

# Taiwan's notebooks

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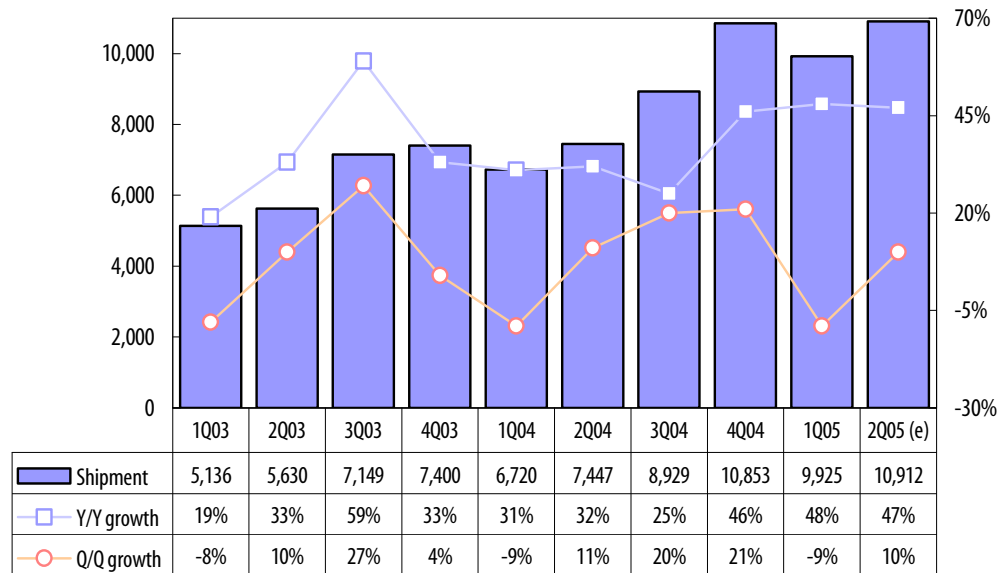
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# Introduction

Bidding farewell to the low season in the first quarter of 2005, Taiwan's notebook sector expects a shipment rebound in the second quarter to set a quarterly record of 10.91 million units and on-year growth of 47%. The on-quarter growth will stay at 10%, similar to the second-quarter levels for the previous two years.

The short supply of Intel CPUs plaguing the fourth quarter of 2004 saw relief in the first quarter as demand dropped. Individual notebook makers may still have problems getting sufficient supply of Intel CPUs in the second quarter, but the shortage is no longer industry-wide and is not expected to have too much of an impact on Taiwan's shipment volume.

**Chart 1: Taiwan's notebook shipments, 1Q03-2Q05 (k units)**

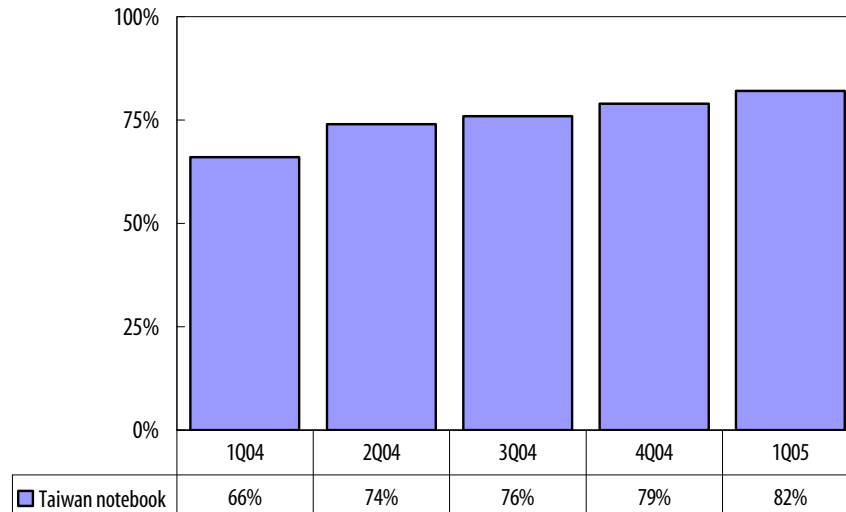


Source: DigiTimes Research, April 2005

# The first quarter

Although first-quarter shipments dropped 9% over the previous quarter, volume still reached 9.925 million units. With the top 10 vendors' market share growing, Taiwan's share of worldwide notebook shipments climbed to a new high of 82%.

