fan technology Serial-ATA Single-Channel Memory Intelligent CPU Tuner	AI NET, AI Audio Power Loss Restart S/PDIF out interface EZ Flash™ Q-Fan technology Serial-ATA Dual-Channel Memory Intelligent CPU Tuner	AI NET, AI Audio Power Loss Restart S/PDIF out interface EZ Flash™ Q-Fan technology Serial-ATA RAID 0,1 Dual-Channel Memory Intelligent CPU Tuner	AI NET, AI Audio Power Loss Restart S/PDIF out interface EZ Flash™ Q-Fan technology Serial-ATA RAID 0,1 Dual-Channel Memory Intelligent CPU Tuner

SiS MuTIOL® Media I/O Family - Comparison Chart							
South Bridge	961	961B	962	962L	963	963L	964
MuTIOL®	533MB/s	533MB/s	533MB/s	533MB/s	1GB/s	1GB/s	1GB/s
AC 97 Interface	O	O	O	O	O	O	O
Fast Ethernet / Home Network	O	O	O	O	O	O	O
ATA 133	N/A	O	O	O	O	O	O
USB 2.0	N/A	N/A	O	O	O	O	O
USB port	6	6	6	6	6	6	8
IEEE 1394a	N/A	N/A	O	N/A	O	N/A	N/A
Serial ATA & RAID Function	N/A	N/A	N/A	N/A	N/A	N/A	O

Chipsets	P4X266	P4X266A	P4M266	P4M266A	P4X400	SiS661FX	SiS645DX	SiS648
Northbridge	VT8753	VT8753A	VT8751	VT8751A	VT8754	SiS661FX	SiS645DX	SiS648
Southbridge	VT8233, VT8233C or VT8233A		VT8233	VT8235	VT8235	SiS963L	SiS961B	SiS963
System Bus	400MHz		400MHz	400/533MHz	400/533MHz	400/533/800MHz	400/533MHz	400/533MHz
Bridges Interconnect	V-Link Hub Architecture		V-Link Hub Architecture		V-Link Hub Architecture	MuTIOL	MuTIOL	MuTIOL
Peak Interconnect Bandwidth	266MB/s		533MB/s		533MB/s	1GB/s	533MB/s	1GB/s
Max. Memory	4GB		2GB		3GB	2GB	3GB	3GB
Memory Type	DDR200/266 PC100/133 SDRAM		DDR200/266		DDR266/333/400	DDR266/333/400	DDR266/333	DDR266/333
Peak Memory Bandwidth	2.1GB/s		2.1GB/s		3.2GB/s	3.2GB/s	2.7GB/s	2.7GB/s
	1.06GB/s							
Max. PCI Slots	5		3		6	6	6	6
USB Support	1.1		1.1	2.0	2.0	2.0	1.1	2.0
Max. USB Ports	6		6	6	6	8 (6 Ports)	6	6
AGP Transfer Rate	4x		4x	4x	8x	4x	4x	8X
ATA Transfer Rate (MB/s)	100 @ VT8233,8233C 133 @ VT8233A		100	133	133	133	133	133



จุดเด่น

- Support CPU Intel Pentium4 / Celeron / Prescott Socket 478 FSB. 800/533/400 MHz Up to 3.6GHz+ (HYPT)
- Support Single Channel Memory DDR400 Ram Max.2 GB PC3200/2700/2100 unbuffered non-ECC DDR
- Support ASUS® JumperFree, ASUS® CrashFree BIOS, ASUS® EZ Flash™, ASUS MyLogo™
- Sound AC'97 SoundMax AD1888 6-ch Codec S/PDIF-out interface Int. (Optional)
- Support VGA On-board SiS Real256E Share Memory (Ultra-AGP II™ Technology) up to 3.2 GB/s with DDR400
- Support External AGP 8X/4X 1.5 Volt Only with Lock Card Control
- Support Universal Serial Bus 2.0/1.1 แต่สามารถเชื่อมต่อได้เพียง จำนวน 6 พอร์ตเท่านั้น
- Support STR (Suspend-to-RAM), ASUS® C.P.R. (CPU Parameter Recall) , Power Loss Restart
- Support Wake-On-LAN, Wake-On-Modem, Wake-On-PCI Device , Wake-On KB & Mouse, Wake-On-USB
- ระบบเสียงสามารถเล่น Karaoke ได้

ข้อควรระวัง

- ควรศึกษาคู่มือการใช้งานโดยละเอียดก่อนการติดตั้งทุกครั้ง
- ควรใช้ Power Supply ATX 2.03 12V หรือ Micro ATX 2.03 12V เท่านั้น