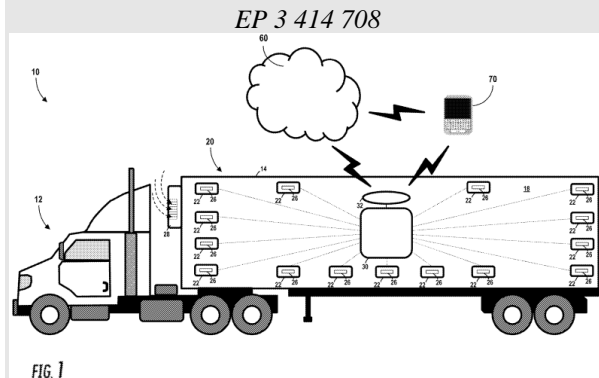


UPC CFI, Central Division Paris, 29 July 2024,
Bitzer v Carrier Corporation



Claim 1 of EP ‘708 maintained as amended by auxiliary request II

PATENT LAW – PROCEDURAL LAW

Partial inadmissibility of request to amend patent (Rule 30 RoP, Rule 50 RoP)

- It must be clarified that if [...] a request for patent amendment also concerns nonchallenged claims, such request will not be considered entirely inadmissible, as argued by the claimant, but will instead be considered admissible, and addressed, only with regard to the challenged claims.
- Furthermore [...] the patent proprietor is entitled to propose amendments to the challenged claims also by inserting features, omitted in the original claims, mentioned in the non-attacked claims.

Indeed, the fact that these latter claims are not challenged and are therefore outside the scope of the proceedings does not prevent the features disclosed therein from being used to amend the challenged claims.

Inadmissible late-filed grounds for invalidity (Rule 44 RoP, Rule 30 RoP)

- New grounds for invalidity (novelty and lack of inventive step) raised in Reply to defence to revocation and Defence to the application to amend the patent, not submitted in the statement for revocation and which did not relate to the amended version of the patent are inadmissible as they are not permitted by the Rules of Procedure and, in general, are contrary to the front-loaded character of the ‘UPC’ proceedings.

No added subject matter by amending “at least one” into “a plurality” (Article 123(2) EPC)

- This amendment is supported by the application as originally filed in original claim 1 (‘at least one...’), paras. 28 and 37 and figure 1 of the application as originally filed. It should also be noted that the expression ‘at least one’ comprises ‘a plurality’, as it means one or more.

Enabling disclosure of a “user induced event” (Article 83 EPC)

- In view of what the description teaches and provides as examples and of what is general common knowledge

47. Indeed, as noted by the defendant, para. [0012] teaches that “the event detector 24 may be internal or external to the sensor 22” and para. [0011] provides various examples of the sensor 22 being configured to monitor environmental parameters “such as for example temperature, pressure, humidity, carbon dioxide, ethylene, ozone, light exposure, vibrations, and other conditions in the interior compartment 18”. A detected change in one or more of these environmental parameters could be attributed to an environmental altering event and/or a user induced event.

48. Furthermore, systems for detecting the opening of a door are part of general common knowledge. A skilled person would be capable of employing any of these systems for detecting the opening of a door to determine a user induced event.

No lack of clarity of the term “temperatures” (Article 84 EPC)

- A person of ordinary skill in the art, applying a natural reading to the phrase ‘a plurality of sensors to monitor temperatures’, would understand this to mean a plurality of environmental sensors, each monitoring temperature. This conclusion is supported by the general meaning of the expression in question, as well as by para. [0011] and Fig. 2.

51. In the reply to defence to revocation and defence to the application to amend the patent, the claimant argues that “there is an ambiguity surrounding the use of the term ‘temperatures’” because it is unclear whether this term refers to varying temperatures at the same location but at different times, or to different temperatures at various locations simultaneously.

Lack of novelty of claim 1 (Article 54 EPC)

- all the relevant features of the claim 1 of the patent at issue are disclosed by MB2.

Auxiliary request II

- No lack of novelty in view of unsubstantiated references to prior art without explanation (article 54 UPCA). In the ‘UPC’ framework, where proceedings have an adversarial character, each party must provide adequate reasoning and evidence to support its allegations. The judge cannot compensate for insufficient illustration and evidence by seeking arguments or evidence of his or her own motion.
- No lack of inventive step (Article 56 EPC). The teachings contained in these prior art documents do not provide any motivation to solve the technical problem by adjusting the sampling rate based on at least one of the environmental altering events and the user induced event and, therefore, to change the energy-intensive process step of transmitting data to the controller on the basis of changing needs.

While it would be obvious to employ more sophisticated devices or to reduce the measuring frequency of the sensors, adjusting the sampling rate based on an environmental altering event or user induced event would not be an evident solution.

89. Furthermore, the claimant does not adequately address the distinctive feature of the disclosure of having a dedicated power source for each environmental sensor, which appears to be able to contribute to solving the technical problem of increasing the energy efficiency of the system.

- Additionally, it should be noted that, according to Article 56 'EPC', the state of the art relevant for the assessment of the inventive step does not include the content of European patent applications as filed if their dates of filing are prior to the date of filing of a European patent but their dates of publication are on or after that date.

