DIGITIMES Research: ICT Report – 4Q 2007

Taiwan notebooks

Original Chinese: Bill Kao, DIGITIMES Research, January 2008
English edition: Joseph Tsai, DIGITIMES, March 2008
NOTE: Unless otherwise indicated, figures and tables refer to output from Taiwan makers.

Introduction

Taiwan shipped 28 million notebooks in the fourth quarter of 2007, up 9% sequentially and 32% from the same period one year earlier. However, notebook shipments will fall 7% sequentially in the first quarter of 2008 amid seasonality, but shipments will still be up 39% from the same period in 2007.

Taiwan shipped 92.2 million notebooks in 2007, up 38% from 2006, compared with a global growth rate of 36%. In addition, Taiwan will ship 117.9 million notebooks in 2008, representing growth of 28% from 2007 and matching the global growth rate.

Taiwan accounted for 91% of the global notebook market in 2007 and the share is forecast to remain the same in 2008.

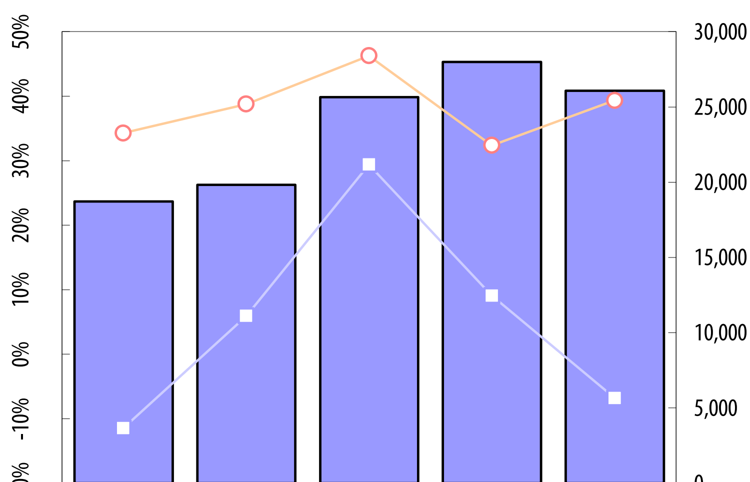
Shipments and forecast

With the market trending to notebooks replacing desktop PCs, as well as the fourth quarter being the high season, shipments were up 9% sequentially in the fourth quarter of 2007.

However, component shortages (mainly battery) still constrained shipments in the fourth quarter due to the fire a Matsushita battery plant.

In the first quarter, Matsushita is expected to recover from its battery plant fire and notebook shipments are expected to be up 39% on year in the first quarter of 2008.

Chart 1: Notebook shipments, 1Q07-1Q08 (k units)



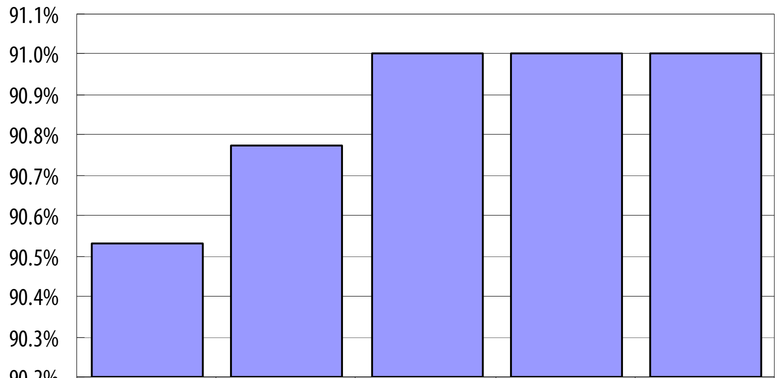
	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
Shipments	18,717	19,827	25,655	27,984	26,080
Q/Q	-11.5%	5.9%	29.4%	9.1%	-6.8%
Y/Y	34.3%	38.8%	46.3%	32.4%	39.3%

Source: Digitimes Research, January 2008

Market share

Taiwan's share of global notebook production remained stable through the second half of 2007 and will continue to be so in the first quarter of 2008.