**Chart 2: Taiwan's proportion of worldwide notebook shipments, 1Q04-1Q05**

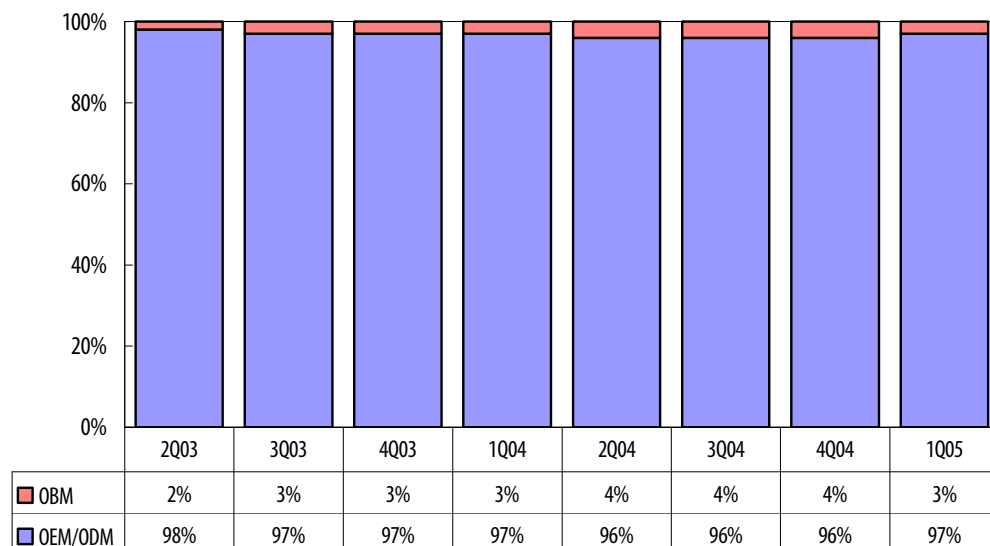


Source: DigiTimes Research, April 2005

## Production mode: OBM and OEM/ODM

Of the first-quarter shipments from Taiwan, own-brand notebooks fell back to the 3% level for the same quarter of last year after staying at 4% for three quarters in a row. In the first quarter, own-brand notebook shipments recorded a deeper decline than Taiwan's overall notebook shipment, and some own-brand vendors started to exit the OBM market.

**Chart 3: Taiwan notebook shipment breakdown by production mode, 2Q03-1Q05**

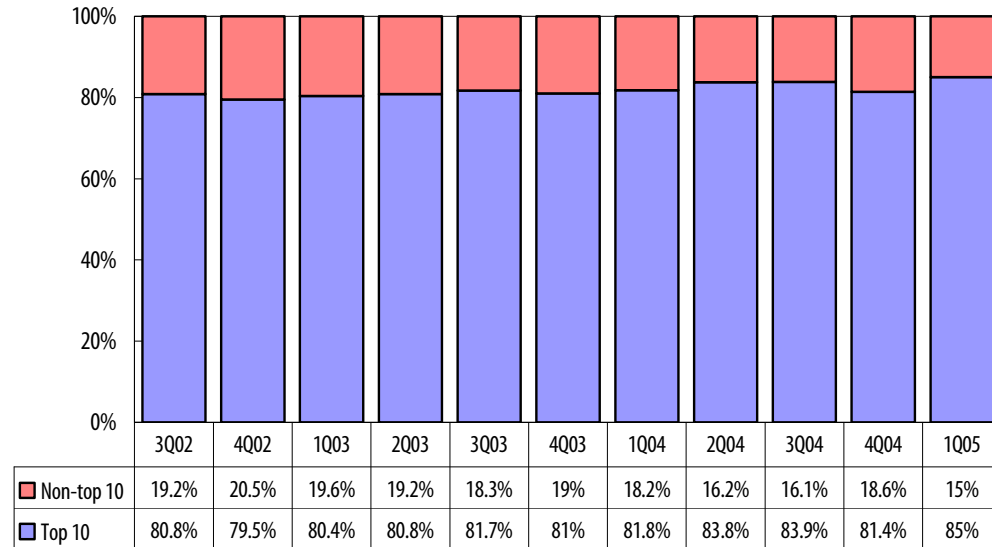


Source: DigiTimes Research, April 2005

## Top 10 versus the rest

In the fourth quarter, the non-top-10 vendors were able to break an almost non-stop decline in their share of Taiwan's notebook shipments, rebounding to 18.6% from 16.1% for the third quarter. However, they lost ground again in the first quarter, which saw the world's top 10 vendors take delivery of 85% of Taiwan's notebook shipment. It was the top 10 vendors' highest share of Taiwan's notebook shipments for three years. With more orders expected to be coming from the top 10 vendors, the Taiwan notebook sector will be growing even faster.

