

# Intel® Desktop Boards D815EEA2 and D815EPEA2

For Intel® Pentium® III and Intel® Celeron™ Processors  
Solid Performance and Outstanding Flexibility

product brief

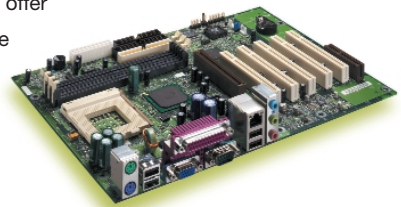
Intel introduces the Intel® Desktop Boards, D815EEA2 and D815EPEA2, designed to utilize proven technology, excellent design and solid performance. These new platforms now provide Universal support for the 370-pin processors, today and tomorrow.\*\*

## The Intel® 815E and the Intel® 815EP chipsets offer two platform options:

Intel® Desktop Board D815EEA2 features the Intel® 815E chipset with Intel integrated graphics. Intel® Desktop Board D815EPEA2 features the Intel® 815EP chipset without integrated graphics.

## Solid Performance

As second-generation boards, D815EEA2 and D815EPEA2 offer additional features for increased flexibility in a cost-effective platform. System integrators can confidently offer value, reliability and multiple options to fit their customer's needs. They are powerful and productive desktop boards with the right features to optimize desktop PC solutions.



## Outstanding Flexibility

With D815EEA2 and D815EPEA2, integrators can design and build custom configurations based on specific technology requirements, while maintaining the flexibility to alter or upgrade later. These Universal Platforms support all 370-pin processors, today and tomorrow.

Numerous options allow both desktop boards to be integrated to fit the user's needs including Intel® PRO/100 Network Connection (integrated LAN). Both desktop boards support the performance of Intel® Pentium® III processors with 133/100-MHz system bus as well as the value of Intel® Celeron™ processors with 100/66-MHz system bus. Five PCI slots allow further expansion of the board's capabilities. Graphics are flexible with the choice of utilizing Intel integrated graphics (D815EEA2) or adding a high-performance Universal 4X AGP card (both D815EEA2 and D815EPEA2) for gamers or customers using graphic intensive applications.

## Continued Technology Leadership

Designed to support leading-edge technologies, Desktop Boards D815EEA2 and D815EPEA2 ensure maximum productivity and reliability. These full-featured ATX desktop boards utilize three DIMM sockets for a maximum of 512 MB of memory.

Additional platform enhancements include:

- **Digital Video Output (DVO)**, supports flat panel, digital CRT or TV-Out cards (D815EEA2 only)
- **Ultra ATA/100**, disk support for faster disk access
- **Intel® Rapid BIOS Boot**, speeds up the Power On Self Test (POST)
- **Instantly Available PC** (Suspend-to-RAM), enables advanced power saving features
- **Intel® Active Monitor**, monitors system's temperatures, power supply voltages and fan speeds

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## The Intel® 815E Chipset and the Intel® 815EP Chipset Platforms

The 815E and 815EP platforms deliver the option of two chipsets, two form factors and competitive price points. These desktop solutions are available with Ultra ATA/100, AC'97 Audio, 4 USB ports, the option of integrated LAN or CNR, and more! Look on [www.intel.com](http://www.intel.com) for more details. The Intel 815E and 815EP chipset product families include:

<b>D815EEA2</b>	ATX, Intel Integrated Graphics, Universal 4X AGP, optional LAN or CNR
<b>D815EPEA2</b>	ATX, Non-integrated Graphics, Universal 4X AGP and CNR
<b>D815EFV</b>	Micro ATX, Intel Integrated Graphics, Universal 4X AGP and LAN
<b>D815EPFV</b>	Micro ATX, Non-integrated Graphics, Universal 4X AGP, optional LAN or CNR

## Snap Integration

How much is your time worth? Boxed Intel Desktop Boards D815EEA2 and D815EPEA2 include integration tools to ensure system compatibility and easy integration. A CD-ROM with a full suite of software is also included.

Intel® Express Installer allows for simplified and efficient software integration. Also contained on the CD is a copy of Norton® Internet Security that provides invaluable virus protection and other Web-based applications aimed at protecting crucial and confidential data. This software suite is unique to Intel® desktop boards and adds greater value for both the system integrator and end user. Every Intel desktop board is backed by a three-year limited warranty and results oriented Intel service and support. With exclusive, advanced features, including SoundMAX®, RealPlayer®, and CDMake®, no other desktop board can give you the value and the power that are standard on Intel desktop boards.