Source: [Unified Patent Court](#)

**UPC Court of First Instance,
Central Division Paris Seat, 29 July 2024**
(Thomas, Catalozzi, Keltsch)

DECISION

of the Court of First Instance of the Unified Patent Court
Central division (Paris seat)

issued on 29 July 2024

concerning the revocation action No.
ACT_555899/2023
UPC_CFI_263/2023

HEADNOTES:

1. The request to amend the patent which concerns both claims challenged by the revocation action and claims not challenged by it is inadmissible (only) with regard to these latter claims.
2. In a situation in which the patent is not entirely attacked, the patent proprietor is entitled to propose amendments to the challenged claims also by inserting features, omitted in the original claims, mentioned in the non-attacked claims.
3. Grounds for revocation that could have been included in the initial statement to revocation are inadmissible if they do not relate to the content of the defence raised by the opposing party or to the application to amend the patent and, therefore, do not constitute a legitimate response to them.

KEYWORDS:

amendments to patent; written procedure.

REFERENCE CODE ECLI:

CLAIMANT:

BITZER Electronics A/S Kærvej 77 - 6400 -
Sønderborg - DK
represented by Tilman Pfrang, Meissner Bolte

DEFENDANT:

Carrier Corporation 13995 Pasteur Blvd. - FL 33418 -
Palm Beach Gardens - US
represented by Gregory Lees, Dehns

PATENT AT ISSUE: European patent n° [EP 3 414 708](#)

DECIDING JUDGES:

François Thomas Presiding judge

Paolo Catalozzi Legally qualified judge and judge-rapporteur

Ulrike Keltsch Technically qualified judge

SUMMARY OF FACTS

1. On 28 June 2023 BITZER Electronics A/S brought an action against Carrier Corporation before this Seat of the Unified Patent Court, registered as No. ACT_555899/2023 [UPC 263/2023](#), requesting the revocation of the patent [EP 3 414 708 B1](#) (patent at issue) to the extent of claim 1.

2. The patent at issue is based on the application filed on 8 February 2017 (regional phase of WO 2017US16926, published under WO 2017/139324 A1) and claims priority from 12 February 2016 (US 201662294791P).

3. The patent relates to an apparatus and a method for cold chain monitoring of perishable goods. The contested claim 1 of the granted patent reads as follows: 'An apparatus for cold chain monitoring of perishable goods, comprising:

at least one environmental sensor (22) to monitor at least one environmental parameter;

at least one event detector (24) to detect at least one of an environmental altering event and a user induced event; and

a controller (30) to receive and log a plurality of readings from the at least one environmental sensor (22) at a selected sampling rate;

characterised in that the apparatus is adapted to adjust the sampling rate depending on at least one of the environmental altering event and the user induced event'.

4. The claimant argues that the patent is not valid for the following reasons: the extension of its subject matter beyond the content of the application as originally filed; the lack of enabling disclosure; the lack of novelty of claim 1 in view of WO 2016/140969 A2 (MB2) and US 2014/0313055 A1 (MB4), as well as US 6,311,509 B1 (MB7) and WO 2017/020973 A1 (MB8); and the lack of inventive step of the subject-matter of claim 1, considering EP 2 029 987 B1 (MB5) or WO 03/052354 A1 (MB6) to be the closest prior art.

5. On 20 November 2023, the defendant submitted a statement of defence and an application to amend the patent (registered as No. App_588353/2023), which included a main unconditional request and twelve auxiliary requests.

6. On 11 January 2024, the claimant lodged the reply to defence to revocation and the defence to the application to amend the patent in which it requested the Court to reject the latter application, arguing that the proposed amendments related to non-attacked claims were, at the very least, unfounded. The claimant also reiterated the invalidity of the patent, citing a lack of clarity, a lack of novelty with regard to MB5 and MB6 and a lack of inventive step, considering MB4 and MB7 to be the closest prior art.

7. On 12 February 2024, the defendant lodged the rejoinder to the reply to the defence and the reply to the defence to the application to amend the patent in which

it requested the Court to decide on the admissibility of filing an application to amend the patent with regard to nonchallenged claims. The defendant also objected to the late-filed attacks on the patent included in the applicant's reply to defence to revocation and defence to the application to amend the patent, in particular challenging the grounds of invalidity based on the lack of sufficiency, lack of novelty in view of MB5 and MB6 and lack of inventive step starting from MB4 and MB7. 8. During the written procedure, the defendant requested (on 1 December 2023) that the Court stay the proceedings pending the outcome of opposition proceedings before the European Patent Office ('EPO'). The request was rejected by the panel on the grounds that there was no concrete expectation for a 'EPO' decision in the near future and therefore the requirement for a 'rapid decision' of the 'EPO' proceedings was not fulfilled ([order issued on 8 January 2024](#)). The appeal filed by the defendant against this order was rejected by the Court of Appeal by order issued on 28 May 2024.

