







### **WELCOME**

Less than three years ago, Apple released the first iPad. Today, with over 120 million iPads and 300,000 iPad-specific applications in the marketplace, Apple's tablet is the clear leader in both sales and software. Why? As competitors keep churning out products with confusing form factors and software, Apple has stuck to a simple lineup of devices, giving its computers, tablets, and pocket devices optimized interfaces and apps. People love them.

Yet Apple hasn't been perfect. Strong sales of the iPad mini and 7" rivals demonstrated that people wanted smaller tablets. Pricing has also presented challenges. iPads dropped from \$499 to \$329 in 2012, but Apple's now entering developing countries that demand even lower price points. Today's fourth-generation "Retina iPad" and iPad mini could be kept as low-end models after their sequels debut.

Apple itself is working through a rough patch. CEO Tim Cook sacked his iOS software and retail chiefs late last year, just before the somewhat odd debut of the fourth iPad. An "iTV" television project was put on hold after failed negotiations with content providers. Apple's stock tumbled as investors questioned its ability to innovate. And recent ads have come across as unpolished. So is it wise to invest in an iPad or accessories right now?

Our latest Buyers' Guide answers that question in depth, but the short answer is "yes," so long as you pick the right iPad and accessories. That's why we're here. You can decide for yourself what to purchase - our job is to show you the best of what's available, give you the most accurate information we have on what's coming next, and help you spend your money in the wisest way possible. We look forward to doing exactly that in the iPad + iPad mini Buyers' Guide pages that follow.



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Although raw statistics might suggest otherwise, iLounge's editors love to issue A-level ratings and "high recommendations" to new products - terms we use only when something has such broad appeal, superb execution, and reasonable pricing that we know most people would love it. While these ratings are rare, they're backed by our genuine enthusiasm, as well as our assurance that the products did so well during testing that they really stood out from the crowd.

When Apple released the iPad mini and fourth-generation iPad in late 2012, the mini rated an A-, but the full-sized model fell short of our high recommendation for the first time in the iPad family's history. For its own reasons, Apple killed the sixmonth-old "new iPad" and replaced it with a slightly tweaked seguel bearing the same name and price. Many buyers of the third-generation model were justifiably dismayed, as Apple had broken its implicit one-year refresh cycle; now no one knew how long their purchases would be "top of the line" or when it was safe to sell in anticipation of an upgrade. Fleeting iPad models are harder for us to get excited about, and hence to recommend buying.

But isn't everything fleeting? Even the new (and highly recommended) iPad mini will likely be replaced within a year of its release by a better model - the normal Apple product cycle. As Steve Jobs once suggested, there are no guarantees except change in the consumer electronics world, and you either buy in and enjoy or sit on the sidelines waiting for something new. As always, iLounge is here to walk you through the current state of today's iPads, their best accessories, and new apps from an impartial, honest perspective. Please enjoy our latest Guide!



Dennis Lloyd Publisher

A long-time fan of Apple products, **Dennis Lloyd** (Twitter: @iLounge) was a graphic designer and DJ before creating iLounge, which remains the world's most popular resource dedicated to iPods, iPhones, iPads, and iTunes. Dennis lives in Irvine, CA with his wife and daughter.



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Author and journalist Jeremy Horwitz (Twitter: @horwitz) has edited iLounge and its publications full time since 2004, when he pressed pause on his intellectual property law practice to specialize in the latest iPods, accessories, and software. An avid Apple user, he lives with his wife, two daughters, and a museum of iPods, iPhones, and iPads in East Amherst, NY.



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Bob Levens is iLounge's Chief Forum Administrator. Married and based outside of Cambridge, U.K., he enjoys music, travel, photography, computers and historic aviation, and happily recently took possession of a brand new MacBook Pro.







**Left to Right:** Apple's October 2012 Special Event saw the debut of the first-generation iPad mini, based heavily upon the iPad 2 apart from camera and body improvements similar to the iPod touch. Apple Senior VP Phil Schiller also introduced the fourthgeneration iPad, with improved processing speeds and other tweaks, while explaining that the 7.9" iPad mini display didn't compromise the expected iPad-quality tablet experience.

### THE IPAD IN TRANSITION.

AFTER NEW MODELS LAUNCH, MINI SALES STAY STRONG AS A NEW RETINA IPAD LOOMS.

Cynical pundits might disagree, but from our perspective, Apple generally hasn't left gaping holes in just-released products solely to fill them later - iterative generational improvements are just a reality. So the iPad with Retina display (fourth-generation) and iPad mini were departures for the company, each arriving with big, obvious questions that clouded their releases. The "new" full-sized iPad looked and felt nearly identical to its predecessor, sporting front camera and processor tweaks, plus a Lightning port - the third iPad model to use the

iPad 2 chassis. Users wondered why Apple would release such a modest update at all, rather than wait for a full redesign. And after each other iOS device gained a Retina screen, the iPad mini conspicuously launched without one, the only "must-have" feature it was clearly missing. More likely than not, both iPads were pushed out to stay a step ahead of competitors, offering buyers something new rather than nothing. It worked, sort of: sales of the mini have been brisk, but full-sized iPad demand has slowed, as details and images of a slimmer 2013 sequel have leaked out.

#### LIGHTNING: DELAYS, PRICES SPOIL ACCESSORY DEBUTS.

FireWire. Thunderbolt.
AirPlay. Lightning. Unlike
the widely-adopted USB
wired and Bluetooth wireless
standards, Apple's proprietary
alternatives haven't gained
traction; instead, they've
been plagued by complaints
of high accessory prices and
delayed availability. Introduced
in late 2012, the Lightning

connector continued Apple's pattern of slow roll-outs, with extremely limited availability of third-party accessories continuing through early 2013 - and, despite higher prices, modest tangible improvements in user experiences. Availability appears to be improving, however, and there are hints that prices are

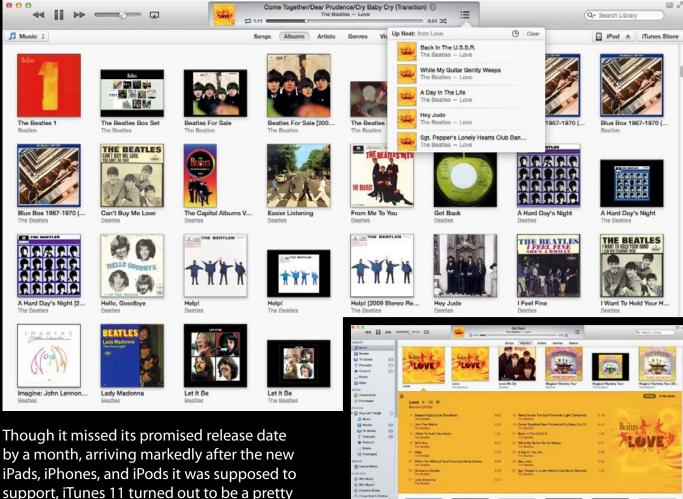


easing: some Lightning cables (not Apple's) now sell for \$15 or less.

For detailed daily news on the iPad family, as well as Apple's iPhone, iPod, Apple TV and iTunes products, check out iLounge.com's huge news archive (ilounge.com/index.php/news/archives/).

### ITUNES 11: THE BASICS.

RELEASED LATE LAST YEAR, APPLE'S REDESIGNED MEDIA PLAYER AND SYNCHRONIZATION APP FOR COMPUTERS HAS BEEN CLEANED UP, USING IPAD-INFLUENCED DESIGN CUES.



by a month, arriving markedly after the new iPads, iPhones, and iPods it was supposed to support, iTunes 11 turned out to be a pretty significant update to Apple's 12-year-old media management application. Responding in part to complaints that iTunes had become bloated with features and overcomplicated, Apple used the new release as an opportunity to reduce the app's apparent complexity - underscore the word "apparent" - and bring iPad-style user interface tricks to Mac and PC users. iTunes 11 attempts to move users towards a more graphics- and less text-heavy display of content, getting away from lists in favor of cover artwork and "as-needed" track/chapter lists that slide open like iPad folders. The result is a lot like the iPad's Music app, only evolved - a design that we'd expect to see in iOS 7 unless new Human Interface lead Jony Ive objects to it in some way.

But under its cleaned-up exterior, iTunes 11 keeps virtually all of the features found in prior versions, for better or worse. On the positive side, users who need older-style lists, sidebars, or status bars can get them back fairly easily using keyboard shortcuts or top-of-screen menu buttons - an easy way to ease the transition from old to new interfaces. And few of the changes impact major functionality, so you won't load iTunes 11 and suddenly find content missing or inaccessible. The flip side is that you'll otherwise need to learn the new locations of the drop-down/hover-over menus, and may need to dive a little deeper to discover where certain old features are now being hidden. On balance, this is a good update.

### **MAJOR NEW ITUNES FEATURES:**



#### **Less Cluttered Screens**

When you connect a new iPad, iPhone, or iPod for the first time, the "welcome" screen is clean - a pleasant image with no options except device restoration. During videos, a single bar provides access to chapters, captions, AirPlay, and other controls. Streamlining is everywhere, small and large.



#### **True Cloud Integration**

iTunes in the Cloud and iTunes Match have enabled iTunes users to stream and retrieve their previously purchased videos and registered music, but iTunes 10 didn't integrate the cloud and local libraries seamlessly. iTunes 11 does this, and lets you stream iTunes in the Cloud videos directly from Apple's servers, potentially freeing terabytes of space on your Mac or PC hard disk.



#### **Up Next**

An automatically-generated playlist of music tracks that iTunes will play after the current song, Up Next is a new floating window full of songs that can be rearranged, added to, or deleted from at will.



#### **Better Device Syncing**

Cleaned up to waste less space on each of its tabs - though sadly without rethinking the tabs' overcomplexity - iTunes 11's device syncing menus are easier on the eyes, if not the brain. The bar chart of occupied space on your device relies less on numbers than before, instead using pop-up boxes for stats as you hover over each category. Sync speeds and reliability have improved.



#### **A Redesigned Store**

Paralleling the latest iPad versions of the iTunes Store, App Store, and iBookstore, iTunes 11's Store features a redesigned, light gray interface. Each section gets large, rotating promotional banners, a unified and less cluttered side bar for Quick Links and Top Charts, and less emphasis on text in favor of artwork. Unlike the iPad, which floats each item you select within a smaller window, iTunes 11 lets each item take over the full window. often with a lot of empty space.



#### A New MiniPlayer

How much can Apple pack into its reduced-size iTunes media player? Plenty. Left alone, it shows album art, song title, and artist info. Hover over it, and track controls appear, alongside floating AirPlay, Up Next, and library jumping controls. Hit the search icon and you can move through your library with your keyboard. If the iPod shuffle was this cool, iPod sales wouldn't be in freefall today.



## Is Now A Smart Time To Buy?

Let's be frank: this is an unusually tough time to consider buying a new iPad. Apple's unexpected November refresh of the full-sized iPad and debut of the iPad mini spooked everyone, so it's unclear whether these models have one, three, or six months left as kings of the hill. Our advice: if you're thinking about a full-sized iPad, wait - the next version will be just as powerful and much easier to carry. If you're unsure on the mini because you want a Retina screen, hold off, because it's coming. But otherwise, jump right in; the current models are highly capable, and apart from these tweaks, they'll likely be very similar to the new ones. This section of our Guide will teach you about all of the current iPads and cellular data plans, illuminating options that are best for your personal needs. We'll also provide basic details on how iPads work, several free Apple-developed iPad apps worth grabbing, and tips on selling your old iPad for the most money.

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### THE IPADS + IPAD MINIS.

YOU CAN CHOOSE TODAY FROM THREE IPADS, EACH WITH OR WITHOUT CELLULAR ACCESS.

iPad (4th-Gen) Wi-Fi



iPad 2 Wi-Fi



iPad mini Wi-Fi



Size **Capacity Price** Wireless Weight Screen **Battery GPS Cameras Colors** 

Add-Ons

Summary

**Rating** 

128GB version, but also

large, heavy, expensive,

and power-hungry,

though long-running.

screen size and battery life, where it's close. Pick this model instead if you want a bigger screen or to use older add-ons.

or more capacity. If you need a Retina screen, consider waiting for the next version; otherwise, jump on this right now.

9.50" x 7.31" x 0.37"	9.50" x 7.31" x 0.34"	7.87" x 5.3" x 0.28"
16GB-32GB-64GB-128GB	16GB	16GB-32GB-64GB
\$499-\$599-\$699-\$799	\$399	\$329-\$429-\$529
802.11n + Bluetooth 4.0	802.11n + Bluetooth 2.1	802.11n + Bluetooth 4.0
1.44 Pounds	1.33 Pounds	0.68 Pounds
9.7" / 2048x1536 / 264ppi	9.7" / 1024 x 768 / 132ppi	7.9" / 1024 x 768 / 163ppi
10-13 Hrs. Video/Web	10-14 Hrs. Video/Web	9-11 Hrs. Video/Web
No	No	No
Front: 1.2MP Rear: 5.0MP	Front: 0.3MP Rear: 0.9MP	Front: 1.2MP Rear: 5.0MP
Silver w/ White/Black Face	Silver w/ White/Black Face	White+Silver/Black+Slate
Silver w/ White/Black Face Lightning	Silver w/ White/Black Face  Dock Connector	White+Silver/Black+Slate Lightning

Modestly updated from March 2012's 3rd-Gen iPad, the 4th-Gen iPad is Apple's most powerful tablet, with a stunning Retina screen. The iPad 2 is cheaper with fewer frills, and the iPad mini is a smaller, lighter version of the iPad 2 with superior cameras and software.

iPad (4th-Gen)
Wi-Fi + Cellular

this is also the heaviest,

priciest, and most power-

hungry model. If you

don't mind the size, you'll

find that its speed and

screen quality are tops;

that said, a better sequel

is due later this year.



iPad 2

iPad mini **Wi-Fi + Cellular** 



mini over the iPad 2 right

now, particularly given

the added convenience

of its size for "anywhere"

web access. Note: unlike

the iPad 2, the CDMA

iPad mini is superior for

overseas travel.

Size
Capacity
Price
Wireless
Weight
Screen
Battery
GPS
Cameras
Colors
Add-Ons
Rating

**Summary** 

9.50" x 7.31" x 0.37"	9.50" x 7.31" x 0.34"	7.87" x 5.3" x 0.28"
16GB-32GB-64GB-128GB	16GB	16GB-32GB-64GB
\$629-\$729-\$829-\$929	\$529	\$459-\$559-\$659
802.11n + LTE + BT 4.0	802.11n + 3G + BT 2.1	802.11n + LTE + BT 4.0
1.46 Pounds	1.35 Pounds	0.69 Pounds
9.7" / 2048x1536 / 264ppi	9.7" / 1024 x 768 / 132ppi	7.9" / 1024 x 768 / 163ppi
10-13 Hrs. Video/Web	9-14 Hrs. Video/Web	8-11 Hrs. Video/Web
Yes (A-GPS/GLONASS)	Yes (A-GPS)	Yes (A-GPS/GLONASS)
Front: 1.2MP Rear: 5.0MP	Front: 0.3MP Rear: 0.9MP	Front: 1.2MP Rear: 5.0MP
Silver w/ White/Black Face	Silver w/ White/Black Face	White+Silver/Black+Slate
Lightning	Dock Connector	Lightning
В	B/B-	B+
Currently the ultimate iPad for road warriors due to its Retina display and LTE cellular data support.	Somewhat of an oddity now due to the faster LTE iPad mini's release, the iPad 2's bigger screen,	Apart from the modest benefits noted to the left, we wouldn't think twice about picking the iPad

longer run time, and Dock

Connector accessory

compatibility may appeal

to some people. That said,

its cellular speed lags far

behind the other iPads in

many countries, and its

cameras are quite poor.





## IPAD 4TH-GEN (WI-FI).

RELEASED IN LATE 2012, THIS MODEL IS MERELY A BRIDGE TO A RETHOUGHT FIFTH IPAD.

Armed with Apple's best iPad screen, fastest mobile processor, and latest connectivity standards, the fourth-generation iPad is a compelling model - capable of markedly superior photo and video editing than any other iPad, with noticeably higher-resolution games and more eye-pleasing versions of web pages, books, and periodicals. Thanks to 802.11a/b/g/n and Bluetooth 4, it can connect to virtually any wireless router or accessory you may find, and its Lightning port lets it work with the latest wired accessories, too. It's also the only iPad offered in four storage capacities, including a laptop-like 128GB - plenty of space for videos and apps.

The single biggest knock against this model is its interim nature: released only six months after the third iPad, it will be followed by a much smaller and lighter version later this year. It's possible that the new model won't match the fourth-gen iPad's 10-14 hour battery life, but it will likely equal or surpass it in every other way. If that's not a concern, you want a big high-res screen, and you don't need cellular access on the road, give this iPad serious consideration today. Otherwise, we'd advise you to wait or consider the impressive iPad mini as a great option for a much lower price.





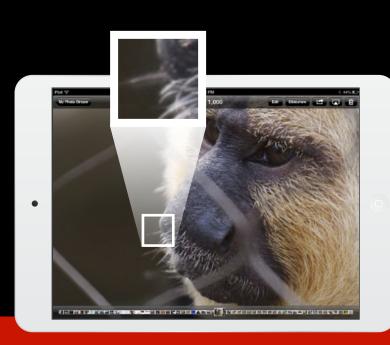
## IPAD 4TH-GEN (CELLULAR).

AS POWERFUL, FAST, AND BEAUTIFUL AS IPADS GET, THIS VERSION IS ALSO THE HEAVIEST.



Apple currently sells two Retina iPads with cellular capabilities - the GSM-only A1459 model and the CDMA-capable A1460. Each is available in four storage capacities, and sells for a \$130 premium over the Wi-Fionly iPad, also adding GPS capabilities not found in any Wi-Fi model. And once again, the GSM model benefits from faster peak speeds in the United States, reaching 50-60Mbps on AT&T's LTE network versus 20-30Mbps on Verizon's LTE towers. If you're only going to use your iPad in America, the choice is simple: faster AT&T in fewer cities, or slightly slower Verizon in more cities. Sprint's LTE network remains tiny, and a poor option.

But in a reversal of past trends, the GSM/AT&T iPad is actually less capable overseas than the CDMA model sold for Verizon and Sprint; Apple built the GSM model primarily for use in America, Canada, and Mexico, while the CDMA version works on European, Asian, and Middle Eastern LTE networks. If you plan to travel internationally, each of these iPad models will work on foreign 3G/4G networks, but faster LTE speeds will depend on the continent you're visiting. Like the Wi-Fi model, expect a lighter, smaller replacement for this iPad; it may offer global LTE support, as well.





# IPAD MINI (WI-FI).

SMALL, LIGHT, AND CAPABLE, THIS IPAD IS THE BEST OVERALL MODEL AVAILABLE NOW.

As the only iPad capable of being held comfortably in one hand for extended periods of time, the iPad mini weighs half as much as the Retina iPad, and could fit inside the footprint of the full-sized model's 9.7" screen. Yet the mini offers comparable battery life and cameras, runs all the same apps - including Siri, at entirely respectable speeds - and comes in similar 16/32/64GB capacities at lower (\$329-\$559) prices. It also features a newer design with color-complementing anodized aluminum, which will almost certainly be used in the fifth-generation iPad later this year. While the iPad mini isn't Apple's most powerful tablet, it offers the company's best compromise yet of features and pricing.