Chart 2: Taiwan share of worldwide notebook shipments, 1Q07-1Q08



	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
Taiwan's share	90.5%	90.8%	91.0%	91.0%	91.0%

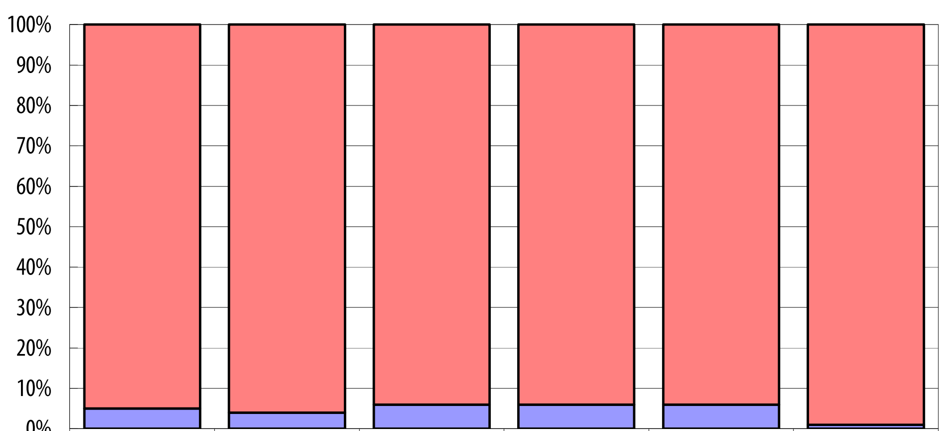
Source: Digitimes Research, January 2008

Production mode: OBM, OEM and ODM

Due to the increasing attention received by the Asustek Computer brand and the fourth quarter being the high season for consumer sales, the company had an on quarter shipment increase of 16% in the fourth quarter of 2007 (the highest growth among Top-10 vendors), which helped Taiwan maintain an OBM proportion of 6%.

However, with Asustek Computer splitting its branded and OEM businesses into separate companies starting from January 1, 2008, Taiwan's OBM proportion will drop to 1% in the first quarter of 2008.

Chart 3: Notebook output by production mode, 4Q06-1Q08



	4Q06	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
OEM/ODM	95.0%	96.0%	94.0%	94.0%	94.0%	99.0%
OBM	5.0%	4.0%	6.0%	6.0%	6.0%	1.0%

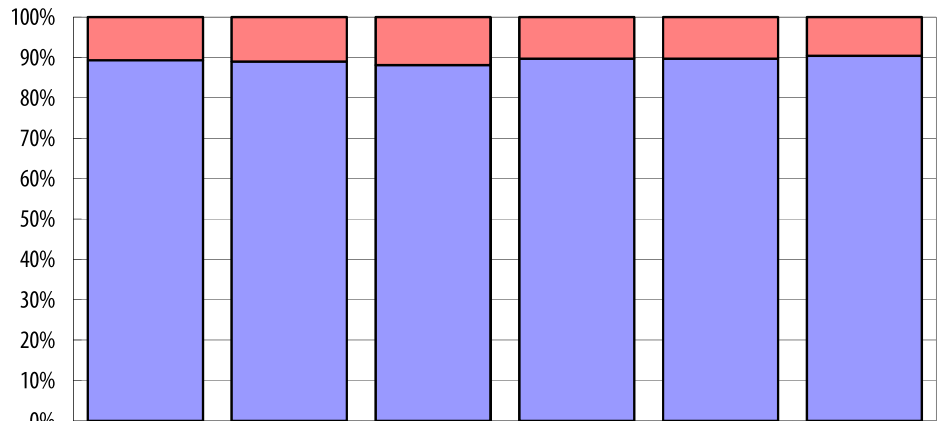
Source: Digitimes Research, January 2008

Clients: Top 10 vendors

With Top-10 notebook vendors continuing to compete on pricing and smaller vendors receiving the brunt of the effects of a component shortage, non Top-10 vendors were not able to increase their shipment proportion in the fourth quarter, despite it being the holiday season, a time when channel vendors have traditionally been able to grab market share.

With notebook prices expected to continue falling, Top-10 vendors will continue to gain an advantage over smaller players in the market and increase their shipment share in the first quarter of 2008.

Chart 4: Notebook shipments by vendor tier, 4Q06-1Q08



	4Q06	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
Non-top 10	10.7%	11.0%	11.9%	10.3%	10.3%	9.6%
Top 10	89.3%	89.0%	88.1%	89.7%	89.7%	90.4%

Source: Digitimes Research, January 2008

In the fourth quarter, Asustek for the first-time surpassed Lenovo to become the number six ranked vendor in the fourth quarter. With an improving brand image and the fourth quarter being the hot season in the consumer market, Asustek increased its shipments 15.9% sequentially in the quarter. However, consumer demand will drop dramatically in the first quarter, and Asustek's shipments will fall 15.9%.