9. After the closing of the written procedure, the judge-rapporteur held the interim conference on 2 April 2024. Among the various decisions made, he stated that the issues concerning the admissibility of the amendments filed by the patent proprietor where they do not relate to claim 1, and of the challenge to the twelfth auxiliary request filed by the patent proprietor will be addressed at the oral hearing. Additionally, the novelty attacks based on MB5 and MB6, as raised in the claimant's reply to defence to revocation and defence to the application to amend (paragraphs 57 to 83) shall be excluded from consideration.

10. On 18 April 2024, the defendant requested the Court to set aside the decision taken by the judge-rapporteur with regard to the referral of the decision on the admissibility of the amendments and to exclude the issue of the alleged inadmissibility of the defendant's main and auxiliary requests from consideration.

11. By [order issued on 30 April 2024](#), the panel set aside the order of 5 April 2024 concerning the objected issue and declared that the request to amend the patent lodged by the defendant is inadmissible with regard to claims other than claim 1.

12. On 10 June 2024, the defendant submitted an application pursuant to [Rule 263 of the Rules of Procedure](#) to amend the application to amend the patent and the defence to the statement of the claim, requesting the admission of new thirteenth and fourteenth auxiliary requests into the proceedings, and sought to amend the defence to the statement of claim. However, the judge rapporteur rejected the application, noting that the oral hearing for the main proceedings was imminent and therefore there was insufficient time to hear the applicant on the application, and deferred the matter to the oral hearing.

GROUND FOR THE DECISION

The admissibility of the amendment of the patent.

13. As previously mentioned, the defendant submitted a main request to unconditionally amend the claims of the patent, as well as first to twelfth auxiliary requests, which are to be considered conditional upon a finding

that the claims of each higher ranked request are invalid. 14. The claimant objects to the application to amend the patent, arguing that it is inadmissible because the amendments proposed also modify the dependent claims (2 to 8), which were not challenged by the revocation action. The revocation action attacks only the independent claim 1 and the claimant contends that the defendant has no legal interest in amending non-attacked claims.

15. Additionally, the claimant argues that permitting claim amendments to unchallenged patent claims would contradict the mandate of [Article 47](#) of the Charter of Fundamental Rights of the European Union. The claimant asserts that the patentee has the option to restrict nonchallenged claims in limitation proceedings before the 'EPO' under [Article 105a](#) of the European Patent Convention ('EPC') and that allowing an amendment of non-attacked claims would violate [Article 76 \(1\) of](#) the Unified Patent Court Agreement, which states that the court "shall not award more than is requested".

16. By [order issued on 30 April 2024](#), this panel declared that the defendant's request to amend the patent with regard to claims not challenged by the revocation action is inadmissible and, consequently, the proposed amendments relating to claims other than claim 1 (the sole target of the revocation action) are excluded from consideration.

17. This is because "the patent amendment during litigation serves as a tool that the patent proprietor may use in order to react to an invalidity challenge and, therefore, to avoid a declaration of invalidity of the patent – total or partial –, while preserving enough scope of the title to prevent infringements. From a strictly procedural standpoint, hence, it functions as a defence for the patent proprietor to counter the invalidity claim lodged by a third party. The nature of the right to amend the patent during litigation as a mere defence leads to the conclusion that the patent may be amended only to the extent that it is necessary to react to the invalidity challenge; this allows the proprietor to preserve patent validity through claim modifications, ultimately aiming for rejection of the invalidation claim".

18. The panel added that within the framework of the Unified Patent Court ('UPC'), the patent proprietor is not entitled to independently request an assessment of the validity of its patent, (or of the validity of that patent), either in its granted version or in an amended form. The proprietor may only respond to an invalidity challenge by arguing for the patent's validity, whether in an amended version or in the original one.

19. The panel also pointed out that the 'UPC' is a judicial body and, as such, is bound by the scope of the dispute. Therefore, it is not permitted to carry out an assessment of the validity of the patent beyond the grounds for invalidity submitted by the claimant ([see Article 76 \(1\) 'UPCA'](#)).

20. It must be clarified that if, as in this case, a request for patent amendment also concerns nonchallenged claims, such request will not be considered entirely inadmissible, as argued by the claimant, but will instead

be considered admissible, and addressed, only with regard to the challenged claims.

21. Furthermore, in a situation in which the patent is not entirely attacked, the patent proprietor is entitled to propose amendments to the challenged claims also by inserting features, omitted in the original claims, mentioned in the non-attacked claims. Indeed, the fact that these latter claims are not challenged and are therefore outside the scope of the proceedings does not prevent the features disclosed therein from being used to amend the challenged claims.

22. Given these clarifications, the defendant's application to amend the patent lodged on 10 June 2024 may be disregarded, as it was filed on the assumption, which turned out to be incorrect, that its previous application to amend the patent was not admissible.
Late-filed grounds for invalidity.

23. With its reply to defence to revocation and defence to the application to amend the patent, the claimant raised grounds for invalidity of the patent which had not been submitted in the statement for revocation and which did not relate to the amended version of the patent.

