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Datasheet for the decision of 2 July 2013

Case Number: T 0128/11 - 3.5.05

Application Number: 01972652.0

Publication Number: 1434382

IPC: H04L7/00, H04L25/38, H04L29/08, H04L5/16, H04L12/28, H04L12/403

Language of the proceedings: EN

Title of invention:
Serial data transferring apparatus

Patent Proprietor:
Hitachi, Ltd.
Hitachi Car Engineering Co., Ltd.

Opponent:
Infineon Technologies AG

Headword:
Transfer clock synchronisation/HITACHI

Relevant legal provisions:
EPC Art. 123(3)
EPC 1973 Art. 54
RPBA Art. 12(4)

Keyword:
Extension of scope of protection - (no)
Admission of late-filed document - (yes)
Admission - auxiliary request (yes)
Novelty - (no)
Remittal to the first instance for further prosecution - (yes)

Decisions cited:
T 1002/92

Catchword:

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Case Number: T 0128/11 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 2 July 2013

Appellant: (Opponent)	Infineon Technologies AG Am Campeon 1-12 85579 Neubiberg (DE)
Representative:	Viering, Jentschura & Partner Am Brauhaus 8 01099 Dresden (DE)
Respondent: (Patent Proprietor)	Hitachi, Ltd. 6-6, Marunouchi 1-chome Chiyoda-ku Tokyo 100-8280 (JP)
	Hitachi Car Engineering Co., Ltd. 2477, Takaba Hitachinaka-shi, Ibaraki 312-0062 (JP)
Representative:	Beetz & Partner Patentanwälte Steinsdorfstrasse 10 80538 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 19 November 2010 concerning maintenance of the European Patent No. 1434382 in amended form.**

Composition of the Board:

Chair: A. Ritzka
Members: K. Bengi-Akyuerek
G. Weiss

Summary of Facts and Submissions

I. The appeal of the opponent is against the interlocutory decision of the opposition division, posted on 19 November 2010, to maintain European patent No. 1434382 as amended according to the claims of a main request, in view of the invoked opposition grounds of lack of novelty and inventive step (Article 100(a) in conjunction with Articles 54 and 56 EPC) and added subject-matter (Article 100(c) in conjunction with Article 123(2) EPC).

II. The following document was *inter alia* cited in the opposition proceedings:

D9: "Road vehicles - Diagnostic systems - Part 2: CARB requirements for interchange of digital information", ISO 9141-2: 1994(E), first edition, 1 February 1994.

III. Notice of appeal was received on 19 January 2011. The appeal fee was paid on the same day. With the statement setting out the grounds of appeal, received on 29 March 2011, the following new document was submitted by the appellant (opponent):

D11: "Road vehicles - Diagnostic systems - Requirements for interchange of digital information", ISO 9141: 1989(E), first edition, 1 October 1989.

The appellant requested that the decision under appeal be set aside and that the patent in suit be revoked in its entirety on the grounds of extension of scope of protection (Article 123(3) EPC), lack of novelty (Articles 52(1) and 54 EPC) in view of D11, and lack of

inventive step (Articles 52(1) and 56 EPC) in view of D9 or D11 with respect to the main request as maintained. In addition, oral proceedings were requested as an auxiliary measure.

IV. With a response letter dated 24 October 2011, the respondent (patent proprietor) filed amended claims according to second to fifth auxiliary requests and requested that the appeal against the decision under appeal be dismissed and that the patent in suit be maintained on the basis of the main request (corresponding to the claims as maintained) or a first auxiliary request, both as filed in the first-instance proceedings on 21 September 2010, or any of the second to fifth auxiliary requests. Furthermore, it was contended that the late-filed document D11 should not be admitted into the appeal proceedings. Also, oral proceedings were requested as an auxiliary measure.

V. A summons to oral proceedings scheduled for 2 July 2013 was issued on 14 March 2013. In an annex to this summons, the board expressed its preliminary opinion on the appeal pursuant to Article 15(1) RPBA. In particular, observations were made with regard to the ground of Article 123(3) EPC, the question whether documents D9 and D11 could be considered as a single document, the admissibility of late-filed document D11, and the question of novelty and inventive step (Article 52(1) EPC) having regard to D9 and D11.

VI. By letter dated 3 June 2013, the respondent provided its observations in response to the board's communication under Article 15(1) RPBA.

VII. Oral proceedings were held as scheduled on 2 July 2013, during which the admissibility of D11 and the

patentability of the main request and the first auxiliary request were discussed.

The appellant finally requested that the decision under appeal be set aside and that the patent be revoked. In addition, it consented to a remittal to the department of first instance for further prosecution.

