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PC World » E-Readers

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The Best of Today's E-Book Readers

The number of high-quality e-readers available is mushrooming. We tested seven and gave our highest marks to one that might surprise you.

Yardena Arar, PC World

Nov 2, 2009 8:45 pm

If you think the universe of e-book readers begins with the Kindle 2 and ends with the Kindle DX, think again. That universe is expanding rapidly. We recently completed thorough hands-on testing of seven of the top e-readers available today and came to a surprising conclusion: Our number one choice isn't from Amazon at all; it's the Sony Reader Touch Edition.

Sony's \$300 reader matches the Kindle 2's screen size and quality but adds a touchscreen and support for free e-books and Adobe ePub, an e-book file format that book publishers and resellers have widely embraced. Whereas Adobe's PDF reproduces a fixed image of a page, ePub permits text to reflow in order to accommodate different fonts and font sizes. Certainly the wireless connectivity in Amazon's Kindle models makes buying new books a breeze, but to this point Amazon's readers support only Amazon's format, locking you into buying exclusively from the online giant.

Of course, no company's lead in the rapidly evolving e-reader market is safe. Barnes & Noble looks to be one of Amazon's chief competitors. The giant bookseller announced its Nook

e-reader last month, and most people who got a peek at the device seemed to love it. The Nook isn't yet available for thorough testing, however.

E-books have numerous benefits. Eliminating paper saves resources. E-book readers take up little room in travelers' backpacks and purses, and yet can store the equivalent of a whole bookshelf. You don't have to go anywhere to buy or borrow an e-book title. For the vision-impaired, the ability to adjust font size can mean the difference between being able to read a book and having to hope that the publisher will eventually release an audio version. Some e-book readers double as music players, and some even have a speech capability for reading books aloud.

Unfortunately, the world of e-books is Balkanized, with multiple incompatible file formats and digital rights management (DRM) technologies, and devices with varying support for both. Books in the public domain are widely available in PDF and other standard formats. But copyrighted material is another story. Amazon's current Kindles can obtain commercial e-books in Amazon's AZW file format via wireless download only in the United States (in early October, however, the company announced a Kindle capable of downloading content in most countries).



Adobe offers a DRM technology called Adobe Content Server 4. Sony and a number of other online bookstores--most notably Borders--sell commercial titles in ePub/ACS4 format, and some libraries let patrons check out ePub books. As of early October, 17 e-book readers supported ePub and ACS4, making that combination the closest thing the industry has to a standard for DRM-protected books. Aside from the Amazon Kindles and Foxit's eSlick, all of the e-book readers in this collection of reviews support ePub/ACS4.

We compiled a comparison chart of the five highest-ranking e-readers at the conclusion of our evaluations. For the details, see our Top 5 E-Book Readers chart. And for individual reviews of the seven e-readers we put through their paces, click the links in the list of products in the floating contents bar on this page (above right).

CONSUMER ALERT: HOW TO AVOID **SNEAKY FEES**

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100 BEST PRODUCTS OF THE YEAR

Laptops, Cameras, Sites,
Software, Phones, TVs, and
PCs We Can't Do Without



DECEMBER 2009 • PCWORLD.COM

The Best Big-Screen TVs

Lab Tested:
We Pick 10
Hot High-Def
Flat Panels



Kindle and Beyond

A Perfect Gift?
Hands On With
5 Top E-Book
Readers



Reviews & Rankings

The E-Book Explosion

As consumer interest in e-book readers approaches critical mass, the number of high-quality models available is mushrooming.

THE E-BOOK universe is expanding rapidly. Amazon's Kindles still offer the ultimate in wireless-transfer convenience, but other readers and e-book resellers are starting to compete on price and content—including hundreds of thousands of free books Amazon doesn't offer.

E-books have numerous benefits. Eliminating paper saves resources. E-book readers take up little room in travelers' backpacks and purses, while storing the equivalent of a whole bookshelf. You don't have to go anywhere to buy or borrow an e-book title. For the vision-impaired, the ability to adjust font size can make the difference between being able to read a book and having to hope for an audio version. Some readers dou-

ble as music players, and some even read books aloud.

Unfortunately, the world of e-books is Balkanized, with multiple incompatible file formats and digital rights management (DRM) technologies, and devices with varying support for both. Books in the public domain are widely available in PDF and other standard formats. But copyrighted material is another story. Amazon's current Kindles can obtain commercial e-books in Amazon's AZW file format via wireless download only in the United States (in early October, however, the company announced a Kindle capable of downloading content in most countries).

Meanwhile, Sony, which



produces some of the classiest e-book readers around, is abandoning its proprietary BBeB e-book file format and shifting protected content in its e-book store to Adobe ePub, an e-book file format that book publishers and resellers have widely embraced. Whereas Adobe's PDF reproduces a fixed image of a page, ePub permits reflowing of text to accommodate different fonts and font sizes.

