

POS Form Factor Motherboard, Pentium® 4 Processor 533MHz
with CRT/LVDS, CFII, Dual GbE, SATA, 8 USB 2.0 , COM & Audio

POS-8520 Quick Installation Guide

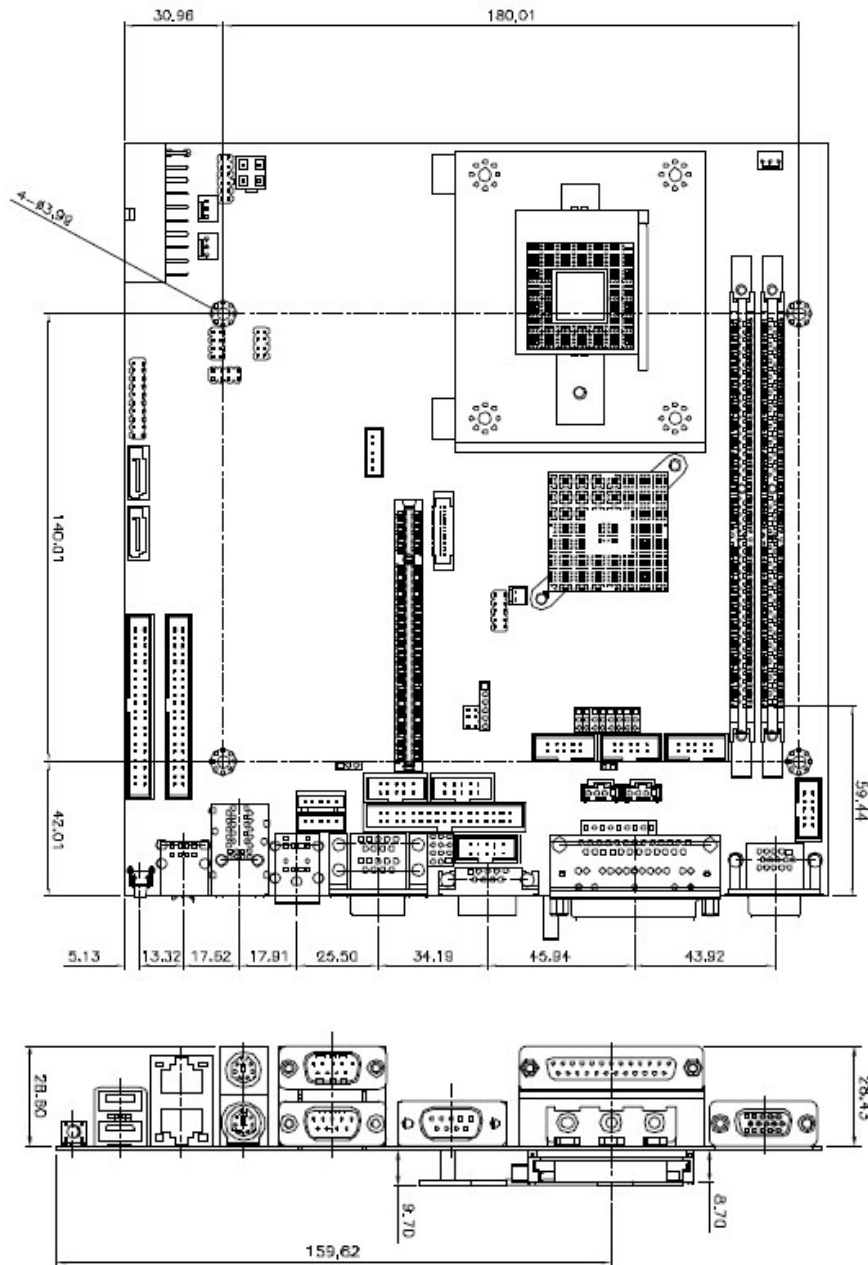
Version 1.0

Jun. 30, 2006

Package Contents

POS-8520 package includes the following items:

