

**233MHZ MOBILE PENTIUM® PLUG-N-RUN™ SYSTEMS-ON-A-MODULE**


**233MHz Mobile Pentium® Plug-N-Run™  
Server Edition**

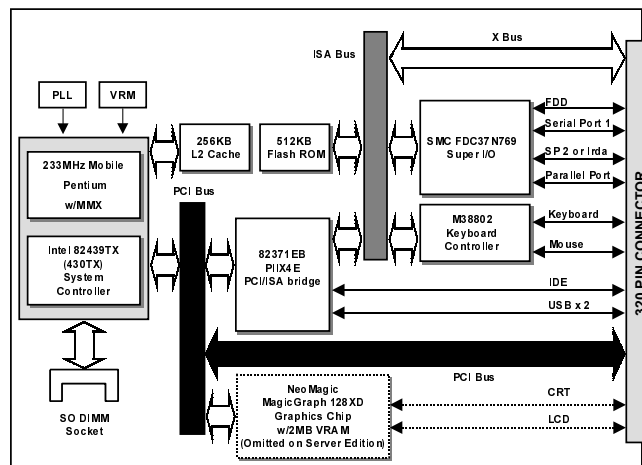
**FEATURES**

- Complete PC Motherboard in a 3" x 5"x0.5" package
- Intel Mobile Pentium® 233MHz Processor
- 256KB L2 Cache
- PCI Bus and 8-Bit X-Bus Expansion Bus
- Two USB Ports
- Two Serial, One IrDA, and One Parallel Port
- Support for two FDD and two IDE devices
- PS/2 Keyboard/Mouse Port
- Optional Graphics Controller with CRT and LCD Ports
- SO DIMM Socket for up to 256MB SDRAM or EDO
- Supports Windows® 95/98, NT® 4.0, NT® 4.0 Embedded and Linux
- PhoenixPICO™ BIOS and "Thermal Throttling"
- Rugged Aluminum Frame with Fan Heat Sink, and Passive Heat Sink Thermal Solutions

**DESCRIPTION**

With the 233MHz mobile Pentium® Plug-N-Run Server Edition, Cell Computing enhances its Plug-N-Run product line to address applications that do not require full graphics capabilities. The Plug-N-Run family of componentized PC micro-motherboards utilizes standard PC silicon combined with advanced packaging technology to pack all the functions of a complete PC motherboard into a single module, the size of a 3"x5" index card. Since all core system components are contained in the Plug-N-Run, design complexity is dramatically reduced, resulting in fast time to market, lower development cost and risk.

The Mobile Pentium® 233MHz Plug-N-Run Server Edition remains mechanically and electrically plug-compatible with the earlier introduced Mobile Pentium® 233MHz Plug-N-Run version, which includes a Graphics Controller, except for the pins that support CRT and LCD connections. Due to its small size, reliability and reduced design complexity, the Plug-N-Run Server Edition is primarily targeted for CompactPCI and 19" rack-mounted Telecommunications, Data Communications, Network Appliance, and Industrial Automation products.



**233MHz Mobile Pentium® Plug-N-Run and Server Edition Block Diagram**

**PLUG-N-RUN SPECIFICATIONS**

ITEM	P233	P233 SERVER EDITION
<b>CPU</b>	Pentium 233MHz w/MMX	Pentium 233MHz w/MMX
<b>CHIPSET</b>	Intel 430TX PCIset	Intel 430TX PCIset
<b>POWER</b>		
Power Supply	3.3V, 5V, VCC5-16	3.3V, 5V, VCC5-16
Operating – Observed Max <sup>1</sup>	10.7W	8.9W
Windows 98	2.2W (VCC5-16=16V) <sup>2</sup> 2.1W (VCC5-16=5V) <sup>2</sup>	N/A
Windows NT 4.0	2.2W (VCC5-16=16V) 2.1W (VCC5-16=5V)	N/A
Suspend To RAM Mode	60.75mW (VCC5-16=16V) 38.75mW (VCC5-16=5V)	60.75mW (VCC5-16=16V) 38.75mW (VCC5-16=5V)
<b>OPERATING TEMP</b>		
Ambient (T <sub>a</sub> )	0-50°C	0-50°C
Case (T <sub>c</sub> )	0-80°C	0-80°C
<b>MEMORY</b>		
SO DIMM (SDRAM or EDO)	16, 32, 64, 128, 256MB	16, 32, 64, 128, 256MB
Flash ROM	512KB	512KB
<b>DISPLAY</b>		
Graphics Controller	NeoMagic® MagicGraph®128XD w/2MB VRAM	N/A
Bus Interface	PCI	N/A
Max CRT Resolution	1024x768, 64K colors	N/A
Max LCD Resolution	1024x768, 64K colors	N/A
<b>PERIPHERAL I/O</b>		
Keyboard/Mouse	PS/2 (Mitsubishi M38802)	PS/2 (Mitsubishi M38802)
FDD	1.44MB/720KB (SMC FDC37N769)	1.44MB/720KB (SMC FDC37N769)
IDE	Ultra DMA 33 (Intel PIIX4E)	Ultra DMA 33 (Intel PIIX4E)
COM1, COM2 Serial Ports	16C550 (SMC FDC37N769)	16C550 (SMC FDC37N769)
IrDA (shared with COM2)	SIR (115Kbps), FIR (4Mbps), ASK (SMC FDC37N769)	SIR (115Kbps), FIR (4Mbps), ASK (SMC FDC37N769)
Parallel Port	SPP/EPP/ECP (SMC )	SPP/EPP/ECP (SMC )
USB0, USB1 Ports	USB 1.0, UHCI (Intel PIIX4E)	USB 1.0, UHCI (Intel PIIX4E)
<b>PHYSICAL</b>		
Dimensions	3 x 5 x 0.5" (l x w x h)	3 x 5 x 0.5" (l x w x h)
Weight	100g	100g
<b>ENVIRONMENTAL</b>		
Storage Temperature	-20°C-65°C	-20°C-65°C
MTBF	50,000 hours	50,000 hours
Vibration	2.2G	2.2G
Shock	50G	50G
Electrostatic Resistance	15kV, 100pF, 1.5kΩ	15kV, 100pF, 1.5kΩ
Connector Insertion/Removal	50 cycles	50 cycles
DIMM Insertion/Removal	10 cycles	10 cycles

**SALES INFORMATION**

Please consult your regional sales office for the most current design-in information or download documents from Cell's website.

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1. Windows 98, running KPOWER.EXE, 128MB DIMM, USB keyboard & mouse and PS/2 keyboard & mouse simultaneously connected. External VGA on the P233 Server Edition.
2. No applications running, 1024x768 display, 16-bit color, 128MB EDO DRAM, USB mouse & keyboard and PS/2 mouse & keyboard simultaneously connected, Power Management On.

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