

Rise of the AIO PCs?

By *Chris Connery* - Vice President, PC and Large Format Commercial Displays

October 22, 2009

As Windows 7 launches, hardly a day goes by that a new all-in-one desktop PC is not introduced somewhere in the world. The list of all-in-one PCs (or AIOs as the industry likes to call them) is growing long and includes announcements from traditional PC vendors, and from monitor and display companies.

Many of these products have been part of the rumor mill since early 2009. Various incarnations have been shown at trade shows from Taiwan to the US to Japan and all points in between. Many began in the development stages as lower-priced Intel Atom-based nettop PCs with the hopeful thinking that the industry could reach new entry-level price points for desktop configurations in the same way it did for portable computing with the mini-note (netbook). As luck would have it however, while the road to innovation is paved with good intentions, stronger-than-expected demand for smaller-sized LCD TVs and strong shipments of LCD monitors into regions such as China put the merchant-market for desktop-size LCD displays into a shortage situation in January through September 2009, thus pushing panel pricing up quite significantly.

This rise in prices for key panels used for all three of these applications (LCD monitors, smaller-sized LCD TVs and AIOs) caused many developers to re-think their AIO strategy, recognizing that the \$399 price point for a big-screen AIO PC was not going to be a mass-market reality for 2009. What the market is seeing now is this new re-invention of the AIO, with many heavily leveraging touch and multi-touch capabilities (touted at the Windows 7 launch) as a hopeful catalyst for growth.

Other vendors, such as HP, have taken a bigger-picture view of touch as an interface for personal computer products beginning with the introduction of the TouchSmart line of PCs in 2006. HP's direction for touch seems to be more of a longer-term outlook, recognizing that new interfaces such as these—which essentially become new ways to interface with a PC or even new ways to compute, and access and manipulate data—are evolutionary rather than revolutionary. From punch-cards to keyboards to mice to touch (or to voice activation) are all potential paths of evolution with a lot of momentum seemingly now being built around touch especially driven by the acceptance of touch as the only interface on such devices as cell phones (which now pack as much computing power as original personal computing products).

Throughout the year, the market has seen announcements from **Dell's Studio 19** to **Lenovo's IdeaCentre**. Additionally, prototypes of products have been seen throughout the globe at **CES**, **CeBIT**, **IFA** and other conferences and exhibitions from **Acer**, **Asus**, **MSI**, **ViewSonic** and a host of other PC and peripheral companies. As both the Windows 7 and the US holiday launch dates approach, the announcements that products are finally hitting the end-markets are coming fast-and-furious.

Table 1 Recent AIO PC Announcements

Brand	Model	LCD Display	Resolution	CPU	Availability Date	TV Tuner	Touch Screen	Price	Region
Acer	Veriton Z280G	18.5"	1366 × 768	Intel Atom N270	Aug 09			\$499	WW
	Aspire Z5610	23.0"	1920 × 1080	Intel Pentium E5300	Oct 09		multi	\$900	WW
Apple	MB950LL/A	21.5"	1920 × 1080	Intel Core 2 Duo	Oct 09			\$1,199	WW
	MB952LL/A	27.0"	2560 × 1440	Intel Core 2 Duo	Oct 09			\$1,699	WW
	MB953LL/A	27.0"	2560 × 1440	Intel Core i5 quad-core	Nov 09			\$1,999	WW
Asus EeeTop	ET2002	20.0"	1600 × 900	Intel Atom 330	Oct 09			\$599	WW
	ET2002T	20.0"	1600 × 900	Intel Atom 330	Oct 09		yes	\$879	WW
	ET2203	21.6"	1366 × 768	Intel Core 2 Duo	Oct 09			TBD	WW
	ET2203T	21.6"	1920 × 1080	Intel Core 2 Duo	Oct 09		yes	\$1,299	WW
Dell	Vostro AIO	19.0"	1440 × 900	Intel Pentium Dual Core	Aug 09			\$629	US, Japan, China
Fujitsu	F Series	20.0"	1600 × 900	Intel Core 2 Duo P8700	Oct 09	yes	multi	TBD	Japan
	F Series	23.0"	1920 × 1080	Intel Core 2 Duo P8700	Oct 09	yes	multi	TBD	Japan
Gateway	ZX4800-03	20.0"	1600 × 900	Intel Pentium T4300	Oct 09		multi	\$720	US
	ZX6800-01	23.0"	1920 × 1080	Intel Core 2 Quad 8200S	Oct 09	yes	multi	\$1,400	US
HP TouchSmart	MS200	18.5"	1366 × 768	AMD Athlon X2 3250e Dual Core	Oct 09			\$599	China
	300-1020	20.0"	1600 × 900	AMD Athlon II Dual-Core	Oct 09		multi	\$899	US
	300-1025	20.0"	1600 × 900	AMD Athlon X2 240e Dual Core	Oct 09	yes	multi	TBD	US
	600-1050	23.0"	1920 × 1080	Intel Core 2 Duo T6500	Oct 09		multi	\$1,049	US
	600-1055	23.0"	1920 × 1080	Intel Core 2 Duo P7450	Oct 09	yes	multi	\$1,599	US
	9100	23.0"	1920 × 1080	Intel Core 2 Duo P7570	Dec 09		multi	\$1,299	US
Lenovo IdeaCentre	C100	18.5"	1366 × 768	Intel Atom 230	Sep 09			\$399	China, WW
	C300	20.0"	1600 × 900	Intel Atom 230	Jul 09			\$449	WW
MSI Wind Top	AE2010	20.0"	1600 × 900	AMD Athlon X2 Dual Core	Aug 09		yes	\$650	WW
	AE2200	21.5"	1920 × 1080	Intel Pentium Dual Core G45	Oct 09	yes		\$800	WW
Sony	VGC-JS320J/S	20.1"	1680 × 1050	Intel Pentium E5200	Q4'09			\$799	WW
	VGC-JS230J/B	20.1"	1680 × 1050	Intel Pentium E5200	Q4'09			\$899.00	WW
	VGC-JS250J/B	20.1"	1680 × 1050	Intel Pentium Dual Core E5200	Q4'09			\$979	WW
	VGC-JS290J/S	20.1"	1680 × 1050	Intel Core 2 Duo E7400	Q4'09			\$1,199	WW
	VPCL111FX/B	24.0"	1920 × 1080	Intel Pentium E5400	Oct 09		multi	\$1,299	WW
	VPCL114FX/B	24.0"	1920 × 1080	Intel Core 2 Duo E7500	Oct 09	yes	multi	\$1,499	WW
	VPCL116FX/B	24.0"	1920 × 1080	Intel Core 2 Quad Q8400S	Oct 09	yes	multi	\$1,799	WW
	VPCL117FX/B	24.0"	1920 × 1080	Intel Core 2 Quad Q8400S	Oct 09	yes	multi	\$1,999	WW
ViewSonic	ViePC VPC100	18.5"	1366 × 768	Intel Atom 270	Oct 09		yes	\$499	WW