- 1 x POS-8520 single board computer
- 1 x IDE Cable (P/N:32200-000052-RS)
- 1 x Dual RS232 Cable (P/N: 19800-000051-RS)
- 1 x Single RS232 Cable (P/N: 19800-000047-RS)
- 2 x SATA Cable (P/N: 32000-062800-RS)
- 1 x SATA Power Cable (P/N: 32100-088600-RS)
- 1 x mini jumper pack
- 1 x Utility CD
- 1 x QIG (quick installation guide)



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Specifications

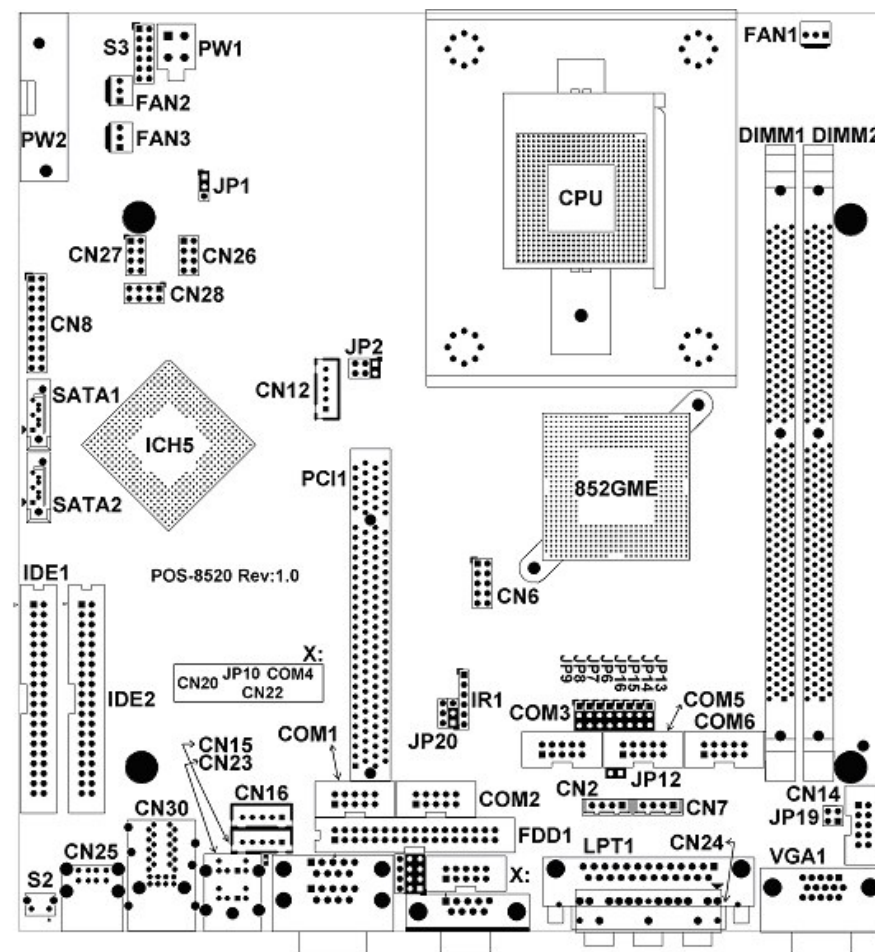
- CPU: Intel® Socket 478 Pentium® 4 processor, FSB 533MHz
- System Chipset: Intel® 852GME + ICH5
- BIOS: AMI BIOS Label
- System memory: DDR266/333 DDR DIMM socket support up to 2GB
- Ethernet: Dual RTL8110SC for GbE
- I/O

I/O Interface:

- 8 x USB 2.0
- 2 x SATA 150
- 1 x LPT/FDD
- 1 x CFII
- 5 x RS-232, 1 x RS-232/422/485
- 2 x PS/2 for KB/MS
- 2 x ATA-100 IDE