24. As stated in the interim conference [see order of 5 April 2024, issued pursuant to [Rule 105](#) of the Rules of Procedure ('RoP')], these new grounds for revocation are inadmissible as they are not permitted by the Rules of Procedure and, in general, are contrary to the front-loaded character of the 'UPC' proceedings.

25. Therefore, it must be confirmed that the novelty attacks based on MB5 and MB6, as raised in the claimant's reply to defence to revocation and defence to the application to amend (para. 57 to 83), shall be disregarded.

26. In fact, those attacks, even if directed at the amended version of the patent, could (and should) have been filed against its original version with the statement to revocation, as they do not relate to the content of the defence raised by the opposing party or to the application to amend the patent and, therefore, do not constitute a legitimate response to them.

27. Similarly, the grounds of invalidity based on the lack of inventive step cannot be considered in relation to the teachings of MB4 and MB7. These arguments were submitted by the claimant only in its reply to defence to revocation and defence to the application to amend the patent and do not constitute a reaction to the amendment proposed by the defendant.

The patent at issue.

28. The subject matter of claim 1 of the patent relates to an apparatus for cold chain monitoring of perishable goods (para. [0001]).

29. Typically, cold chain distribution systems are used to transport and distribute perishable goods that may be susceptible to temperature, humidity, and other environmental factors. Perishable goods may include but are not limited to fruits, vegetables, grains, beans, nuts, eggs, dairy, seed, flowers, meat, poultry, fish, ice, blood and pharmaceuticals. Exemplary, cold chain systems allow perishable goods to be effectively transported and

distributed without damage or other undesirable effects (see para. [0002]).

30. Environmental parameter sensors are often used in cold chain distribution systems to monitor the conditions and integrity of the cold chain and consequently the goods transported. Current environmental parameter sensing systems may sample and transmit data periodically at a high frequency to provide real time monitoring of the perishable goods. However, high frequency real time monitoring strains the overall sensor system bandwidth and drains the sensor's battery. Therefore, a system and method that can provide monitoring of environmental parameters in an energy efficient manner is desired (see para. (0003)).

31. According to claim 1 of the patent at issue, in the version of the main request (with the features added in relation to the granted version shown in bold and the deleted features in strikethrough) and following, for convenience, the identification of the relevant features proposed by the claimant, which was not objected to by the defendant for this purpose, this problem is to be solved by the following system:

F1.1 An apparatus for cold chain monitoring of perishable goods, comprising:

F1.2 ~~at least one~~ **a plurality of** environmental sensors(22) to monitor ~~at least one environmental parameter~~ **temperatures;**

F1.3 at least one event detector (24) to detect at least one of an environmental altering event and a user induced event;

and F1.4 a controller (30) to receive and log a plurality of readings from the ~~at least one~~ **plurality of** environmental sensors (22) at a selected sampling rate; characterised in that

F1.5 the apparatus is adapted to adjust the sampling rate depending on at least one of the environmental altering event and the user induced event.

32. With regard to the interpretation of the claim, the following must be borne in mind: the patent claim is not only the starting point, but the decisive basis for determining the protective scope of the European patent; the interpretation of a patent claim does not depend solely on the strict, literal meaning of the wording used, as the description and the drawings must always be used as explanatory aids for the interpretation of the patent claim, but this does not mean that the patent claim serves only as a guideline and that its subject-matter may extend to what, from a consideration of the description and drawings, the patent proprietor has contemplated (see order of [Court of Appeal issued on 26 February 2024, case UPC CoA 335/2023](#)).

33. The relevant assessment must be carried out from the point of view of a person skilled in the art, which, in the present case, can be identified – following the defendant's indication (see para. 54 of the rejoinder to the reply to defence to revocation and the reply to defence to the application to amend the patent) which was not objected by the claimant – as a group including an IT communications expert to handle the communications between devices.

34. The parties debated the interpretation of feature F1.1, specifically focusing on the expression “apparatus for”.

35. The Court considers that the person skilled in the art would understand this expression to mean merely an apparatus suitable for carrying out the process of cold chain monitoring of perishable goods.

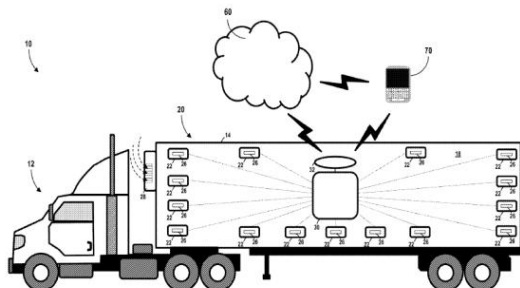


FIG. 1

Extension beyond the content of the patent application.

36. The claimant argues that the subject matter of the patent extends beyond the content of the application as originally filed, namely the international application PCT/US2017/016926, published as WO 2017/139324 A1 (MB1a).

37. In particular, while claim 1 as filed in the mentioned original application, discloses with respect to F1.5 that “the sampling rate adjusts depending on at least one of (...), the environmental altering event and the user induced event”, granted claim 1 discloses that “the apparatus is adapted to adjust the sampling rate depending on at least one of the environmental altering event and the user induced event”.

