

***Case No COMP/M.4502 -
LITE-ON / PBDS***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION
Date: 16/02/2007

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 16/02/2007

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In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION

To the notifying parties:

Dear Sir/Madam,

**Subject: Case No COMP/M.4502 – LITE-ON/PBDS
Notification of 01/12/2006 pursuant to Article 4 of Council Regulation
No 139/2004¹**

1. On 12 January 2007, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 ("Merger Regulation") by which the undertaking Lite-On I.T. Corporation ("Lite-On", Taiwan) acquires within the meaning of Article 3(1)(b) of the Council Regulation joint control of the undertaking Philips&BenQ Digital Storage Corporation ("PBDS", Taiwan) by way of purchase of shares. While the undertaking Koninklijke Philips Electronics N.V. ("Philips", The Netherlands) will remain as the other controlling shareholder in PBDS, BenQ Corporation will exit from PBDS².

I. THE PARTIES

2. Lite-On is active in the manufacture and marketing of optical data-storage disk drives for personal computers ("PC ODDs") and to a negligible degree in automotive

1 OJ L 24, 29.1.2004 p. 1.

2 Thereafter, PBDS will change its name to Philips & Lite-On Digital Solutions Corporation (PLDS).

playback modules³ (“APMs”). Upon completion of another transaction which was notified to the Commission⁴ on the same day as this case, Lite-On will acquire a further manufacturing facility for APMs which is of a larger scale compared to its own operations. Furthermore, Lite-On is a manufacturer of personal computers (“PC”). Its other activities are in communications and consumer electronics.

3. Philips has activities in the design, manufacture and sale of a broad range of electronic products, including medical diagnostic imaging and patient monitoring, lighting solutions, personal care and home appliances and consumer electronics. With respect to the present transaction, Philips sells PC ODDs to the branded aftermarket.
4. PBDS, a joint venture over which Philips and BenQ Corporation (“BenQ”) currently jointly exercise control⁵, is active in the development, design, marketing, and sale of optical data-storage disk drives for personal computers (“PC ODD”).

II. THE OPERATION AND THE CONCENTRATION

5. Lite-On will acquire from BenQ all PBDS shares conferring on them a [...] % shareholding in PBDS while Philips will remain the other controlling shareholder with [...] % of the shares. The provisions governing the joint venture, i.e. the voting rights of each shareholder in the board of directors and all other provisions establishing the joint exercise on the joint venture business, will remain in place without change. Lite-On and Philips will each have the right to appoint [...] members to the board of directors, which has the responsibility for the strategic management, direction and control of PBDS. [...]. Therefore, PBDS will be jointly controlled by Lite-On and Philips within the meaning of Article 3.
6. The partial change in ownership has no impact on the full-function character of the joint venture. [...]. The Commission in a previous case⁶ has taken the view that outsourcing of manufacturing by the joint venture to its parents did not affect the full-function character of the JV since outsourcing is generally a trend in the high-tech industries. Moreover, [...] ⁷.
7. Pursuant to an agreement entered into in April 2006, Lite-On acquired BenQ's PC ODD production facilities in China. Since this acquisition has taken place within a two-year period between the same undertakings, it will be treated as one and the same concentration⁸. Lite-On has entered into an agreement with PBDS in relation to supply of PC ODDs.

³ Automotive Playback Modules are CD and DVD disk drives, for in-car multimedia and navigation applications. The parties state that they differ from ODD's for PC's or living room quality ODD's in that they need to be of a higher quality to withstand a harsher automotive environment.

⁴ Case COMP/M.4503 – PBDS/Philips APM

⁵ The Commission authorised on 1 August 2006 the creation of PBDS, case no COMP/M.4311 – Philips/BenQ/PBDS.

⁶ Case COMP/M.3349 – Toshiba/Samsung/JV

⁷ [...].

⁸ That acquisition did not give rise to a concentration to be notified under the Merger Regulation, [...].

8. By a separate concentration⁹, Lite-On will acquire the manufacturing arm of Philips' APM business. In this respect, PBDS envisages to source its APMs from Lite-On.
9. It can be concluded from the above that the present transaction constitutes a concentration pursuant to Article 3 of the Merger Regulation and PBDS will remain a full-function joint venture performing on a lasting basis all the functions of an autonomous economic entity.

