Ideal for digital signage applications

Powered by Intel's Core™ 2 Duo Mobile processors, the Howard DE4500 is one of the lightest mini PCs around. High quality integrated graphics, and a dual-gigabit NIC for high-speed connectivity, enable the level of performance necessary for demanding digital signage applications. The small form factor chassis' all-metal construction offers increased durability, which is perfect for indoor digital signage environments. Howard's DE4500 is easy to install, and comes with your choice of Windows® 7, Vista®, or XP. Dual-core performance, breakthrough processor efficiency, and affordability combine to make this EPEAT listed system a tremendous value.

Howard Technology Solutions recommends genuine Microsoft® Windows® 7 Professional.

The Howard Advantage!

With every Howard product purchase, you receive the following for **FREE**!

- ✓ Phone and web tech support for the LIFE of ur system
- ✓ 100% US-based, English-speaking customer support 24/7/365
- ✓ Phone hold times < 1 minute

*Experience the **Howard difference**.*

Feature	Description
Intel® Mobile CPU	The DE4500 is powered by Intel's Core™ 2 Duo and Celeron energy-saving notebook processors.
Integrated Gigabit NIC	It is capable of high-speed network connectivity, thanks to the integrated dual-gigabit network ports
Low Power Consumption	The DE4500 is designed to help reduce energy costs. Low power consumption earned it an EPEAT listing.
VESA Mountable	With the appropriate hardware, this Digital Engine can be VESA mounted to a large display.

Intel, the Intel logo, Intel inside, Intel Core 2 Duo, and Intel Celeron, are trademarks of Intel Corporation in the U.S. and other countries.

HOWARD™
TECHNOLOGY SOLUTIONS

*Experience the **Howard advantage.***

Feature	Specifications
Chipset	Intel® GMA45 +ICH9M
Supported Operating System	Microsoft® Windows® XP SP/3, Vista™ Home & Ultimate SP/1, and Windows® 7 Professional
Supported Processor Families	Intel® Core™ 2 Duo and Celeron processors, Socket P
System Memory	Up to 4GB of DDR2 (2 slots)
Video	Intel® GMA X4500MHD
Audio	Realtek® ALC662 High-definition audio
Network	Intel® Gigabit Ethernet
Internal Ports	IDE=0, Floppy=0, SATA=1, Mini PCI-e =2
External Ports	Serial=1, Parallel=0, ESATA=0 PS/2=0, USB=4 (2 rear, 2 front), 1394=0 LAN=1 Type 10/100/1000 Audio=2 total (1 Mic In, 1 Spk Out) Video=2 VGA, HDMI=1
Certifications	EPEAT Silver

Chassis	Specifications
DE4500 Chassis Small Form Factor • Dimensions • Drive Bays • Front Panel • PSU	6.54"(H) x 1.89"(W) x 6.18"(L) 2.5" 1 internal; Slim drive bays=1 internal USB=2, Audio=0 90W External Power Adapter

Q: What about processor options?

A: Processor options for the DE4500 include Intel® Core™ 2 Duo and Celeron Socket P mobile processors..

Q: What is the Intel® X4500MHD?

A: The X4500MHD is one of Intel's latest integrated graphics chipsets that features 3D enhancements, enabling greater flexibility, scalability, and improved realism, with support for Microsoft® DirectX 10.

Q: Where would I use the Howard Digital Engine DE4500?

A: The DE4500 is designed to used in digital signage applications such as digital billboards.

Q: Whom should I contact for support?

A: Call Howard for world-class support and service if there are any questions about the desktop.
Customer support is available:
Online at http://www.howardcomputers.com/support,
By phone at 1.888.323.3151,
Via email at tech@howardcomputers.com, or
Conventional mail at Howard Technology Solutions,
36 Howard Drive, Ellisville, Mississippi 39437.

Experience the Howard advantage.

Product Upgrades

Enhance your purchase with any or all of the following products or services. And feel free to contact us toll free at 888-912-3151 to discuss any questions or your specific needs!

- Dual monitors
- Wireless keyboard and mouse
- Wireless networking
- On-site service

Warranty & Support

- Howard Technology Solutions' standard warranties apply.
- **FREE** customer and technical support to purchaser via telephone or web for the life of the system.
- Expedite your troubleshooting process by participating in our Howard Technical Partnership Program (HTPP) which certifies your staff to perform basic hardware service and support. Contact us today for more information.

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