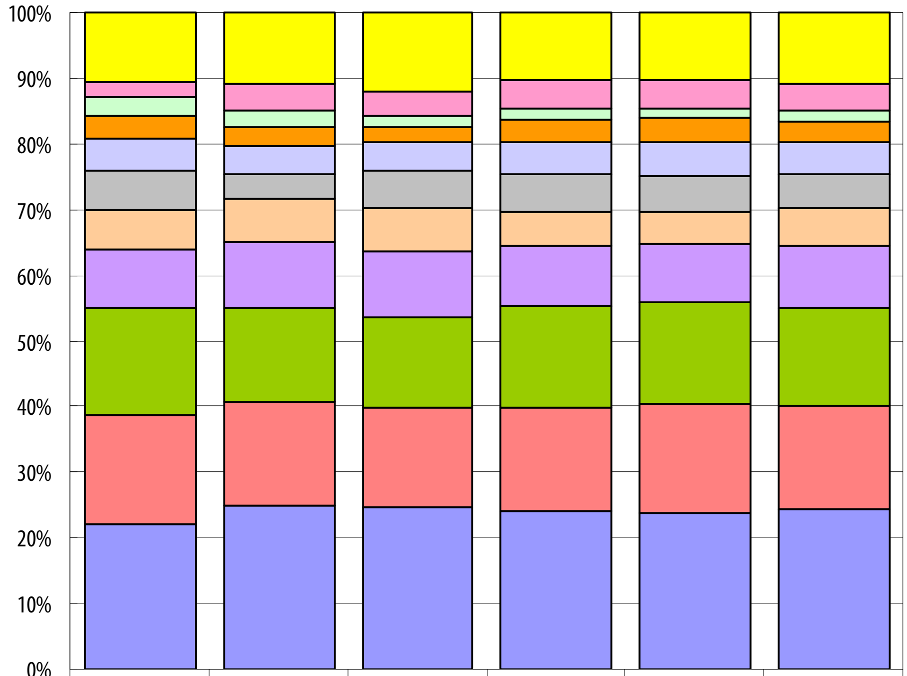
With the first quarter normally being the peak season for the commercial market, Lenovo, which mainly focuses on the commercial market, will increase its shipments 8.1% and overtake Asustek in the rankings.

For other Top-10 vendors, Toshiba's shipments were only up 4.3% in the fourth quarter and the company lost share compared to most other Top-10 vendors. However, while most other Top-10 vendors will see their shipments drop dramatically in the first quarter, Toshiba's shipments will remain flat and the vendor will regain share.

Dell's XPS and Inspiron color series notebooks received very good feedback from the market and Dell's shipments were up 15.3% in the fourth quarter. The vendor's shipments will fall 10.7% sequentially in the first quarter, a similar drop that is expected for Acer (10.4%).

For the 2007 year, Hewlett Packard (HP) was the top ranked vendor, receiving 21.3% of Taiwan's notebook shipments, while Dell (18.3%) and Acer (15.4) filled out the Top-3.

Chart 5: Notebook shipments to Top-10 brands, 4Q06-1Q08



	4Q06	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
Others	10.7%	11.0%	11.9%	10.2%	10.3%	10.8%
Sony	2.2%	3.8%	4.0%	4.4%	4.3%	4.2%
NEC	3.0%	2.5%	1.6%	1.6%	1.4%	1.7%
Fujitsu-Siemens	3.4%	3.1%	2.2%	3.6%	3.7%	3.2%
Asustek	4.7%	4.1%	4.3%	4.8%	5.1%	4.6%
Apple	6.1%	3.8%	5.8%	5.7%	5.5%	5.3%
Lenovo	6.1%	6.6%	6.7%	5.2%	5.0%	5.8%
Toshiba	9.0%	10.1%	9.9%	9.1%	8.7%	9.3%
Acer	16.2%	14.3%	13.7%	15.6%	15.5%	14.9%
Dell	16.6%	15.6%	15.4%	15.7%	16.6%	15.9%
HP	22.0%	25.0%	24.5%	24.1%	23.9%	24.3%