The respondent finally requested that the appeal be dismissed, i.e. that the patent be maintained on the basis of the claims according to the main request, or, in the alternative, that the decision under appeal be set aside and that the patent be maintained on the basis of the claims according to the first auxiliary request submitted with letter dated 21 September 2010 or that the case be remitted to the department of first instance for further prosecution.

At the end of the oral proceedings, the decision of the board was announced.

VIII. Claim 1 of the main request reads as follows:

"A serial data transferring apparatus on a receiving side (2, 31 - 35) connectable to a transferring apparatus on a transmitting side (1, 30) through a single signal line and comprising:

means (20, 21) for receiving, through said single signal line, a start signal indicative of start of data transfer from the transmitting side to the receiving side through said single signal line;

means (22, 24, 25) for determining that said receiving means (20, 21) has received the start signal, and generating a data train indicative of a receiving-side transfer clock of serial data to be received on said receiving side from said transmitting

side; and

serial data output means (20,21,23) for outputting said data train to the transmitting side through said single signal line,

wherein after replying said data train to the transmitting side through said single signal line, said receiving means (20, 21) receives through said single signal line a train of serial data transmitted from the transmitting side in accordance with the receiving-side transfer clock."

Claim 1 of the first auxiliary request comprises all the features of claim 1 of the main request except that the expression "after replying said data train" has been replaced by the phrase "in response to replying said data train" in the last paragraph of the claim.

The further independent claims 8 and 10 of the main request and the first auxiliary request are directed to corresponding apparatuses.

Reasons for the Decision

1. Admissibility of the appeal

The appeal complies with the provisions of Articles 106 to 108 EPC (cf. point III above) and is therefore admissible.

2. MAIN REQUEST

This request corresponds to the main request underlying the appealed decision (i.e. claims 1 to 10 as maintained).

2.1 Article 123(3) EPC

The board finds that this request complies with the provision of Article 123(3) EPC, for the following reasons:

2.1.1 The claims of this request differ from the claims of the patent as granted *inter alia* in that the headlines of independent claims 1 and 10 as amended have been changed from "serial data receiving unit" according to claims 1 and 10 as granted to "serial data transferring apparatus".

2.1.2 The appellant argued that those amendments were not allowable under Article 123(3) EPC, since amending "serial data receiving unit", which commonly could only receive data, to "serial data transferring apparatus", which could both transmit and receive data, amounted to an extension of the protection conferred.

2.1.3 The board agrees with the opposition division and the respondent that features related to transmitting data, i.e. "outputting" data, had already been present in claims 1 and 10 as granted and that the "serial data receiving unit" according to claims 1 and 10 as granted comprises both receiving and sending capabilities like the "serial data transferring unit" according to claims 1 and 10 as amended. In other words, any unit which does not comprise means for receiving and outputting as further specified in claims 1 and 10 as granted would fall neither within the scope of a claim to a "serial data *receiving* unit" nor within that of a claim to a "serial data *transferring* apparatus". Thus, such a unit would not infringe the patent as amended for the sole reason that the claimed unit has been labelled differently, regardless of whether claims 1 and 10 as

amended contain further limiting features or not. The board however notes in passing that the situation would be different if a granted claim to a *receiving* unit comprising means only for receiving data were to be amended to a claim to a *sending* unit having purely means for sending data, which is not the case here.

2.1.4 Accordingly, the amendments made to claims 1 and 10 are found to be admissible under Article 123(3) EPC.

2.2 *Admission of document D11 into the appeal proceedings*

The board decided to admit late-filed document D11 into the appeal proceedings, for the following reasons:

2.2.1 Document D11 was submitted for the first time with the statement setting out the grounds of appeal (see point III above), i.e. it was filed belatedly. The appellant argued that D11 could not be filed earlier and that it was highly relevant, in particular due to the teaching of sections 8.4, 8.5.2, and 9.2.3, for the assessment of novelty and inventive step. Furthermore, it added no complex issues to the case since its teaching was very similar to that of D9 while its relevant content could be easily established.

2.2.2 The respondent held that D11 should be rejected as late-filed because it had no *prima facie* relevance, as the referred passages did not extend beyond the corresponding content of D9. Furthermore, D11 could have been filed at an earlier stage of the proceedings as the context of the corresponding standard was apparently known to the appellant.

2.2.3 In this context, the board had to determine whether D11 could have been presented in the first-instance

proceedings (Article 12(4) RPBA) and whether it happens to be *prima facie* more relevant than the prior-art documents on file, in particular document D9, such that it could prejudice the maintenance of the patent in suit (cf. T 1002/92, OJ EPO 1995, 605, point 3.4).

Concerning the first criterion, the board notes that the opposition division held that the subject-matter of claim 1 of the main request was novel over D9 (cf. appealed decision, section 5.1), since D9 did not disclose the features specifying that

a) a data train indicative of a receiving-side transfer clock of serial data to be received on said receiving side from said transmitting side is generated and that

b) a train of serial data transmitted from the transmitting side in accordance with the receiving-side transfer clock is received at the receiving side (emphasis added).