So why wouldn't everyone jump all over it right now? One key reason: the 7.9" screen, which remains at the original iPad and iPad 2's 1024x768 resolution, and isn't as vividly colorful. Another reason: the battery life is a little lower than on full-sized iPads, though the mini recharges faster. We expect a Retina iPad mini to debut later this year in a nearly identical form factor, but if you don't want to wait until then, this version is a fantastic little tablet - certainly a better choice than the \$399 iPad 2 in every way except raw screen size and run time.







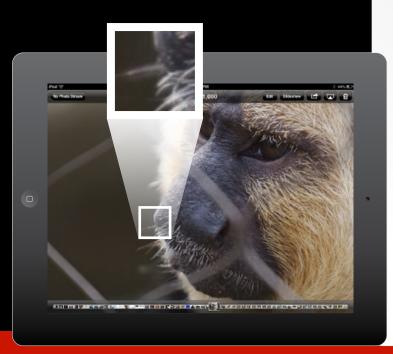
## IPAD MINI (CELLULAR).

IF YOU REALLY NEED INTERNET ACCESS ANYWHERE, PAY THE \$130 (+ DATA) PREMIUM.



Adding GPS and LTE that's as fast as the Retina iPad, the two cellular iPad mini versions come with the same huge benefits and minor caveats. Just like the Retina iPad, there's a GSM-only model best-suited to North America, with staggering top speeds in the United States and Canada, and a CDMA model that works at least as well in the U.S. as it does in Europe, Asia, and the Middle East; you have to choose the version best suited to the places you'll need cellular service. Both start at \$459 (16GB), jumping to \$559 (32GB) and \$659 (64GB), each with basic and deluxe monthly data service plans.

As more convenient alternatives to full-sized iPads, cellular-equipped iPad minis are so portable, capable, and affordable that iPhone users could switch without losing anything save voice calling; they're superior for mapping, reading, and virtually everything else save photography and pocketability, which the latest iPhones excel at. But as with other iPads, cellular data uses additional battery life, knocking around an hour off the normal mini run times, and the screen remains a couple of steps behind the Retina iPad's. On the whole, we prefer this model's trade-offs, but users who need a bigger screen or battery will prefer the full-sized iPad.





## IPAD 2 (WI-FI).

LIMITED IN CAPACITY, THIS IS A FINE FIRST IPAD FOR USERS WHO NEED A BIG SCREEN.

Last year, we noted that the Wi-Fi-only iPad 2 had a lot to offer for \$399: 802.11a/b/g/n for Internet access, a dual-core Apple A5 CPU with a dual-core graphics chip, a respectable 1024x768 display with support for AirPlay screen mirroring, and solid battery life. Since then, Apple introduced the smaller and superior iPad mini for \$329, and doubled the \$499 Retina iPad's performance for the same price. As a result, the 16GB-only iPad 2 isn't as compelling. Its front and rear cameras are noticeably weaker for both still images and video, and its performance is no better than an iPad mini weighing around half as much - unless you want a 9.7" screen with the same resolution as the mini's 7.9" display. Lacking Siri, it feels a step behind in iOS software, as well.

But the iPad 2's secret weapon is its old Dock Connector port, which is compatible with thousands of increasingly affordable accessories released prior to 2013. Speakers, car chargers, and cables work flawlessly on this model, as do virtually all of the wireless accessories supported by newer iPads. Some users may just prefer its bigger screen and larger virtual typing surface, regardless of its limited storage capacity. If you're in that camp, it's a good iPad - just not the best.





## IPAD 2 (CELLULAR).

UNLESS A BIG SCREEN IS NEEDED, TRAVELERS SHOULD SKIP THIS IN FAVOR OF THE MINI.



If the \$399 Wi-Fi-only iPad 2 is a step behind the \$329 Wi-Fi iPad mini, the \$529 cellular iPad 2 is two steps behind the \$459 cellular mini. Yes, the iPad 2 has similar features - a GPS chip and the ability to access the Internet without a Wi-Fi connection - but this 2011 model is becoming outdated. As we noted in discussing the base iPad 2 model, the mini offers virtually all of the same features in a much smaller, lighter package. But whereas the mini (and Retina iPad) support super-fast LTE cellular data, iPad 2 users will pay the same monthly data rates for dramatically lower 3G/4G speeds - one-fifth to one-tenth as fast. Why buy a more expensive iPad for a slower experience?

There's one small wrinkle: international compatibility. Unlike its newer brothers, the AT&T/GSM iPad 2 is the better pick no matter where in the world you hope to use it - it has a Micro-SIM slot for use practically everywhere - while the Verizon/CDMA model is a poor choice for overseas travel, with markedly slower cellular speeds even in America. Only consider these models if you really prefer the iPad 2's 9.7" display and slightly longer battery life to what the iPad mini offers, and are willing to give up LTE data speeds to get them.

### IPAD MINI VERSUS IPAD.

EACH OF APPLE'S IPADS HAS ADVANTAGES - ONE MAY FIT YOUR NEEDS BETTER.

iLounge's editors have mostly - not entirely switched over to the smaller, lighter iPad mini. But the full-sized iPad remains a viable pick.

#### The iPad mini is:

Considerably lower in weight and smaller in size, making it easier to hold, rest on your body, and take anywhere you go.

A lot less expensive - \$170 less than the Retina iPad at each comparable capacity.

Offered in slightly more distinctive color choices.

Easier for hand-held virtual touch typing, particularly in portrait orientation.

Much faster at recharging when used with the same wall chargers as a full-sized iPad.

Capable of being mounted in a car's dashboard.

#### Retina iPads are:

Noticeably superior in screen definition for text and pictures, with more vivid colors for all graphics.

Faster and more coloraccurate for photo and video editing.

Markedly larger in screen size, and ideal for videos.

Superior in battery life, though that's task-specific.

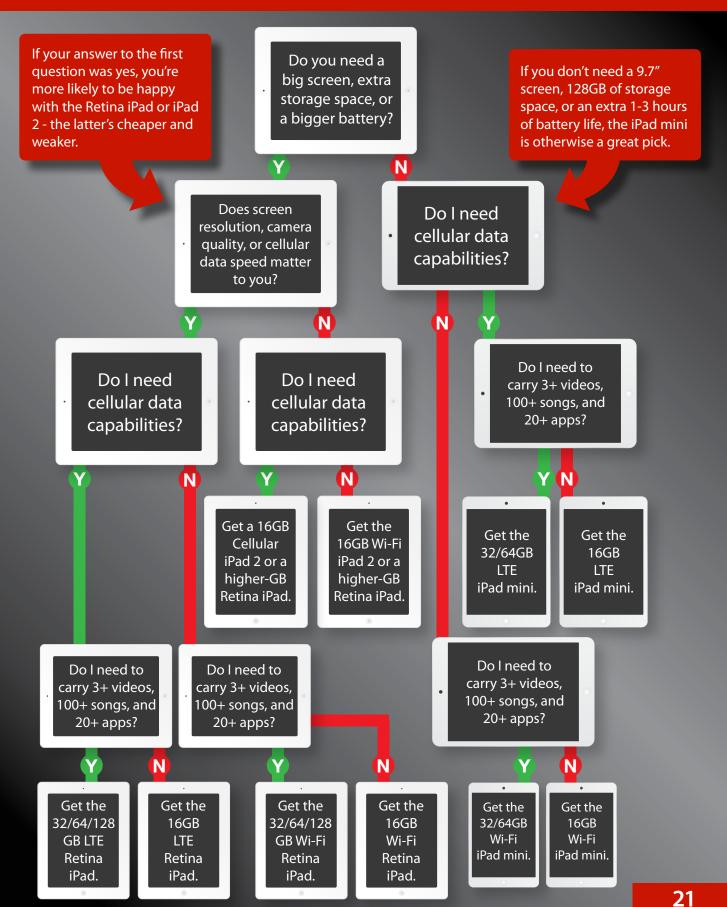
Able to offer extra finger space for virtual typing, and keyboard cases better match "real" keyboard sizes.

Available in one larger maximum capacity (128GB).

Compatible with a wider range of accessories, particularly older cases with integrated stands.

### CHOOSING YOUR IPAD.

STILL CAN'T DECIDE WHICH IPAD TO BUY? THIS CHART SHOULD HELP YOU PICK ONE.



## OUTSIDE OF EACH IPAD.

A TOP BUTTON TURNS THE DISPLAY ON OR OFF. A FRONT BUTTON BRINGS YOU "HOME."







Available in black or white with silver backs, the iPad 2 and iPad otherwise look nearly identical from all angles - the iPad 2's a hint thinner, with a smaller rear camera. But the iPad mini is markedly smaller, and the painted bezel on its front glass complements the slate or silver color of its aluminum rear shell. A small dot centered above the 9.7" or 7.9" screen is a FaceTime camera; within a day of use, each iPad's glass will be covered in fingerprints unless you apply anti-smudge screen film. A thin ring of durable but scratchable aluminum surrounds the glass, curving to form the device's back. Apple centers its shiny logo atop the iPad name; only the iPad 2 adds a small capacity badge. Cellular iPads also have a plastic antenna compartment on the back top; it's black on all iPads and black iPad minis, but white on the white mini. Most cellular versions have a Micro- or Nano-SIM card tray on the back left or right side.



Headphone Port + Mic Each iPad's 3.5mm top port works with most headphones, and supports Apple threebutton remote controls and microphones. A tiny top-centered hole hides a microphone, which works for voice recording, videos, and VoIP calling.



Side Switch + Volume
Based on your preference,
a switch above each iPad's
right-mounted volume
buttons either locks the
screen in any portrait or
landscape orientation,
or mutes notification
sounds, leaving the
volume buttons for
everything else.



**Dock Connector** 

or Lightning
An accessory port
is centered on each
iPad's bottom for
use with chargers
and speakers; the
iPad and iPad mini
need Lightning
adapters to use old
iPad accessories.



**Speakers** 

Dots vent speakers through the iPads' rear bottoms at a respectable volume level; cupping your hand around a grate lets you increase the apparent volume. The iPad mini has two tiny speakers.

### INSIDE THE THREE IPADS.

POWERFUL CHIPS ARE PACKED INTO EACH OF APPLE'S TABLETS: SOME DIFFER BY MODEL.



#### Multi-Touch

iPad screens can detect up to 11 individual touch points at once. Most apps use two or three.



#### Memory

Choose from 16, 32, 64, or 128GB, the latter only on the Retina iPad. 16GB is too little space for most users, so consider 32-64GB.



### A6X

**CPU** 

The dual-core A5 chip in iPad 2 and iPad mini runs at 1.0GHz with a dual-core graphics processor. iPad's A6X runs at 1.4GHz with quad-core graphics.



#### Front Camera

The iPad 2's low-res 0.3 Megapixel front camera is weak, but the other iPads have a 1.2 Megapixel version.



**Every iPad supports** 802.11a, b, g, and n wireless networks for access to the Internet. Web pages, maps, and highdefinition streamed videos load noticeably faster when using 802.11n, which requires a wireless router made within the last several years. Battery life with Wi-Fi is typically better than with cellular.



#### Rear Camera

iPad 2's 720p rear camera lags behind the iPad/iPad mini's 5-Megapixel still, 1080p video camera.



#### Bluetooth

iPad 2 supports Bluetooth 2.1; the iPad + mini support Bluetooth 4. Each streams stereo audio to speakers and headphones, plays games over Bluetooth, and works with wireless keyboards - great for word processor users. New lowpower Bluetooth 4 health and security add-ons continue to trickle out slowly.



#### Sensors

Each iPad has a 3-axis gyroscope and 3-axis accelerometer that provide accurate motion sensing.

#### **Cellular**

Cellular iPads can use cellular data networks for a monthly fee. Speeds vary wildly between networks and locations, AT&T is a clear winner for iPad 2 users, generally offering 2X-3X Verizon's speed. For other iPads, Verizon has more LTE coverage; AT&T is faster in fewer LTE cities, with better fallback speeds.

## APPLE'S IPAD PACK-INS.

VERY FEW ITEMS ARE INCLUDED IN APPLE'S BOXES - ALMOST EVERY ADD-ON IS OPTIONAL.



Each iPad includes a wall power adapter, USB cable, instruction card, warranty booklet, and stickers; most cellular versions add a SIM tray-opening tool. The iPad mini includes a 5W USB Power Adapter, versus the faster 10W/12W Adapters included with the iPad 2 and iPad. Still absent are necessities such as a stand or a cleaning cloth; Apple sells magnetic Smart Covers (\$39-\$69), spare power adapters (\$29), camera adapters (\$29), and video adapters (\$49) separately.

### IPAD 3G/LTE DATA PLANS.

IPADS AREN'T SOLD ON CONTRACTS, SO DATA SERVICE IS MONTHLY - CANCEL AT ANY TIME.



Unlike iPhones, cellular-ready iPads are sold unlocked and contract-free. This means you'll pay a higher up-front price, but have the freedom to buy data service on a month-to-month basis - in some countries even from different companies - with varying prices for low and high quantities of data. In most places, LTE data plans cost the same per month as slower 3G plans, starting at \$15 for 250MB in the United States. No-contract pricing is great for frequent international travelers, and for users in countries with multiple carriers. The prices below show what iPad users can expect to pay per month for data in various countries; note that all "\$" prices are in that country's dollars or local currency.

Country/Region	Carrier	Low-End 3G Data	High-End 3G Data	LTE Extra?
USA	AT&T	\$15/250MB	\$50/5GB	No.
USA	Verizon	\$20/1GB	\$80/10GB	No.
Canada	Bell/Rogers	\$5/10MB	\$35/5GB	No.
Mexico	Telcel	\$179/400MB	\$599/10GB	No.
UK	02	£10/1GB	£15/2GB	Yes.
Italy	3 / Tre	€5/3GB Per Mo.	€26/1GB Per Day	No.
Australia	Optus	\$20/2GB	\$75/20GB	No.
Switzerland	Swisscom	19CHF/300MB	39CHF/2GB	Yes.
Japan	Softbank	¥1510/100MB	¥4410/1GB	Yes.
Singapore	StarHub	\$30/6GB	\$42/11GB	No.
South Korea	KT	27,500원/1.5GB	53,900원/6GB	No.

### IPAD + MINI SIM CARDS.

FULL-SIZED IPADS HAVE MICRO-SIM CARDS/TRAYS, IPAD MINIS USE NANO-SIM CARDS/TRAYS.

Every cellular Retina iPad and GSM iPad 2 has a Micro-SIM tray; the iPad mini has a smaller Nano-SIM tray, instead. Most cellular iPads come with a carrier-specific SIM card installed; some carriers require a user to visit their stores and purchase one for \$10 or €5. Without a SIM card, most iPads can't connect to cellular networks; only Verizon's iPad 2 is an exception. Removing the SIM card tray is as simple as inserting the sharp edge of Apple's included tray removal tool into a hole on the tray's side, which pops it out of the iPad. The SIM should fit into a specially cut groove in the tray, and the tray will easily slide back in. If the SIM card is too large to fit inside a full-sized iPad's tray, it's likely an old card that should be replaced by your cellular provider. Similarly, Micro-SIMs can't fit into the iPad mini's Nano-SIM slot, and should be replaced.













## BUYING + SELLING IPADS.

WHY PAY FULL RETAIL? SAVE CASH WHEN YOU BUY AN IPAD, AND MAKE MONEY SELLING IT.

If you're looking to buy an iPad or accessories, you have several options. The easiest is to shop at the Apple Store, which is also generally the most expensive. You can also buy from authorized/unauthorized resellers, or go through eBay, which continues to serve as a market for past generations of Apple products years after they were discontinued. New iPad and accessory prices are below, followed by tips on buying refurbished iPads from Apple, and eBay's March 2013 used iPad prices.

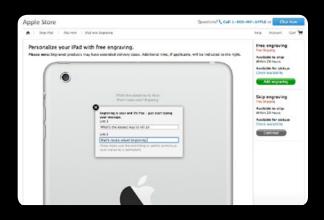
#### **Buying New From Apple Stores**

There's every reason - except one - to buy directly from Apple. It offers free engraving on iPads, free shipping, and no restocking fee for items you decide to return. Apple is also the first to get its own products, has the largest inventory of them, and stocks many good third-party items, too. On the other hand, its prices are sky high, particularly on accessories, and it almost never offers sales. But it does offer great deals on refurbished iPads, and sells **Gift Cards** (\$25-\$5,000) so you can contribute towards bigger purchases.

Apple's only extended warranty for the iPad is AppleCare+ (\$99). It lengthens telephone technical support from 90 days to two years, and defect-related repair support from one year to two. It can only be activated in the first 30 days after purchase, and unlike the now-discontinued \$79 AppleCare, allows you to replace your accidentally damaged iPad up to two times at \$49 per swap.

#### **Shopping Outside of Apple**

Compare the prices at several authorized retailers to Apple's, which almost never are on sale and generally are full MSRP. At Best Buy, the prices are at least as high as Apple's, sometimes higher. Target stocks budget addons you won't find at Apple and sometimes offers sales or gift cards to incentivize Apple hardware purchases. Local store returns are easy. Walmart's prices are low but shipping is generally extra, mooting iPad purchases. It sells some seriously junky accessories, but also some good ones at low prices.







iPad/Add-On	Apple Best Buy	Target \	Walmart

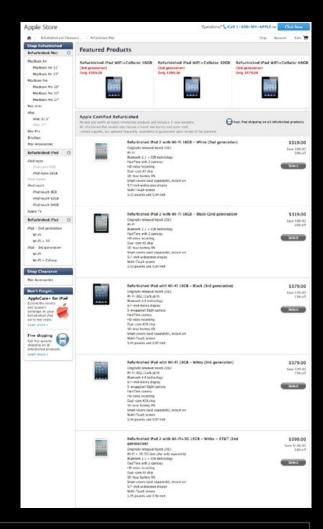
16GB Wi-Fi	\$499	\$500	\$500	\$499
16GB LTE	\$629	\$630	\$630	\$629
32GB Wi-Fi	\$599	\$600	\$600	\$599
32GB LTE	\$729	\$730	\$730	\$729
64GB Wi-Fi	\$699	\$700	\$700	\$699
64GB LTE	\$829	\$830	\$830	\$829
Lightning Cabl	e \$19	\$20	\$19	\$19
iHome iD50	N/A	\$170	\$130	\$170
Incipio NGP	N/A	\$23	N/A	\$17
Free Shipping	\$50+	Some	No	No

#### **Apple Store Refurbished iPads**

Although there are reasons to object to the Apple Store's full retail prices for new iPads and accessories, the Refurbished and Clearance Products section of Apple's online store is a great place to buy slightly used hardware. Apple's refurbs have a brand new shell and battery, plus a full one-year warranty and original accessories - everything except the standard retail box. Every Apple refurb we've purchased has been flawless.

Refurbished iPads can frequently be had for 10-25% off, with discounts varying based on the specific model, capacity, and timing. Shortly after a model is discontinued, its refurbished price tends to plunge, making purchases particularly attractive to people who were waiting for new devices to be announced.

At press time, entry-model iPad 2s could be had for \$319, or \$80 off their new list prices, while 64GB cellular iPad 2s enjoyed \$150 of savings, selling refurbished for \$579. Refurbished iPad minis and fourth-generation iPads were selling for around \$50 off, and refurbished third-generation iPads were offered at \$120 or more below their original asking prices; 64GB cellular iPads were at \$150 discounts. Inventory fluctuates daily.





