Intel® Desktop Boards D815EFV and D815EPFV

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

product brief

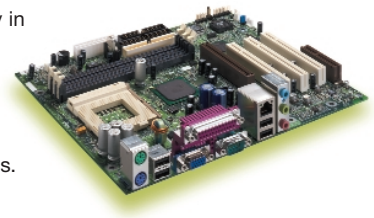
Intel introduces the Intel® Desktop Boards, D815EFV and D815EPFV, designed to utilize proven technology, excellent design and solid performance. These new platforms now provide Universal support for the 370-pin processors, today and tomorrow.**

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

Intel® Desktop Board D815EFV features the Intel® 815E chipset with Intel integrated graphics.
Intel® Desktop Board D815EPFV features the Intel® 815EP chipset without integrated graphics.

Solid Performance

As second-generation Intel® 815E chipset based products, D815EFV and D815EPFV 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 D815EFV and D815EPFV, 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 the option of Intel® PRO/100 Network Connection (integrated LAN) or Communications and Networking Riser (CNR). 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. Three PCI slots allow further expansion of the board's capabilities. Graphics are flexible with the choice of utilizing Intel integrated graphics (D815EFV) or adding a high-performance Universal 4X AGP card (both D815EFV or D815EPFV) for gamers or customers using graphic intensive applications.

Continued Technology Leadership

Designed to support leading-edge technologies, Desktop Boards D815EFV and D815EPFV ensure maximum productivity and reliability. These full-featured Micro 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 (D815EFV 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

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

The Intel 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 for more details. The Intel 815E and 815EP chipset product families include:

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

Snap Integration

How much is your time worth? Boxed Intel Desktop Boards D815EFV and D815EPFV 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 CDMaker*, no other desktop board can give you the value and the power that are standard on Intel desktop boards.

The Boxed Intel® Desktop Boards D815EFV and D815EPFV include:

- Intel® Desktop Board D815EFV featuring the Intel® 815E chipset with integrated graphics, audio and LAN

  or

- Intel® Desktop Board D815EPFV featuring Intel® 815EP chipset with integrated audio and optional LAN or CNR
- Micro 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 D815EFV and D815EPFV Features and Benefits

Feature:	Benefit:
Support for Intel® Pentium® III and Intel® Celeron™ Processors	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
Intel® 815E Chipset (D815EFV)	Intel chipset provides flexibility to support system bus designs with new performance-enhanced features and integrated graphics technology
Intel® 815EP Chipset (D815EPFV)	Intel chipset with all the performance, innovative features and proven reliability of the Intel® 815E chipset family without integrated graphics
Universal 4X AGP Connector	Supports the latest graphics technology
Three 133/100-MHz SDRAM DIMM Sockets	Supports a maximum 512 MB of SDRAM
Ultra ATA/100	Faster disk I/O
Intel® Rapid BIOS Boot	Reduced boot time enables faster system availability
Digital Video Output (DVO) Header (D815EFV)	Interface supports flat panel, digital CRT or TV-Out cards
Four Back Panel USB Ports	Two Dual-stack rear connectors
Front Panel USB Header	Front Panel Header for two additional USB Ports (optional)
Front Panel Audio Header	Front Panel Header for audio connectors (optional)
Three PCI slots	Expansion slots for custom system configurations and future add-in card upgrades
Integrated audio using the AD1885 codec	Exceptional sound
Communication and Networking Riser (CNR) Support (Optional)	Technology that supports integrated LAN, HPNA, modem or audio cards for overall system cost savings and customization
Integrated Intel® PRO/100 Network Connection (integrated LAN) connectivity (Optional)	On-Board 10/100 Ethernet LAN
Micro ATX Form Factor	Proven form-factor standard for easy integration
Instantly Available PC (Suspend-to-RAM)	Power-management mode to reduce PC power consumption. Allows PC to suspend and resume quickly without needing to reboot
Intel® Express Software Suite	Software designed specifically for Intel® desktop boards and ease of integration. Suite includes: • Norton* Internet Security • Intel® Active Monitor • Intel® Express Installer • Software Drivers • Product Guide • Desktop Board Warranty
Hardware Management ASIC	Monitors the system's temperatures, power supply voltages and fan speeds alerting user before potential system failure
Three-year Limited Warranty	Expanded investment protection

Intel® Desktop Boards D815EFV and D815EPFV Specifications

Processor

Processors Supported	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 PPGA or FC-PGA package

Chipset Options

Intel® 815E Chipset (D815EFV)	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)
Intel® 815EP Chipset (D815EPFV)	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)

Accelerated Graphics (D815EFV)	Integrated Intel® 3D Graphics with support for additional 4 MB of Digital Display cache memory with GPA Includes Digital Video Output (DVO) header • Support for Digital Visual Interface (DVI) and TV output Supports 1x, 2x and 4x AGP 2.0 compliant graphics cards

I/O Controller Hub (ICH2)

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

Firmware Hub

System BIOS	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
Intel® Rapid BIOS Boot	Optimized system initialization delivering faster access to PC from power-on

System Memory

Memory Capacity	Three 168-pin unbuffered DIMM sockets for 32 MB (min) to 512 MB (max) SDRAM
Memory Type	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)
Memory Voltage	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 to monitor temperature and 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

Three 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

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

Mechanical

Board Style	Micro ATX mounting holes and external connector placement
Board Size	9.6" x 8.2"

Environment

Operating Temp.	0° C to +55° C
Storage Temp.	-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

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

The Intel® Desktop Boards D815EFV and D815EPFV 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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