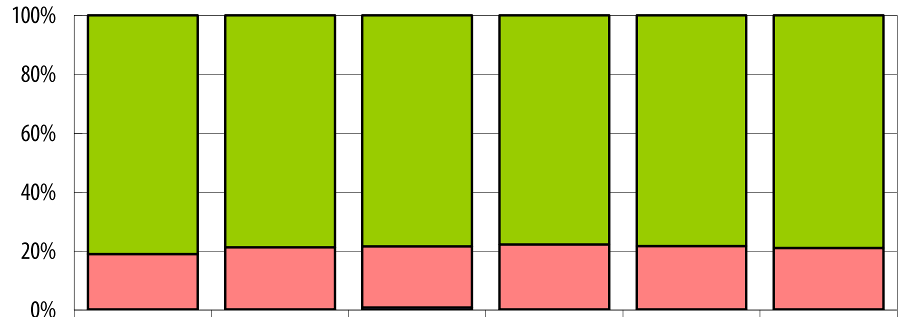
Source: Digitimes Research, January 2008

CPUs

With Intel Core 2 Duo CPUs receiving good feedback from the market and Intel dropping prices (at around 20-31%) on its CPUs for the Santa Rosa platform, Intel increased its proportion slightly in the fourth quarter of 2007.

Intel will continue its momentum and gain share in the first quarter of 2008.

Chart 6: Notebook shipments by CPU, 4Q06-1Q08



	4Q06	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
Intel Mobile CPU	81.0%	78.7%	78.5%	77.7%	78.2%	78.9%
AMD	18.8%	21.1%	20.7%	22.1%	21.6%	20.9%
VIA	0.2%	0.2%	0.9%	0.2%	0.2%	0.2%

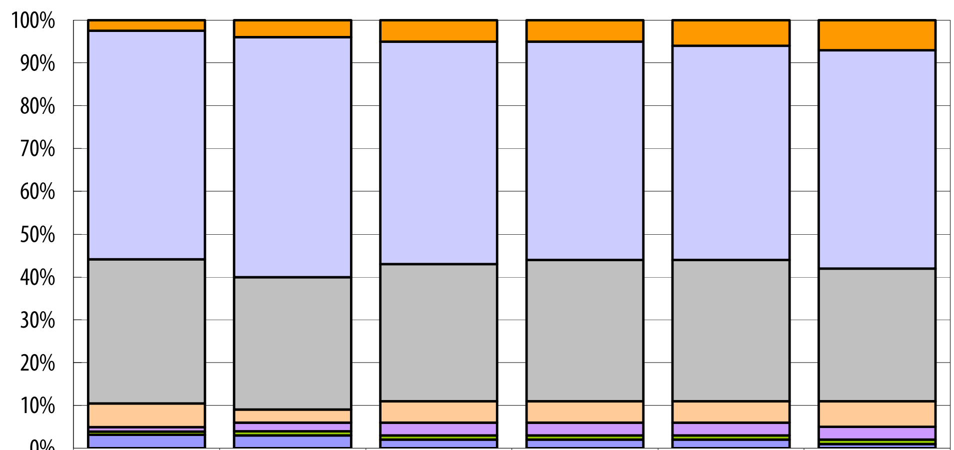
Source: Digitimes Research, January 2008

Screen size

With the trend of notebooks replacing desktop PCs, demand for bigger-sized panel notebooks has increased, and shipments to the 17-inch widescreen segment were up about 30% in the fourth quarter of 2007. In addition, the 17-inch widescreen segment will be only one of two segments that sees increased shipments in the first quarter of 2008.

The 13-inch widescreen segment will grab share from the 12-inch widescreen segment in the first quarter, and the 13-inch widescreen segment will have the strongest growth among all segments.

Chart 7: Notebook shipments by screen size, 4Q06-1Q08



	4Q06	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
>=17"W	2.5%	4.0%	5.0%	5.0%	6.0%	7.0%
15"W	53.3%	56.0%	52.0%	51.0%	50.0%	51.0%
14"W	33.7%	31.0%	32.0%	33.0%	33.0%	31.0%
13"W	5.6%	3.0%	5.0%	5.0%	5.0%	6.0%
12"W	1.0%	2.0%	3.0%	3.0%	3.0%	3.0%
15"	0.7%	1.0%	1.0%	1.0%	1.0%	1.0%
14"	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<=12"	3.1%	3.0%	2.0%	2.0%	2.0%	1.0%