**Chart 4: Top 10 vendors' share of Taiwan's notebook shipments, 3Q02-1Q05**



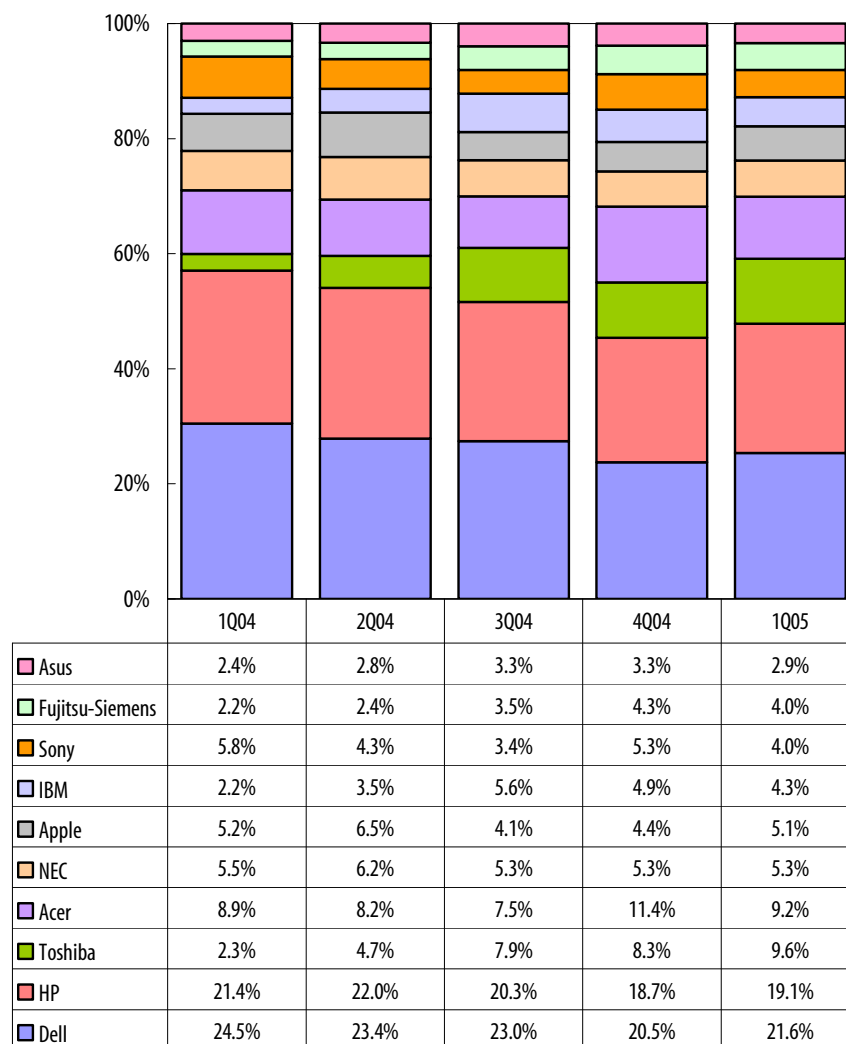
Source: DigiTimes Research, April 2005

Of the top 10 vendors, Dell, Hewlett Packard (HP), Toshiba and Apple Computer all recorded on-quarter increases in their share of Taiwan's notebook shipments for the first quarter.

The growths for Apple and Toshiba were particularly significant, from 4.4% to 5.1% for the former, and 8.3% to 9.6% for the latter. Apple enjoyed strong notebook sales in the low season of the first quarter, and its notebook procurement from Taiwan for the quarter grew 5% sequentially, which was running counter to the general decline in Taiwan's notebook shipment. Toshiba also kept placing orders with Taiwan notebook makers during the low season, allowing the Japan-based vendor's proportion to rise.

For Dell and HP, their shares rose sequentially to 21.6% from 20.5% and to 19.1% from 18.7%, respectively, not because of increased shipment volumes, but because their shipments did not decline as much as other vendors.