III. COMMUNITY DIMENSION

10. Lite-On and Philips have a combined worldwide turnover of more than €5,000 million. The aggregate Community-wide turnover of each of the two undertakings exceeds €250 million. Neither Lite-On nor Philips has achieved more than two-thirds of its aggregate Community-wide turnover within one and the same Member State. The concentration therefore has a Community dimension.

IV. RELEVANT MARKETS

11. The proposed transaction involves horizontal overlaps in the supply of PC ODDs. Vertical overlaps in relation with PC ODDs occur with several activities of Lite-On or Philips respectively, i.e. the manufacture of PC ODDs, the supply of branded aftermarket PC ODDs, the manufacture of APMs and the assembly of PCs.

A. Supply of PC ODDs

12. According to the parties, ODDs are devices reading data that is stored on optical disks, such as compact disks ("CDs") or digital video disks ("DVDs"). ODDs can also be used to write new data onto CDs and/or DVDs. Both instances involve laser technology. ODDs are used in CD players or DVD players, PCs, game consoles and other electronic hardware devices, e.g. in living room entertainment.
13. The parties submit that PC ODDs are supplied to PC manufacturers, which are either original equipment manufacturers ("OEMs") or PC assemblers, and to aftermarket suppliers¹⁰.
14. Furthermore, the parties consider that the overall market for PC ODDs can potentially be segmented by type or by ODD family. With respect to the type of PC in which ODDs are built-in, a distinction can be made between desktop PCs housing half-height ODDs and laptops/notebooks which use slim ODDs. However, slim ODDs can also be found in desktop PCs. As regards a subdivision by ODD family, this would consist of be CD-ROM, DVD-ROM, CD-Read/Write, COMBO (CD-Read/Write and DVD-read), DVD-Read/Write and the next generation of technology that is Blu-ray and HD-DVD. Technical standards set the physical design in any of these sub-categories and PC (OEM) manufacturers set their standards further. Hence, a high degree of supply-side substitutability exists across PC ODDs. The parties also provided examples for a degree of demand-side substitutability regarding the choice between PC ODD types which can be found

⁹ Case COMP/M.4503 – PBDS/PHILIPS APM

¹⁰ The "branded aftermarket" is comprised of vendors such as Panasonic, Pioneer and Samsung who collectively account for up to one-third of PC ODD suppliers' sales.

both in PCs and in products supplied to the aftermarket. The parties argue along similar lines with respect to the degree of demand-side substitutability when considering the different ODD families. On this basis, the parties consider the relevant product market likely to be the overall market for PC ODDs, which could possibly be subdivided by half-height PC ODDs and slim PC ODDs.

15. The respondents to the Commission's market investigation, i.e. competitors and customers, largely confirmed that there exist distinct markets based on the level of the supply chain of PC ODDs. However, some respondents noted that the high degree of substitutability of PC ODDs both on the supply-side and on the demand-side would point to the existence of one overall market for PC ODDs. With respect to the question as to whether further sub-markets exist within the overall market for PC ODDs, the replies from the investigation showed no clear-cut answers. While some respondents tended to favour distinct sub-markets either by PC type or by ODD family because of different pricing of the products and different customer categories, other respondents emphasised the high degree of substitutability whereby they ultimately favoured one overall PC ODD market. Moreover, most competitors took the view that no material change would occur in the assessment of the market shares when considering the narrower sub-category of PC ODDs by PC type or by ODD family. As regards a potential distinction between PC ODDs and ODDs for game consoles, a majority of respondents would make such a differentiation mainly due to the characteristic differences *inter alia* of players present in the market, prices and the kind of customers.