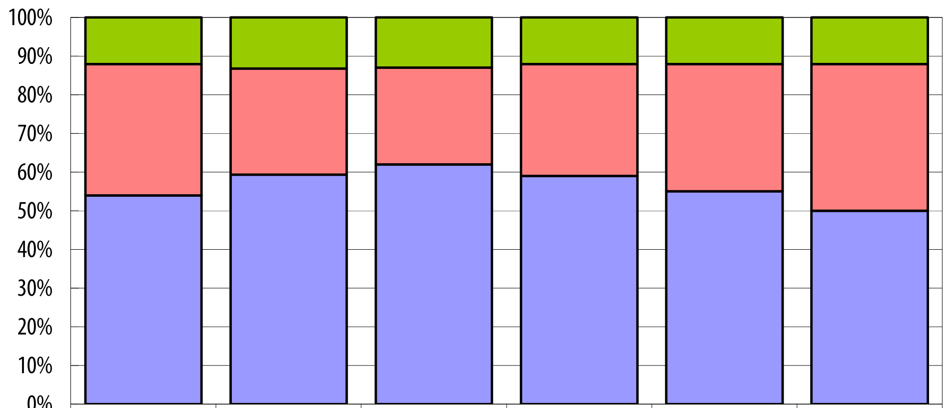
Source: Digitimes Research, January 2008

Shipments by tier

Quanta Computer lost some Dell orders to Wistron, and it also lost Lenovo orders to Asustek. In addition, Compal Electronics lost some Toshiba order to Inventec. Therefore the Top-2 ODMs' combined proportion dropped to 55% in the fourth quarter of 2007.

Dell's order will be completely transferred to Wistron in the first quarter of 2008, while Acer's consumer notebook orders will start being mass-produced by Inventec. Therefore, the Top-2 ODMs' proportion will drop further down to 50% in the first quarter.

Chart 8: Notebook shipments by maker tier, 4Q06-1Q08



	4Q06	1Q07	2Q07	3Q07	4Q07(e)	1Q08(f)
Non-top 5	12.0%	13.2%	13.0%	12.0%	12.0%	12.0%
3rd to 5th	34.0%	27.5%	25.0%	29.0%	33.0%	38.0%
Top 2	54.0%	59.3%	62.0%	59.0%	55.0%	50.0%

Source: Digitimes Research, January 2008

Industry watch

Three major influences on the NB market in 2007

First was the launch of Windows Vista in January 30, 2007. Since one of Windows Vista's major selling points was its capability to provide strong entertainment functionality while requiring high-level hardware requirements, PC vendors all expected that Windows Vista could boost up notebook sales for the year. However, the OS did not successfully boost up the notebook market as the vendors expected

Although the OS did not complete its task the vendors expected, it has caused increased adoption of multimedia functionality for consumer notebooks, a trend which has helped speed up the trend of notebooks replacing desktop PCs. Windows Vista also provided a small boost to notebook replacement.

Second was the fierce competition between the two CPU makers. With AMD CPUs being adopted by Toshiba in some of its notebook lineups, all of the Top-5 notebook vendors now have AMD products in their lineups. Intel, in turn, adopted strategies including CPU price cuts and advanced processing features in order to counter AMD's moves.

The fierce competition has helped notebook prices to drop sharply and relatively boost up consumer demand. The shrinking price gap between notebook and desktop PCs has played a key part in the trend of notebooks replacing desktop PCs.

Third was the component shortage. The notebook market was reported to have panel and battery shortages at the end of second quarter, while in the third quarter, almost all components were in shortage.

The Matsushita battery plant fire in early October brought the battery supply to an even worse situation. The notebook component shortage did not stabilize until December. A combination of high demand plus short supply has constrained the overall notebook market's growth.

Low-cost PC

The outstanding performance of Asustek's Eee PC has proven that a low-cost notebook market exists, a fact that has stimulated interest among other notebook vendors. Companies such as Acer and HP are expected to launch their own low-cost notebook PCs in the second quarter in 2008.

If each notebook vendor can successfully launch its own low-cost notebook according to schedule, then the overall scale of the low-cost notebook market in 2008 will reach around 10 million units. Since most of the components used are from Taiwan makers, the shipment could boost Taiwan ODMs and component makers' revenues, as well as boosting Taiwan's annual notebook shipment growth in 2008 from an original prediction of 29% to 39%.

However, the low-cost notebook market may impact the overall notebook market in terms of gross margins for vendors and makers alike, as low-cost notebook sales are expected to eat into the share of the mainstream notebook market, as well as bring down ASPs in the mainstream notebook market.

Therefore, each notebook vendor has been very careful about setting the boundary between the two markets. If the two markets end up being considered the same, the effects in the notebook market will be industry changing.