In the fourth quarter of 2004, strong demand boosted Acer's notebook sales, allowing its share of Taiwan's shipments to reach a new high of 11.4%. However, the first-quarter seasonal effect was particularly obvious on Acer, which mostly caters to small-to-medium businesses and home users. Acer's share of Taiwan's first-quarter notebook shipments dropped to 9.2%.

**Chart 5: Breakdown of Taiwan's notebook shipments to top 10 vendors, 1Q04-1Q05**

Source: DigiTimes Research, April 2005

Although non-top-10 vendors' worldwide market share has been on the decline, some of them have been able to put up a strong fight because of their relatively large economic scale, clear marketing goals, and strong experience working with sales channels. They remain important clients for Taiwan notebook makers.

Gateway (eMachines included), Medion, TriGem (with its American brand, Averatec), and Lenovo (separate from IBM in the present discussion) each still accounted for a substantial proportion of Taiwan's notebook shipment in the first quarter, ranking 11th-14th. The former two each accounted for 2-2.5% of Taiwan's first-quarter notebook shipments, and the latter two for about 1% each. Gateway, Medion and TriGem all saw their shares of the Taiwan notebook shipment grow steadily last year. Their first-quarter proportions were 1.8%, 1.3% and 0.5% respectively.

Gateway was originally among the top 10 notebook vendors, but after taking over eMachines in March last year, its notebook sales plunged. Thanks to a new marketing strategy, Gateway notebook sales have been on the rise since the third quarter, narrowing the gap with the number 10 vendor.

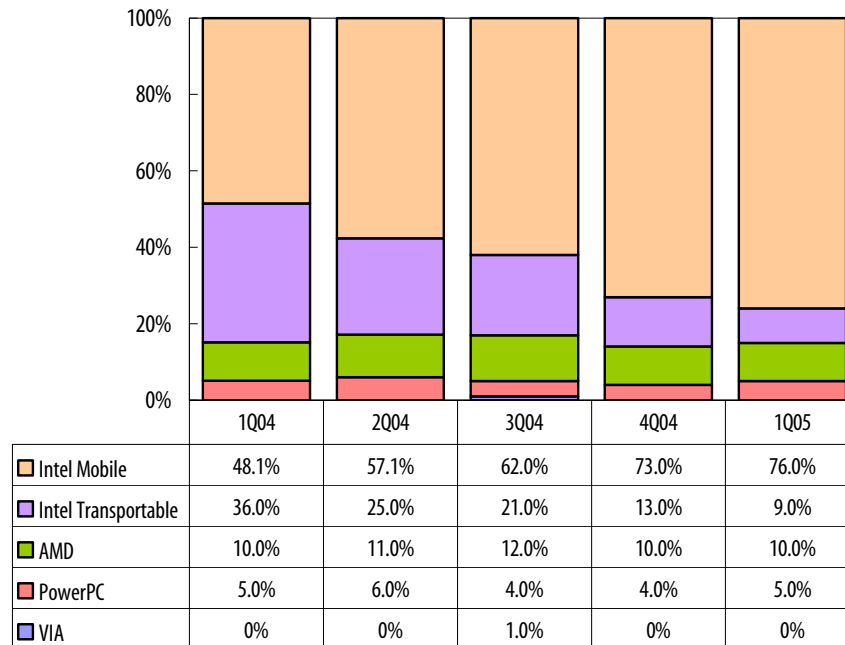
In 2003, Medion's notebook procurement from Taiwan was similar to that of Gericom. However, Medion has topped Gericom since 2004 amid the latter's reported financial woes. Medion maintains stable partnerships with Taiwan notebook makers.

TriGem's notebook procurement from Taiwan for the second quarter of 2004 was lower than those of Sharp, Hitachi, Lenovo and Gericom. However, in the first quarter of 2005, TriGem surpassed Sharp, Hitachi and Gericom, reaching a similar level to that of Lenovo.

## CPUs

In the first quarter of 2005, the number of Intel transportable CPU-based notebook models shipped from Taiwan declined fast to only 9 % from 13 % for the fourth quarter. Models with Intel mobile and PowerPC processors rose slightly, from 73 % to 76 % and from 4 % to 5 % respectively.

**Chart 6: Taiwan notebook shipment breakdown by CPU, 1Q04-1Q05**



Source: DigiTimes Research, April 2005

Intel mobile processors' growth slowed down in the first quarter, partly because the lower-end Celeron M was unable to wrest back much of the ground lost by Intel transportable CPUs. Competition from other vendors' notebook models with processors of a similar class remained strong.