Adobe offers a DRM technology called Adobe Content Server 4. Sony and a number of other online bookstores—most notably Borders—sell

A STACK OF e-book readers (top to bottom): Astak's EZReader PocketPro, Sony's Reader Pocket Edition (PRS-300), Sony's Reader Touch Edition (PRS-600), Foxit's eSlick Reader, Interead's Cool-ER, Amazon's Kindle 2, and Amazon's Kindle DX.

commercial titles in ePub/ACS4 format, and some libraries let patrons check out ePub books. As of early October, 17 e-book readers supported ePub and ACS4, making that combination the closest thing the industry has to a standard for DRM-protected books.



59 TOSHIBA DMF82XKU



62 HP ENVY 13



64 APPLE IPOD Nano



69 HP TOUCHSMART 600

Aside from the Amazon Kindles and Foxit's eSlick, all of the e-book readers in this review support ePub/ACS4.

Sony Reader Touch Edition (PRS-600)

Sony's new flagship e-book reader offers something we haven't seen in previous Sony Readers: a touchscreen and stylus for navigating and for creating drawings and handwritten notes. Whether this innovation enhances the e-book experience is open to debate, but the overall quality of the product is not: Except for its lack of wireless connectivity for purchasing books without connecting to a PC, the Touch Edition is a worthy competitor to Amazon's Kindles.

This reader looks like a refined version of Sony's previous reader, with a 6-inch, 8-grayscale E Ink screen framed by a metallic case (available in silver, black, or red). Beneath the display are five thin silvery bar-shaped



THE TOUCH EDITION of the Sony Reader lets you handwrite notes.

buttons for turning pages and accessing menus.

The Touch Edition lets you create text memos (via an on-screen keyboard), listen to unprotected MP3 and AAC music, view images, and set up a slideshow. The MP3 player was the best on any e-book reader I tried, with reasonably strong audio through earphones plugged into the Touch Edition's standard headphone jack. It includes repeat/shuffle options, and you can play the music while you read. The reader comes with a dictionary and lets you annotate your books and documents.

The Touch Edition is a top-notch e-book reader. Though pricey at \$300, it's well designed and feature-rich.

Amazon Kindle DX

The Kindle DX looks surprisingly lean and elegant. On the device's front is a spacious 9.6-inch E Ink display that can show 16 shades of gray (as can the Kindle 2).

At 7.2 by 10.4 by 0.4 inches and 18.9 ounces, the Kindle DX is the largest and heaviest of today's e-book readers. Like the Kindle 2, it has a keyboard (for annotations and for searching for books in Amazon's Kindle store through the built-in wireless connection), but typing on it is awkward.

In the United States you can shop for and download books from the device without connecting to a PC (only the just-announced global

version of the Kindle 2 lets you download content elsewhere). Though the DX's spacious screen and skinny profile are big pluses, the device is unlikely to succeed as a newspaper or magazine replacement; it's too heavy for that, and its E Ink display lacks the color and visual appeal that modern print publications possess.

The DX's high price is likely to turn off some potential customers as well: At \$489, it costs more than some full-featured laptops.

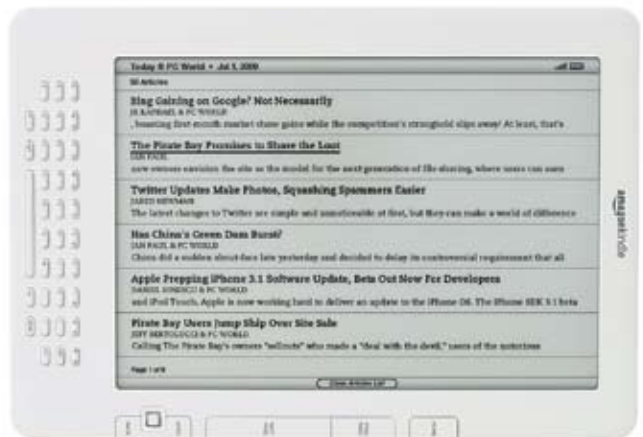
Amazon Kindle 2

The Kindle 2 is a sleek, curved tablet that you can hold easily in your hands. Like other Kindles, it offers easy

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MORE ONLINE

For further details about some e-book readers that will vie for consumers' attention next year, see find.pcworld.com/63963.



THE KINDLE DX'S 9.6-inch-diagonal screen shows 16 shades of gray.

Reviews & Rankings

access to Amazon's Kindle store through Sprint's 3G wireless network (at no extra cost to users), so shopping for books is a breeze. But Amazon doesn't make available the hundreds of thousands of free e-books you can get from other stores.