Acer's acquisition of Gateway

Acer acquired Gateway in 2008, but since Gateway's major products are desktop PCs, the company is expected to only contribute around 2.6 million notebooks to Acer's total shipments in 2008. However the volume is enough to raise the company's share of Taiwan's notebook shipment from 14.9% in 2007 to 16.8% in 2008.

Although the acquisition will bring benefits to Acer and confirm Acer's position as the third largest worldwide PC brand in the market, there are negative aspects of the acquisition that need to be considered. The bad internal structure of Gateway, the large premium paid by Acer and questions about the direction of the brand's operations are all challenge that must be considered before the acquisition can be considered a long-term beneficial move for Acer.

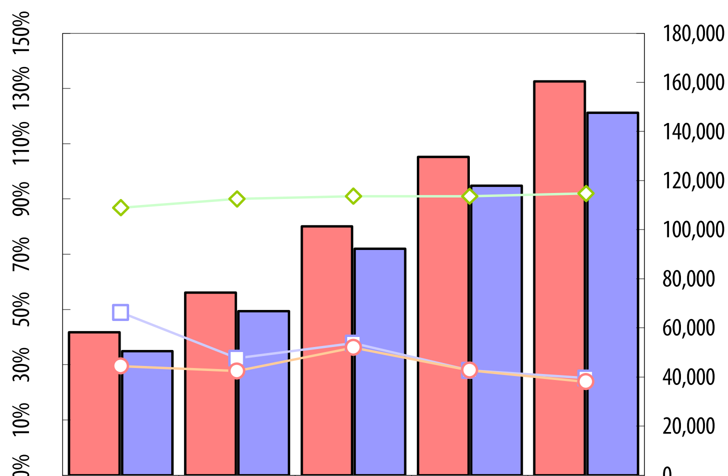
The acquisition also confirmed that the notebook shipment will continue gravitating toward Top-10 vendors, which are expected to account for 90.4% of Taiwan notebook shipments in 2008.

2007 review and 2008 outlook

In 2008, the trend of notebooks replacing desktops will help drive notebook shipments, while Intel's new Montevina platform will also push demand. Taiwan shipments are forecast to increase 28% to 117.9 million units in 2008 while global shipments will also increase 28% to 129.6 million units.

In 2009, the wireless anywhere platform will become a standard, which should help further push the transition from desktop PCs to notebooks. Taiwan shipments are forecast to increase 25% to 147.6 million units in 2009 while global shipments will also increase 24% to 160.4 million units.

Chart 9: Taiwan and worldwide notebook shipments, 2005-2009 (k units)

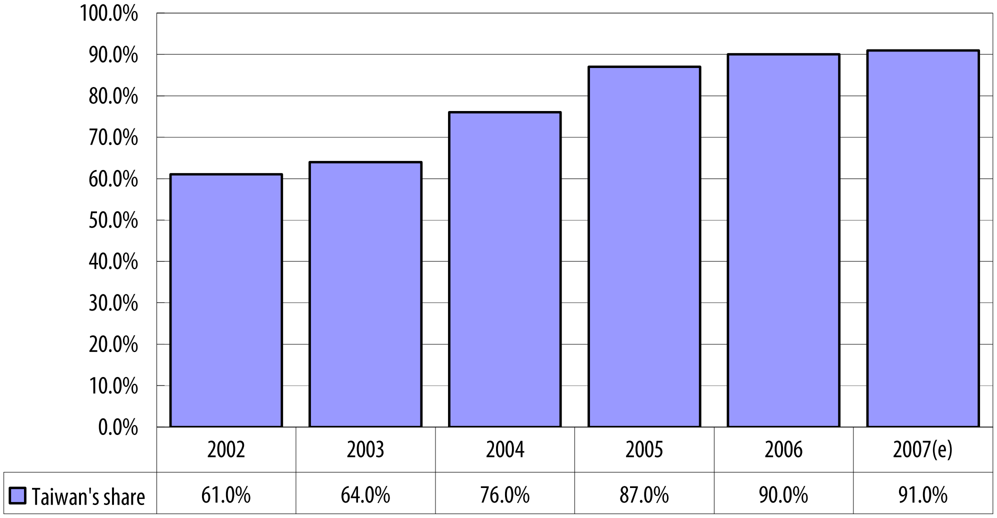


	2005	2006	2007(f)	2008(f)	2009 (f)
Taiwan shipments	50,560	66,906	92,183	117,949	147,607
Worldwide shipments	58,208	74,339	101,277	129,615	160,442
Taiwan Y/Y	48.9%	32.3%	37.8%	28.0%	25.1%
Worldwide Y/Y	29.5%	27.7%	36.2%	28.0%	23.8%
Taiwan share	86.9%	90.0%	91.0%	91.0%	92.0%