38. According to the claimant, the patent provides the skilled person with additional technically relevant information regarding the fact that the apparatus is adapted to adjust the sampling rate. Therefore, the adjustment can be made by any elements of the device, which were not part of the original disclosure content.

39. Furthermore, the claimant contends that the addition of the feature ‘a plurality of environmental sensors (22) to monitor temperatures’ in claim 1 is not directly and unambiguously supported by the original application documents.

40. Both arguments are unfounded.

41. Original claim 1 defines the apparatus as comprising several components for carrying out several functions, including the feature of “the sampling rate adjusts...”. The skilled person would therefore understand that the apparatus is implicitly adapted to adjust the sampling rate.

42. The second contested additional amendment between original claim 1 and amended claim 1 of the main request relates to the feature ‘at least one environmental sensor to monitor at least one environmental parameter’ which is now defined in claim 1 of the main request as ‘a plurality of environmental sensors to monitor temperatures’.

43. This amendment is supported by the application as originally filed in original claim 1 (‘at least one...’), paras. 28 and 37 and figure 1 of the application as

originally filed. It should also be noted that the expression ‘at least one’ comprises ‘a plurality’, as it means one or more.

Insufficient disclosure of the invention.

44. The claimant contends that the patent does not disclose the alleged invention in a manner sufficiently clear and complete for it to be carried out by a skilled person, as it is not disclosed in a manner indicating how a user induced event is detected. The description of the patent merely states that the user induced event can be, for example, a “door opening in container 14” ([0012]), but how the opening of this door is to be detected remains undisclosed.

45. Similar considerations are developed in the reply to defence to revocation and defence to the application to amend the patent with regard to claim 1, as amended in the main request. It is not disclosed how to manage a scenario where each sensor in a set of environmental sensors independently controls the sampling rate adjustment.

46. The panel is of the opinion that the feature of a “user induced event” is disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, in accordance with [Article 83 ‘EPC’](#).

47. Indeed, as noted by the defendant, para. [0012] teaches that “the event detector 24 may be internal or external to the sensor 22” and para. [0011] provides various examples of the sensor 22 being configured to monitor environmental parameters “such as for example temperature, pressure, humidity, carbon dioxide, ethylene, ozone, light exposure, vibrations, and other conditions in the interior compartment 18”. A detected change in one or more of these environmental parameters could be attributed to an environmental altering event and/or a user induced event.

48. Furthermore, systems for detecting the opening of a door are part of general common knowledge. A skilled person would be capable of employing any of these systems for detecting the opening of a door to determine a user induced event.

49. As for the argument presented in the reply to defence to revocation and defence to the application to amend the patent, the scenario where each sensor in a set of environmental sensors independently controls the sampling rate adjustment was already disclosed in the claim 1 of the patent as granted. Therefore, the claimant’s argument could have been filed in the original statement of revocation and must be considered inadmissible as it was filed late.

50. Nevertheless, a skilled IT professional, considering the patent disclosure, would be able to manage the varying data flow of multiple sensors.

Lack of clarity.

51. In the reply to defence to revocation and defence to the application to amend the patent, the claimant argues that “there is an ambiguity surrounding the use of the term ‘temperatures’” because it is unclear whether this term refers to varying temperatures at the same location but at different times, or to different temperatures at various locations simultaneously.

52. The panel agrees with the defendant that a person of ordinary skill in the art, applying a natural reading to the phrase ‘a plurality of sensors to monitor temperatures’, would understand this to mean a plurality of environmental sensors, each monitoring temperature. This conclusion is supported by the general meaning of the expression in question, as well as by para. [0011] and Fig. 2.

Novelty in view of MB2

53. MB2 was published on 16 September 2016, claiming priority from US provisional patent application No. 62/127,175, filed on 2 March 2015 (MB3).

54. Substantial parts of MB2 differ from MB3. However, at least the embodiments (on which the claimant mainly relies with respect to the alleged lack of novelty) disclosed in MB3, annex B, figure 7 and the related description in paragraphs 85-91 as well as in MB2, figure 12 and the related description in paragraphs 204-209 and 212 are substantially identical and therefore these parts of MB2 validly claim priority from 2 March 2015. Consequently, these respective parts of MB2 are to be considered prior art under [Art 54 \(3\) ‘EPC’](#).

55. MB2 refers to a portable monitoring device that is attached to the vehicle or goods in a vehicle and is used to track the location of the vehicle as well as monitor various conditions such as temperature (para. [0002]).

56. MB2 specifically refers to some embodiments which relate to “a method comprising: determining one or more characteristics relating to cargo during transportation of the cargo using data collected by a portable monitoring device, the portable monitoring device configured to periodically transmit a signal generated using the data to a remote computing device via a network; and changing at least one of the following based on the one or more characteristics relating to the cargo: a first period at which the signal is transmitted by the portable monitoring device; or a second period at which one or more sensors of the portable monitoring device collect the data used to determine the one or more characteristics” (para. [0016]).