Its polished design looks great, as does its 6-inch, 600-by-800-pixel E Ink screen. Text is sharp, and images are crisp. But the Kindle 2's stumpy five-way navigation joystick feels stiff and sits awkwardly near the right bottom edge. Still, the QWERTY keyboard below the display is surprisingly usable, with circular keys that are easy to press.

Even though its extras are limited to a text-to-speech capability, a basic MP3 play-



AT 0.4 INCH, the Kindle 2 is half as thick as the original Kindle.

er, and a Web browser, the Kindle 2 stands as a good reader's companion overall.

Sony Reader Pocket Edition (PRS-300)

The Pocket Edition is about as inexpensive as e-book readers come: \$199 for a

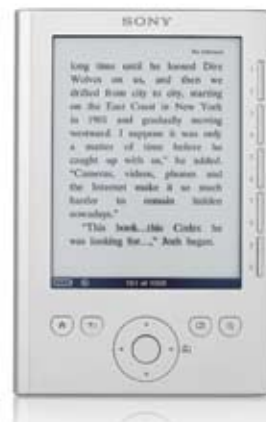
slim gadget with a 5-inch, 8-grayscale E Ink screen. It lacks extras that some competitors offer, but its top-flight design and usability more than compensate for the missing features.

Like previous Sony Readers, the Pocket Edition has a metal case (most competitors use some sort of plastic), which may explain why it tips the scales at nearly half a pound. But the silvery case felt great in my hands, and the reader's controls are simple and intuitive.

Document file format support is limited to unencrypted BB eB, ePub, PDF, TXT, RTF, and Microsoft Word (.doc) files, plus (on commercial books) encrypted BB eB, ePub (with Adobe Content Server 4 DRM tech-

nology), and PDF files. The Pocket doesn't support image or HTML files, and you don't get a dictionary.

Reading on the Pocket Edition is easy and intuitive: Pages looked good and flowed neatly, and page turns were responsive—



THE POCKET EDITION of the Sony Reader costs just \$199.

PC WORLD TOP 5 E-BOOK READERS











MODEL	Rating	Dimensions	Display	Commercial e-book formats	Features
1  Sony Reader Touch Edition \$300 find.pcworld.com/63964	 VERY GOOD	<ul style="list-style-type: none"> • 4.8 by 6.9 inches • 0.4 inch thick • 10.1 ounces 	<ul style="list-style-type: none"> • 6.0 inches • 800 by 600 pixels • E Ink, 8 grayscale 	<ul style="list-style-type: none"> • Adobe ePub, Sony BB eB 	<ul style="list-style-type: none"> • Wireless: No • MP3 player: Yes • Touchscreen: Yes
<p>▶ With its elegant design and ePub support, the Sony Reader Touch Edition shapes up as a formidable competitor to Amazon's Kindles.</p>					
2  Amazon Kindle DX \$489 find.pcworld.com/63965	 VERY GOOD	<ul style="list-style-type: none"> • 7.2 by 10.4 inches • 0.4 inch thick • 18.9 ounces (1.1 pounds) 	<ul style="list-style-type: none"> • 9.6 inches • 1200 by 824 pixels • E Ink, 16 grayscale 	<ul style="list-style-type: none"> • Amazon AZW 	<ul style="list-style-type: none"> • Wireless: Yes • MP3 player: Yes • Touchscreen: No
<p>▶ The DX impresses with a large screen and wireless connectivity; but it's heavy and pricey, and it locks you into Amazon's ecosystem.</p>					
3  Amazon Kindle 2 \$259 find.pcworld.com/63966	 VERY GOOD	<ul style="list-style-type: none"> • 5.3 by 8.0 inches • 0.4 inch thick • 9.6 ounces 	<ul style="list-style-type: none"> • 6.0 inches • 800 by 600 pixels • E Ink, 16 grayscale 	<ul style="list-style-type: none"> • Amazon AZW 	<ul style="list-style-type: none"> • Wireless: Yes • MP3 player: Yes • Touchscreen: No
<p>▶ The second-generation Kindle improves on its predecessor with a slimmer design and significantly better image quality.</p>					
4  Sony Reader Pocket Edition \$199 find.pcworld.com/63967	 VERY GOOD	<ul style="list-style-type: none"> • 4.2 by 6.2 inches • 0.4 inch thick • 7.8 ounces 	<ul style="list-style-type: none"> • 5.0 inches • 800 by 600 pixels • E Ink, 8 grayscale 	<ul style="list-style-type: none"> • Adobe ePub, Sony BB eB 	<ul style="list-style-type: none"> • Wireless: No • MP3 player: No • Touchscreen: No
<p>▶ This reader delivers mainstream e-book features in a highly portable, well-designed package—and it has a great price, too.</p>					
5  Interead Cool-ER \$249 find.pcworld.com/63968	 GOOD	<ul style="list-style-type: none"> • 4.6 by 7.2 inches • 0.4 inch thick • 6.2 ounces 	<ul style="list-style-type: none"> • 6.0 inches • 800 by 600 pixels • E Ink, 8 grayscale 	<ul style="list-style-type: none"> • Adobe ePub 	<ul style="list-style-type: none"> • Wireless: No • MP3 player: Yes • Touchscreen: No
<p>▶ The Interead Cool-ER's usability doesn't match its iPod-esque looks, but it delivers solid e-book features at a midrange price.</p>					