Source: Digitimes Research, January 2008

With Japanese vendor Toshiba starting to expand its notebook outsourcing to Taiwan makers from the second quarter of 2007 while other Japanese branded notebook vendors (that manufacture locally) lost share in the global notebook market, Taiwan was able to increase its share of global notebook shipments to 91% in 2007.

Chart 10: Taiwan share of worldwide notebook shipments, 2002-2007

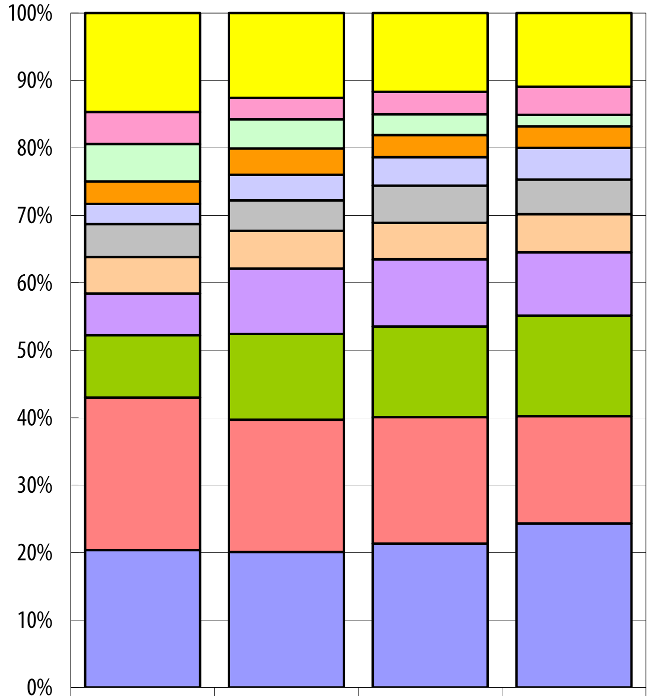


Source: Digitimes Research, January 2008

In terms of the global notebook market, the Asia Pacific notebook market (not including Japan) grew 53% in 2007, outpacing global growth of 37%, according to data from IDC. Strong growth in the Asia Pacific region was a major reason Lenovo, which focuses on the Asia market, saw its notebook shipments from Taiwan makers increase by 45% in 2007.

Although Dell started a company reorganization in the second quarter of 2007, the company has still not been able to recover its position as the top customer of Taiwan makers. And even though shipments to the vendor increased 17% in 2007, its overall share fell about 3 percentage points, as overall shipments were up 38%.

Chart 11: Notebook shipments to Top-10 brands, 2004-2007

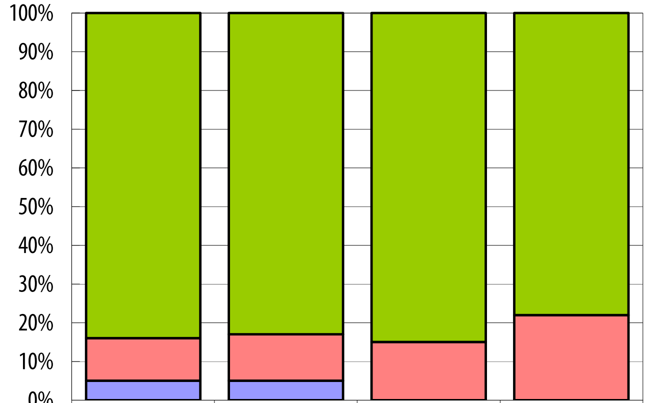


	2004	2005	2006	2007(e)
Others	14.7%	12.6%	11.7%	10.9%
Sony	4.7%	3.2%	3.3%	4.2%
NEC	5.6%	4.3%	3.1%	1.7%
Fujitsu-Siemens	3.3%	3.9%	3.3%	3.2%
Asustek	3.0%	3.8%	4.2%	4.7%
Apple	4.9%	4.5%	5.5%	5.1%
Lenovo	5.4%	5.6%	5.4%	5.7%
Toshiba	6.2%	9.7%	10.0%	9.4%
Acer	9.2%	12.7%	13.4%	14.9%
Dell	22.6%	19.6%	18.8%	15.9%
HP	20.4%	20.1%	21.3%	24.3%

Source: Digitimes Research, January 2008

In 2007, AMD finally entered into the supply chain for all of the Top-5 global notebook vendors. However, due to price competition, delays in the introduction of new CPU products and its continued digestion of its ATI acquisition, caused the company to experience a crisis. Still the company accounted for over 20% of Taiwan notebook shipments more than doubling its shipments from the previous year.