4-2010

16/32/64GB - 10 Hr Battery Wi-Fi

\$499-\$699 US

16/32/64GB - 10 Hr Battery Wi-Fi + 3G (GSM) \$629-\$829 US Breakthroughs: Apple's first tablet computer, featuring a 9.7" multi-touch glass display and an aluminum body, plus 10-hour battery life for video playback and web browsing, with far longer standby time. Comes in three capacities and two different versions, one with 802.11n Wi-Fi, the other with 802.11n and GSM 3G cellular data service.

Pack-Ins: USB to Dock Connector cable, 10W USB Power Adapter, SIM card ejector tool (3G version only).

**Issues:** No integrated stand, initially little software. Low storage capacity on low-end model. Only more expensive 3G version includes GPS for mapping; no CDMA version.

#### eBay Values:

16GB Wi-Fi (MB292LL/A)	\$216.67
16GB Wi-Fi + 3G (MC349LL/A)	\$235.94
32GB Wi-Fi (MB293LL/A)	\$220.22
32GB Wi-Fi + 3G (MC496LL/A)	\$225.00
64GB Wi-Fi (MB294LL/A)	\$247.28
64GB Wi-Fi + 3G (MC497LL/A)	\$244.48

### iPad 2



3-2011

16/32/64GB - 10 Hr Battery Wi-Fi \$499-\$699 US

16/32/64GB - 10 Hr Battery Wi-Fi + 3G (GSM or CDMA) \$629-\$829 US

(Note: 32/64GB Models were discontinued in 2012, leaving 16GB in iPad lineup.)

**Breakthroughs:** First iPad with cameras and dual core processor. Twice the RAM and up to nine times better graphics performance. Smaller, lighter body. CDMA version and two front colors (white or black) available. Added magnets and iOS support for Smart Cover lids.

Pack-Ins: USB to Dock Connector cable, 10W USB Power Adapter, SIM card ejector tool (GSM 3G version only).

Issues: Poor camera performance. Crazy number of different models due to separate GSM/CDMA versions. Early production flaws cause screen light leakage. Same stand, capacity, and GPS limitations as prior model.

#### eBay Values:

16GB Wi-Fi (MC769LL/A, MC979LL/A) \$311.00 16GB Wi-Fi+3G GSM (MC773LL/A, MC982LL/A) \$353.78 16GB Wi-Fi+3G CDMA (MC755LL/A, MC985LL/A)\$331.84 32GB Wi-Fi (MC770LL/A, MC980LL/A) \$360.55 32GB Wi-Fi+3G GSM (MC774LL/A, MC983LL/A) \$366.75 32GB Wi-Fi+3G CDMA (MC763LL/A, MC986LL/A)\$361.77 64GB Wi-Fi (MC916LL/A, MC981LL/A) \$361.81 64GB Wi-Fi+3G GSM (MC775LL/A, MC984LL/A) \$411.89 64GB Wi-Fi+3G CDMA (MC764LL/A, MC987LL/A)\$383.28

Breakthroughs: First iPad with 2048x1536 "Retina" screen, much-improved color saturation. Cellular versions now

support faster LTE in few countries. First iPad with quad-

core graphics, A5X processor, and Siri support (after iOS

update). Dramatically better 5MP rear camera.

### iPad

(3rd-Generation, aka New iPad, aka iPad with Retina Display)





Pack-Ins: USB to Dock Connector cable, 10W USB Power Adapter, SIM card ejector tool (GSM version only).

Issues: Much longer recharging time than prior models. Tendency to heat up during normal use. Still crazy number of different models due to separate GSM/CDMA versions. Same stand and capacity issues as prior models. Discontinued after only six months for iPad (4th-Gen).

3-2012

eBay Values:

16/32/64GB - 10 Hr Battery Wi-Fi \$499-\$699 US

16/32/64GB - 10 Hr Battery Wi-Fi + 3G (GSM or CDMA) \$629-\$829 US 16GB Wi-Fi (MC705LL/A, MD328LL/A) \$399.44 16GB Wi-Fi+3G GSM (MD366LL/A, MD369LL/A) \$445.27 16GB Wi-Fi+3G CDMA (MC733LL/A, MD363LL/A)\$442.22 32GB Wi-Fi (MC706LL/A, MD329LL/A) \$475.44 32GB Wi-Fi+3G GSM (MD367LL/A, MD370LL/A) \$481.65 32GB Wi-Fi+3G CDMA (MC744LL/A, MD364LL/A)\$489.77 64GB Wi-Fi (MC707LL/A, MD330LL/A) \$522.16 64GB Wi-Fi+3G GSM (MD368LL/A, MD371LL/A) \$547.07 64GB Wi-Fi+3G CDMA (MC756LL/A, MD365LL/A)\$557.10



## IPAD'S INCLUDED APPS

EACH IPAD SHIPS WITH 20 APPLICATIONS, PLUS PICTURE FRAME AND SPOTLIGHT SEARCH.

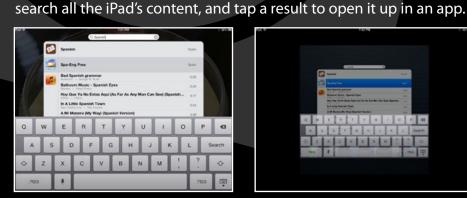


The Lock Screen and Picture Frame. Under most circumstances, the first thing you'll see when turning on an iPad is the Lock Screen on the left, which you "Swipe to Unlock" with a left-toright finger gesture at the bottom of the screen. A small flower button next to it lets you instead activate Picture Frame, which displays one to four photos at a time from whichever portion of the iPad's photo library you choose,

including gentle transition effects.











Home Screen. Straight out of the box, iPads include 20 builtin applications - actually 19, plus a Newsstand folder that holds subscription-based newspaper and magazine apps. You choose background art, and pick up to six docked applications that remain at the bottom of every home screen; you can swipe from right

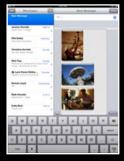
Screen Rotation and Spotlight. iPads operate equally well in portrait (tall screen) or landscape (wide screen) orientation, autorotating whatever you're doing. Shown here is Spotlight, a search tool found by swiping from left to right on the Home Screen. Type to

to left to see extra pages of apps you've downloaded. Apart from the docked apps, which always preserve the same positions regardless of orientation, the others automatically re-align in a 4 x 5 or 5 x 4 grid, depending on the iPad's orientation.





**Calendar.** A day, week and month planner, synced to your computer.



**Messages.** Send and receive text/ photo messages from iOS + OS X.



**Newsstand.** Appbased magazines and newspapers are stored on this shelf.



**Safari.** Browse web pages with zooming, nine page tabs, and easy bookmarks.



**Contacts.** Stores names, numbers, and addresses for people you know.



**Reminders.** Time or location triggers text reminders from this checklist.



**App Store.** Add more apps to your iPad from Apple's exclusive app shop.



**Mail.** Multi-account email with inline photos and attachment viewing.



**Notes.** A simple text editor that stores and syncs typed memos.



**Videos.** Play music videos, movies, TV shows, and shared iTunes videos, too.



FaceTime. Twoperson iPod/ iPhone/iPad/Mac video calls.



**Photos.** Sync from PC/Mac or import from a camera to view and share.



**Maps.** 2-D and 3-D maps, driving directions, and a compass.



**Clock.** See a map of world times, set alarms, and use a stopwatch or timer.



**Camera.** Take photos or videos with either of the iPad's cameras.



**Music.** Play music and audiobooks in an iTunes-like interface.



**iTunes.** Apple's store for music, movies, TV shows, and audiobooks.



**Game Center.** Link up with friends for online gaming and track game stats.



**Photo Booth.**Take still photos with goofy special effects.



**Settings.** Manage the iPad's options and cellular service here.

### SIRI ON IPAD + IPAD MINI.

APPLE'S PERSONAL ASSISTANT SPEAKS, RECOGNIZES YOUR VOICE, AND RUNS SOME APPS.

Siri: Solely For iPad minis and Retina iPads. Missing from the iPad 2, Apple's "intelligent personal assistant" Siri is effectively a hidden 21st app for iPad minis and Retina iPads. Triggered by holding down the Home Button, Siri uses the iPad's microphone to "hear" your natural language requests, figure out what you're saying, and perform tasks. Thanks to highly accurate speech analysis, Siri can also take dictation, with roughly 99% accuracy for English words. Language support is being added on a country-by-country basis, taking accents and local word differences into account.

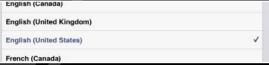
**Deep iOS Integration, Internet Connection Required.** Beyond the tasks Siri performs solely within its pop-up dialog box, Apple lets you use voice commands while inside apps such as Maps. You can ask for driving directions to a specific location, down to a street address or business name, and Siri will find the route and start navigation in Maps. Along the way, you can ask for the "nearest" gas stations or restaurants and get lists - if your iPad has a cellular connection. If not, Siri won't work on the road.

Wolfram Alpha Lookups. Siri has several ways to search for information you request - Google, Wikipedia, and the science/math/political fact databases of Wolfram Alpha. Current gas prices, currency exchange rates, and many calculations can be obtained just by asking, thanks to this feature.



























Weather, Stocks, and Clock. Even though the iPad doesn't have the iPhone/iPod touch Weather or Stocks apps, Siri can display the same information in its window, looking up current information for whatever city or ticker listing you request. Siri can also set alarms an extremely handy feature - which can be viewed in the iPad's new iOS 6 Clock app.







Messaging and Social Networking. Siri's dictation capabilities come in handy for brief hands-free messaging; it can learn your family members ("wife," "sister," "brother," "father," "mother") and transcribe Messages for them. You can also post text updates directly to Facebook or Twitter with your voice, so long as you've set up accounts with those services.







Movies, Sports, and Restaurants. Movie showtimes via Fandango, sporting event scores and start times, and local Yelp restaurant listings are all available in the U.S., with limited support in other countries. Movie listings link to Fandango's standalone app for ticket purchasing, and sports scores are linked to the Yahoo! Sportacular app for details.







Reminders, Events, and Reservations. Siri can parse natural language into "to do" items for the iOS Reminders app, complete with automatic date/time or location alarms, and similarly create Calendar events. It can also go beyond restaurant lookups by making reservations for U.S. meals using OpenTable - without the need for a separate application.







Contacts, Email, and Web Searches. Other Siri features are similar to ones discussed above. You can search your contacts, send full e-mails or take notes, and perform Google web searches directly from Siri. Songs in your Music app can be played, FaceTime calls can be initiated, and other apps can be launched. Expect more features in iOS 7 this year.

## SET UP WITH ICLOUD.

WANT TO USE YOUR IPAD AS A STANDALONE COMPUTER? THANKS TO ICLOUD, YOU CAN.





**PC-Free Setup.** The iPad's PC-free setup feature enables you to configure the tablet and start using it without ever connecting to iTunes. You select a language, specify your country, give permission for the iPad to identify its location, and provide a Wi-Fi network password. After choosing to start fresh or from an iCloud/iTunes backup of an older iPad, you create or specify a free iCloud account, agree to Apple's terms of service, and start using the iPad.









**Siri.** If you're setting up any iPad with Retina Display or the iPad mini, you'll also be given the choice to use Siri, the "intelligent personal assistant" discussed earlier, plus dictation. Choosing "Use Siri" allows your spoken requests to be recorded by the iPad, sent to Apple servers for processing, and cross-referenced with personal data such as your name, your contacts, and the songs in your Music library. You can turn Siri off at any time. The iPad 2 does not include Siri.



**Restore From iCloud.** If you've previously backed up an iPad to iCloud - a process that may take hours the first time - you can use that backup to populate a new iPad with your apps, documents, personal data, photos, and e-mail without going near a computer. You simply choose Restore from iCloud backup during setup, provide the iCloud username and password where the backup is stored, and let everything download. The iPad can be used while it's restoring, too.







Annual iCloud Storage Fees. Apart from the added time required for both backups and restoration, iCloud's major downside is pricing. Every iCloud account includes 5GB of free storage space, but if you're using iCloud for more than two devices, you'll probably need more. Apple sells a 15GB total package for \$20 per year, a 25GB package for \$40 per year, and a 55GB package for \$100 per year. Backing up to iTunes instead will save you money, but you won't be able to restore your iPad from any random place you may be visiting.



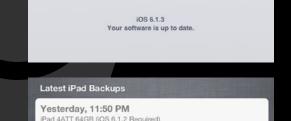


**Software Updates.** In addition to using iTunes for software updates - your only choice if your iPad is full - iOS software can be updated using the iPad itself. You can manually check for new iOS software in the Settings app under General > Software Update, which will either display the latest software version or tell you that your software is up to date. The iPad will also automatically alert you when new software is available, using a small dialog box. On-device software updates tend to take less time than with iTunes, and may only require a small patch to be made to iOS rather than a complete re-installation of the operating system. Your apps, media, documents, and settings will be preserved. Once your iPad is updated, its backups will be tagged with the new software version. iPads running older iOS software may need to be updated to match or exceed the backup's version in order to restore the backed-up content.







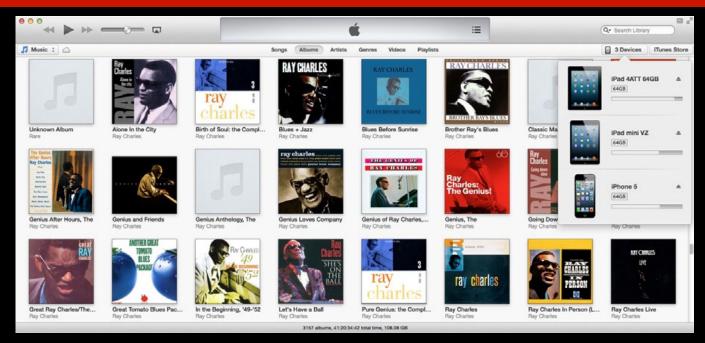


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iPad mini VZ (iPad mini)

### SET UP WITH ITUNES.

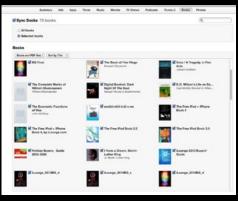
APPLE'S PC/MAC MEDIA MANAGER CAN SYNC YOUR IPAD'S MUSIC, MOVIES, BOOKS + APPS.



**The Main iTunes Window.** iTunes can organize all of your music, audiobooks, videos, and iOS apps. It also holds books and PDFs that work with iOS devices, and helps sync your computer's photos, calendars, contacts, bookmarks, and e-mail accounts quickly to your iPad.







The iPad's Tabs. An iPad connected to your computer appears on the list of Devices - now a button below the right search bar. The Summary tab shows how its storage capacity is used. An Info tab lets you sync calendars, contacts, web browser bookmarks, e-mail accounts, and notes. The Apps tab lets you add, organize, or remove apps downloaded from the App Store, and access files saved by those apps to the iPad. Additional tabs let you select specific songs, movies, TV shows, podcasts, books, and ringtones to transfer from your computer to the iPad. You can also drag items from the main iTunes window individually.



Syncing and Retrieving Photos. Unlike music and videos, your photos aren't actually stored within iTunes - a difference that leads to some challenges. After selecting your iPad from the Devices list and picking the Photos tab, you need to select either a folder or a supported photo managing program containing albums. Then you pick the photos and videos to sync to your iPad. To save photos or videos created on your iPad, use a Mac's iPhoto or Windows' Import Pictures and Videos feature. Photos synced via iTunes must be removed here.

Downloading and Updating Apps. While you can acquire music, videos, PDFs and books from sources other than Apple, the only vendor of official iOS applications is the App Store, built into iTunes. Open the iTunes Store from the left column of the main iTunes window and then look for the App Store tab at the top of the iTunes Store. You'll find over 800,000 applications, many of which are free, with an average selling price of under \$2.

Downloading an app is as simple as clicking the "Free" or price button next to its name, and entering your iTunes Store password. iTunes will either transfer it to your iPad the next time you sync, or wirelessly tell the iPad to download it now. Whenever an app update is released, a number will appear next to Apps in iTunes' Library window or sidebar. Click Apps, hit "Updates Available" at the bottom right of the iTunes window, and then hit Download All Free Updates at the upper right of the window. You can also download and update apps directly from the iPad's App Store; when a number badge sits on the app, it's update time.





Home Sharing. Found under the File menu in iTunes (top of Mac screen, top of PC's iTunes window), Home Sharing lets your iPad and other devices access a computer's videos, music, podcasts, audiobooks, and more - so long as they're on the same home network. Enter your Apple ID and password. iPad's Music and Videos apps will find and let you stream from the computer's Shared Library, with a progress meter as the database loads.

# USING IPAD'S CAMERAS.

CAMERA, FACETIME, PHOTO BOOTH + PHOTOS APPS ARE ALL INCLUDED WITH IPADS.





Camera. The Camera app lets you capture photos and videos using the front and rear iPad cameras; hit the volume up button or on-screen shutter button to snap a shot. Tap the screen to adjust exposure, and pinch to use 5X digital zoom - semi-useful on the iPad and mini, pointless on the iPad 2. A Camera Roll button lets you preview your snaps.





**FaceTime.** Starting with a full-screen view of whatever the front camera is seeing, FaceTime overlays your contact list so you can initiate one-on-one video calls to other iOS devices and Macs. When someone calls, you see an accept/decline option, just like an iPhone call, and hear a ringtone. You can switch to the rear camera and move the preview window.





Photo Booth. Based on the same-named Mac app, Photo Booth is a stripped down version of Camera, but with eight image-distorting filters. Thermal and X-Ray play with colors, and the rest use mirror, lightstream or bulge effects. It snaps still pictures that you can quickly e-mail or delete. As with the Mac app, it's mostly a novelty for kids - but they'll love it.







Photos. This app holds photos synced through iTunes, plus any images made with the iPad itself, stored in iCloud using Photo Stream or Shared Photo Streams, or transferred with SD card/USB camera accessories. You can view pictures as slideshows or zoomable individual images; iPad-recorded videos appear and remain here until you sync them with a computer.

## USING AN IPAD + IBOOKS.

APPLE'S EBOOK/TEXTBOOK/PDF READER IS A FREE DOWNLOAD. HERE'S HOW TO USE IT.



Start With The App Store.
Deliberately separated from iOS for frequent updates, the iBooks app is offered for free download the first time you load the iPad's App Store. Once you grab

it, select the iPad under iTunes' Devices list, then the Books tab. You can choose which books/PDFs to sync.

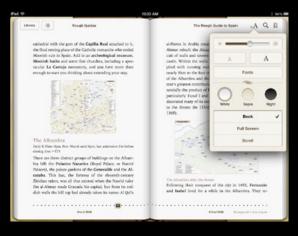


**Build Your Libraries**+ **Shop.** iBooks gives
you separate shelves
for Books and PDFs,
organizing each as you
prefer. Click the top left
Store button to add
Books from Apple's 1.5million-title iBookstore;
you can add new PDFs
via Safari or e-mail.









**Read Away.** Some books are little more than glorified text files, but iBooks glams them up with your choice of fonts, white, sepia, or black pages, and text size options, rotating to fit tall or wide screens. Color books, textbooks, and PDFs display as designed in glorious color, either as one tall, one wide, or two wide pages.