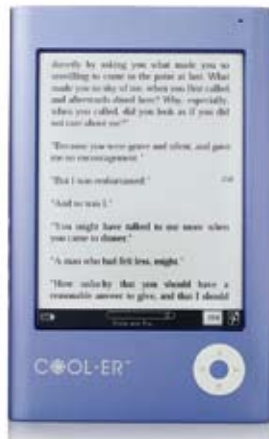
CHART NOTES: Ratings are as of 10/5/09.

on a par with those of other devices. Overall, the Pocket Edition is appealing, not just for people on a budget (after all, the Kindle isn't a lot more expensive), but for anyone who wants a small, no-frills e-book reader to carry in a purse or backpack.

Interead Cool-ER

The \$249 Cool-ER strives to distinguish itself from the black-and-gray competition, and for the most part it succeeds. Skinny (0.4 inch thick), lightweight (6.2 ounces) and available in eight cheery colors, this e-book resembles an overgrown iPod—not a bad role model for industrial design.

The only items visible be-



HIP, TINTED metallic casing sets the tone with Interead's Cool-ER.

low the 6-inch screen are the device's logo and a round, iPod-esque four-way navigation/selection wheel, which you use to navigate through menus and turn pages. Unfortunately, because the button is quite stiff, using it is

unnecessarily arduous.

The Cool-ER's display employs the same E Ink technology that Kindles, Sony Readers, and other e-book readers use. The Cool-ER adopts the 8-grayscale version, operated by a 400MHz Samsung ARM processor. You can transfer content only via the USB cable, but a wireless model is due next year.

The Cool-ER supports about a dozen file formats, including ePub, HTML, PDF, Rich Text, and three popular image formats; ePub with Adobe Content Server 4 digital rights management software is the primary format for commercial e-books, which you can buy at CoolerBooks.com (its

available library isn't huge) or at other sites that support ePub and ACS4.

The built-in MP3 player lets you play music while you read, but it's a bare-bones audio player. Annoyingly, the headphone jack port doesn't accept standard mobile 3.5mm jacks. You'll have to get a 2.5mm adapter to use it with most current headphones or phone headsets (the Cool-ER comes without earphones).

A little polish (and a better four-way navigation wheel) would improve the Cool-ER's usability. But for the price, it's not a bad deal.

Jason Cross and Melissa J. Perenson contributed to this story.

BEYOND THE TOP 5

Two New Readers With Some Catching Up to Do

FIVE E-BOOK READERS made our chart on page 46. Two others fell short: Astak's EZReader PocketPro and Foxit's eSlick Reader.

Astak EZReader PocketPro

The EZReader PocketPro (find.pcworld.com/63970) is about the same size as the Sony Reader Pocket Edition and costs the same (\$199). But its limited, impractical font size options are a serious drawback.

The EZReader PocketPro is light and comes cradled inside a handsome flip-open leather cover. A built-in MP3 player lets you play music while you read. Also, Astak's reader supports Adobe's DRM technology—Adobe Content Server 4—giving you access to a fair amount of commercial content.

But the PocketPro's navigation controls are neither convenient nor particularly intuitive. For instance, there's no cursor for scrolling through lists of options (you have to use the numeric keypad underneath the display instead) and no status bar on the page to indicate progress through the book. And the built-in text-to-speech feature for PDF content is pretty bad.

Worst of all, the only usable font size option of the five offered was

'Small'; the others were either ridiculously large or optician-chart tiny—a far cry from the more evenly graduated font sizes on most other readers.

Foxit eSlick Reader

Known for its popular alternative to Adobe's PDF reader, Foxit has produced an e-book device that works solely with the PDF format. Thanks to this capability, the eSlick Reader (find.pcworld.com/63969) can handle the thousands of free volumes available in that format; but it lacks support for commercial content incorporating DRM encryption, ruling out access to the best-sellers that you can read on most competing devices.

The \$250 eSlick Reader is small, thin, and lightweight, with a rubberized finish. The screen is easy to read, but illustrations don't look as attractive on its 4-grayscale display as they do on the 16-grayscale and 8-grayscale screens of other readers we reviewed.

We couldn't change the font size in any PDF book we tried; the menu option for that operation was grayed out. Zooming in works, but then you may have to scroll left and right to read across a line.



CLIPS SECURE the EZReader PocketPro's cover in place.



A FOUR-WAY controller (at lower right) on the eSlick turns pages.