16. In previous decisions¹¹, the Commission left open the precise market definition. Furthermore, the parties achieve only negligible revenues from sales of ODDs used in devices other than PCs¹². Thus, the Commission concludes that the relevant market to consider is the overall market for the supply of PC ODDs with a potential segmentation according to the type of PC ODD, namely half-height PC ODDs and slim PC ODDs, however the precise delineation can be left open since under either consideration the proposed transaction would not raise serious competition concerns. Since on the alternative potential distinction according to ODD family the competitive assessment would not alter, the question as to whether to distinguish such sub-category can be left open. For the purpose of the present no precise delineation appears necessary as to whether ODDs for game consoles would constitute a separate sub-category since the parties' activities are negligible in this respect. As regards the potential distinction of markets based on the supply chain for PC ODDs, the Commission considers in its vertical assessment of the proposed transaction the activities of the manufacture of PC ODDs and the supply of PC ODDs to the aftermarket.

17. With respect to the geographic product market, the parties submit that the overall PC ODD supply market is world-wide or at least EEA-wide in scope. Prices do not vary significantly in world regions. The manufacture of PC ODDs is carried out mostly outside the EEA. A clear majority of the respondents to the market

¹¹ Cases COMP/M.3349 – Toshiba/Samsung/JV, COMP/M.4139 – Sony/Nec/JV

¹² While both Lite-On and Philips manufacture DVD recorders for living room entertainment, they use a design and make of ODDs that is different from PC ODDs. Furthermore, only PBDS has negligible sales of ODDs for game consoles.

investigation took the view that the geographic scope to be world-wide for the overall supply market for PC ODDs and also for both kinds of potential sub-categories be it by PC type or by ODD family. Few customers took the view that each of the before-mentioned markets is EEA-wide in dimension. Previous Commission's decisions left open the precise market definition¹³. In the light of the before-mentioned, the Commission concludes that it can be left open whether the overall PC ODD supply market and its potential narrower sub-category by PC type are world-wide or EEA-wide in geographic scope since on either definition no serious competition concerns would arise from the proposed transaction.

B. The manufacture of PC ODDs

18. The parties concur with the Commission's view, as expressed in the Sony/Nec/JV decision¹⁴, that the manufacture of PC ODDs would be an upstream activity to the supply of PC ODDs. Such a market would however not be wider than PC ODDs. Electronic manufacturing services in general would be a description of an overall sector comprising a number of services and a wider range of products. As regards the manufacture of PC ODDs, production lines dedicated to this kind of product are not readily transferable to the manufacture of other electronic products.
19. Since the manufacture of PC ODDs is located outside the EEA and approximately 95% of PC ODDs are manufactured in Asia from which shipments are made to all other world regions, the parties submit that the geographic scope of the market for the manufacture of PC ODDs is world-wide, or at least EEA-wide. However, the precise definition can be left open, since no serious competition concerns would arise from the proposed transaction.

C. The supply of branded aftermarket PC ODDs

20. Since branding of PC ODDs largely means adding a casing to the device, putting an attractive wrapper on it, providing user manuals or other consumer-related services, the parties consider that branded aftermarket PC ODDs belong to the same overall product market of PC ODDs and the criteria on the market definition outlined above would equally apply. While the respondents to the market investigation rather tended to see the supply of PC ODDs to the aftermarket to be a distinct activity, this question can be left open since under either definition, the proposed transaction would not give rise to competition concerns.
21. With respect to the geographic scope, the parties view this market to be world-wide, or at least EEA-wide. Distribution of the product is made from centralised warehouses located in the EEA. Pricing of the product is largely at the same level in the various world regions. Also most respondents, who replied to the market investigation, see the market for the supply of branded aftermarket PC ODDs to be world-wide in scope and only few replies were in favour of a market which is at least EEA-wide. Since the competitive assessment would not alter under either geographic scope considered, the precise definition can be left open for the purpose of the present case.

D. The manufacture of PCs

¹³ Cases COMP/M.3349 – Toshiba/Samsung/JV, COMP/M.4139 – Sony/Nec/JV

¹⁴ COMP/M.4139

22. Furthermore, the parties submit that due to Lite-On's PC assembly activities a downstream vertical relationship exists between the market for the supply of PC ODDs and the manufacture of PCs. Since Lite-On's activities are negligible in this respect, no further precision as to the delineation of the relevant market or its geographic scope appears necessary for the purpose of the present case.