**Neat Tricks.** Tap on an eBook's word and you can look it up in a dictionary, highlight it, search for it elsewhere in the pages, or type a note for later. Full book searching, page bookmarking, and brightness adjustments are all only a tap away; swipe to flip pages.

# PODCASTS + ITUNES U.

FREE AUDIO, VIDEO, AND EDUCATIONAL CONTENT ARE NOW INSIDE STANDALONE APPS.

**Podcasts: A New iOS 6 App.** After launching an iTunes U app for education content primarily podcast-styled videos and audio - Apple removed podcasts from its iOS 6 Music and Videos apps, creating a new free Podcasts app linked to the Podcasts Catalog within iTunes. While the app has been criticized for various limitations, it enables you to search the Catalog, subscribe to autograb new content, and either listen to or watch podcasts, complete with fast/slow speed toggles. Podcasts can maintain a collection on your iPad, or stream from the web.

















iTunes U. Conceptually very similar to the Podcasts app including free audio and video content, also distributed here from a "Catalog" rather than a "Store" - iTunes U uses a bookshelf-style Library (borrowed and recolored from the iOS Newsstand) to organize educational media. Apart from other cosmetic tweaks, iTunes U's audio and video playback features are nearly identical. You can subscribe to courses just like podcasts, and turn auto downloading of course materials on or off. The iTunes U app also manages related notes, PDFs, and web links for courses.

# FIND MY FRIENDS/IPHONE.

LOCATE FRIENDS OR FAMILY MEMBERS, AS WELL AS LOST OR STOLEN IOS DEVICES.

## Find My Friends.

Released in late 2011, this free Appledeveloped app lets you locate your iOS 5 or later device-carrying friends and family members in near realtime. It accomplishes this feat using the iOS location services feature, plus specific opt-in permissions so





each user individually authorizes each follower either for a limited period of time, or an unlimited period of time, with a "Hide from Followers" on/ off switch when privacy is needed. The app can provide address-specific location information for iPhones and GPS-toting iPads, or large-radius approximations for iPods and iPads without GPS.





**Find My iPhone.** Originally debuted in 2010, Find My iPhone received a cosmetic overhaul in 2012, including an oddball font and the replacement of Google's maps with Apple's. But the core functionality remains largely the same: after you log into your iCloud account, you can see the current locations of all of your iOS 4 and later devices, as well as any Mac computers you've registered with iCloud under OS X 10.8 or later - assuming they're turned on, and on a network. While the





app debuted to help users find lost or stolen iPhones, it's also handy if you've misplaced an iPad or iPod touch: one button lets you sound a loud chime to locate a device left around your house, and others let you lock, erase, and/ or send messages to the device, including a contact number.

## BUYING/RENTING MEDIA.

APPLE'S NOT THE ONLY MUSIC, BOOK, OR VIDEO STORE IN TOWN. HERE ARE YOUR OPTIONS.

The iTunes Store and App Store make it easy to buy music, books, magazines, videos, apps, and games directly from your iPad, but other stores may be easier on your pocketbook - and better ways to get access to huge, unlimited access libraries of media content via affordable monthly subscriptions.

#### MP3/AAC Music

There are two ways to buy music for an iPad: visit the iTunes Store, or look elsewhere on the Internet. Apple makes it difficult for competitors to sell music directly through iPad apps, so you'll need to use Safari or a computer to buy songs at other stores. iTunes often charges more - \$1.29/song or \$12/album - relative to Amazon.com, which sells most tracks at \$1 and albums for \$5 to \$10. We'd generally pick Amazon. Their audio quality is virtually the same: Amazon sells tracks as 256Kbps device-agnostic MP3s, while Apple's tracks are 256Kbps AAC files. Buy through iTunes and music downloads directly to the iPad; use Safari to buy at Amazon and you can listen right away with Amazon's free Cloud Player app.

Rentals and subscriptions are another option in some countries. Rhapsody offers unlimited music streaming for a \$10 monthly charge, and acquired rival Napster, which used to do the same thing. Rivals such as Pandora, Slacker Radio and Spotify have made aggressive moves over the past year, as well. Pandora has a free radio station-like app with a \$4 monthly fee for ad-free listening and song skipping. Slacker lets you stream music with ads; for \$10, song choices increase and the ads disappear. Spotify also has a \$10 monthly subscription service with a massive library of music, but a very limited free service and trial period on the iPad.











## **Digital Books + Magazines**

Available solely through the free iOS app iBooks, Apple's iBookstore currently offers over 1.5 million digital books as a rival to Amazon's Kindle and Barnes & Noble's Nook bookstores. Apple's books most commonly sell for \$10 or more, while classics are given away for free. As with iTunes, the iBookstore may be more expensive than rivals, but the purchasing experience is more convenient: you can only buy from Amazon or B&N via their web sites. On the other hand, Amazon's and B&N's books can be read on computers and inexpensive standalone digital book readers; the least expensive iBooks-ready devices are much smaller-screened iPod touches, and there's still no Mac or PC support for iBooks downloads. That said, we still prefer to buy from the iBookstore due to the superior interface iBooks offers for reading. Truly interactive books and magazines are now being offered as standalone apps, not in iBooks; many now offer monthly and annual subscriptions, as well.

#### MP4/H.264 Videos

Apple's iTunes Store is the exclusive direct-to-iPad vendor of videos, including TV shows, music videos, and movies. The quality of these videos is high: iTunes now sells full HD (1080p) TV shows and movies from many major studios, as well as lower-resolution 720p and DVD-quality versions that still look great on older iPads' screens. However, iTunes videos are expensive, with TV shows commonly selling for \$2-\$3 each, and movies for \$10-\$15; high-definition versions typically cost \$15-\$20. Rentals are also an option, for \$1-\$5 per video. While Apple has quality on its side, and iTunes-purchased videos can now be streamed from iTunes in the Cloud for free in some countries, subscription-based alternatives are viable, too.

In the United States, many new TV shows are also available through Hulu Plus, an iOS app with an \$8 monthly all-you-canwatch subscription fee. Hulu also offers a number of decent movies, but it's strongest for U.S. network TV. Competitor Netflix offers a \$8 monthly subscription with unlimited iOS and Apple TV streaming access to a huge collection of second-run videos, including older movies, children's content, documentaries, and past seasons of many popular TV shows.

While Amazon and other companies sell some of the same TV shows and movies as Apple does, the compatibility of the video files varies, and the price differences are rarely as sharp as with music sold through iTunes. Our advice is to choose a video subscription service so you can stream the type of content you prefer, and make selected purchases from iTunes or your favorite DVD vendor, ripping videos using an app such as Handbrake if that's legal in your country.





## iPad Apps + Games

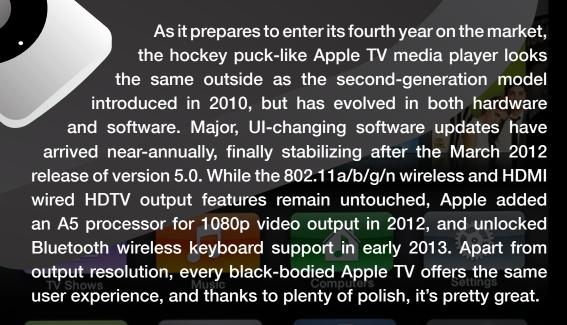
Once again, Apple is the sole official direct-to-iPad provider of applications and games. While there are competitors to its App Store, they are only available to users who 'jailbreak' (hack) their iOS devices, and Apple has effectively frozen app rivals out by denying warranty coverage to jailbreakers. For this reason, we do not recommend jailbreaking.

The App Store is an incredible source of new software for iPad owners: today, there are over 300,000 apps and games with iPad support, the best of which have been featured in iLounge's Guides. Prices range from



free to \$999, with the average game price slightly below \$1, and the average app price under \$2. That said, top games often debut at \$5 or \$10 prices before falling lower. Today, almost all titles are \$5 or less, and around 56% are free, though many developers use in-app purchases to charge you later.

## WHAT'S NEW ON



Since it supports Netflix and Hulu video streaming with dead-simple interfaces, the Apple TV could justify its place in some home entertainment systems without another feature. But iOS users seriously benefit from AirPlay - its ability to stream videos, music, photos, and apps directly from iPads, iPhones, and iPod touches - as well as its streaming of content from iTunes and iCloud. One look at the cost of Apple's \$49 Lightning to HDTV wired adapters makes the \$99 Apple TV seem like a bargain.

Inside, we look at the Apple TV's latest changes, as well as key features that remain the same from past years. Apple TV continues to merit our high recommendation and an A- overall rating.



## **Ć**TV Software 5.2: Bluetooth + Up Next



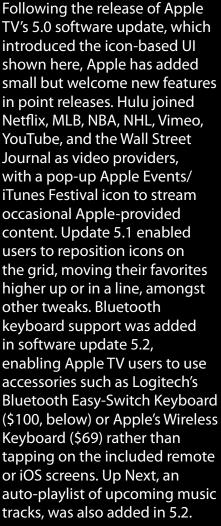


















Main Menu. While televisions only show the top or bottom half of the Apple TV's user interface at a time, Apple's current menu system is its best yet. A top bar is reserved for cover art from recently played and/or promoted content, followed by a row of five icons with text descriptions: Movies, TV Shows, Music, Computers, and Settings. You can also see hints of the next row; press down on the remote and all four rows of icons fill the screen as the cover art bar disappears. Streaming video services, photo services, movie trailers, podcasts, and Internet radio stations are found in the bottom icon rows by default. Holding the select button on the Apple Remote will make the currently highlighted icon jiggle, allowing you to relocate it.





Videos and Music. In addition to the Movies and TV Shows sections of Apple TV, you can stream videos from PC or Mac iTunes libraries using the Computers icon, and access free videos from icons linked to YouTube, Vimeo, the Wall Street Journal, Apple's iTunes Movie Trailers sub-site, and the Podcasts section of the iTunes Store. The Music icon now relies on Apple's optional (\$25/ year) iTunes Match service, automatically streaming whatever you've purchased from iTunes or synced from your computer to iCloud.

The iTunes Store. Links to the iTunes Store are found on the top menu bars of the Movies and TV Shows sections, using rotating banners, cover art, and search features to locate videos to buy or rent. In many



countries, previously-purchased iTunes videos are found under the Purchased menu, and stream directly from Apple's servers to the Apple TV for free - a great reason to buy from the iTunes Store.



Subscription Video. Netflix (\$8/mo.) includes past seasons of hundreds of shows and plenty of movies, all available for unlimited streaming. Hulu Plus (\$8/mo.) is focused on current TV shows, and includes ads. MLB, NBA, and NHL season passes let fans of baseball, basketball, and hockey watch live and recent games, along with tickers.



Photos + More. Apple TV streams your photos (and friends' shared photos) from iCloud's Photo Stream and Flickr, alongside a built-in collection of gorgeous National Geographic nature and animal images. Slideshow features continue to evolve with each release of the Apple TV software, adding new ways of animating and framing still photos in slick screensavers.







AirPlay + AirPlay Mirroring. Apple's iOS streaming features are arguably the best reasons to purchase the \$99 black box as an iPad, iPhone, or iPod touch accessory. AirPlay enables iOS devices (and iTunes) to stream videos, music, and photos to the Apple TV, so you can instantly see small screen content on your big HDTV. Current-generation iPads, iPhones, and iPods support AirPlay Mirroring, which lets your HDTV show their menus, apps, and games as well, including FaceTime. As shown in the images here, AirPlay Mirroring includes substantial black letterboxes when you share content from an iPad, vertical-orientation iPod, or vertical-orientation iPhone, but the 16:9 screens of landscape-orientation iPhones and iPods can nearly fill your HDTV with video - assuming the apps can keep up.











Remote: Apple's Free iOS Wi-Fi Controller. If the Infrared Apple Remote bundled with the Apple TV isn't capable enough for your needs, the free Remote app will be an improvement. Using surprisingly similar interfaces for the iPad and iPhone/iPod touch, Remote lets you swipe and tap your way through any Apple TV's menus; it also provides iTunes-style access to your computers' music and video libraries, so you can start AirPlay-based streaming to the Apple TV from afar. Remote relies on a Wi-Fi network, and the gesture controls aren't as responsive as they could be, but its on-screen keyboard can be a lifesaver for searches and passwords. That said, if you have a spare Bluetooth keyboard, the latest Apple TV software makes it easier to use for typing, and its arrow keys can be used for precise menu navigation as well.

# APPLE TV ACCESSORIES

THE FEW, THE BRAVE, THE STANDOUTS: THEY'RE MADE SPECIFICALLY FOR APPLE TV.

Starved for accessories since the original model's 2007 release, the Apple TV just became a little more expandable - its Bluetooth functionality was unlocked solely for wireless keyboards, easing searching and menu navigation. Here are some of the recent add-ons we've tested and found worthwhile.



### Logitech Bluetooth Easy-Switch Keyboard

More expensive than Apple's Wireless Keyboard but improved in several key ways, the Bluetooth Easy-Switch Keyboard lets you instantly toggle between typing on three different devices - say, your Apple TV, iPad, and computer. With great, backlit keys and a rechargeable battery built in, this keyboard still manages to be thinner than Apple's, a boon if you want to toss it in a bag for travel typing on an iOS device. It even includes iOS and Mac-ready function keys, plus arrow keys that navigate the Apple TV's signored it.

# Logitech Harmony Touch Universal Remote

Expensive and fairly quick to drain its rechargeable battery, Harmony Touch is nonetheless cool: the 2.4" color touchscreen and customizable buttons build on all of the lessons Logitech

learned from its high-end Harmony models in a smaller form factor. It's very easy to program for use with your Apple TV, HDTV, and home AV setup.



.\$250



## Newer Technology **NuStand Alloy**

Made from sturdy black aluminum with rubber padding, this stand holds the Apple TV upright if you're crunched for space or just want to display the unit on its side.



## Apple **HDMI Cable**

Monoprice.com sells Apple TV-ready HDMI cables for \$2 a piece, and they'll work perfectly with the Apple TV. Apple's all-black solution is overpriced, but minimalist and nicerlooking, if you care.



#### FireCore LLC aTV Flash (black) 2.2

If the Apple TV's current features aren't enough for your needs, this bundle of unauthorized but impressive software hacks will impress you. Sold by FireCore as a \$30 download for Macs or PCs, aTV Flash (black) lets you add a collection of free third-party apps to the second-generation Apple TV after a three-step installation process, requiring you to supply a Micro-USB cable. Though installation isn't painless - Apple blocks prior hacks with every software update - or supported by the third-gen Apple TV, aTV Flash adds a wide variety of new video options, the ability to access media on wireless hard drives, and many other cool tricks, generally within user interfaces that will daunt mainstream users but impress power users.





Not Designed For Novices. aTV Flash (black) installation requires three steps. First, free PC/Mac software called Seas0nPass requires you to connect the Apple TV to a computer, and briefly use the Apple Remote. Second, you reconnect your Apple TV to wall power, and third, run the aTV Flash on your computer to wirelessly update the Apple TV's files. At that point, you can add new apps directly from the Apple TV interface.



#### More Videos and Streaming.

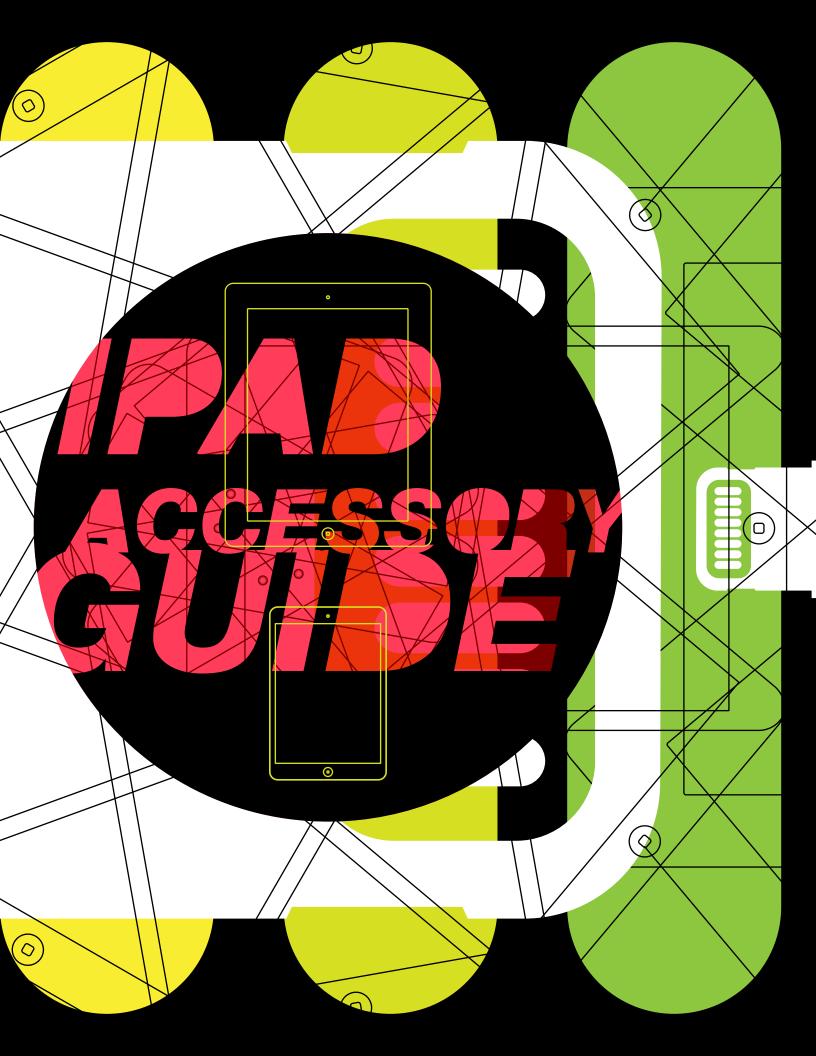
Two apps expand a hacked Apple TV's ability to play content from other sources. Media lets you browse wireless hard disks on your network, while XBMC adds streaming from dozens of web sites, including Funny or Die and the Food Network, plus support for extra video formats, "Pseudo TV" channels, and much more.



Web Browsing. Based upon WebKit - the engine in many leading web browsers - the aTV Flash-ready Browser app is extremely slow but fairly reliable at accurately displaying the content of web sites. Lacking caching support and other things we wouldn't call "frills," Browser nonetheless lets you consult the web from your TV on occasion - likely a rare occasion.



Widgets + Hacker Tools. Unlike Apple's App Store, which is dominated by mainstream-ready software, most Apple TV apps are tools that only hackers will want to play with. Easier widgetlike apps for Last.fm music streaming, Weather, RSS Feed reading, and Facebook media browsing are available and free, but not always optimized for use on a television set.



## Read This Before You Shop!

Buying an iPad accessory isn't difficult - Apple and other merchants tend to make that part pretty easy. Instead, it's the post-purchase questions that tend to bother people. "Will this work with my next Apple device?" "Why doesn't this do what the box said it would do?" "Did I spend too much money?" iLounge readers have fewer of these questions, because we always try to answer them in our reviews and Buyers' Guides. Our aim is to help you make educated purchasing decisions so that you won't be surprised or disappointed later.