More particularly, the opposition division considered that the teaching of D9 in sections 7.2 and 7.3, according to which the synchronisation pattern (corresponding to the "data train indicative of a transfer clock" as claimed) sent from the ECU ("receiving side") informs the diagnostic tester ("transmitting side") of the baud rate ("transfer clock") for transmission of the key words and all subsequent data, implied that the synchronisation pattern informed the transmitting side only of the baud rate for the transmission from the receiving to the transmitting side, and not of that from the transmitting to the receiving side. Accordingly, an adaptation of the transmission rate for transmissions from the transmitting to the receiving side being indicated by the receiving side was not unambiguously

disclosed (cf. appealed decision, page 7, fifth paragraph to page 8, first paragraph). In this regard, the interpretation of the term "all subsequent data" in section 7.2 of D9 appeared to be crucial for the assessment of novelty in the opposition proceedings (cf. minutes of the first-instance oral proceedings, page 4, first to third paragraphs). Therefore, the board does not consider that a new document addressing this issue could necessarily have been presented in the first-instance proceedings.

Concerning the relevance of D11, the board notices that D11 (labelled as "ISO 9141:1989") was published in 1989, i.e. almost five years earlier than D9 (labelled as "ISO 9141-2:1994"), and represents the general part of the international standard ISO 9141, while D9 constitutes the second part of this standard related to a subset of D11 (see D9, section 1). More specifically, it is immediately apparent that D9 and D11 have a quite similar content structure, rely on identical definitions (see D9, page 1, section 3) and consist of overlapping sections (see e.g. sections 5 to 7 of D9 and D11). Moreover, it can be easily discerned from D11 that section 8, which deals with the requirements of the diagnostic tester, and section 9, addressing the requirements of the ECU, provide different and more detailed information on sending the corresponding baud rate by the ECU and responding to that received baud rate by the diagnostic tester (see sections 8.4, 8.5.2, 8.5.3, and section 9.2.3, page 11, left-hand column, first paragraph). The board found that those further teachings appeared *prima facie* also to disclose features a) and b) in question and thus were likely to prejudice the novelty of the claimed subject-matter. Consequently, D11 was considered more relevant than D9.

2.2.4 In view of the above, the board decided to exercise its discretionary power to admit document D11 into the appeal proceedings.

2.3 Article 52(1) EPC: Novelty and inventive step

In the board's judgment, claim 1 of the main request does not meet the requirements of Article 52(1) EPC, for the following reasons:

2.3.1 With regard to the disclosure of D11, it was common ground during the oral proceedings before the board that D11 is also related to synchronised data exchange between a transmitter side ("diagnostic tester") and a receiver side ("Electronic Control Unit ECU") and that it discloses all the features of claim 1 other than features a) and b).

2.3.2 As set forth by the appellant, D11 further teaches that the diagnostic tester requires information on the form of subsequent diagnostic communication and that this information is given by a "baud rate synchronization pattern" and at least two "key words" forming an identifier code (see D11, section 7.1). However, the board shares the view of the respondent that, in this specific context, the synchronisation pattern is merely used for informing the diagnostic tester of the baud rate at which the subsequent key words are transmitted (see D11, section 7.2), i.e. of the transfer clock related to the transmissions from the receiving side to the transmitting side rather than of the transfer clock related to the transmissions in the opposite direction.

However, sections 8.4, 8.5.2, and 8.5.3 of D11, as referred to by the appellant, relate to the requirements of the diagnostic tester and provide more

specific information about the baud rate used in the opposite transfer direction, i.e. from the transmitting to the receiving side. According to those sections, the diagnostic tester is supposed to determine the baud rate sent by the ECU via the synchronisation pattern and to respond at the "required baud rate" in the event of bidirectional communications indicated by the key words (see D11, page 8, right-hand column, first paragraph). More specifically, the diagnostic tester is capable of responding to the baud rate sent out by the ECU at the same baud rate or, alternatively, in case of baud rate modifications, at the modified baud rate (see sections 8.5.2 and 8.5.3). Even though the board concurs with the respondent that the broad term "required baud rate" does not necessarily imply that the baud rate used by the diagnostic tester for transmissions to the ECU matches the baud rate previously sent by the ECU, the teaching of sections 8.5.2 and 8.5.3 sufficiently evidences that the sent baud rate depends on the baud rate received at the diagnostic tester, i.e. the "receiving-side transfer clock" as claimed. This is corroborated, in particular, by section 9 of D11, also cited by the appellant and relating to the requirements of the ECU, according to which the baud rate of the signal received by the ECU, i.e. sent by the diagnostic tester, shall not deviate from the initially sent baud rate synchronisation pattern (see D11, page 11, left-hand column, first paragraph).