E. The manufacture of APMs

23. Finally, the parties argue that APMs belong to a different market than PC ODDs¹⁵, but present the market for the manufacture of APMs to be an upstream activity from the supply of ODDs to the automotive industry.. Since Lite-ON's activity in the manufacture of APMs is negligible, any further precision on the definition of this market would not alter the competitive assessment in the present case.

V. ASSESSMENT

A. Supply of PC ODDs

24. Lite-On and PBDS both supply a range of PC ODDs. When considering their supplies on the basis of PC type, both companies produce PC ODDs of the half-height type, whereas Lite-On also supplies slim ODDs. Table 1¹⁶ below gives details of the parties' market shares and those of their competitors.

¹⁵ For more detail, see case no COMP/4503 – PBDS/Philips APM

¹⁶ Data source: Techno Systems Research (2005); data related to sales achieved in 2005. According to the parties, no data are available for the EEA region since industry reports appear to collect data only on a world-wide basis. On the basis of the parties' own estimates of their sales figures, the EEA-wide market shares would be of a similar level as compared with world-wide. For reason of completeness, the table also shows the market shares of Lite-On's slim PC ODDs.

Table 1: World-wide market shares of all PC ODDs and that of by PC type; year 2005

| Company | All PC ODDs | Half-height PC ODDs | Slim PC ODDs |
|---|--------------------|----------------------------|---------------------|
| Lite-On | [10-20]% | [10-20]% | [0-10]% |
| PBDS | [0-10]% | [0-10]% | 0% |
| <i>Lite-On+PBDS</i> | <i>[20-30]%</i> | <i>[20-30]%</i> | <i>[0-10]%</i> |
| Hitachi/LG Data Storage Inc. (“HLDS”) | [20-30]% | [30-40]% | [20-30]% |
| Toshiba/Samsung Storage Technology Corp. (“TSST”) | [10-20]% | [20-30]% | [10-20]% |
| Panasonic | [0-10]% | --- | [20-30]% |
| Sony Nec Optiarc (“SonyNec”) | [0-10]% | [0-10]% | [0-10]% |
| Pioneer | [0-10]% | [0-10]% | --- |
| Others | [0-10]% | [0-10]% | [20-30]% |

25. The figures in Table 1 indicate that the new entity would become the number two player on the overall PC ODDs supply market with a combined world-wide market share of approximately [20-30]% and when considering the narrower sub-segment of the half-height PC ODDs the combined market share would amount to approximately [20-30]%. For slim PC ODDs, the combined market share would be that of Lite-On post-merger since PBDS has no supply activities in this respect.
26. Several strong competitors are present on these markets. HLDS enjoys a world-wide market share on the overall PC ODD supply market of approximately [20-30]%, followed by TSST with a market share of [10-20]%, Panasonic with [0-10]%, SonyNec with [0-10]%. Further players represent a market share of together approximately [10-20]%. When considering the sub-category half-height PC ODDs, strong competitors to the parties are HLDS with a market share of approximately [30-40]%, TSST with [20-30]% and SonyNec with [0-10]%. Other players enjoy together a market share of approximately [10-20]%.
27. The market investigation largely confirmed the level of market shares enjoyed by the parties and that of other competitors, although according to the parties the level of market shares appear to be of a somewhat volatile nature due to constantly switching supply relationships. The investigation also revealed that at least three to five competitors are active in any of the sub-segments for PC ODDs. Furthermore, the stronger players, for instance HLDS, TSST and Panasonic, who are present in most of the sub-segments, also enjoy significant market shares. When new supply opportunities occur, these competitors appear to frequently compete for supply contracts.