- Super I/O: IT8712F
- Audio: AC'97 2.3 Realtek ALC655
- Display:
 - CRT integrated in Intel 852GME
 - Dual 18 bit LVDS
- Watchdog timer: Software programmable supports 1~255 sec. system reset
- Power Supply: AT/ ATX support
- Power Consumption:
 - +3.3V@2.99A; +5V@1.51A; 5Vsb@0.15A; +12V@6.7A
 - (Intel® Pentium® 4 CPU, 3.06GHz, DDR 1GB x 2)
- Humidity: Operation: 5% ~ 95%
- Temperature: 0 ~ 60°C (32 ~ 140°F)
- Dimension: 235 (L) mm x 220 (W) mm

Board Layout: Jumper and Connector Locations



Jumpers setting and Connectors

FAN1: CPU Fan Connector	
PIN	DESCRIPTION
1	GND
2	Linear control
3	Fan Sensor

FAN2: System Fan Connector	
FAN3: System Fan Connector	
PIN	DESCRIPTION
1	GND
2	+12V
3	Fan Sensor

CN12: LCD Backlight Connector			
Pin	Description	Pin	Description
1	NC	2	GND
3	+12V	4	GND
5	ENABKL		

S2: Reset Switch	
PIN	DESCRIPTION
1	Reset
2	GND

CN7: Audio CD IN (2.54mm)			
Pin	Description	Pin	Description
1	CD IN_L	2	GND
3	GND	4	CD IN_R

CN2: Audio LINE OUT (2.54mm))			
Pin	Description	Pin	Description
1	LINEOUT_L	2	GND
3	GND	4	LINE OUT_R

CN30: DF13-30DP-1.25 LVDS Interface Connector			
PIN	Description	PIN	Description
1	GND	2	GND
3	A0P	4	A0M
5	A1P	6	A1M
7	A2P	8	A2M
9	CLK1P	10	CLK1M
11	A3P	12	A3M
13	GND	14	GND
15	A4P	16	A4M
17	A5P	18	A5M
19	A6P	20	A6M
21	CLK2P	22	CLK2M
23	A7P	24	A7M
25	GND	26	GND
27	LCD_VD	28	LCD_VDD
29	LCD_VD	30	LCD_VDD

PW2: ATX Power Supply Connector			
Pin	Description	Pin	Description
11	3.3V	1	3.3V
12	-12V	2	3.3V
13	GND	3	GND
14	PS-ON	4	+5V
15	GND	5	GND
16	GND	6	+5V
17	GND	7	GND
18	-5V	8	Power good
19	+5V	9	5VSB
20	+5V	10	+12V

CN6: Digital Input / Output			
Pin	Description	Pin	Description
1	GND	2	+5V
3	Output 3	4	Output 2
5	Output 1	6	Output 0
7	Input 3	8	Input 2
9	Input 1	10	Input 0

JP12: CompactFlashDisk™ IDE Master & Slave Setting	
PIN	Description
Open	Slave
Short	Master

JP1: Clear CMOS Setup	
PIN	Description
1-2	Normal Operation
2-3	Clear CMOS Setup

JP10, JP20 : COM2 Mode Selection		
JP10	JP20	Description
1-2,4-5,7-8,10-11	1-3	RS-232
2-3,5-6,8-9,11-12	3-5,2-4	RS-422
2-3,5-6,8-9,11-12	3-5,4-6	RS-485