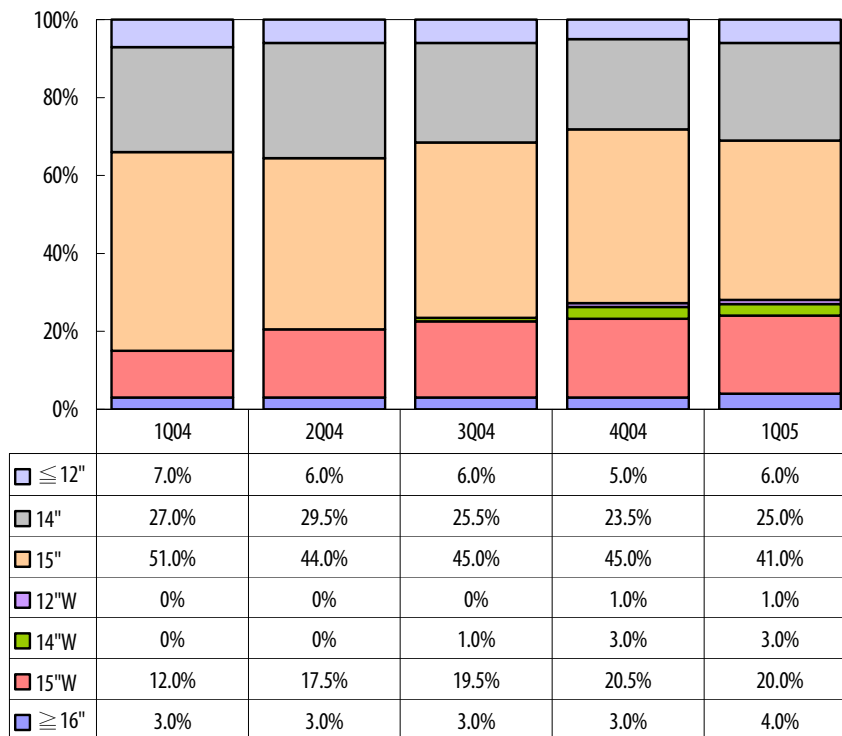
Advanced Micro Devices (AMD) processors' share remained stable at 10 % for both the first quarter and the previous one.

## Screen size

Although prices for 15-inch notebook-use panels remained low in the first quarter, the shipment percentage of models with the screen size dropped to 41 % from 45 % sequentially. A major reason for the decline was some vendors shifted their OEM orders to the cheaper 14-inch models from the 15-inch. Sony's shift was the most obvious.

Demand for widescreen notebooks stayed flat in the first quarter because widescreen panels were still more expensive than standard-size panels, whose prices continued falling. Overall shipments of 14-inch widescreen notebooks failed to meet market expectations for high growth and stayed flat at 24 % as a result of higher prices than standard 14-inch models, and weaker-than-expected demand in Europe.

**Chart 7: Taiwan notebook shipment breakdown by screen size, 1Q04-1Q05**

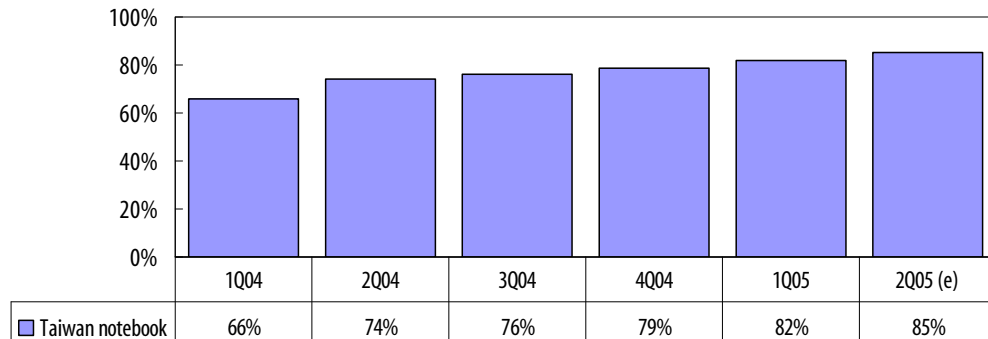


Source: DigiTimes Research, April 2005

## The second quarter and beyond

Demand in the second quarter is expected to pick up, with Taiwan notebook shipments reaching a record quarterly high of 10.91 million units. Shipment growth is expected to reach 47 % on-year and 10 % on-quarter. The shipment growth for the Taiwan notebook sector will be higher than the overall worldwide notebook market growth for the second quarter. Taiwan's share of the worldwide market will reach 85 %, up 11 percentage points from a year earlier.