Chart 12: Notebook shipments by CPU, 2004-2007

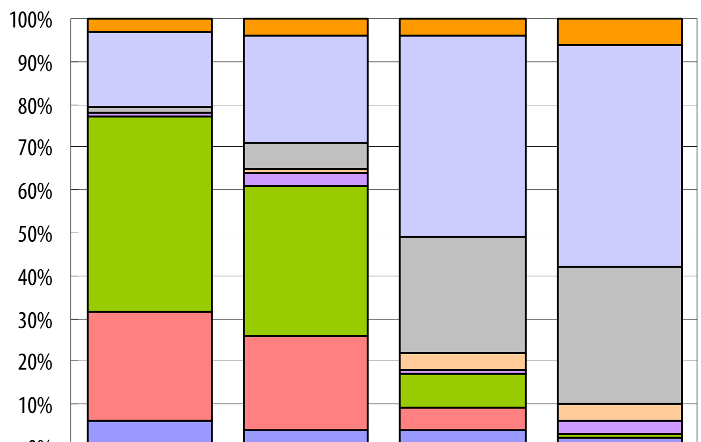


	2004	2005	2006	2007(e)
Intel Mobile CPU	84.0%	83.0%	85.0%	78.0%
AMD	11.0%	12.0%	15.0%	22.0%
Power PC	5.0%	5.0%	0.0%	0.0%

Source: Digitimes Research, January 2008

The widescreen notebook standard dominated the notebook market in 2007, accounting for 97% of shipments, up from 83% in 2006.

Chart 13: Notebook shipments by screen size, 2004-2007

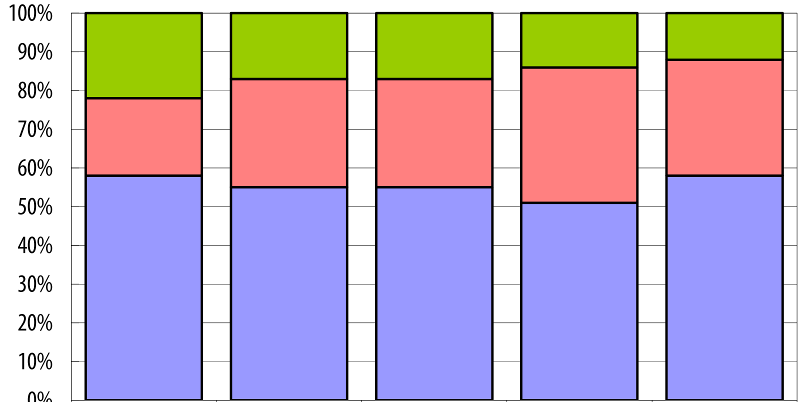


	2004	2005	2006	2007(e)
>=17"W	3.0%	4.0%	4.0%	6.0%
15"W	18.0%	25.0%	47.0%	52.0%
14"W	1.0%	6.0%	27.0%	32.0%
13"W	0.0%	1.0%	4.0%	4.0%
12"W	1.0%	3.0%	1.0%	3.0%
15"	46.0%	35.0%	8.0%	1.0%
14"	26.0%	22.0%	5.0%	0.0%
<=12"	6.0%	4.0%	4.0%	2.0%

Source: Digitimes Research, January 2008

Due to Compal grabbing a portion of Toshiba's notebook orders from Inventec in 2007 while Quanta grabbed Apple MacBook orders from Asustek, the Top-2 makers' combined market share increased by 7 percentage points in 2007.

Chart 14: Notebook shipments by maker tier, 2003-2007



	2003	2004	2005	2006	2007(e)
Non Top-5	22.0%	17.0%	17.0%	14.0%	12.0%
3rd to 5th	20.0%	28.0%	28.0%	35.0%	30.0%
Top-2	58.0%	55.0%	55.0%	51.0%	58.0%

Source: Digitimes Research, January 2008