# Case No COMP/M.2874 - STARCORE LLC

Only the English text is available and authentic.

# REGULATION (EEC) No 4064/89 MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION Date: 27/09/2002

Also available in the CELEX database Document No 302M2874

#### COMMISSION OF THE EUROPEAN COMMUNITIES



In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EEC) No 4064/89 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 Where possible the information omitted has been replaced by ranges of figures or a general description.

Brussels, 27/09/2002 SG (2002) D 231855-231857

**PUBLIC VERSION** 

MERGER PROCEDURE ARTICLE 6(1)(b) DECISION

Dear Madame/Sirs,

### Subject: Case No COMP/M.2874 – StarCore LLC

Notification of 27 August 2002 pursuant to Article 4 of Council Regulation No 4064/89

- 1. On 27.08.2002, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EEC) No 4064/89<sup>1</sup> by which the undertakings Agere Systems Inc ("Agere"; U.S.A.), Infineon Technologies AG ("Infineon"; Germany) and Motorola, Inc. ("Motorola"; U.S.A.) acquire within the meaning of Article 3(1)(b) of the Council Regulation joint control of the undertaking StarCore LLC ("StarCore") by way of purchase of shares in a newly created company constituting a joint venture. This company will be initially contributed the businesses of the StarCore Joint Design Center jointly owned by Agere and Motorola, as well as the CARMEL<sup>TM</sup> DSP Cores design business of Infineon.
- 2. After an examination of the notification, the Commission has concluded that the notified operation falls within the scope of Council Regulation (EEC) No. 4064/89 and does not raise serious doubts as to its compatibility with the Common Market and with the EEA Agreement.

#### I. THE PARTIES

3. Agere is a United States corporation and designs, develops and manufactures integrated circuits for use in a broad range of communications and computer systems and optoelectronic components for communications networks. Infineon is a German Corporation and a provider of semiconductor and system solutions for applications in the wired and wireless communications markets, for security systems and smart cards, for the automotive and industrial sectors, as well as memory products. Motorola, Inc. is a United States Corporation and a provider of wireless communications, semiconductors and advanced electronic systems components and services.

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OJ L 395, 30.12.1989 p. 1; corrigendum OJ L 257 of 21.9.1990, p. 13; Regulation as last amended by Regulation (EC) No 1310/97 (OJ L 180, 9. 7. 1997, p. 1, corrigendum OJ L 40, 13.2.1998, p. 17).

#### II. THE OPERATION AND CONCENTRATION

#### Joint control

4. As a result of the transaction, Agere, Infineon and Motorola will acquire joint control over StarCore. They will each hold one third of the shares and voting rights in StarCore. Strategic decisions including the business plan and the appointment of the senior management require the consent of all three shareholders (unanimity requested). Agere, Infineon and Motorola will each appoint one Director to the Member's Committee; all decisions will be taken by a unanimous vote.

#### Full functionality

- 5. StarCore will be a full-function joint venture. StarCore will be vested with sufficient financial resources and human resources needed in order to operate on the market as an autonomous economic unit. StarCore will not be dependent on its parents for supply, demand or resources. In particular, no restriction will be imposed on StarCore for the licensing of its designs to any player of the DSP<sup>2</sup> chips industry.
- 6. The operation therefore constitutes a full-function joint venture according to Article 3 (2) of the Merger Regulation.

#### III COMMUNITY DIMENSION

7. The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 billion³ in the financial year 2001 (Agere: €4,5 billion; Infineon: €5,67 billion and Motorola: € 33 billion). In addition, the three undertakings have each an EU turnover in excess of € 250 millions (Agere: €[...]; Infineon: €[...] and Motorola: €[...]). Moreover, neither Agere, nor Infineon or Motorola achieved more than two thirds of their EU turnover in one single Member State. The concentration therefore has a Community dimension pursuant to the Article 1(2) of the Merger Regulation. It does not constitute a co-operation case under the EEA agreement.

#### IV. COMPATIBILITY WITH THE COMMON MARKET

#### A. Relevant product and geographic markets

# Developing and Licensing DSP Cores

8. As regards developing and licensing DSP Cores, the parties are of the opinion that the relevant market comprises development and licensing of DSP Cores technology. A DSP is a member of the class of electrical devices known as "microcomponents". Microcomponents are programmable circuits that fetch instructions and operands from memory, that generate results

Digital Signal Processor

Turnover calculated in accordance with Article 5(1) of the Merger Regulation and the Commission Notice on the calculation of turnover (OJ C66, 2.3.1998, p25). To the extent that figures include turnover for the period before 1.1.1999, they are calculated on the basis of average ECU exchange rates and translated into EUR on a one-for-one basis.

by manipulating the operands according to the programmed instructions, and that store result back to the memory. DSP technology plays an important role in wireless and wireline communications.