Last year's new iPads introduced some challenges, such as beautiful Retina screens that were hard to protect with film, and Lightning connectors that wouldn't work perfectly with old accessories. But if you read this section of last year's Guide, you would have known exactly how to prepare. This year, we expect two new wrinkles: a full-sized iPad redesign that will require new cases, and the addition of Retina screens to iPad minis, complicating screen protection. These aren't huge problems - they're actually both steps in the right direction - but they may nonetheless impact your purchasing choices between now and their release.

In the following pages, you'll find iLounge's top accessory choices across today's iPad models, with heavier emphasis on Lightning add-ons and iPad mini releases because they're becoming so numerous. iPad 2 and Retina iPad accessories are in here, too, though we'd strongly suggest looking at last year's New iPad Buyers' Guide for many additional great full-sized iPad cases and Dock Connector accessories that aren't repeated here.

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# A BRIEF OVERVIEW.

Every iPad ships with the same accessories - a USB cable and a wall charger - as well as known limitations, including a fragile body, the lack of a stand, and a need for extra hardware to achieve great sound, keyboard input, or big screen video output. You can decide what you need; our job is to show you what's best across various categories.

#### What Are Today's Key Categories of iPad Accessories?

While there are other types of accessories, the big ones are cases, stands, car accessories, speakers, headphones, keyboards, video and camera adapters, spare batteries, wall chargers, and styluses. There are also growing markets for music accessories, computer-style peripherals, toys and gaming accessories, health accessories such as scales and heart rate monitors, and wireless video cameras. Full reviews of all of these accessories - and more - can be found on the iLounge.com web site.

### Why Do Cases and Protective Film Matter?

Made from glass and metal, iPads are susceptible to damage that can be prevented with the right case and/or film. We've seen chipped and dented iPad metal backs, scratched, cracked, and shattered screens, and units that have just stopped working; some were abused, some weren't. If keeping your iPad looking great and working perfectly aren't incentives on their own, consider the impact on resale value: pristine iPads fetch more when you're ready to upgrade to a new model.



### **How Does iLounge Choose Top Cases, Other Accessories + Applications?**

Literally every product selected by iLounge for inclusion in our Buyers' Guides is chosen on pure merit, without any concern for advertising, relationships with developers, or other factors unrelated to the strength of the products themselves. We do not have business ties with any of the companies we cover, and our editors derive no compensation from our coverage of specific products. Our belief is that different products may be right for different users and budgets, so we always attempt to consider options with distinctive features at various price levels.

To date, iLounge has reviewed thousands of iPad, iPhone, and iPod accessories, as well as thousands of applications from small and large developers alike. We are proud of our continued commitment to objectively and honestly assessing everything we cover, and full reviews for most products in this Guide can be found on the iLounge.com web site. The products we have covered include a mix of items selected and purchased by iLounge, and ones submitted to us for possible editorial consideration by companies from all over the world. Items received and no longer used for follow-up coverage or comparisons are donated annually to worthy local charities.

#### What Are The "Sweet Spot" Prices For The Most Common iPad Accessories?

These general guidelines can help you budget for quality options; some top picks are more or less.



### Cases \$35 for iPad mini, \$40 for larger iPads.



**Headphones** \$100: Good, \$200: Great, \$500: Wicked.



\$100 is the median price for iPad spares.



**Speakers**Top options range from \$100 to \$200.

## What Other Types Of iPad Accessories Should I Consider?

The \$99 Apple TV is great - the best way to play any iPad's video, audio, and photo content on high-definition television sets. Bluetooth wireless keyboards and speakers continue to grow in popularity, particularly for iPad users. Owners of power-hungry Retina iPads should consider an extra charger for travel, while iPad 2 and iPad mini owners can refuel their devices with spare battery packs. Finally, new wireless styluses are now becoming compelling for writing and drawing.



#### Stands + Docks

Whether you're on the road, at home, or in an office, your iPad isn't going to stand up on its own. A simple stand can make watching or typing easier; a dock can recharge it at the same time as it's standing up.



### **Car Accessories**

Full in-car iPad integration remains rare. Accessories that charge and mount iPads in either the front or back of a vehicle are now common; ideally, you can easily pull the iPad out and use it indoors.



## **Input Add-Ons**

From keyboards to styluses and paint brushes, there are better ways to create documents, notes, and drawings on an iPad than your finger. Most of these add-ons are inexpensive and improve your input.



## **<b>≰**TV or Adapter

The \$99 Apple TV turns any iPad into a wireless video/music/photo streamer for your HDTV. There are wired alternatives, but they're less convenient and seriously overpriced by comparison.

## What's Being Left Out Of The 2013 iPad + iPad mini Buyers' Guide?

Having previously covered accessories for the first iPad, iPad 2, and third-generation iPad in prior Guides, we've focused on new products for the fourth-generation iPad and iPad mini this time. Due to their nearly identical body designs, most cases for the fourth-gen iPad work with the iPad 2 and third-gen iPad as well. iPad 2-ready Dock Connector accessories are covered in our earlier Guides.

# LIGHTNING ADAPTERS.

We anticipated Apple's switch to a new connector standard more than a year ago, but no one expected that Lightning would lead to even more expensive accessories. These Apple Lightning adapters are uniformly overpriced, but they currently have little competition, and may be your only options for what they do.



# Apple Lightning to SD Card Camera Reader + USB Camera Adapter

Now sold separately - each for \$29 rather than the \$29 total iPad Camera Connection Kit for Dock Connector iPads - these two Lightning accessories let iPads and iPad minis read SD cards or connect to cameras with self-supplied USB cables. The cabled plugs are highly case-compatible, and transfer speeds are surprisingly quick.





### Apple Lightning to 30-Pin Adapters

If you absolutely need to use a prior-generation Dock Connector accessory with your new iPad or iPad mini, Apple's small \$29 Lighting to 30-Pin Adapter will probably do the

trick. Though it's incompatible with iPad mini cases, it's small and works with most docks, speakers, and cables. The longer 0.2-meter version costs \$39; it's mini case-compatible but fits oddly in docks.





### Apple **Digital AV Adapter**

You supply the HDMI (A/V) and Lightning (power) cables; this adapter will output up to 1080p videos and mirror the screen of your Lightning iPad. The price is so high that an Apple TV is a better (\$99) option.



## Apple **VGA Adapter**

Primarily for educators with old VGA monitors or projectors, this expensive adapter features video output and a Lightning power input - for a self-supplied cable and charger. Some iTunes videos won't play through it. \$49

## UNAPPROVED OPTIONS.

Most of the unauthorized Lightning accessories we've seen aren't even worth considering. But these accessories demonstrate what can be had for lower prices than Apple-licensed versions - each uses a Lightning connector that Apple might or might not lock out in subsequent releases of its iPad, iPhone, and iPod operating systems.



#### i18 Tech iPowerStation

Built solely to charge iOS devices from a wall outlet while exposing the screen, the i18-A-5L works with new iPods, iPhones, and the iPad mini, and features a case-compatible Lightning plug. It only charges iPad minis at half speed, and is far less than ideal for the fourth-generation iPad, but it's small and can double as a desktop stand.



## Photojojo Lightning SD Card Reader

While Apple could stop it from working with new iOS releases, this \$20 add-on works - for now - as a less expensive combination of the two Lightning camera accessories Apple sells for \$58 total. It adds a Micro-SD card slot to an SD slot and USB port, functioning as a means to import photographs from digital cameras at a fairly brisk pace, albeit with some finicky behaviors. You can also use it as an adapter for some USB music accessories.

## Concord Keystone Booster 2.0i Portable Battery

Designed for use with iPhones and iPods rather than iPads, this 2000mAh battery pack uniquely ships with a USB cable that converts with included adapters to work with Lightning or Dock Connector iPads. The Lightning to Micro-USB adapter is clearly unauthorized, using a red and gold connector rather than Apple's silver, white, and gold version, but it does work exactly as expected for the time being. While the capacity and sub-1-Amp recharging speeds make it a weak choice for use with full-sized iPads, it can serve as a partial refueler for the iPad mini, and provide a 95% recharge for an iPhone 5 if you have one. Booster 2.0i has a unique microsuction panel that enables it to physically attach to the back of a device or flat-backed case while in use, as well as a small integrated stand, folding down for bag storage.



# CHARGING + BATTERIES.

Today's iPads vary considerably in battery size: the iPad mini is at 4440mAh, the iPad 2 at 6930mAh, and Retina iPads have gigantic 11560mAh cells. Each iPad requires a different level of power (1-Amp/2.1-Amp/2.4-Amp) to recharge in 4-5 hours, which means that batteries and chargers perform quite differently based on the iPad model.

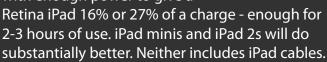


### uNu Enerpak Tube + Vault

Sold without iPad cables, the one-port/1-Amp/5000mAh Enerpak Tube (\$60) and two-port/2.1-Amp/11000mAh Enerpak Vault (\$80) can respectively deliver roughly 70% recharges for the iPad mini and Retina iPads. Both batteries are bundled with nothing more than a Micro-USB cable encased in glossy black and metallic silver plastic; Vault can charge two USB devices at once.

# Monoprice 3000/5000 mAh Battery Packs

Incredibly inexpensive given their capacities, the 3000mAh (\$23) and 5000mAh (\$29) cells each have one 2.1-Amp USB port and one 1-Amp USB port, with enough power to give a









#### Eton BoostTurbine2000

Solely for emergency use, this aluminum-wrapped 2000mAh battery has a built-in hand crank, enabling you to slowly generate enough juice on your own for a little spare power. It doesn't include an iPad cable.



#### Luxa2 P1

With enough power to fully refuel the iPad mini, hit 85% for an iPad 2, or 47% for a Retina iPad, the 7000mAh P1 is only a 1-Amp battery, but does have two USB ports, and ships with a bag. Its cable is for old iPads.



## Griffin 3-Meter USB to Lightning Cable

At 9.8 feet between sides, this cable runs a thick gauge, black-jacketed wire between its USB and tapered Lightning plugs. If you need to connect your iPad to a computer or wall at a long distance, look here first.



# Apple 12W USB Power Adapter

Apple's official adapter is the fastest iPad charger, now with 2.4-Amp power for full-speed Retina iPad recharging in roughly 5 hours, and 4-hour speeds for other iPads. It doesn't include a cable.



Only 4.5" long when retracted and 42" when fully extended, strikeLine Pro is currently the most compact Lightning to USB cable on the market; Apple's \$19 0.5-meter Lightning to USB Cable is over



three times longer. Designed for portability and for use in a car, it has a spring-loaded hard plastic mechanism in the center, and comes in either white or black.



#### Just Mobile Gum Max Duo

Filled with a big 11,200mAh battery - enough to restore a dead Retina iPad to the 75% level - Gum Max Duo sports twin USB ports for simultaneous iPad and iPhone/iPod charging. Although it leaves you to supply Lightning or Dock Connector cables, it comes with a Micro-USB cable and one protective rubber carrying sleeve.



### Monoprice 3ft Lightning to USB Cable

Offered in black or white, this is the least expensive Appleauthorized Lightning sync and charge cable. Selling for \$7 less than Apple's standard Lightning to USB Cable, it uses glossy plastic Lightning and USB plug sheathes that are a little larger than Apple's thin plugs, and runs 42" in length with decent build quality.

# IN-CAR ACCESSORIES.

Just like at-home or battery charging, your in-car iPad experience will vary based on the iPad model you're using. Very few car chargers support full-speed charging of Retina iPads, but an increasing number include Lightning cables. You'll still have to self-supply an audio cable and iPad mount if you need them.



### Odoyo 2.4A Micro Car Charger with Lightning

Apple quietly bumped the peak charging abilities of Retina iPads from 2.1- to 2.4-Amps in late 2012, shaving an hour or so off of their extended refueling times - if you have a 2.4-Amp charger. So far, very few of these high-speed chargers are actually available, and Odoyo's Micro Car Charger with Lightning was the first to hit the market. Plain on the outside, this black charger has a "captured" (non-detachable) four-foot Lightning cable built in, and a blue power indicator on its charging bulb. Compatible with every Lightning iPad, iPhone, and iPod on the market, it will recharge any one at its fastest speed, safely.

# Just Mobile **Highway** + **Highway Pro**

Still the coolest-looking car chargers on the market, Just Mobile's \$30 Highway and \$35 Highway Pro feature a silver or black diamond tread aluminum cap, plus USB



ports: the Pro model has one 2.1-Amp and one 1-Amp USB port, the standard Highway has a single 2.1-Amp port. Neither includes Lightning cables, for now.



Appealing due to its low price, Monoprice's new charger features a captured Lightning cable and only 1-Amp speeds fine for the iPad mini, but ideal for recent iPhones or iPods.



# Belkin **Two-Port Car Charger with Lightning**

Bundled with one detachable four-foot Lightning cable, this charger has two 2.1-Amp USB ports, enabling you to use a single car charging outlet to refuel two iPads at once.



# PureGear Car Charger with USB Port (1A)

Like Incipio's Micro Car Charger, the appeal of this 1-Amp charger with a captured Lightning cable isn't in fast recharging speeds, but rather value for the dollar. The \$30 accessory has a long coiled cable built in, capable of stretching from the front seat of a car to the back, as well as a USB port that lets you connect a second device for simultaneous recharging. Unlike Belkin's Two-Port Car Charger, each cable connected here is limited to 1-Amp speed, but for iPad mini, iPhone or iPod users, . \$30 that's enough power.



#### Scosche reVolt C2

No frills. Just a simple black car charger in a shape that's been described by some manufacturers as a "shotgun shell." The appeal of Scosche's reVolt C2 is in its tiny size - capable of fitting in any bag,



with almost zero profile once inside a car's power outlet - and its output. Each of the two USB ports puts out 2.1-Amp power, like Belkin's Two-Port Car Charger but in a much smaller package. You'll need to supply both of the cables yourself; if you have them already, you're set. . \$25

#### Griffin Cinema Seat

Sold in iPad (\$19) and iPad mini (\$40) versions, this leatherette tablet holder uses Velcro to attach to the back of a car's headrest, mounting the iPad for passive rear passenger video viewing



during drives. There's no good reason for the iPad mini version to cost so much, but it works the same.



## Macally **Bubjack**

None of the iPad car chargers currently on the market has audio output built in - a major, disappointing change from Dock Connector chargers sold in the past. If



you need audio out, this attractive unit holds flat cables with slim plugs inside a hard plastic pouch.





### Griffin PowerJolt SE with Lightning Connector

A good compromise for iPad users seeking a middle ground on power and pricing, the latest PowerJolt SE features a captured Lightning cable and 2.1-Amp power. Built with Griffin's typically good plastics and design, the charger's coiled cable expands to 48" in length or retracts to 23.5" to reduce tangling. A solid option.

# STANDS AND MOUNTS.

Even before the release of iPads with Lightning connectors, there were more stands - frames to hold iPads upright - than docks, which are stands with electronic hardware built in. So far, even Apple hasn't released Lightning docks for the new iPads, so these stands and mounts are the best options we've seen.



## Belkin FlipBlade Adjust

Still the best overall iPad stand around, FlipBlade Adjust is a highly portable, travel-folding stand that can ratchet through four different typing and video angles. Most of the stand is made from durable, solid-feeling aluminum, with a plastic side button to adjust the angle, and rubber padding for the iPad. While slightly larger than Rain Design's iSlider, FlipBlade Adjust is still one of the most compact stands on the market, at a price point that similarly metallic rivals have struggled to match - often with worse designs. Case and cable compatibility are two other big benefits.

# The Joy Factory **Tournez Clamp + C-Clamp**

Carbon fiber pipes, ball joints, and a magnetically attached iPad shell enable the 21" Clamp (\$170) and 6.5" C-Clamp (\$100) to suspend and adjust a full-sized iPad



above a flat or round surface. While both come with screwtension clamps that attach to desks, the smaller C-Clamp has two c-shaped metal pieces inside, enabling it to grasp round tubes or other shapes.



### Rain Design iSlider

Smaller than FlipBlade Adjust and packaged with a carrying case, iSlider also offers a wider range of viewing angles: 18, thanks to a slide-out plastic iPad holder. At 5.4" by 3" by 0.85", it can fit in any bag, easily.



## Speck iGuy for iPad mini

Also available for full-sized iPads (\$40), iGuy is a colorful foam stand with grippable arms and solid legs that enable the iPad mini to stand upright. Foam is thick on all sides, leaving only the iPad screen bare.



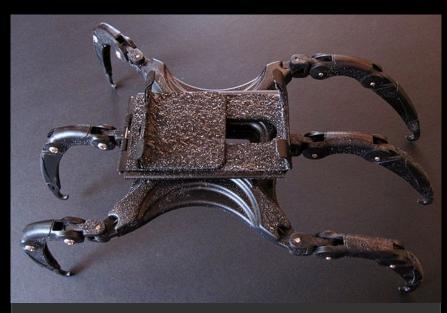
#### Ergotech VersaStand for iPad 2/3rd-/4th-Gen

Bundling an adjustable metal stand with a hard plastic shell for current full-sized iPads, VersaStand does a couple of things that some less expensive rivals don't: it suspends your iPad 3-5" above a flat surface, and adds some (but not complete) protection for its body. Sturdy ring and joint designs let your iPad rotate and tilt fully.

### Apple iPad + iPad mini Smart Covers

Though both the iPad mini (\$39) and full-sized iPad (\$39-\$69) versions failed to merit our high or general recommendations due to their ridiculous prices, they're nonetheless noteworthy enough to mention - though not endorse - in this Guide. Each version consists of a magnetic spine that attaches to the iPad's left side, plus several flat bars that serve as a screen cover when not in use as a stand. Using additional magnets, the Smart Cover forms a triangular tube that can hold the landscape-orientation iPad in one of two positions: upright on an angle for video viewing and/or FaceTime, or closer to a flat surface on an angle for typing. Both \$39 versions are colored plastic on the front and microfiber inside, while the \$69 full-sized iPad version is made with leather. Each is nice, but modestly case-compatible, and far too expensive.





#### Lethal Protection Life-Phorm

Deliberately alien and wholly unique, the Life-Phorm stand has a clamp holder that grips anything from an iPad or iPad mini to an iPhone or camera. It uses adjustable, hook-ended legs that can be attached to many different surfaces, but do best on a flat surface.



## Bluelounge Mika

Ultra-simple and quite Apple-like in looks, Mika is a single curved piece of silver aluminum with black plastic on its top, bottom, and front edge to prevent scratching and slipping. The idea is to support portrait or landscape video viewing positions; it can also hold a closed MacBook on a desk.

## IPAD-READY SPEAKERS.

Two types of wireless speakers - Bluetooth and AirPlay - work with all current iPads, the latter far fewer in number and most likely a dying breed at this point. Very few currently available speakers have Lightning connectors, and only a couple are iPad-compatible. We look at the best of today's options below.

## **BLUETOOTH SPEAKERS**



#### Soundfreaq Sound Platform 2 SFQ-06

Sold solo for \$150 or two for \$250, the second-generation Sound Platform offers a breakthrough Bluetooth feature: the ability to wirelessly stream an iPad's music to two units at the same time, synchronized in both time and volume. While each unit has more than enough power and clarity to fill a small room with stereo music, the two units become proper and even more powerful left- or right-channel speakers. Sound Platform 2 has twin 1-Amp USB ports for charging and a pop-out tray to hold your device, plus an integrated radio and included wall adapter.