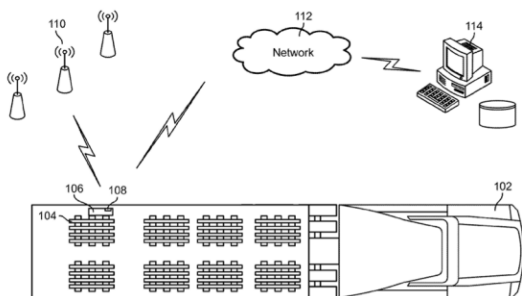


FIG. 1

57. This panel notes that all the relevant features of the claim 1 of the patent at issue are disclosed by MB2.

58. Indeed, F1.1 which refers to “[a]n apparatus for cold chain monitoring of perishable goods” is disclosed in the abovementioned para. [0002].

59. F1.2, which discloses a plurality of environmental sensors to monitor temperatures, is also anticipated by MB2. In para. [0212], MB2 describes that “[i]n some

implementations, such as certain implementations described above, a portable monitoring device may communicate with other devices in proximity to the portable monitoring device. For example, the monitoring device could communicate with tags, or communication-enabled sensors, that monitor environmental conditions of various portions of the cargo (e.g., temperature of cargo on different pallets)”.

60. The feature consisting of “at least one event detector to detect at least one of an environmental altering event and a user induced event” (F1.3) is also disclosed in MB2 which depicts that “[i]n some embodiments, sensor data is used to adjust the first period and/or second period. For example, if a sudden change in ambient light occurs in the transport vehicle (e.g., a door of the transport vehicle is opened), the ambient light sensor of the portable monitoring device may sense the change, and the rate at which sensors capture data may be increased or decreased. Similarly, if a temperature level in the transport vehicle experiences a sudden increase or decrease, the rate at which sensors capture data may be increased” (para. [0209]).

61. F1.4 refers to a controller that receives and logs a plurality of readings from the plurality of environmental sensors at a selected sampling rate. This feature is disclosed in para. [0205], in which the process described “includes determining one or more characteristics relating to cargo during transportation of the cargo using data collected by a portable monitoring device (1202). The portable monitoring device is configured to periodically transmit a signal generated using the data to a remote server (e.g., to periodically report a location of the monitoring device and/or a condition of the goods being transported)”.

62. Lastly, as for F1.5 the panel notes that MB2 specifically refers to “a method comprising: determining one or more characteristics relating to cargo during transportation of the cargo using data collected by a portable monitoring device, the portable monitoring device configured to periodically transmit a signal generated using the data to a remote computing device via a network; and changing at least one of the following based on the one or more characteristics relating to the cargo: a first period at which the signal is transmitted by the portable monitoring device; or a second period at which one or more sensors of the portable monitoring device collect the data used to determine the one or more characteristics” (para. [0016]).

63. This ‘first period at which the signal is transmitted by the portable monitoring device’ of MB2 can be identified with the sampling rate at which the environmental sensor transmits a reading to the controller mentioned in F1.5.

64. This conclusion is also supported by claim 22 of MB2 which refers to “[a] method comprising: determining one or more characteristics relating to cargo during transportation of the cargo using data collected by a portable monitoring device, the portable monitoring device configured to periodically transmit a signal generated using the data to a remote computing device via a network; and changing at least one of the following

based on the one or more characteristics relating to the cargo: a first period at which the signal is transmitted by the portable monitoring device; claim 27 of the same document, which describes “[t]he method of claim 22, wherein the portable monitoring device comprises a light sensor configured to measure an intensity of light, and wherein changing at least one of the first period or the second period based on the one or more characteristics comprises changing at least one of the first period or the second period based at least in part on a change in a lighting condition”; and claim 28 of this document which discloses “[t]he method of claim 22, wherein the portable monitoring device comprises a temperature sensor configured to monitor a temperature of the cargo, and wherein changing at least one of the first period or the second period based on the one or more characteristics comprises changing at least one of the first period or the second period based at least in part on a change in a temperature condition”.

65. Furthermore, paras. [0204-0209] and Fig. 12 disclose the process for changing this first period and for periodically transmitting the signal generated using the data to a remote server.

66. Since the ground of invalidity concerning the violation of [Articles 54 ‘EPC’](#), with regard to MB2, is upheld, it is unnecessary to examine the other grounds of invalidity raised against the patent as unconditionally amended. The Court will instead examine the grounds of invalidity raised against the patent as amended by the auxiliary requests.

Auxiliary request I: lack of inventive step in view of MB2

67. Claim 1 as amended in the auxiliary request I reads as follows (with the features added in relation to the granted version in bold):

An apparatus for cold chain monitoring of perishable goods, comprising:

at least one environmental sensor (22) to monitor at least one environmental parameter, **wherein the at least one environmental sensor (22) further comprises a dedicated power source (26) providing electrical power to the at least one environmental sensor (22)**; at least one event detector (24) to detect at least one of an environmental altering event and a user induced event; and

a controller (30) to receive and log a plurality of readings from the at least one environmental sensor (22) at a selected sampling rate;

characterised in that the apparatus is adapted to adjust the sampling rate depending on at least one of the environmental altering event and the user induced event.