**Chart 8: Taiwan's proportion of worldwide notebook shipments, 1Q04-2Q05**

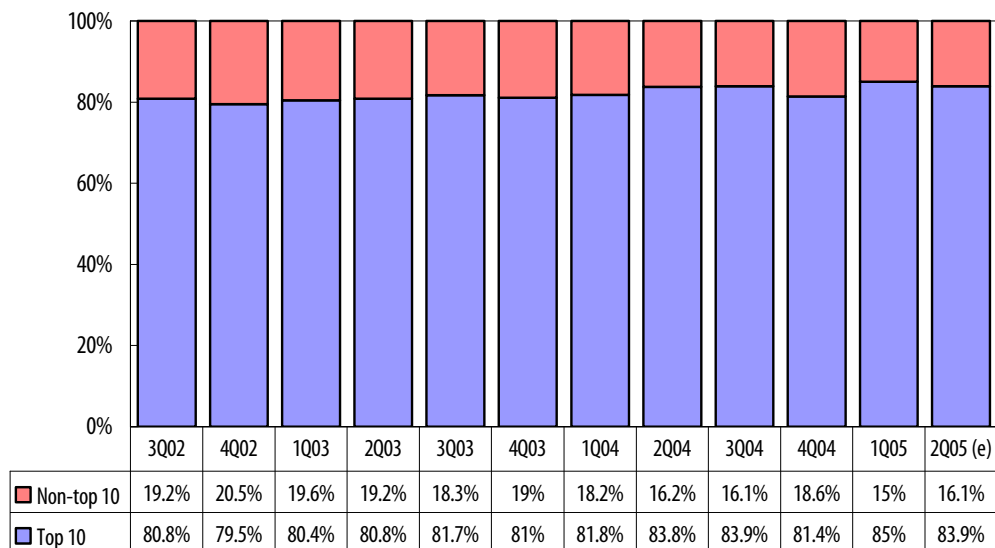


Source: DigiTimes Research, April 2005

## Top 10 versus the rest

Non-top-10 vendors, who chiefly depend on the consumer market, are seeing a slight rebound in demand for their notebooks after the first-quarter low season. Their share of Taiwan's notebook shipments is expected to climb to 16.1 % from 15 % in the first quarter.