## Geneva Lab WorldRadio

Sold in black, silver, or red, this metal-bodied radio is a pure fashion accessory, sold on the strength of its clean design. Meant to evoke classic global tuning radios, it



features an FM tuner, digital alarm clock, and single but large 3" driver, relying on an iOS device with Bluetooth to stream Internet radio to it. A handle at the top lets you carry it anywhere for five hours of play time.



### G-Project **G-Boom**

Far cleaner and more powerful sonically than could ever have been expected for its price, this four-driver wireless boombox is fully ruggedized, with a sturdy top handle and strap mount bars on the sides.



# Definitive Technology **Sound Cylinder**

So handsomely built that you'll want to forgive the high price, Sound Cylinder combines a stereo speaker with an iPad stand. A 10-hour battery, bag, and charger are included.

#### JBL OnBeat Venue LT

Quickly recycling an OnBeat Venue design that originally debuted for Dock Connector iPads, iPhones, and iPods, JBL rolled out this LT version with a Lightning connector at the same price. Still armed with Bluetooth streaming functionality for times when you don't want to charge your device, OnBeat Venue LT uses four total drivers to provide generally solid and atypically loud sound for the price. The dock is best suited to bare iPad minis and smaller devices.





#### Yantouch Ice Diamond

Updated from 2012's Black
Diamond 3, Ice Diamond is
Yantouch's latest Bluetooth
speaker and LED lamp. Now
packed with a 4-5-hour battery
and enhanced stereo speakers,
this faceted globe shifts gently
through eight primary colors,
serves as a white reading light,
or syncs rainbow light shows to
music. An app includes control
and social audio
recording features.



## Logitech **UE Boombox** + **Wireless Boombox**

Building on its earlier, amazing \$150 Wireless Boombox, Logitech released the \$250 UE Boombox as a stylish sequel, featuring an uncluttered silver and blue design with a prominent aluminum top handle. Still boasting eight speakers inside, the UE Boombox now has enhanced bass and a six-hour rechargeable battery.



### G-Project **G-Grip** + **G-Pop**

Mounting an assault on the overpriced Jawbone Jambox, the G-Grip appeared late in 2012 as a crushproof \$70 alternative with Bluetooth wireless, highly similar audio quality, and an included wrist strap. Early this year, it launched the grenade-shaped \$40 G-Pop as a single-driver alternative. Both are impressive budget speakers.

## **AIRPLAY SPEAKERS**



### Bowers & Wilkins A7 Speaker with AirPlay

Apple's AirPlay wireless audio streaming standard hasn't taken off due to high speaker prices and audio glitches, but several companies have released premium systems that show off AirPlay's lossless capabilities. A7 is effectively a repackaging of Bowers & Wilkins' \$600 Zeppelin Air in a new and less controversial enclosure - a much larger, unified version of its earlier MM-1 computer speakers. The biggest sonic tweak to Zeppelin is an upgrade of the prior 5" bass driver to a 6" version that reaches lower lows, while the narrower 14.2"-wide frame has slightly less stereo separation, and no dock for Apple devices; you can self-supply cables if you need wired connectivity.



# AQ Audio **AQ SmartSpeaker**

Affordable by AirPlay speaker standards, AQ SmartSpeaker is the only monaural AirPlay speaker we've tested. Each 9.5" tall speaker has a 10-hour battery for portable use, and can serve as a left or right channel speaker for simultaneous iTunes-AirPlay streaming. AQ is offered in two- or four-speaker sets at slight discounts, though prices went up after introduction.

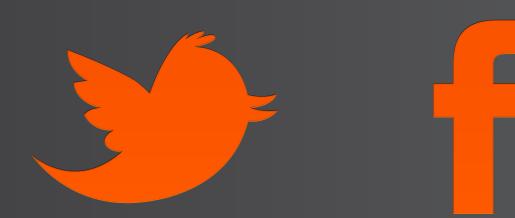


### **NOCS NS2 Air Monitors**

Few AirPlay speakers have been released in other than "all in one" form, which makes the NS2 Air Monitors stand out from the pack. Seemingly AirPlaymodified versions of an earlier pair of \$200 desktop computer speakers, the NS2s place four total drivers inside wooden enclosures, coated in your choice of multiple soft touch rubber colors. Their single most impressive feature is stereo separation: included cables let you move the speakers 4 or 10 feet apart, creating a huge, powerful field.



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## HEADPHONES.

Nearly a decade of evolution nearly came to a stop when celebrity endorsements and marketing stole the focus from sound quality in the headphone industry: overpriced Beats headphones became status symbols despite underwhelming sound. Here are some top recent releases that deliver better audio for the dollar.

### What Do These Graphics Mean? →

Tiny speakers inside headphones work together to reproduce sound accurately or with a bias. Most do well at the midrange, where most instruments and voices sit, represented by the full or partial center line on this meter. The left shows their prowess with treble (highs), and the right with bass (lows).

### Apple Remotes + Microphones

All but two of these models include a threebutton remote and microphone unit. Most are Apple-made with different housings; the ATH-ANC33iS + K391 NC have one-button remotes.



## Odoyo **Waterproof Sport**

Inexpensive but dustproof, freezeproof and waterproof assuming you supply

earbuds use three sizes of included silicone tips to channel the audio from 10mm drivers into your canals. Three colors are available.











. \$36



## Audio-Technica ATH-ANC33iS

A bargain for active noise cancellation, these midrangefocused, rubbertipped earbuds remove 90% of ambient noise with a 60 hour AAA . \$80 battery.



### **Jaybird Gear** BlueBuds X

The smallest wireless canalphones we've seen, BlueBuds X run for eight hours per charge, are sweatproof for workouts, and deliver clear highs, mids, and

mid-bass.





## **AKG K391 NC**

Better than the ATH-ANC33iS in treble and features but also more expensive, K391 NC uses fancy metal earbuds and a USB-recharged, 40-hour active noise canceler.

A bag is included.





## Logitech UE **Ultimate Ears 900**

A seguel to UE's triple.fi 10 Pro, the UE900 now packs four drivers per ear into much smaller canalphones. Detail, sonic balance, and dvnamic range are .\$400 all great.

# Clarity you've never seen.



# HOW TO CHOOSE A CASE.

iLounge has reviewed more iPad (and Apple device) cases than any other publication in the world, and this Guide shows you the best iPad mini and recent full-sized iPad cases on the market. Since there's more than one "great" type of case design, and many new cases debuting all the time, here's how you can assess a model we haven't covered.

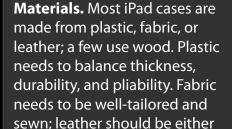
**Design.** The five primary iPad case types are playthrough, folio-style, rear shell, bag, and sleeve. All five types, plus keyboard cases and film, are discussed in this section.



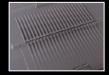








real or a nice, resilient synthetic.















Nearly every iPad mini case is extremely similar to a full-sized iPad predecessor, if one exists. Apart from size, the locations of speaker/Dock Connector/Lightning port holes, and pricing, you'll find few changes.

Face + Screen. iPad cases take four approaches to face protection: no screen coverage, a flap over the screen, bag/ sleeve-style opaque coverage, or clear film coverage. Film is rarely included, and typically costs \$18-\$25 at top vendors. Anti-glare, anti-smudge film is awesome for iPad 2s and minis, but clouds Retina iPad screens.





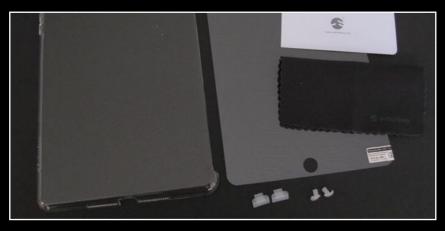
Back + Bottom. Virtually every case covers most of an iPad's back and bottom, with the exception of the rear camera, the Lightning or Dock Connector port, and the speaker holes. Some cases - most commonly cheap ones - have Apple logo holes, which often look terrible and might lead to scratches. Many top developers now build stands into case backs or front flaps, eliminating the need for separate stand accessories.



**Sides.** It's possible to cover virtually all of an iPad's sides. Some cases leave the volume buttons and side switch exposed; the best find ways to cover the buttons, though the switch is typically bare. Very few have holes for the SIM card slots on cellular iPads or minis.



**Top.** While the best iPad cases cover most of the tablet's top, including the Sleep/Wake Button, separate holes are needed for the headphone port and mic. Less impressive cases leave a huge swath open.



Pack-Ins. Some companies include separate video stands, screen film, and port covers with their iPad cases. Others build these features into the cases. Poor, non-detachable film can be an issue if it distorts the clarity of Retina iPad screens. Our advice: look for a case with great overall value.

## PLAYTHROUGH CASES.

The most common iPhone/iPod case style is a distant second in number on the iPad, but still great: these cases aim to cover as much of the tablet's body as possible while leaving the screen usable at all times, possibly covered by film. Heavy-duty ruggedized designs are also part of the playthrough category.



## Speck CandyShell + CandyShell Grip

Sold in two versions and multiple colors at the same price, Speck's signature cases are as excellent on the iPad mini as they've been on iPhones, iPod touches, and earlier iPads. Made with a combination of rubber and glossy hard plastic, each provides excellent anti-drop and anti-scratch protection for your tablet; Grip adds thin rubberized hand grips. Neither includes screen film, their only issue.

#### Marware **Swurve**

Made primarily for kids, this thick case uses a lightweight but stiff foam-like material to form strong physical bumpers all around the edges of an iPad mini, with particularly pronounced corners. Likely



to survive even a temper tantrum, Swurve provides access to all of the mini's ports and controls save the side switch, leaving the screen open below a thick lip. \$30



## Cygnett Vector

Sold in red or black, this stylish, inexpensive mini case uses a broken line pattern to glam up a very protective soft plastic case. Though it doesn't include screen film, it does have a front lip to absorb drop impacts.



## Incipio NGP

Slim, clean, and mature, this plastic case deliberately eschews its own style to let the shape and look of the iPad mini shine. Now packaged with screen film, it provides budget-priced full coverage.



# Hard Candy **Bubble 360**+ **ShockDrop Cases**

As interesting in aesthetics as they are in protective capabilities, Bubble 360 Case (\$60 for iPads, above) and ShockDrop (\$50 for iPad mini, below; \$60 for iPads) are made to absorb a lot of abuse. Each uses an iPad-holding hard structural frame with integrated screen protection, plus a second side- and rearcovering layer - bubbled plastic on Bubble 360, thick tread-like rubber on ShockDrop. Port and button protection are built in; each iPad is safe from everything except \$50+ liquid submersion.





#### LifeProof Nüüd Case for iPad 2/3rd-/4th-Gen

Few cases promise to keep an iPad safe underwater, but LifeProof's Nüüd is a rare exception - a thick, comprehensive housing that can be used on the full-sized iPad daily. Rather than covering the iPad's glass face, Nüüd seals everything around it, relying on the already watertight glass to stay intact at rated depths of 6.6 feet. So long as you're okay with a bare screen, it's a good pick.

#### Griffin Survivor

Like Hard Candy's ShockDrop but even more protective, Survivor uses three layers of plastic and rubber to protect the iPad. Flip-open covers offer access to the iPad's ports, side switch, and rear



camera, while a detachable hard plastic stand can be carried around or left behind. The \$60 iPad mini version comes in three colors; the \$80 iPad model in nine.



#### PPC Techs SlateShield

If you're looking for a way to encase your full-sized iPad while adding a hand strap and stand to its back, SlateShield brings everything - even including anti-glare screen film and a stylus - together at a reasonable price. The hand strap rotates through 360 degrees of freedom, and the stand works respectably in a number of angles.



## Modulr Tough Case + Cover Stand for iPad

A hard case, a detachable folding lid, and a hand strap are sold together, and work with Modulr's series of sold-separate wall, desk, and car mounts. Solely for full-sized iPads, it straddles the "folio"/"playthrough" line, and is built to be especially resilient.





## Urban Armor Gear Composite Case

Fancier than might initially be appreciated due to its use of interesting molding techniques, varied materials, and color options, Composite Case comes in either jet black or combined white and black versions - each has silver metallic UAG branding on the lower back. The company includes black and orange cardboard inserts to let you change the rear central internal color, using a very distinctive digital vent design and faux rivets to evoke the look of futuristic military equipment. Nice button protectors are built into the top and sides, with headphone and Lightning port openings that are on the small but still usable side.

The screen is recessed below a significant front lip.



### Amzer Silicone Skin Jelly Case

We always love to see well-designed budget case options, and apart from one glaring issue - a big hole on the back around the Apple logo - the Silicone Skin Jelly Case otherwise delivers. Available in ten different colors, the rubber case includes full top, side, and even Home button protection, using tightly tailored holes for the front and rear cameras, headphone port, microphone, and side switch. An open area around the Lightning port and speakers guarantees accessory compatibility.

## SHELLS (WITH FRILLS).

Simple plastic shells - ones that don't cover the iPad's full body, typically focusing only on most of the rear metal - have become so common and similar that they're hard to tell apart. Here, we look at a handful of highly-rated options that are each distinctive for one reason, standing out considerably from the masses.



#### ZeroChroma Vario-SC

Still armed with the best integrated stand of any iPad case - rotatable, ratcheting to eleven angles, and fairly slim by contrast with most rivals - Vario-SC is nearly a full playthrough case, but leaves a large slit on the side for Apple's iPad Smart Cover, an expensive and unnecessary addition given Vario-SC's superior stand. No screen protection is included, an omission worth remedying.



#### The Joy Factory Klick

Solely for full-sized iPads, this simple hard plastic shell has a hole around the Apple logo - normally a no-no in the best designs we've seen. But The Joy Factory uses it as a mounting point for an included, matching desk stand that holds your iPad inches above any flat surface, enabling it to rotate and tilt freely to your choice of positions. Other vendors offer similar wall or deskmounting shells.



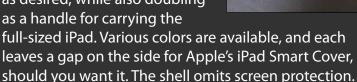
#### SwitchEasy CoverBuddy

Sold in iPad mini (\$20) and iPad (\$25) versions, this thin hard plastic shell was specifically made to match Apple's iPad Smart Cover. Each includes port covers; the mini version also includes screen film.



#### Native Union **Gripster**

Recently reduced in price, this simple glossy plastic shell has one major advantage over rivals: a sturdy flip-out rear stand that can rotate and tilt as desired, while also doubling as a handle for carrying the





#### **Simplism Handy Cover**

Affordable despite using a nice faux leather atop a hard plastic shell, Handy Cover adds a nice rear hand strap to the iPad mini - one that blends in when not in use. A simple stand and screen film are included.



## FOLIO-STYLE CASES.

Whether they're the most popular iPad cases or just the most numerous, there's no doubt that we review more folios than any other style of case - the combination of a lid with an iPad holder offers great protection, appealing to many users. The next pages look at standout designs; most double as stands.



#### Moshi VersaCover

Blending two separate concepts into a single case, VersaCover uses a reasonably protective plastic iPad case and a versatile fabric and magnetic lid to cover nearly the entire iPad mini (\$50) or full-sized iPad (\$60). Rather than replicating Apple's iPad Smart Cover, the lid folds like origami into triangular supporting positions for video and typing, while also locking and unlocking the screen.

#### Uniq Creation Essensual

Slim and affordable, Essensual combines a thin hard plastic iPad mini shell with a three-segment folding lid that's largely the same as Apple's iPad mini Smart Cover. The critical difference: for the same



price as the Smart Cover alone, you get a full case in your choice of mature colors, with a faux leather that's nice enough to double for the real thing.



#### id America **SmartFold**

Still one of our favorite iPad 2 cases, this folio has the rare ability to convert into a playthrough design by pulling the lid off. Fold the lid into a triangle and it becomes a two-angle stand like an iPad Smart Cover.



#### Incipio **LGND**

Also available for the iPad (\$35), LGND combines another origami-style folding lid with a hard plastic rear shell, but also carries matching fabric over to the back side. The \$30 mini version is more protective.



#### Sena Cases Envy

Folded closed, it looks like an oversized envelope, but Envy opens to reveal a true folio complete with four card holders and a cash- or paper-holding pocket. As the rare iPad mini folio that can double as a clutch, it sports heavily stylized genuine leather with metallic and real metal accents - a fashion piece with functionality.



#### Moshi Concerti

Rubber case inside, microfiberlined frame outside, Concerti has a textured plastic exterior for the full-sized iPad (\$55) and a microfiber exterior on the mini (\$45). The iPad tilts on many angles; elastic holds the lid shut.



#### Vaja **Libretto mini**

The price is staggering, but as with all Vaja cases, the leather quality and metallic accents are designed to win you over nevertheless. Plush, respectably protective, and available in five colors for \$180, it can be customized at \$200.

#### SwitchEasy Pelle

Built with great faux leather, a metal accent, and a plastic rear iPad shell, Pelle is an even better case for the iPad mini (\$40) - thanks to a lower price and button protection than for the full-sized iPad



(\$60), which otherwise looks and feels extremely similar. Each comes in feminine colors with Swarovski crystal accents, and masculine colors without them.



#### Twelve South BookBook

Now offered in versions for the iPad mini (\$70) and full-sized iPad (\$80), this handsome genuine leather case is designed to look like an aged hardcover book - a trick to lower the risk of theft. The latest designs feature video viewing and typing angle support, as well as familiar bookmark-like zipper pulls and three color options.



#### Speck PixelSkin HD Wrap

Designed for the full-sized iPad, this all-plastic case uses a nice combination of matte and glossy textures in a blocky pattern that wraps around the front and back. A segmented lid forms a triangle for video viewing and typing, using a physical clip to stay closed and a magnet to automatically lock and unlock the iPad's screen.

#### STM Grip

Available for iPad minis (\$40) and larger iPads (\$45), Grip is a hard plastic case with thin ridges molded into its body - a distinctive design that aids in holding what's otherwise a smooth-surfaced tablet. The



key feature of each Grip is the pop-out rear stand, which lets you choose from a variety of different angles for video or typing. Microfiber covers each screen.



#### ZeroChroma Folio

Made from plastics that look like leather on the front lid and like a high-quality, matte-finished TPU on the back, Folio is an interesting proposition: a professional-looking case with the stand found on Vario-SC, plus an integrated lid for screen protection. Because the rotating, eleven ratcheting position stand is so excellent, Folio has a leg up on a key feature relative to virtually every other case in this collection, though it's also thicker and more expensive because of the design. Only black is available for now, but additional colors are promised in the future.



#### Marware MicroShell Folio

Distinct from an earlier and more expensive full-sized iPad case of the same name, the iPad mini version features a folding lid with stand positions, and a rear strap to hold the lid shut or reinforce your grip.



#### X-Doria SmartJacket

The value-priced SmartJacket combines a grid-textured, glossy plastic rear shell with a segmented faux leather lid with magnets to hold stand positions. Four good colors are available.



#### X-Doria SmartStyle

Building on the template established earlier by SwitchEasy's Canvas, SmartStyle has added new ideas that will appeal to some users. The base materials - canvas fabric lid, wrapping around to the back of a plastic iPad mini case - are similar, but SmartStyle adds a thin rubber printed layer above the canvas for texture, and uses a semi-soft plastic that could be a great standalone case if it could detach from the lid. Instead, it pivots into numerous viewing angles.