68. MB2 discloses that the portable monitoring device also comprises a power supply (see Fig. 2, below).

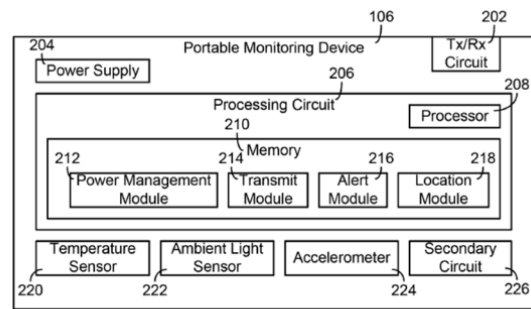


FIG. 2

69. Therefore, the ground of invalidity previously assessed with regard to claim 1 of the main request is not superseded.

Auxiliary request II. Extension beyond the content of the application.

70. Claim 1 as amended in the auxiliary request II reads as follows (with the features added in relation to the granted version shown in bold and the deleted features in strikethrough):

An apparatus for cold chain monitoring of perishable goods, comprising:

~~at least one~~ **a plurality** of environmental sensors (22) to monitor ~~at least one environmental parameter~~ **temperatures, wherein each of the plurality of environmental sensors (22) further comprises a dedicated power source (26) providing electrical power to the environmental sensor (22)**;

at least one event detector (24) to detect at least one of an environmental altering event and a user induced event; and

a controller (30) to receive and log a plurality of readings from the at least one plurality of environmental sensors (22) at a selected sampling rate;

characterised in that the apparatus is adapted to adjust the sampling rate depending on at least one of the environmental altering event and the user induced event.

71. The claimant argues that the original application does not directly and unambiguously disclose that each sensor in this plurality is equipped with a dedicated power source to provide electrical power and that, for this additional reason, claim 1 as amended in auxiliary request II contravenes [Article 123 \(2\) ‘EPC’](#).

72. The argument is not convincing because **the debated feature is disclosed in claim 2, Fig. 1 and para. [0031] of the application as originally filed.**

Auxiliary request II. Lack of novelty in view of MB2.

73. This panel notes that MB2 discloses that the portable monitoring device includes its own power supply, as illustrated in Fig. 2. MB2 also discloses that the “portable monitoring device may communicate with other devices in proximity to the portable monitoring device. For example, the monitoring device could communicate with tags, or communication-enabled sensors, that monitor environmental conditions of various portions of the cargo (e.g., temperature of cargo on different pallets)” (see para. [0212]).

74. However, MB2 remains silent how the ‘tags, or communication-enabled sensors’ are powered. Moreover, it does not state that each of these sensors has

its own power source. This is a relevant difference from the feature disclosed in auxiliary request II and, as such, prevents MB2 from having any novelty-destroying effect.

Auxiliary request II: lack of novelty in view of MB4.

75. MB4 relates to a sensing device that monitors conditions in a local environment containing, for example, perishable products and wirelessly communicates those conditions. The sensing device is adapted to take more frequent readings after a freezer door is opened (see para. [0061]).

76. However, MB4 fails to disclose that the sensing device is adapted to adjust the ‘sampling frequency’ which determines how often data is transmitted (F.1.5). Indeed, MB4 only provides for the recording of an event (change of temperature) when a measured value breaches a threshold condition, i.e. is above or below certain values. Otherwise, the event is not recorded, and no data is sent to the wireless device. It follows that a disclosure of a change in measurement frequency of the sensor does not also disclose the claimed feature that the apparatus is adapted to adjust the ‘sampling frequency’ at which data is sent to the controller.

77. Additionally, the same reasoning used to address the novelty ground of invalidity raised in view of MB2 also applies to this case.

78. Therefore, MB4 cannot be considered novelty-destroying.

Auxiliary request II: lack of novelty in view of MB7 and others.

79. The claimant argues that further sources of the prior art anticipate the subject-matter of claim 1, citing MB7 and MB8 as examples, but fails to substantiate this allegation, providing no explanation as to why these references to prior art are novelty-destroying.

80. In the ‘UPC’ framework, where proceedings have an adversarial character, each party must provide adequate reasoning and evidence to support its allegations. The judge cannot compensate for insufficient illustration and evidence by seeking arguments or evidence of his or her own motion.

81. Regarding the lack of novelty attack in view of MB5 and MB6, it must be noted that the relative grounds of invalidity are inadmissible due to late submission (see paras. 23-27 of this decision).

Auxiliary request II: lack of inventive step.

82. As correctly asserted by the claimant the technical problem that the patent at issue aims to solve is increasing the efficiency of the system of monitoring of environmental parameters.

83. The claimant argues that systems for monitoring the temperature of perishable goods were already disclosed, citing, in particular, MB5 and MB6. It asserts that the only distinguishing feature of the patent is that the data is received by the controller at the same rate as it is stored and that it performs the technical effect by adjusting the rate not only of the number of data storage operations, but also the number of data receiving operations, i.e. data transmissions from the sensor to the controller. In this way, the number of data transmissions

can be reduced, thereby increasing the energy efficiency of the apparatus.