**Chart 9: Top 10 and non-top-10 vendors' share of Taiwan notebook shipment, 3Q02-2Q05**



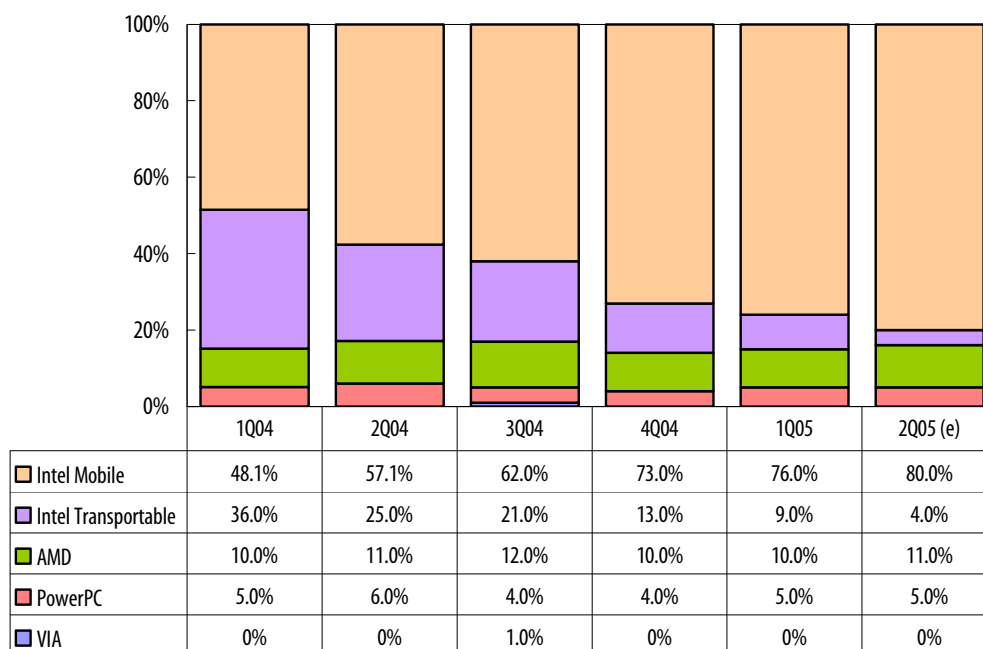
Source: DigiTimes Research, April 2005



## CPUs

The percentage of Intel transportable CPU-based notebooks to be shipped from Taiwan will continue dropping in the second quarter, to 5%, as demand for Intel mobile CPU-based models grows. Notebooks equipped with Intel mobile CPUs will reach a new high of 80% of the entire second-quarter Taiwan shipments. However, growth for Intel mobile CPUs is generally slowing. For the second quarter, there will be only a sequential increase of 4 percentage points in Intel mobile-based models' share of Taiwan shipments. The rise will be significantly smaller than the segment's 9-percentage-point growth for the second quarter of 2004.

**Chart 10: Taiwan notebook shipment breakdown by CPU, 1Q04-2Q05**



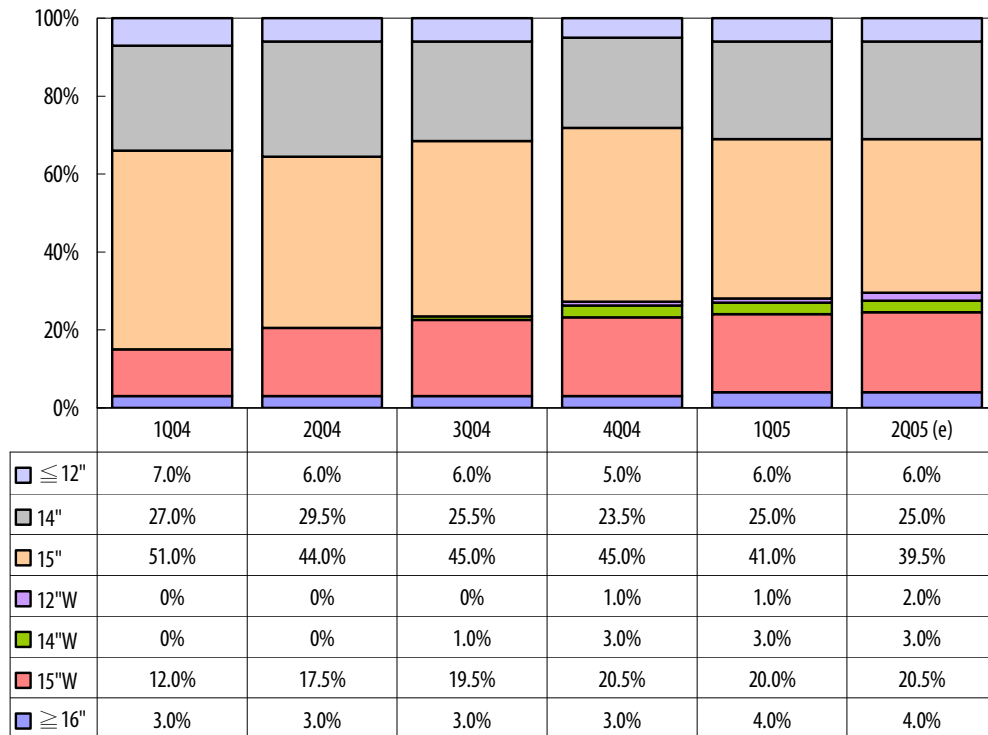
Source: DigiTimes Research, April 2005

The launch of AMD's new notebook-use CPU in the second quarter is expected to help boost the company's share of the notebook market. Although the proportion of AMD-based notebooks in Taiwan's second-quarter shipments will only rise 1 percentage point to 11%, the products should have more growth potential than Intel mobile CPU-based models this year because of the smaller base.

## Screen size

Second-quarter Taiwan notebook shipments in terms of screen size will be very similar to those of the first quarter, with 15-inch and 14-inch models accounting for 40% and 25% respectively. Widescreen notebooks of all sizes will share 26%, of which the 12-inch class will register the biggest increase, while the 14-inch segment will stay flat.