28. Manufacturers of PCs, in particular OEMs such as HP, Dell, Toshiba, account for a large part of the world-wide demand for PC ODDs¹⁷. Also the vendors of branded aftermarket products containing PC ODDs, such as Panasonic, Pioneer, Samsung, represent a significant part of their demand. These highly sophisticated customers apply a multi-sourcing policy, or at least a dual-source policy as regards the aftermarket vendors, thereby negotiating for any order with at least three to four potential suppliers. Since customers already fix a price point for the individual supply contract, which is typically linked with a specific PC model, prior to the negotiation potential suppliers have to compete on terms of quantity and quality but also on price.
29. The market investigation revealed that over the past three years, prices for the various PC ODD families have dropped world-wide in the range between 15%, for CD-ROM's, to about 60%-70%. Most respondents also expect further price decreases over the next three years. However, they do distinguish between different PC ODD families. They consider CD-ROM, DVD-R, COMBO and CD-RW as being phased out over the next two to three years and a further drop in prices could be expected in the range of about 5% to 15%. The more popular DVD-RW and the new technologies Blu-ray and HD-DVD are expected to gain substantial ground in terms of supply volumes but prices are expected to drop substantially by 30% to 40% and possibly even more. It can be concluded from the above, that none of the players which are active in the supply of PC ODDs, not even those who introduced a new technology, were able to exercise a significant market power vis-à-vis its customers. Innovation cycles appear to be very short, and can often be less than a year. Moreover, the PC ODDs suppliers appear to be able to adapt quickly to any new technology.

No unilateral effects will arise from the transaction

30. As indicated above, the market for PC ODDs is to a large degree commoditised due to technical standards known by all suppliers. Nevertheless, the Commission examined the possibility as to whether the parties would be each others closest competitors in the overall market for PC ODDs or in any of the potential sub-segments. In nearly all tenders, in which the parties participated¹⁸, at least three (but more often four to five) competitors submitted their bids. The analysis revealed [...]. Due to the multi-source policy of the customers, the supply volumes were often split amongst two or even more successful suppliers for the same tender. Moreover, neither of the parties was [...].
31. Customers for PC ODDs largely confirmed the parties' view that regular switching of supplier is a typical feature of this kind of industry, in particular due to short order cycles which can sometimes even be less than one month. Easy switching is facilitated by a number of factors. Firstly, supply contracts are of a short duration, non-exclusive and they typically contain provisions to allow termination at short notice. Secondly, the overall technical specifications for PC ODDs are well-known by all suppliers. They also have to meet the specific designs of each PC OEM manufacturer and have to undergo a qualification process. Once done, the lead time to adapt the manufacturing process of the customer is short when switching to another qualified supplier.

¹⁷ According to the parties, the top ten PC OEMs represent approximately over 50% of world-wide demand for PC ODDs.

¹⁸ The bidding data covered the period from December 2004 until the end of 2006.

32. In the light of the above, it appears unlikely that the proposed transaction would give rise to competition concern on the grounds of unilateral effects.

The transaction will not give rise to coordinated effects

33. After the transaction, the new entity would be closer, in terms of market shares, to its strongest competitors, HLDS and TSST in several PC ODD sub-markets. The Commission examined the possibility as to whether the proposed transaction would give grounds for coordinated concerns.

34. This kind of industry is however characterised by a high degree of innovation and very dynamic technological advances which take place in short cycles. Over the past years, many of the players have introduced new technology which has become shortly afterwards the standard to which the other players have had to adapt. In any event, exclusive patent holding appears to be no common feature of this industry. [...].

35. The pace of innovation appears to continue. Demands for higher disk storage capacity, faster data access speeds and higher definition of content is ever increasing. Since consumers always require backward compatibility of the disk products, the suppliers have to adapt quickly to new evolving standards.

36. The market investigation found pricing in the ODD industry to be non-transparent due to the absence of published price lists. Quotations made by bidders in tenders remain unknown in the market. Since customers frequently (sometimes monthly) organise tenders in which the kind of PC ODD can vary from any previous tender, pricing remains largely unpredictable for the suppliers because the price point fixed for the individual PC model is unknown¹⁹. As outlined above, suppliers experience a continuous downward pressure on prices and they themselves expect further drops in prices over the next years.

37. Finally, installed capacity appears to be sufficiently available among all suppliers of PC ODDs to adapt to volume increase or to easily switch to manufacturing products based on the latest technology.

38. In the light of the above, it appears unlikely that the proposed transaction will give rise to competition concern on the grounds of coordinated effects.