Do All-in-One PCs and Touch Go Hand-in-Hand?

Apple Computer didn't invent the AIO PC; many original computers had the display built-into the rest of the chassis. But Apple certainly went a long way in popularizing the concept, first with its AIO CRT based iMac G3s in 1998, then with the iMac G4 series then followed by the iMac G5—the basic industrial design which has helped to basically define the All-in-One personal computer concept as we know it today. As such, it also helped to define the category and has been the leading AIO product in the market since its inception with an average share of more than 60% during the last six quarters.

These products, which have defined the category for so long, have never included a touch interface in any iteration to-date in spite of Apple's success with iPhone. Touch really began to enter this AIO space in Q3'08 as HP began rolling out its TouchSmart line of PCs. Prior to this new generation of AIOs, the market was quite simply dominated by Apple in the US and Japanese PC vendors including Sony, Fujitsu and NEC for the Japan domestic market. Japanese domestic customers were more receptive to AIO form-factors in the past due to space constraints both at the office and at home. Many of these Japanese PC companies enjoyed some success with AIOs in commercial markets as well as consumer markets, and then began to expand their offerings more towards consumers with features like very large screen sizes (37" in some cases) and built-in tuners. They hoped that these devices could become the central hub in the home for both computing and TV/video watching, but this business model became unmanageable due to the service requirements expected of a TV vs. those of a PC. Thus, most Japanese brands remained in the AIO space, but scaled back their offerings into smaller form factors. None of these products included a touch interface.

What if Apple is Not Considered in the AIO Analysis?

Many vendors either consciously or sub-consciously forget that iMacs are indeed personal computers, so they are left out of comparisons for PCs. If vendors choose to look at only Microsoft Windows-based PCs as a benchmark for growth, especially as Windows 7 rolls out, then the market can look quite different.

There has been a proliferation of new brands offering new products to the market. DisplaySearch's survey base has, in fact, grown from six brands in Q1'07 to 15 or more in Q2'09, with more brands added each day. Some brands are traditional tier-1 PC brands while others are tier-2 or tier-3 PC brands. Another unique phenomenon is the entrance of monitor brands into the PC space with companies like **BenQ** and **ViewSonic** now offering PC products. As noted above, new brands are introduced each day with many vendors now having their eyes on the high-growth China domestic market. More worldwide brands are expected to expand their AIO portfolio in 2009; however, 2010 is expected to be a big year for AIOs. With panel pricing dropping again in Q4'09, brands can potentially hit the price points originally intended for this new class of AIOs. Chinese domestic PC brands are also expected to be major players in the quarters to come with this region now representing the largest single market for desktop PCs in the world.

A deeper look at historical AIO shipments by brand, by region, by display type can be found in the DisplaySearch *Quarterly Desktop Monitor Shipment and Forecast Report*. Regional and form-factor forecasts are also updated quarterly in this report to provide insight into the leading indicators of future trends.

This is an excerpt from an [article](#) published in the *DisplaySearch Monitor* on October 22, 2009.

Copyright © 2009 DisplaySearch, LLC, an NPD Group Company
All Rights Reserved. DisplaySearch makes no representations or warranties of any kind, express or implied, with respect to this article.

If you would like to quote data from this report in an external press release, please contact us at media@displaysearch.com.

Contact: Charles Camaroto at contact@displaysearch.com
1.888.436.7673 (US Toll Free)
1.516.625.2452

www.DisplaySearch.com · www.DisplaySearchBlog.com · [@DisplaySearch](https://twitter.com/DisplaySearch)