**Chart 11: Taiwan notebook shipment breakdown by screen size, 1Q04-2Q05**



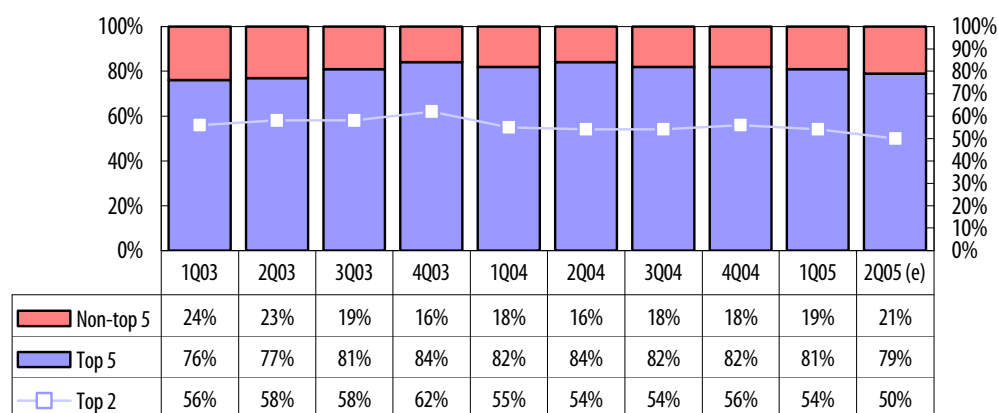
Source: DigiTimes Research, April 2005

## Shipment concentration

Taiwan's top two ODM notebook makers will only see a combined shipment growth of 2 % for the second quarter, lower than the Taiwan notebook sector's overall shipment increase. As a result, the top two ODM makers' share of total shipments will decrease. However, the third to fifth largest ODM makers will enjoy a slight rise in their share of the second-quarter Taiwan notebook shipments.

Non-top five ODM makers generally have good prospects for growth. Most of them have orders from such vendors as Fujitsu-Siemens, Sony, NEC CI, Gateway, TriGem and Lenovo.

**Chart 12: Shipment concentration, 1Q03-2Q05**

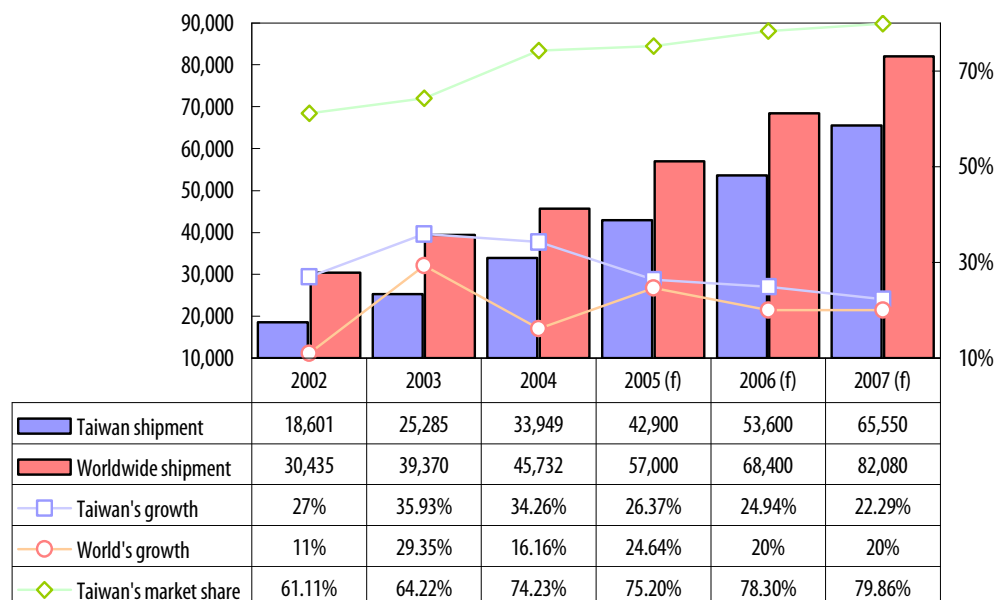


Source: DigiTimes Research, April 2005

## Taiwan to produce 80% of notebooks worldwide in 2007

Taiwan's share of the worldwide notebook market will continue climbing to almost 80 % in 2007, with shipments amounting to 65.55 million units.

**Chart 13: Shipment trend 2002-2007 (k units)**



Source: DigiTimes Research, April 2005