Conclusion

39. In view of the foregoing, it can be concluded that the proposed operation would not, in any of the markets considered, give rise to serious doubts as to its compatibility with the common market.

B. The manufacture of PC ODDs

40. Considering that Lite-On has acquired BenQ's manufacturing facilities, its market share would amount to approximately [20-30]% on the overall PC ODDs market and to

¹⁹ Suppliers of PC ODDs have to work against the price target set by PC manufacturers who are in fierce competition amongst themselves.

approximately [20-30]% for half-height PC ODDs²⁰. Competitors are *inter alia* LG with a market share of [20-30]% ([20-30]% for half-height PC ODDs), Samsung with [10-20]% ([20-30]%), Shansin with [0-10]% ([0-10]%). Other suppliers enjoy market shares between 1 and up to 5%.

41. From a supply-side perspective, [...]. [...] foreclosure of supply impacting other customers of Lite-On appears an unlikely scenario. Firstly, Lite-On will continue to face strong competitors who are all able to adapt quickly to meet the requirements of their customers, as outlined above. Secondly, many of Lite-On's competitors are also vertically integrated companies with large manufacturing operations. Even non-integrated competitors enjoy significant market shares. For these reasons, the proposed transaction is unlikely to give rise to vertically-related competition concerns.

C. The supply of branded aftermarket PC ODDs

42. Post-merger, Philips and PBDS²¹ will be active in the supply of branded aftermarket PC ODDs. Philips, for instance, purchases its needs from [...]. The branded product is sold to distributors, retailers and local PC assemblers.
43. Philips and Lite-On's combined market share, world-wide and in the EEA, for branded aftermarket PC ODDs would amount to approximately [0-10]% respectively. Competitors are NEC with a world-wide market share of approximately [10-20]% ([20-30]% at EEA-level), LG with [20-30]% ([20-30]%) and Pioneer with [10-20]% ([0-10]%). A number of other competitors are present in this market accounting for the remainder in terms of market shares.
44. The combination of Philip's and PBDS' activities in the branded aftermarket may raise some foreclosure concern. Competing ODD suppliers that source their PC ODD requirements for their branded aftermarket activities could no longer be supplied by PBDS. Given the fact that (i) [...] ²², (ii) the parties face some strong competitors who enjoy higher market shares and (iii) the conditions of competition appear to be largely the same for the branded aftermarket PC ODDs as for PC ODDs, it would appear unlikely that the proposed transaction would give rise to vertically-related competition concerns in this respect.

D. The manufacture of PCs

45. Lite-On assembles PCs on an Original Design Manufacture ("ODM") basis²³, which is a downstream activity to the supply of PC ODDs. In some instances, Lite-On incorporates PC ODDs into the PCs on the assembly line. [...]. However, the volume of PC ODDs integrated in this manner would represent [0-10]% of Lite-On's totally sold

²⁰ BenQ's activities in slim PC ODDs are negligible representing a market share of [0-10]%.

²¹ Lite-On will transfer its supply activities in the branded aftermarket PC ODDs to PBDS. [...]

²² Philips has sourced its requirements of PC ODDs for the purpose to sell them to the branded aftermarket from [...].

²³ Lite-On designs PCs and they are subject to approval by the PC OEM.

units of PC ODDs²⁴. In view of this negligible activity, the proposed transaction will give not give rise to vertically-related competition concerns in this respect.

E. The manufacture of APMs

46. Since Lite-On's activities in the manufacture and sale of APMs are of a very negligible nature, the proposed transaction would not give rise to vertically-related competition concerns in this respect. The effects of the acquisition of control by PBDS and thereby Lite-On of the Philips APM business are assessed in the decision concerning case COMP/M.4503 – PBDS/Philips APM.

Conclusion on vertical effects

47. Therefore, in the light of the above, the Commission concludes that the vertical effects stemming from the proposed transaction would not give rise to serious doubts as to its compatibility with the common market.

VI. CONCLUSION

48. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EC) No 139/2004.

For the Commission
Signed
Neelie KROES
Member of the Commission

²⁴ Even when considering the potential sub-categories, e.g. half-height ODDs, the figure would remain [0-10]%.