#### US + U Swivel ProFolio

While it looks like a folio when closed, Swivel ProFolio packs additional features into its lid, including a rotating hand strap and stands for video viewing or typing. Unlike most iPad cases, the exterior



is primarily resilient ballistic nylon, while the rest of the case mixes nice faux leather and microsuede. It's not the most elegant or protective folio, but it's unique.



#### SwitchEasy Canvas

With excellent iPad (\$50) and mini (\$40) coverage, even including port and screen protectors, Canvas comes in five colors, using rigid plastic for the iPad holder and a scratchproofed canvas for the lid.



#### STM **Skinny**

Designed with handsome fabric and hard plastic, Skinny for iPad (\$40) was one of the earliest folio cases to mix these together; the iPad mini version (\$35) is merely smaller. Each has a simple stand.



#### Speck FitFolio

Also available for full-sized iPads (\$40), FitFolio is an aggressively-priced fabric and plastic folio option for the iPad mini (\$35). Speck often uses the fabric as a canvas for art, with five of the ten current iPad mini color options featuring designs rather than flat colors. Six Burton fashion patterns are sold for iPads at a \$5 premium.



#### Sena Cases Magia Zip

A handful of the iPad folios we've tested are designed to double as business organizers - the high price of the otherwise simple Magia Zip is explained by that functionality, as well as the genuine leather it's made from. A full-sized iPad is held in place on the right side with little more than a sheet of microsuction adhesive, while the left side has four credit card slots, an ID card pocket, and three larger pockets capable of holding folded paper. There's a video stand on the back, and a stylus in the package.



## Maroo [ii] Series Protective Covers

Sold in iPad (\$40) and iPad mini (\$50) versions, this case looks virtually identical for both tablets: four-segment folding lid and stand in front, hard plastic shell in the back. For whatever reason, the mini version is more expensive and offered in three colors (black, red, or blue) versus the iPad's black-only design; they work quite well.



#### iLuv CEO Folio for iPad mini

Considerably smaller than Magia Zip and better-tailored to its iPad, iLuv's CEO Folio provides a proper iPad mini holder on the right, three card slots and an ID card window on the left, and smaller paper and stylus holders between them. Given that it's half the price of Magia Zip, it's no surprise that CEO Folio uses faux leather rather than the real thing, but it looks nice enough that you mightn't be able to tell the difference. In addition to leaving proper access holes for the iPad's controls and cameras within the frame, iLuv includes a snapout rear stand, a nice pull tab zipper, and a classy metallic logo on the front - all nice touches.

## BAGS AND SLEEVES.

Prior editions of our iPad Buyers' Guides have featured numerous bags and sleeves designed to fit Apple's tablets, but we've seen far fewer of these options in recent months. Here are several noteworthy bag and sleeve releases, ranging from inexpensive to fairly pricey, while varying considerably in materials and functionality.



#### Brenthaven Collins Tech Pack

As the most handsome Brenthaven case available for Apple's devices, the Collins Tech Pack has a padded compartment with enough room for a full-sized iPad, plus a second compartment big enough to hold an iPad mini, a zippered pocket on the top flap, and an open pocket in the back. Built with a very sturdy, adjustable nylon shoulder strap and matching hook-based front closure system, it has every sign of great quality - at a great price.

#### RadTech RadSleevz

Thin, simple, and arguably a bit underprotective in the event of an accidental drop, RadSleevz nonetheless succeed due to their prices and minimalist leanings. The Optex Super80 fabric used



for each mini (\$20) or iPad (\$25) sleeve comes in six different colors, and doubles as a safe screen cleaning material. There's space for an iPad Smart Cover, too. \$20+



#### Booq Boa Courier 10

Expensive but undeniably well-appointed thanks to the use of heavy-duty nylon for the bag and seatbelt-like nylon for the crossbody or shoulder strap, Boa Courier 10 has a padded full-sized iPad space plus room for many accessories.



#### Mujjo **iPad mini Sleeve**

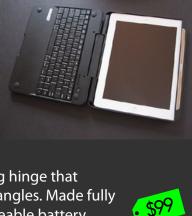
Gray wool felt for the body and white or brown leather for the lid form a nice envelope-like shape that is atypically memorable for the sleeve genre. iPad mini (\$59) and iPad (\$65) versions are available.

## KEYBOARD CASES.

Combining a keyboard with an iPad case wasn't terribly difficult until the debut of the iPad mini - a much smaller tablet with far less space for an adjacent set of physical keys. On these pages, we look at the best keyboard cases for full-sized iPads, and the best options for iPad minis, though mini users may be better off with separate cases and standalone Apple or Logitech keyboards instead.

## CruxCase Crux360 Delta

Heavier and thicker than most keyboard cases, Crux360
Delta converts a full-sized iPad into a small laptop, complete with a somewhat cramped netbook-style keyboard and an unusually strong hinge that supports your choice of viewing angles. Made fully from plastic, it includes a rechargeable battery.





#### Logitech Solar Keyboard Folio for iPad (9.7")

Combining a faux leather case with an excellent keyboard and a very unique charging system - an exterior solar panel - the Solar Keyboard Folio is more expensive than most of its competitors, but good on virtually all counts. Great iPad protection, a two-year run time between full charges, and multiple viewing angles are bonuses.



#### **Adonit Writer Plus**

Still the best overall keyboard and case combination we've seen for full-sized iPads, Writer Plus comes in three colors silver for \$80, blue or red for \$85 - and combines an excellent aluminum and plastic keyboard with a thin, attractive folio case. The Bluetooth keyboard is rechargeable, lasting for two weeks of use on a USB charge, and magnetically detaches from the case for separate use if you prefer. Multiple viewing angles are supported for the iPad within its protective holder, while lid magnets lock and unlock the screen automatically.



#### Zagg Mini 9

iPad mini users can't expect to squeeze a full-sized keyboard directly below the tablet, so Mini 9 compromises: its case is extra-wide, roughly as long as a full-sized iPad, providing ample space for a



less cramped keyboard. Because of this, the iPad mini recesses inside a deep shell with big holes on its sides - a trade-off some users won't mind.





#### Kensington KeyFolio Executive

Combining a personal organizer with an iPad keyboard case, KeyFolio Executive is a bit more expensive than its average rival, but atypically well-equipped. In addition to sporting a very good, detachable Bluetooth keyboard with reasonably spaced, responsive keys, this faux leather case has an iPad holder that flips up to reveal an ID card slot, four other card slots, and a pocket to hold folded papers. There's also room for a stylus in the middle. The only tradeoff: it's atypically large at roughly 1.5" thick.



#### Logitech **Ultrathin Keyboard mini**

Based on Logitech's very good full-sized iPad Ultrathin Keyboard Cover, this iPad mini version preserves the same look and basic features while achieving a major reduction in size. Still capable of serving as a magnetically attached lid for a bare iPad's screen, and as a magnetic stand to hold the bare mini upright for typing, it includes a rechargeable battery-powered keyboard that - like others of its size requires you to learn how to use shrunken keys. . \$80 Small-handed users will like it the most.





#### Helium Digital KeyCover Folio for iPad mini

Less expensive than most iPad mini keyboard cases despite its use of a clicky, solid-feeling typing surface, KeyCover Folio uses a real-feeling faux leather case backed by a slimline magnetic stand. Apart from the slightly awkward location of the delete key, it's relatively easy to type on, and runs for 120 hours of typing per recharge.

## SCREEN FILM + STICKERS.

As a thin solution for scratch-proofing your iPad's screen or body, film is hard to beat: generally available in clear or anti-glare versions, the latter reduces screen smudges but also can cloud a Retina iPad's screen. As such, anti-glare film is best on the iPad 2 and iPad mini; high-quality clear film is preferred for Retina iPads.



#### Spigen SGP **Steinheil Films** + **GLAS Protectors**

With a huge collection of options ranging from various types of Steinheil-branded screen film (\$18+ iPad mini, \$22+ iPad) to Incredible Shield-branded body film (\$30 iPad mini, \$34 iPad) and crazy expensive GLAS-branded tempered glass screen covers (\$58 iPad mini, \$70 iPad), Spigen SGP offers something for everyone. While the "Ultra Fine" antifingerprint films are best for non-Retina iPads, the Ultra Crystal are tops for Retina; you can choose between clear and matte when buying body film.

## Spigen SGP **Aluminum Home Button**

If you're looking to add a little metal to the front of your iPad or mini, these Aluminum Home Button covers will do the trick. Each package contains three swirled metal

buttons - silver, black, and red - so you can choose the one that matches or complements your iPad. They look way better in person than in photos.







#### BodyGuardz **UltraTough**

Thin, clear, and ready to guard your iPad's back against scratch and scuff damage, UltraTough back film is oddly pricier for the iPad mini (\$25) than full-sized iPads. We'd go with separate, higher-clarity screen film.



#### Moshi iVisor AG + XT

Sold at the same price for each iPad, iVisor comes in white-or black-bezeled versions, covering the iPad's face with a touch-through plastic layer. AG is anti-glare - safe for the iPad mini or iPad 2 - and XT is clear.

# Let's start an adventure together.

Urban Armor Gear products reflect the independent spirit of our designers and represent a dedication to superior quality and craftsmanship. Inspired by a sense of adventure, our distinctive cases are engineered to protect your gear from the hard knocks of a mobile lifestyle and enhance the utility of your device. Shown: iPad mini, iPhone 5, Samsung Galaxy SIII



## STYLUSES + BRUSHES.

iPad-ready writing and drawing tools have continued to improve over the last year, particularly with the release of sophisticated Bluetooth styluses and updated software. Painting tools, including brush-like styluses and rubberized paint brushes, continue to increase in number and improve in features, as well.

#### Adonit **Jot Pro**

If you're seeking precision for writing on the iPad's screen, it's hard to find a stylus better than Jot Pro. Made from aluminum with a rubberized grip and a magnet for easy attachment to your iPad, this



stylus features a sound-dampened writing disc that lets you get as close to pen accuracy as we've seen, as well . \$30 as a color-matched cap to protect the tip.

#### The Joy Factory DaVinci + Monet

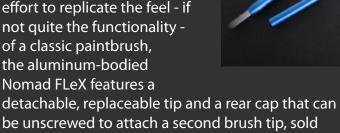
Designed specifically to appeal to different types of iPad artists, the shorter DaVinci is made for sketching, and the longer Monet is closer to a paint brush in length and feel. Each is made from aluminum in your choice of three colors, and uses a dome rubber tip. They're sold separately for \$30 a piece.



. \$30

#### NomadBrush **Nomad FLeX**

Using synthetic bristles in an effort to replicate the feel - if not quite the functionality of a classic paintbrush, the aluminum-bodied Nomad FLeX features a



separately. Five different colors are available.





#### LunaTik Touch Pen

Sold in plastic (\$20) or metal (\$40) versions, Touch Pen follows AluPen Pro in melding a ballpoint pen with a rubber dome tip, but builds them both into the same side, letting you press a .\$20+ button for the pen.



#### Just Mobile AluPen Pro

Similar in shape to Just Mobile's thicker and shorter aluminum AluPen, the silver, red, or black Pro version has a great Pelikan ballpoint on one side, and a replaceable rubber . \$40 dome on the other.



#### Logiix **Stylus Presenter**

As one of a wide variety of styluses available from Logiix, Stylus Presenter is also its most sophisticated model. Bundling together a pen, a rubber dome stylus, and a laser pointer, Stylus Presenter houses the first two features in one metal tube that flips from pen to stylus as needed. To extend its length to regular writing instrument size, that tube connects to the second tube, which has a battery-powered laser pointer and a shirt clip built in. Stylus Presenter includes batteries to power the laser, as well as three total ink cartridges \$35 for the pen.

#### Lunatik Chubby Stylus

Deliberately thick and stubby, this stylus doesn't attempt to compete in the portability or precision departments - it's instead a hard-to-lose tool like a big marker or piece of chalk.





#### Ten One Design Pogo Connect

One of only a handful of electronic iPad styluses, Pogo Connect uses low-power Bluetooth 4 to run for months on a single included AAA battery, wirelessly connecting to Retina iPads and the iPad mini for a couple of special features. The first is a pressure-sensitive tip, which enables you to paint, draw, and write with varying levels of ink flow or color based on how hard you're pushing the stylus down. There's also a single button that can be used for whatever purpose an app desires. However, apps need to add support for these features, which is taking time.



#### Adonit Jot Touch (2013)

Combining enhanced pressure sensitivity with new features such as Bluetooth 4 and accidental palm input rejection, the second version of Jot Touch builds on the good wireless stylus we reviewed last year. Still featuring two input buttons, a rechargeable battery, a USB charger, extra precision disc writing tip and colormatched cap, the new Jot Touch will run for one month on a single charge. As with Pogo Connect, it depends on app support, which continues to grow and improve with time.

## OTHER ACCESSORIES.

From cameras and microphones to scales and printers, there's no limit to what you can connect these days to an iPad. On the next few pages, we look at a bunch of relatively recent add-ons that are designed to appeal to specific niches of users, including computer peripherals, music tools, and wireless key finders.



#### Apogee MiC

Shipped with USB and Dock Connector cables for now - no music accessories yet include native Lightning support - MiC requires an adapter for new iPads, but performs impressively. Solidly built and designed to deliver studio-quality recordings with a cardioid condenser microphone, it's best for voices but also works with a variety of instruments, particularly guitar and piano.



#### Blue Mics Spark Digital

Stronger than Apogee's MiC for wind instruments and featuring a Focus Control option to enhance voices and higher-pitched sounds, this retro-looking cardioid condenser mic includes a noise-dampening stand and nice cables. You'll need a Lightning adapter.



#### Korg MicroKEY-25

Dependent on Apple's \$29 Lightning to USB Camera Adapter or iPad Camera Connection Kit to make a connection to iPads, MicroKEY-25 is a stripped-down, 25-key musical keyboard designed for on-the-go use with GarageBand. Measuring only 15.25" by 5.2" by 1.5", it can fit in a small bag, and includes sustain, arpeggiator, pitch and modulation controls.



#### Wahoo Balance Smartphone Scale

Quite a few wireless scales have hit the market over the past three years, and Balance is in the middle on features and pricing. Powered by twin AAA batteries and using Bluetooth 4 to connect to your iPad, Balance can track weights and BMI for up to 16 different users, sending data at atypically fast speeds to Wahoo's free app. It can also be used as a standalone scale.

#### IK Multimedia iRig KEYS

With 37 velocity-sensitive keys, pitch bend and modulation wheels, and full MIDI compatibility, iRig KEYS is a portable keyboard only modestly larger than MicroKEY-25. Measuring 19.8" by 4.7" by 1.57", it packs an extra octave into a similar 1.4-pound weight by slightly slimming the keys, and includes both Dock Connector and USB cables in the box; you can pick your preferred Apple Lightning Adapter to connect it to the latest iPads.





## Urbanears **Slussen DJ Adapter**

Designed for DJs with space constraints, Slussen attaches to an included keychain for use anywhere. One of the U-shaped unit's 3.5mm ports is for connecting speakers, the other for headphones, enabling a DJ to hear one song while the next is playing on the speakers. A buggy free app handles the audio splitting.



#### PhotoFast i-FlashDrive HD

Sold in 8, 16, 32, and 64GB versions - the latter three with a bundled-in Apple Lightning to 30-Pin Adapter - i-FlashDrive HD enables you to add more storage capacity to your iPad, other iOS device, or computer. The USB port on one end lets it grab files from a Mac or PC, which then sit in its flash memory waiting to be accessed by an iOS application. Using either the integrated Dock Connector or the Lightning Adapter, you connect it to your iPad, which gets playable access to your photos, music, videos, and documents. Sadly, the drives are crazy expensive.



#### Kensington Proximo Fob & Tag Kit

If you often lose keys or valuables, Proximo will make sense. Each set includes a Bluetooth 4 key fob and tag that can be used to locate each other; extra tags are \$25 each. An iOS app can track five items with a proximity location meter, and sound an alarm if your device is missing.



#### Philips In.Sight Wireless HD Baby Monitor

Developed with high-resolution (720p) video and two-way audio capabilities, the In.Sight Wireless HD Baby Monitor lets you watch what's going on in a child's bedroom, listen

when desired, and even talk as needed. Thanks to a free app that works well on iPads, iPhones, and iPods, the camera can be monitored from your home Wi-Fi network or over a cellular connection, the latter subject to time limitations.



Night vision, good color, surprisingly good detail and many sensors are offset by a slow frame rate.





#### Y-Cam HomeMonitor

Designed to operate as a standalone 640x480 video and audio monitoring system with 30 night vision LEDs, the wall-powered HomeMonitor is linked to a cloud-based account for recording. Following a setup process that requires a web browser, each 802.11n camera can be programmed with motion zones to record or sound alerts when small or large motions are detected. While the cameras aren't quite as high-tech as In.Sight, their subscription-free recording features are .\$200 significantly deeper.



#### VuPoint Photo Cube Wi-Fi

Software bugs aside - use the Bolle Photo app instead - VuPoint's iPad-ready Photo Cube Wi-Fi is a good sequel to the iPod/iPhone-specific original. Expect 36 nice 4" by 6" borderless 300dpi color photos per \$20 cartridge. Now with an iPad-ready dock and wireless printing, it supports Lightning devices via Wi-Fi and/or a USB cable.



#### iSuper **Battle Tank**

Unlike now abundant iOS app-controlled cars and copters, this Bluetooth tank is novel and fun, with touchscreen thumbsticks or tilt control steering. Packing a rotating, tilting Infrared cannon for combat with other tanks, it has the same footprint as an iPad mini and runs off of an included rechargeable battery. iSuper did a surprisingly good job with this toy, at a reasonable price.

#### RadTech **Portectorz**

Worth \$10? Maybe not for most people, but if you really need a way to cover your iPad's headphone or Lightning port, the small rubber Portectorz are being sold in a \$10 three-part set



for the iPad mini and Retina iPad. Spare headphone port Portectorz are \$5 each, and 30-Pin Dock Connector versions are \$6 each; Lightning's not yet sold alone. \$10



#### Duo Games **Duo Gamer**

The good news: there's an Apple-authorized and nicely executed iOS game controller, packaged with a stand to hold your iPad upright, at a price almost no one would object to paying. It includes a D-pad, dual analog sticks, and enough face/shoulder buttons to play virtually any fighting game, shooter, or other title you can imagine. The bad news: it only works with a handful of aging Gameloft titles, and is exclusive to them for the foreseeable future. If you wanted to play N.O.V.A. 3, Modern Combat 3, or Asphalt 7 with a joypad, give it a shot; just don't expect more games.





#### iFixit iOpener

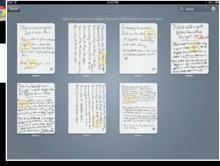
DIY iPad repairs are challenging for several reasons, including the tablets' sealed enclosures - heat guns were needed to melt the glue that binds iPad screens to their rear shells. iFixit's iOpener kit includes a microwavable bag, spreaders, and suction tools, easing the opening process so you can swap a damaged part yourself.