84. It contends that it would have been obvious to a person skilled in the art to increase energy efficiency by reducing the number of data transmissions, and that adjusting the sampling rate of the temperature sensors, instead of the logging rate, would achieve this.

85. The assessment of inventive step must be carried out in accordance with [Article 56 ‘EPC’](#), which states that ‘[a]n invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art’. Hence, it is necessary to determine whether, given the state of the art, a person skilled in the art would have arrived at the technical solution claimed by the patent using their technical knowledge and carrying out simple operations.

Inventive step is assessed in terms of the specific problem encountered by the person skilled in the art (see [Decision of the Paris Local Division issued on 3 July 2024, case UPC CFI 230/2023](#)).

86. Bearing this in mind, this panel notes that MB5 pertains to refrigeration units and more particularly to a chiller/refrigerator/freezer unit for an aircraft galley. The controller of the refrigerator unit logs sensor data to a data structure according to a first data logging mode, and to the data structure according to a second data-logging mode upon occurrence of the event (claim 1). Paras. [0029] and [0030] explain that the ‘logging rate’ refers to the rate at which the controller writes data to the data structure, while Para. [0013] discloses that “[t]he sampling rate is how often the sensor 22 transmits a reading to the controller 30.” Hence, this logging rate cannot be identified with the sampling rate specified in feature F.1.5.

87. MB6, on the other hand, describes an electronic device for accompanying perishable or degradable goods to monitor at least one environmental parameter to which the goods are exposed. The embodiment described on page 20, lines 27 to 29 and page 24, lines 26 to 29, discloses a change in the memory writing rate, however MB6 fails to disclose the feature of an apparatus being adapted to adjust the sampling rate based on at least one of the environmental altering events or a user induced event.

88. The teachings contained in these prior art documents do not provide any motivation to solve the technical problem by adjusting the sampling rate based on at least one of the environmental altering events and the user induced event and, therefore, to change the energy-intensive process step of transmitting data to the controller on the basis of changing needs. While it would be obvious to employ more sophisticated devices or to reduce the measuring frequency of the sensors, adjusting the sampling rate based on an environmental altering event or user induced event would not be an evident solution.

89. Furthermore, the claimant does not adequately address the distinctive feature of the disclosure of having a dedicated power source for each environmental sensor, which appears to be able to contribute to solving the

technical problem of increasing the energy efficiency of the system.

90. In its reply to defence to revocation and defence to the application to amend the patent, the claimant invokes different prior art documents, namely MB2 and MB4.

91. The panel notes that these prior art documents must be disregarded as lately filed, as their submission does not relate to the defence raised by the opposing party or the application to amend the patent lodged by the latter and is therefore not justified in the context of the advancement of the proceedings.

92. Additionally, it should be noted that, according to [Article 56 'EPC'](#), the state of the art relevant for the assessment of the inventive step does not include the content of European patent applications as filed if their dates of filing are prior to the date of filing of a European patent but their dates of publication are on or after that date.

93. In the present case, MB2, although in parts validly claiming priority of 2 March 2015, was published on 9 September 2016, which is after the priority date of the patent at issue (12 February 2016) and therefore must be disregarded for the present purpose.

Conclusions.

94. For these reasons, the grounds of invalidity raised by the claimant against claim 1 of the patent at issue, as amended by the auxiliary request II submitted on 20 November 2023, are unfounded and any arguments of the parties which have not been specifically addressed must be deemed absorbed. 95. Therefore, patent EP '708 shall be maintained in its amended version (auxiliary request II), which reads as follows:

"1. An apparatus for cold chain monitoring of perishable goods, comprising:

a plurality of environmental sensors (22) to monitor temperatures, wherein each of the plurality of environmental sensors (22) further comprises a dedicated power source (26) providing electrical power to the environmental sensor (22);

at least one event detector (24) to detect at least one of an environmental altering event and a user induced event; and

a controller (30) to receive and log a plurality of readings from the plurality of environmental sensors (22) at a selected sampling rate;

characterised in that the apparatus is adapted to adjust the sampling rate depending on at least one of the environmental altering event and the user induced event".

Costs.

96. As the revocation action was dismissed solely due to the defendant's submission of a limitation of the patent during the proceedings, the panel deems it appropriate that the costs of the Court and of the parties shall be borne by the claimant in the amount of 60%, and by the defendant in the amount of 40%.

97. The panel notes that during the interim conference, the value of the revocation action for the purpose of applying the scale of ceilings for recoverable costs was set at 250,000 euros.

DECISION

The Court

a) rejects the revocation action filed by Bitzer Electronics A/S on 28 June 2023;

b) maintains claim 1 of EP '708 as amended by auxiliary request II submitted on 20 November 2023;

c) orders that the Registry shall send a copy of this decision to the European Patent Office and to the national patent offices of any Contracting Member States concerned, after the deadline for appeal has passed;

d) orders that the costs of the proceedings shall be borne by the claimant in the amount of 60%, and by the defendant for the remaining fraction.

Issued on 29 July 2024.