## The Boxed Intel® Desktop Boards D815EEA2 and D815EPEA2 include:

- Intel® Desktop Board D815EEA2 featuring Intel® 815E chipset with integrated graphics, audio and optional LAN or CNR
- or
- Intel® Desktop Board D815EPEA2 featuring Intel® 815EP chipset with integrated audio and CNR
- ATX 2.01 compliant I/O shield
- Cables: one Ultra ATA/100/66, one Ultra DMA/33 and one floppy cable
- AGP Retention Mechanism (recommended for AGP support)
- Quick Start Guide
- Configuration label, stickers, back-panel label and a battery-warning label
- CD-ROM with software drivers, warranty, Product Guide and value-added software applications



## Intel® Desktop Boards D815EEA2 and D815EPEA2 Features and Benefits

<b>Feature:</b>	<b>Benefit:</b>
<b>Support for Intel® Pentium® III and Intel® Celeron™ Processors</b>	Universal platforms for 370-pin processors, for today and tomorrow.  Intel Pentium III processors at 133/100-MHz system bus and Intel Celeron Processors at 100/66-MHz system bus
<b>Intel® 815E Chipset (D815EEA2)</b>	Intel chipset provides flexibility to support system bus designs with new performance-enhanced features and integrated graphics technology
<b>Intel® 815EP Chipset (D815EPEA2)</b>	Intel chipset with all the performance, innovative features and proven reliability of the Intel® 815E chipset family without integrated graphics
<b>Universal 4X AGP Connector</b>	Supports the latest graphics technology
<b>Three 133/100-MHz SDRAM DIMM Sockets</b>	Supports a maximum 512 MB of SDRAM
<b>Ultra ATA/100</b>	Faster disk I/O
<b>Intel® Rapid BIOS Boot</b>	Reduced boot time enables faster system availability
<b>Digital Video Output (DVO) Header (D815EEA2)</b>	Interface supports flat panel, digital CRT or TV-Out cards
<b>Four Back Panel USB Ports</b>	Two Dual-stack rear connectors
<b>Front Panel USB Header</b>	Front Panel Header for two additional USB Ports (optional)
<b>Front Panel Audio Header</b>	Front Panel Header for audio connectors (optional)
<b>Five PCI slots</b>	Expansion slots for custom system configurations and future add-in card upgrades
<b>Integrated audio using the AD1885 codec</b>	Exceptional sound
<b>Communication and Networking Riser (CNR) Support (Optional)</b>	Technology that supports integrated LAN, HPNA, modem or audio cards for overall system cost savings and customization
<b>Integrated Intel® PRO/100 Network Connection (integrated LAN) connectivity (Optional)</b>	On-Board 10/100 Ethernet LAN
<b>ATX Form Factor</b>	Proven form-factor standard for easy integration
<b>Instantly Available PC (Suspend-to-RAM)</b>	Power-management mode to reduce PC power consumption. Allows PC to suspend and resume quickly without needing to reboot
<b>Intel® Express Software Suite</b>	Software designed specifically for Intel® desktop boards and ease of integration. Suite includes: <ul style="list-style-type: none"><li>• Norton® Internet Security</li><li>• Intel® Active Monitor</li><li>• Intel® Express Installer</li><li>• Software Drivers</li><li>• Product Guide</li><li>• Desktop Board Warranty</li></ul>
<b>Hardware Management ASIC</b>	Monitors the system's temperatures, power supply voltages and fans speeds alerting user before potential system failure
<b>Three-year Limited Warranty</b>	Expanded investment protection

## Intel® Desktop Boards D815EEA2 and D815EPEA2 Specifications

### Processor

<b>Processors Supported</b>	Intel® Pentium® III processors with 133/100-MHz system bus in the FC-PGA package Intel® Celeron™ processors with 100/66-MHz system bus in the FC-PGA package
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### Chipset Options

<b>Intel® 815E Chipset (D815EEA2)</b>	Intel® 82815 Graphics and Memory Controller Hub (GMCH) with AHA (Accelerated Hub Architecture) bus I/O Controller Hub (ICH2) with AHA bus Firmware Hub (FWH)
<b>Intel® 815EP Chipset (D815EPEA2)</b>	Intel® 8215EP Memory Controller Hub (MCH) with AHA (Accelerated Hub Architecture) bus I/O Controller Hub (ICH2) with AHA bus Firmware Hub (FWH)