### WORK









The key iPad productivity apps preferred by our editors haven't changed much in name over the years, but they've been improved in features and pricing. iTeleport Inc's iTeleport for iPad (\$20) lets you fully access your Mac or PC from an iPad - including a touchscreen cursor and a virtual keyboard. Amazingly, Retina iPads can provide roughly pixel-perfect (but much smaller) views of a 27" iMac screen. Reeder for iPad (\$5) by Silvio Rizzi remains a standout RSS reader, ideal for canvassing every new article across all of your favorite web sites. Now owned by Evernote and free of charge, Penultimate is a great note-taking app that lets you write on the screen with a stylus or finger, then indexes as many of the words as it can recognize for later searching. It integrates with the free Evernote app, which also stores text notes, photos, videos, audio recordings, and maps for you as a digital organizer. Dropbox (Free) by Dropbox is a cloudbased file and photo repository capable of sharing folders between your iPad, computer, and other iOS devices, as well as sharing individual files with friends. Google's Google Drive (Free) and Quickoffice Pro HD (\$20) let you work on word processing and spreadsheet files; the former provides realtime online document collaboration, plus 5GB of free cloud-based storage for documents, photos, and videos, while the latter includes full Microsoft Office and PDF editing tools, with the ability to save to and access files from cloud-based accounts.





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4	Family		\$ 600.00	\$715.40	\$ 115.40	
7	Friends		\$ 500.00	5.471.50	5 28.50	
	Co-workers		\$ 450.00	5.478.00	5 28.00	
1	Total		\$ 1,550.00	\$ 1,664.90	\$ 114.90	
-	Travel					
12	Airfare		5 900.00	\$ 865.00	\$ 35.00	
12	Lodging		\$ 1,000.00	\$ 1,100.00	\$ 100.00	
16	Transportation		\$ 200.00	5 140.00	5 60 00	
15	Total		\$ 2,100.00	\$ 2,105.00	\$ 5.00	
16						
17	Meals					
16	Graceries		\$ 160.00	\$ 147.60	12.40	
19	Libotions		\$ 300.00	\$ 126.00	26.00	

## **KIDS**

Combining Duck Duck
Moose's familiar art
and music with deeper
educational content,
Kindergarten Reading HD
(\$2) builds vocabulary for
four-plus-year olds, or letter



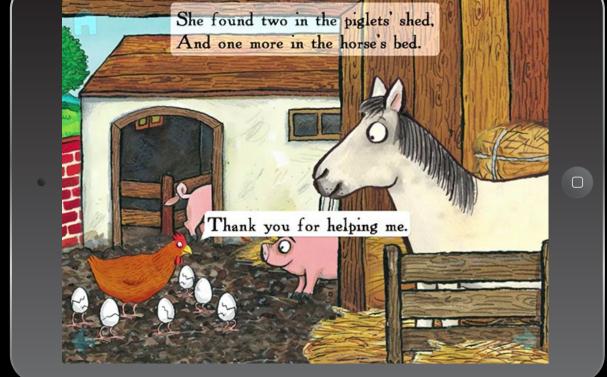


awareness for younger kids. Two- and three-year-olds will enjoy Disney's Letters With Pooh (\$3), which includes letter drawing lessons and puzzles, complete with a storybook theme and voice narration. Endless Alphabet (Free) by Callaway Digital Arts is a surprisingly great letter and vocabulary app, letting kids drag animated monster letters to create even better-animated words; it continually adds new words and animation over time. Three recent storybooks stand out: StoryToys' The Little Mermaid (\$5) is an interactive retelling of the Hans Christian Andersen story, minus Disney touches. Nosy Crow has a charming looping story explaining the life cycle of penguins called Rounds: Parker Penguin (\$5), and Animal SnApp: Farm (\$5), which uses a fun matching interface to connect six nicely animated and narrated farm animal stories.













## MEDIA

Entertainment apps for the iPad have been taking major steps forward over the past year, particularly in offering a greater variety of streaming videos.

A&E (Free) by A&E Television

Networks is just one of a growing number of apps that offer free on-demand access to a television channel's recently played videos; thanks to this and similar apps for various broadcast networks and cable channels such as CBS, History, Lifetime, and NBC, you're able to watch full episodes of whatever was aired over the last week or two. YouTube (Free) was removed as an iOS pre-installed app as a result of tensions between Google and Apple, but radically improved when Google re-released it late last year on its own. It continues to offer free access to a massive library of user-uploaded video clips, including AirPlay wireless output support. Want to get creative? Algoriddim's Vjay (\$10) is a video clip editing app that makes it extremely easy to blend two videos together, add special effects, and mix new audio into videos.









There are also plenty of options on the streaming music side. Earlier in the Guide, we mentioned Slacker Radio and rivals such as Rhapsody, Napster, Pandora, and Spotify; international users may appreciate Rdio, which offers a catalog of 18 million on-demand songs that can be accessed ad-free for a monthly subscription fee of \$10 (web) or \$15 (in-app). Photographers will want to grab Apple's iPhoto (\$5), still the best image editing app for iOS - in some ways easier to use than the Mac version - which also includes photo library management and sharing tools. There's also Apple's Remote 3 (Free), the latest version of its universal iOS remote control application for iTunes and Apple TV devices. Remote lets you search, start, and stop iTunes content, as well as using gestures and a virtual keyboard to navigate an Apple TV's menus.

## **GAMES**













Recent improvements in iPad gaming have tended to be more evolutionary than revolutionary. While it's not hugely different from its 2011 predecessor, Gameloft's first-person shooter Modern Combat 4: Zero Hour (\$7) is atypically impressive, packed with the sort of initial intensity, character models, and voice acting you'd expect on a console game all worthy of the asking price. By contrast, the endless runner/zombie shooter Into The Dead (Free) by PikPok typifies much of the App Store's bargain gaming content these days, forcing you ever forwards through fields of lumbering enemies that must be dodged or shot. The moody Year Walk (\$4) by Simogo is a swipe-controlled first-person maze game without walls, leaving you without guidance to wander through open environments in search of answers to mysteries that present themselves before you. Short but stunningly detailed and brilliant while it lasts, Fireproof Games' The Room (\$2) consists of a collection of increasingly complex puzzles wrapped around 3-D objects and pieces of furniture; the steampunk style and interesting interactions will leave you panting for more. Strategy fans will like Anomaly Korea (\$4) by Chillingo/11 Bit Studios, the modestly tweaked sequel to Anomaly Warzone Earth this "tower offense" game retains the gritty overhead 3-D graphics and plot-your-convoy's-way-through-maps action found in the original. And Grand Theft Auto: Vice City (\$5) is a great port of the famous console and PC sandbox title by Rockstar Games, complete with the original's music, voice acting, main and side missions; thanks to a resolution boost, the graphics look really sharp on Retina iPads.

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## **GAMES**



If you've been waiting for a truly impressive iOS boxing title, you'll likely be knocked backwards by Vivid Games' Real Boxing (\$5), which lives up to those words thanks to incredibly detailed character models, venues, and intuitive controls. Building on the success of Imangi Studios' Temple Run 2, the endless runner **Temple Run: Oz** (\$1) by Disney looks and plays even better, featuring art inspired by the Wizard of Oz prequel Oz The Great and Powerful. You still run, slide, tilt, turn, and jump, collecting coins and powerups, but face different enemies and sometimes get to ride in a giant balloon. Metal Slug X (\$4) by SNK Playmore ports the Neo-Geo military side-scrolling shooter, mixing serious and comical themes; you run, ride camels and planes, and face enemies ranging from soldiers to the undead. Developed by former World of Goo designers, Experimental Gameplay Group's Little Inferno (\$5) is a pyrotechnics game, rewarding you for burning objects to solve puzzles. Fans of Sega's classic arcade games may be entranced by After Burner Climax (\$3), the latest sequel in the long-running jet shooting franchise. Though Climax on iOS doesn't quite live up to the high standards set by prior PlayStation 3 and Xbox 360 versions, it includes enough of the lock-on missiles, realistic aircraft models, and 3-D scenery-dodging action to feel like something that couldn't have been done on iPads one year ago. Finally, Real Racing 3 (Free) by Electronic Arts/ Firemonkeys is the sequel to two earlier realistic driving games that pushed the outer limits of prior iOS graphics hardware. The new version features improved tracks, gorgeous real cars, and simulation-style gameplay, let down solely by "freemium" pricing and timers that preclude you from playing endlessly without paying more.

## BEST OF SHOW AWARDS.

iLounge's team prepped for the 2013 International Consumer Electronics Show for months, then hit the floor and picked the best new iPad, iPhone, and iPod releases from thousands of new products on display. Here are the winners and finalists - accessories that are either arriving in stores now, or coming very soon.

Incipio was the biggest award winner at the 2013 CES, receiving awards for individual products and overall innovation. Held by CEO Andy Fathollahi, the battery case OffGrid Pro for iPhone 5 (\$100) was the star of its booth, upping the ante on last year's iPhone 4/4S model with twin replaceable 2000mAh batteries and a dual battery charger in the package. Less capacious OffGrid and OffGrid Qi models also received awards. Last but not least, Atlas (\$90) is an easy-to-use waterproof and drop-proof iPhone 5 case with a unique damage warranty program.

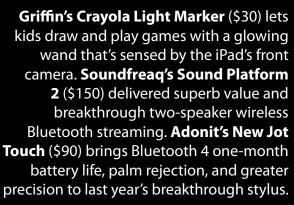
























iLounge's team judged the Best of Show Awards after an exhausting first day at CES. Additional Awards went to **IK Multimedia's** MIDI Bluetooth foot petal **iRig BlueBoard** and digital guitar input **iRig HD** (\$99 each), **SwitchEasy's** affordable yet comprehensively protective iPhone 5 case **FreeRunner** (\$35) and **MyCharge's** attractively designed 1500-2000mAh **Freedom Battery Cases for iPhone 5** (\$80-\$100). **LifeProof** won Best Booth of Show for a design that effectively demonstrated its cases' resilience.









iLounge also selected **Best of Show Finalists** at the 2013 CES, recognizing additional standout products. Native **Union's Switch** (\$150) is a minimalist speaker with speakerphone features, Just Mobile's AluPocket (\$30) mounts an iPhone or iPod on a wall for charging, **PureGear's** Retro Game Cases (\$30) have ball bearing games built into their backs, and Macally's Wi-Fi SD (\$60) turns a spare SD card, USB flash drive, or USB hard drive into an 802.11b/g/n wireless storage peripheral, capable of being accessed by iOS devices. The Joy Factory's Ergos with Stand (\$90) combines a 2100mAh battery with an iPhone 5 case and fold-out stand; its Charis Wheelchair Mount for iPad mini (\$180) uses a carbon fiber mounting system to make Apple's tablet accessible to disabled users.













Additional Finalists included id America's

Cushi Plus (\$25), which uses puffy stickers
and a rubber bumper to transform
iPhones into pieces of art, Mobee's
inductive and USB charging 5200mAh
battery pack Magic Juice (\$79), iHome's
modern double Lightning dock alarm
clock iDL100 (\$150), and two Scosche
Bluetooth releases: the bike water bottle
cage-ready speaker BoomBottle (\$150)
and the premium Realm RH1060 (\$250)
wireless headphones. Speck also received
Finalist nods for its excellent CandyShell
and CandyShell Grip (\$35) iPad mini cases,
both covered earlier in this Guide.











## NEW FOR IPHONE + IPOD.

Months after the 2012 iPod nano and iPod touch debuted, case options remain few and far between, while new iPhone 5 cases appear daily. Right before publishing this Guide, early iPhone 5 battery cases began to appear. Here's what's new.



#### ZeroChroma VarioClear

Built with the famous 11-angle rotating stand for which this small company is rapidly becoming known, VarioClear (\$45) is an opaque and clear plastic iPhone 5 case with the ability to recline in your choice of any position. Ideal for video viewing or FaceTime use, the stand rests flush with the back of the see-through frame; five different colors are now available for the solid edging and stand.



#### id America Cushi Plus

Colored stickers. A matching, edge-covering bumper. Not a big deal, right? Wrong: Cushi Plus (\$25) uses some of the coolest-looking art we've yet seen in an adhesive protector, with puffy 3-D material that can resemble anything from knit fabric to plastic.





#### Incipio Stashback

If Stashback (\$40) looks a little like Speck's famous CandyShell Flip, that's probably because Incipio took a great idea and ran with it in a different direction: this rubber-lined, hard glossy plastic shell offers great anti-shock protection when used as a case. But it's also a wallet, popping open on the bottom to reveal a compartment for three credit or ID cards, as well as providing full docking access to your iPhone 5's Lightning connector. Five different color combinations are offered, some subtle, some not.



#### iKit NuCharge for iPhone 5

Truly great iPhone 5 battery cases aren't yet available thanks to Lightning connector-related delays, but NuCharge (\$79) comes the closest yet to justifying its price. The 1900mAh battery can bring a dead iPhone 5 back to 93% strength, and detaches from the shell-styled case when it's not needed; its Lightning plug similarly stows away when not in active use. A kickstand is built in for video viewing, and iKit includes a metallic rear veneer for the iPhone 5 shell when the battery's removed.



#### Incipio Frequency

Very few cases are available for the seventhgeneration iPod nano, but Frequency (\$16) is a standout thanks to its triangular top attachment ring and form-fitting design. Five colors are available for the nano, each with an equalizer-styled glossy pattern on the otherwise matte plastic back. iPod touch (\$25) and iPhone 5 (\$25) versions are also available.



#### LifeProof Fre

Pricey but practical, Frē (\$80) is a waterproof and drop-proof box designed to double as an everyday case - physically lighter and closer in looks to the iPhone than most OtterBox cases. Though you'll have to compromise a little on port access due to LifeProof's protection-focused port caps, Frē includes a headphone port extender, and nicely permits full speakerphone and camera use.



#### SwitchEasy Colors

First released four years ago for the iPhone 3G, SwitchEasy's Colors is an affordable baseline for quality iPhone and iPod protection. Today, separate versions are available for the iPhone 5 (\$20), iPod touch (\$20, shown), and iPod nano (\$15). While the iPhone version comes in your choice of 13 colors, the iPod versions each come in 8 colors; each includes port covers and screen film for near-full protection.

## NEW @ ILOUNGE + MAC.

Our Mac.iLounge.com section spotlights one cool Mac computer, accessory, application, or companion product every weekday. Here are a handful of the most interesting items we've seen in recent weeks.





## Apple MacBook Pro 13" / 15" with Retina Display (Early 2013)

Released just before our last Buyers' Guide, Apple's MacBook Pro with Retina Display unexpectedly received early 2013 price drops and post-release hardware tweaks - one obvious, others not. The 13" models fell \$200-\$300 in price, now starting at an almost reasonable \$1499, while the 15" models remain at a steep \$2199 entry price but have improved specs: a 2.4GHz processor in the base model with 8GB of RAM, and a 2.7GHz processor in the stepup model, now with 16GB of RAM. Under the hood, Apple also appears to have quietly addressed thermal issues that bothered early Retina MacBook adopters. So is there any reason to hold off on a purchase at this point? Only two: fourth-generation Core i5 and i7 processors are set to be released in April 2013, promising markedly superior battery life and dramatic gains in graphics performance. Also, Retina MacBook owners continue to complain about screen issues in some - not all - Pro models. We'd wait for the fixes.





### Bluelounge **Postal Bag**

Small and folded over itself like a messenger bag when used with a 13" MacBook Pro or Air, Bluelounge's new Postal Bag (\$129) expands to become taller for use with a 15" MacBook Pro. While 13" models sit horizontally, giving you easy access to an integrated shoulder strap, larger 15" models stand vertically inside, exposing a tote-like hand strap. Side pockets hold your must-carry accessories.



#### Monoprice 27" IPS CrystalPro

Cables? Sure. Wall and car chargers? Okay. Monitors? Well, if budget accessory company Monoprice can sell a \$391 display with the same 27" 2560x1440-pixel IPS screens used by Apple, why not? Given the over \$600 price difference between this and Apple's Thunderbolt Display, it's no surprise that you lose some features the connection is DVI, there aren't any extra ports, and the enclosure isn't Apple-caliber sexy. But it works with current Macs, and has a one-year warranty, too.



#### Rain Design **mTower**

With years of experience making Mac and iPad stands under its belt, Rain Design has increasingly focused on smaller, elegant solutions. mTower (\$50) is a gorgeous example of what it can do for any MacBook you hope to pair with a desktop monitor: made from Macmatching anodized aluminum, it uses rubber pads to hold any MacBook, Pro, or Air several inches off a flat surface. Thinner models get the benefit of additional airflow inside the U-shaped laptop holder.



#### LaCie Blade Runner

Hard drives became commodities years ago, with few major differentiators between brands. Yet famous designers have helped LaCie's drives stand out, and Blade Runner (\$300), a stunning collaboration with Philippe Starck, certainly merits a design premium. Sold only in a 4TB capacity with a limited 9,999-unit run, Blade Runner consists of 16 plates around a liquid metal core. A USB 3.0 interface guarantees that it's as fast as it is distinctive - a desktop drive worth keeping.



#### Wacom Cintiq 13HD

Artists and designers have embraced Wacom's Mac pen tablet solutions for years, and the latest version - a 1920x1080-resolution, 13.3" screen with a wireless pressure- and tilt-sensitive stylus - is even more amazing. Cintiq 13HD (\$999) offers as much detail as the \$1999 21.5" version, giving users a razor-sharp but compact first or second screen to draw on.

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#### **COLOPHON**

The 2013 iPad + iPad mini Buyers' Guide was created using Adobe InDesign CS5 on one 27" iMac and one Mac Pro with a 30" Cinema Display. Music included Regina Spektor's Fidelity, Jamiroquai's Hollywood Swinging, Kaskade's 4 AM, and Swedish House Mafia's Save The World.



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Since 2001, the world's leading resource for iPod, iPhone & iPad news, reviews, forums, photos, guides, tricks, software, and much more.



## CLOSING THE CURTAIN.

The fifth-generation iPad's coming in April. No, June. Wait, October. No one's really sure about the date, but the design is pretty much a lock: if you've seen the iPad mini, you won't be surprised by how it looks. But its size and weight are impressive.



Rendered image credit: Martin Hajek



#### **Borrowing From A Smaller iPad.**

All of our sources agree: the fifth iPad will be a major departure from its predecessors, adopting the same rear casing design of the iPad mini and iPod touch - expect a similar "wow" level of thinness, and a footprint much smaller than the current model, despite housing a 9.7" Retina screen. Expect Apple to switch to a Nano-SIM this time; it might include 802.11ac Wi-Fi, or come in a single model with global LTE support. Our major concern is run time: a smaller chassis has less battery space, so hopefully Apple has more energy-efficient components ready.

#### And What About The iPad mini?

Once you've become used to a Retina display, it's hard to be fully satisfied with lower-density screens - arguably the biggest issue with the first-gen iPad mini. We expect that this year's second-gen model will introduce a 2048x1536 display with 324 pixels per inch, technically even smaller dots than the full-sized iPad, though no one will be able to see the difference. It's unclear whether Apple will keep the original iPad mini around as a lower-cost model, but we could see that happening. Expect the Dock Connector-based iPad 2 to disappear later in 2013.

#### iOS 7: A New Look? Or Iteration?

Late last October, Apple fired Scott Forstall, who led the increasingly important iOS software team at Apple, and divided up his responsibilities between several people - Jonathan Ive now handles both "human interface" and industrial design, Craig Federighi now leads both iOS and OS X software development, and Eddy Cue now handles Siri, Maps, and all other Apple online services. While Forstall's tenure at Apple was mixed, he launched stable new iOS versions annually on time, and it's unclear whether three already busy leaders will be able to keep up that pace. A fresh-looking new iOS is rumored, but might not make it out this year.