- 9. A DSP core is basically a design for making a DSP semiconductor and are primarily integrated into other Information Circuits ("ICs") which themselves are used for a wide range of different functions. The DSP technology is an advanced form of audio signal processing and therefore is different from other microprocessor technology. As such, the DSP Cores technology itself can be sold to many types of customers according to their specific needs.
- 10. With regard to DSP Cores, the parties have submitted that it would not be appropriate to make a distinction between the different types of microprocessors using DSP Cores in this case because the different DSP Cores being developed can be used to make any of these DSP products. The different categories of DSP products are, for instance, Programmable DSPs, FASICs, ASSPs, DSP ASICs, Building Blocks and MPUs/Media Processors. The Commission's investigation has indicated that some distinctions could be made between these different types, with respect to the level of standardisation and the costs it implies. However, the respondents have indicated that no sharp distinction could be outlined between these different types, which are all technologically equivalent.
- 11. In addition, there is a significant flexibility from the demand side and Original Electronics Manufactures ("OEMs") can often choose between the various types of DSP products to meet their DSP needs as they design their own products. As a matter of fact, OEMs do not rely on these categories and rather look at their DSP needs and examine and compare the various alternatives as they design their product.
- 12. In any case, this question can be left open for the present case since its assessment would remain unchanged whichever segmentation of the product market is considered.
- 13. The Parties have submitted that the market for the development and the licensing of DSP Cores is global in scope. Both the supply (development and licensing) and the demand are international in scope. In particular, there are no trade barriers and transportation costs do not arise. The Commission's investigation in the present case has not revealed any grounds to deviate from this conclusion. In any event,the geographic market definition can be left open since on any definition of the geographic market the transaction does not raise competitive concerns..

#### B. Assessment

Competitive Effects

#### Horizontal overlaps

14. Agere and Motorola are currently not active in the business of licensing their DSP Cores.<sup>4</sup> They pursue the same vertically integrated business model as the other DSP manufacturers who sell the entire package consisting of the DSP Core and the semiconductor to their clients. Infineon also sells semiconductors on the basis of this business model. However,

Occasionally, the parties may license a company to make a semiconductor product for a customer so that the customer will have a second source.

Infineon started to develop the licensing business model, i.e. to license some of its chip designs to other chip manufacturers, but - so far - has only generated de-minimis turnover with that business. It should be noted that if the captive licensing of StarCore Joint Design Center to its former parents Agere and Motorola and the captive licensing of CARMEL to Infineon were also considered, the respective market shares would be equivalent to the ones of the three parents in the downstream DSP semiconductors production industry, and the same applies to their manufacturing competitors<sup>5</sup>. As explained in the following paragraph devoted to vertical effects their addition do not give rise to competition concerns. As a consequence, no competition concern could arise from the horizontal overlap of the Parties' activities.

#### Vertical effects

15. The parties have submitted that the transaction does not give rise to vertically affected markets and this has been verified by the Commission's market investigation. In any case, Texas Instruments is the leading vendor of DSP semiconductors with approximately 14.4% of the market. None of the Parties has a leading market share in the production of DSP semiconductors and in addition no manufacturing capacity is being contributed to StarCore. Even if the market shares of the Parties were combined, it is less than 15% based on information from Forward Concepts calculations and would consequently not lead to the creation of a dominant position.

# Possible co-ordination under Article 2(4) of the ECMR

16. Due to the importance of innovation in the DSP semiconductors industry and due to the heterogeneity of the product market as cores display different levels of standardisation, coordination between the Parties through the joint-venture is unlikely to happen. Even if it would take place, any co-ordination stemming out of the concentration would not lead to any foreclosure of the market of competitors or to sustainable price increases, since, as mentioned above, the combined market share of the Parties in the DSP semiconductors manufacturing market is less than 15 %.

## V CONCLUSION

17. 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 (EEC) No 4064/89.

For the Commission,

Mario Monti Member of the Commission (signed)

This is due to the fact that only a very limited number of manufacturers are not vertically integrated upstream, and as a consequence, the DSP Core licensing industry is marginal in comparison with the industry of designing DSP Cores for internal production