### Graphics/Memory Controller Hub (GMCH)

<b>Accelerated Graphics (D815EEA2)</b>	Integrated Intel® 3D Graphics with support for additional 4 MB of Digital Display cache memory with GPA Includes Digital Video Output (DVO) header <ul style="list-style-type: none"> <li>Support for Digital Visual Interface (DVI) and TV output</li> </ul> Supports 1x, 2x and 4x AGP 2.0 compliant graphics cards
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### I/O Controller Hub (ICH2)

<b>ICH2 I/O Controller Hub</b>	Ultra DMA/33 Ultra ATA/100/66 Six PCI request-grant pairs for support of six PCI Bus Masters
<b>I/O Features</b>	Integrated Super I/O LPC bus controller Five PCI Local Bus slots Power Management support for both ACPI 1.0 & APM 1.2 PC 99 and PC 99A Compliance
<b>USB</b>	Two USB controllers with four USB ports (Two dual stacked rear USB connectors) Header for cabling two ports to the front panel

### Firmware Hub

<b>System BIOS</b>	4-Mb Flash EEPROM with Intel/AMI* BIOS featuring Plug and Play, IDE drive auto-configure, Advanced Power Management (APM) 1.2, ACPI 1.0, DMI 2.0, Multilingual support
<b>Intel® Rapid BIOS Boot</b>	Optimized system initialization delivering faster access to PC from power-on

### System Memory

<b>Memory Capacity</b>	Three 168-pin unbuffered DIMM sockets for 32 MB (min) to 512 MB (max) SDRAM
<b>Memory Type</b>	PC100, 100-MHz both ECC and non-ECC (all system bus speeds) PC133, 133-MHz accepts both ECC and non-ECC (133-MHz system bus only)
<b>Memory Voltage</b>	3.3V

### Audio

AC'97 integrated audio using the AD1885 codec  
Header to enable headphone and mic

### LAN

Intel® PRO/100 Network Connection (integrated LAN; optional)  
RJ-45 connector with link and speed LEDs  
Auto-negotiation of 10 BaseT and 100 BaseTX

### Hardware Management Features

Voltage sensor to detect out of range values  
Two fan sensors used to monitor temperature and fan activity  
Intrusion Header

### Wake on LAN\* (WOL)

Wired for Management (WfM) 2.0 compliant  
Support for system wake up using an add-in network interface card with remote wake up capability, integrated 82562ET network adapter, or PCI Slot 2

### Expansion Capabilities

Five PCI bus add-in card connectors (PCI) Local Bus Specification Revision 2.2  
One Communication and Networking Riser (CNR) connector shared with PCI slot 5 (optional)  
One universal AGP Port connector

### Jumpers and Front Panel Connectors

<b>Jumpers</b>	Three-pin jumper block to set configuration mode for the BIOS Setup program
<b>Front Panel Connector</b>	Reset, HD LED, Power LEDs, Power On/Off, Standby header, IR Port, Aux LED Header for two additional USB Ports and Audio Connectors

### Mechanical

<b>Board Style</b>	ATX mounting holes and external connector placement
<b>Board Size</b>	11.5" x 8.2"

### Environment

<b>Operating Temp.</b>	0° C to +55° C
<b>Storage Temp.</b>	-40° C to +70° C

### Regulations

Korean MIC mark and certification number

### Safety Regulations

U.S. and Canada	UL 1950—CSA 950-95, U.S. and Canadian recognition component marks
Europe	Classified to IEC 950

### EMI/RFI Regulations

*Intended for use in systems meeting the following EMI/RFI regulations:*

U.S.	FCC Class B (DofC—Cover off testing)
Canada	IC Class B
Europe	EU Class B (Res, Com, Light Industry)
Japan	VCCI, Class B (ITE)
EEA (European Economic Area)	

EN55022: 1998, uses CISPR 22 3rd edition  
Power requirements vary with system configuration and use. Complies with US CRF via EN55022 + 6db in an open chassis and EU Directive 89/336/EEC via EN55022 and EN50082-1 in a representative chassis.

Ordering Information—See Intel's Web site at [www.intel.com](http://www.intel.com)

For the most current product information, visit Intel's Web site at: [www.intel.com](http://www.intel.com) or [program.intel.com/ibp/products/boards/](http://program.intel.com/ibp/products/boards/)



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The Intel® Desktop Boards D815EEA2 and D815EPEA2 may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

\*Third-party brands and names are the property of their respective owners.

\*\*Refer to the Technical Products Support for specific processor support.

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