JP7, JP9: Set pin 9 of COM1 as signal RI or voltage source

JP9	Description
2-3	COM1 RI PIN Use RI
1-2	COM1 RI PIN Use Voltage

JP7	Description
2-3	COM1 RI PIN Use Voltage +12V
1-2	COM1 RI PIN Use Voltage +5V

JP6, JP8: Set pin 9 of COM2 as signal RI or voltage source

JP13, JP15: Set pin 9 of COM3 as signal RI or voltage source

JP14, JP16: Set pin 9 of COM4 as signal RI or voltage source

JP8 JP15 JP16	Description
2-3	COM RI PIN Use RI
1-2	COM RI PIN Use Voltage

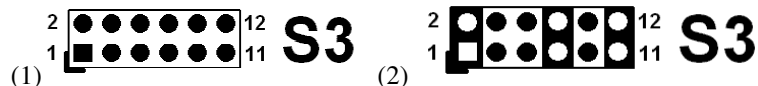
JP6 JP13 JP14	Description
2-3	COM2 RI PIN Use Voltage +12V
1-2	COM2 RI PIN Use Voltage +5V

JP18: Keyboard & Mouse Power Selection	
JP18	Description
1-2	VCC
2-3	5VSB

JP2: LCD Voltage Setting	
JP2	Description
1-2	+3.3V
2-3	+5V
5-6	+12V

CPU Voltage Setting

1. While using Pentium4 CPU, please open all of S3. CPU VID will now automatically configure the power of CPU.(Default)
2. When using Pentium4-M CPU, short (1-2,7-8,11-12) of S3 , and open (3-4,5-6,9-10). The power of CPU will be set to 1.3V at this time.



COM1: Serial Port 2x5 pin header Connector(CN20A)			
COM3: Serial Port 2x5 pin header Connector			
COM4: Serial Port 2x5 pin header Connector(CN22)			
COM5: Serial Port 2x5 Pin Header Connector			
COM6: Serial Port 2x5 Pin Header Connector			
Pin	Description	Pin	Description
1	DCD	2	DSR
3	RXD	4	RTS
5	TXD	6	CTX
7	DTR	8	RI
9	GND	10	NC

COM2: 2 x 5 pin header connector Support Three Mode: RS-232, RS-422, And RS-485(CN20B)

RS-232			
Pin	Description	Pin	Description
1	DCD	2	DSR
3	RXD	4	RTS
5	TXD	6	CTX
7	DTR	8	RI
9	GND	10	NC
RS-422			
Pin	Description	Pin	Description
1	TXD-	2	RX-
3	TXD+	4	RX+
5	NC	6	NC
7	NC	8	Voltage
9	NC	10	NC

RS-485			
Pin	Description	Pin	Description
1	RTX-	2	NC
3	RTX+	4	NC
5	NC	6	NC
7	NC	8	Voltage
9	NC	10	NC

PW1: ATX-12V Power Connector	
PIN	DESCRIPTION
1	GND
2	GND
3	+12V
4	+12V

CN16: 5-pin Header Keyboard Connector	
CN16	Description
1	KB CLOCK
2	KB DATA
3	N/C
4	GND
5	+5V

CN15: PS/2 Mouse 5-pin Header Connector	
PIN	DESCRIPTION
1	MS CLOCK
2	MS DATA
3	N/C
4	GND
5	+5V

CN8: Multi Panel			
PIN	Description	PIN	Description
1	SPEAKER	11	POWER-VCC
2	N/C	12	N/C
3	N/C	13	GND
4	+5V	14	KEYLOCK
5	RESET SW	15	GND
6	GND	16	GND
7	IDE LED -	17	N/C
8	IDE LED+	18	ATX POWER CONTROL
9	ATX POWER	19	ATX 5VSB
10	GND	20	ATX 5VSB

CN26,CN27,CN28: USB Connectors		
PIN	DESCRIPTION	
1	8	VCC
3	6	USBD0-
5	4	USBD0+
7	2	GND

IR1: IRDA Connector	
PIN	DESCRIPTION
1	+5V
2	NC
3	IR-RX
4	GND
5	IR-TX
6	+5V

CN14: VGA Connector			
Pin	Description	Pin	Description
1	RED	2	SMCLK
3	GREEN	4	SMDATA
5	BLUE	6	GND
7	H-SYNC	8	GND
9	V-SYNC	10	GND