In this respect, the argument of the respondent that the diagnostic tester according to D11 solely "interprets" the baud rate conveyed via the synchronisation pattern by the ECU (receiving side) but did not necessarily use that received baud rate for data transmissions to the receiving side is not

convincing. In fact, the baud rate synchronisation pattern sent from the ECU (receiving side) is manifestly used for setting the corresponding sending baud rate at the diagnostic tester (transmitting side) such that it corresponds to the receiving baud rate in D11 (see, in particular, page 11, left-hand column, first paragraph: "The baud rate ... of the signal ... received by the ECU shall not deviate from ... the initially transmitted baud rate synchronization pattern ... by more than ..."). From this, it is clear to the board that the baud rate sent by the ECU is intended to inform the diagnostic tester of the baud rate to be received and that the diagnostic tester in turn transmits data in accordance with the baud rate, as required by features a) and b). Nor has the respondent provided any counter-arguments in support of a different interpretation of that disclosure.

2.3.3 In view of the above, all the limiting features of claim 1 are considered to be disclosed in D11. Accordingly, the subject-matter of claim 1 of this request lacks novelty (Article 54 EPC 1973).

3. FIRST AUXILIARY REQUEST

This request corresponds to the first auxiliary request underlying (but not decided upon in) the appealed decision and differs from the main request basically in that claim 1 as amended now specifies that

c) in response to replying said data train to the transmitting side through said single signal line, a train of serial data transmitted from the transmitting side in accordance with the receiving-side transfer clock is received through said single signal line (see point VIII above).

This amendment is *inter alia* supported by the disclosures of page 9, lines 3-5, and Figs. 1 and 5 of the application as filed.

3.1 *Admission into the appeal proceedings*

This request had been submitted for the first time one month ahead of the first-instance oral proceedings and had never been discussed or examined in the opposition proceedings. As to its substance, it comprises immaterial amendments made to the independent claims (i.e. the phrase "after replying" being replaced by "in response to"), taken from the description, which further limit the underlying subject-matter without diverging from the requests and facts on file or adding new complex issues to the case. Therefore, this request was admitted into the appeal proceedings.

3.2 Article 52(1) EPC: Novelty and inventive step

The board judges that claim 1 of this request also does not meet the requirements of Article 52(1) EPC in conjunction with Article 54 EPC 1973, for the following reasons:

3.2.1 The respondent argued that the phrase "in response to" implied that the train of serial data is received immediately after sending the data train indicative of the receiving-side transfer clock to the transmitting side, i.e. that no processing delay was incurred at the transmitting side before the respective serial data is sent to the receiving side.

3.2.2 However, the board takes the view that the phrase "in response to" neither linguistically nor technically reflects the above interpretation, since that

expression merely indicates that there must be a *causal* relationship between the reception of the receiving-side transfer clock and the transmission of the serial data at the transmitting side rather than specifying a precise *temporal* information between those events. In this context, the board agrees with the appellant that the use of the expression "in response to" does not preclude any processing delay incurred at the transmitting side, as asserted by the respondent.

In any event, the board concurs with the appellant that feature c) is also directly and unambiguously disclosed in D11 (see, in particular, page 8, right-hand column, first paragraph: "... determining the baud rate sent out by the ECU ... responding at the required baud rate ..." and page 10, left-hand column, first paragraph: "... diagnostic tester shall be capable of responding to the baud rate sent out by the ECU ...").

3.2.3 Accordingly, the subject-matter of claim 1 of this request also lacks novelty (Article 54 EPC 1973).

4. *Remittal to the department of first instance*

4.1 The second to fifth auxiliary requests were filed by the respondent in response to the statement setting out the grounds of appeal (see point IV above) and thus were submitted for the very first time in the appeal proceedings. Consequently, the patentability of those requests were not examined and decided upon by the department of first instance, nor could any assessment of novelty and inventive step with respect to those requests be provided in view of the newly introduced document D11. The board is therefore not in a position to pass final judgment on those requests.

4.2 The board also notes in passing that the opposition division had decided to maintain the patent in *amended* form according to the main request without even having decided on the matter of inventive step in view of D9 (cf. minutes of the first-instance oral proceedings, page 5, last four paragraphs), contrary to Article 101(3)(a) EPC 1973, according to which the patent as amended shall meet (all) the requirements of the EPC, thus including the requirement of Article 56 EPC 1973.

4.3 Since, in addition, both the appellant and respondent requested a remittal of the case to the department of first instance (see point VII above), and in order not to deprive the parties of an examination of the remaining claims on file by two instances, the board decided to exercise its discretion to remit the case to the department of first instance for further prosecution under Article 111(1) EPC 1973.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution.

The Registrar: The Chair:

K. Götz A. Ritzka

Decision electronically authenticated