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Datasheet for the decision of 28 August 2025

Case Number: T 1209/23 - 3.2.04

Application Number: 16781253.6

Publication Number: 3376856

IPC: A01K45/00

Language of the proceedings: EN

Title of invention:
PHOTON MODULATION MANAGEMENT SYSTEM FOR STIMULATION OF A DESIRED RESPONSE IN BIRDS

Patent Proprietor:
Xiant Technologies, Inc.

Opponent:
Mattern, Jörg

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:

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Case Number: T 1209/23 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 28 August 2025

Appellant: (Opponent)	Mattern, Jörg Zeppelinstraße 10 99096 Erfurt (DE)
Representative:	Liedtke, Markus Liedtke & Partner Patentanwälte Gerhart-Hauptmann-Straße 10/11 99096 Erfurt (DE)
Respondent: (Patent Proprietor)	Xiant Technologies, Inc. 532 54th Avenue Greeley, Colorado 80634 (US)
Representative:	Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 20 April 2023 concerning maintenance of the European Patent No. 3376856 in amended form.**

Composition of the Board:

Chairman	C. Heath
Members:	J. Wright
	S. Hillebrand

Summary of Facts and Submissions

I. The appeal was filed by the opponent against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 5 (filed as auxiliary request 4), the patent in suit met the requirements of the EPC.

II. In particular, the opposition division decided that the subject-matter of this request involved an inventive step.

III. The Board summoned the parties to oral proceedings. It issued a communication, dated 27 June 2025, setting out its preliminary opinion on the relevant matters. In a letter dated 6 August 2025, the respondent-proprietor informed the Board it would not attend the oral proceedings. The Board cancelled the oral proceedings and decided the case in written proceedings.

IV. The appellant-opponent requests that the impugned decision be set aside and that the patent be revoked in its entirety.

The respondent-proprietor requests that the appeal be dismissed.

V. The independent claim of auxiliary request 5 (as maintained) reads as follows, with feature references added by the Board in square brackets:

"[1.1] A non-therapeutic method for inducing a desired response in a bird, comprising the steps of:
[1.2] providing at least one photon emitter;

[1.3] providing at least one photon emission modulation controller in communication with said at least one photon emitter;
[1.4] providing a master logic controller m communication with said at least one photon em1ss10n modulation controller, wherein said master logic controller is configured to send commands to said at least one photon em1ss10n modulation controller;
[1.5] providing at least one sensor capable of monitoring at least one condition associated with said bird, the at least one sensor comprising a microphone or scales;
[1.6] monitoring said at least one condition associated being an environmental condition associated with said bird or a physiological condition associated with said bird;
[1.7] communicating data regarding said condition from the at least one sensor to said master logic controller
[1.8] communicating a command from said at least one photon emission modulation controller to said at least one photon emitter to control modulated pulse groups from said at least one photon emitter;
[1.9] providing a photon signal comprising two or more independent components, wherein said two or more independent components comprise:
[1.10] a first independent component comprising a repetitive first modulated photon pulse group, wherein said first modulated photon pulse group has one or more photon pulse ON durations between 0.01 microseconds and 5000 milliseconds with one or more intensities, one or more photon pulse OFF durations between 0.1 microseconds and 24 hours, and a first wavelength band; and
[1.11] a second independent component comprising a repetitive second modulated photon pulse group, wherein said second modulated photon pulse group has one or

more photon pulse ON durations between 0.01 microseconds and 5000 milliseconds with one or more intensities, one or more second photon pulse OFF durations between is between 0.1 microseconds and 24 hours, and a second wavelength band;
[1.12] wherein the first independent component and the second independent component are produced within said photon signal simultaneously;
[1.13] wherein the second modulated photon pulse group is different from the first modulated photon pulse group,
[1.14] wherein the second wavelength band is different from the first wavelength band; and
[1.15] emitting said photon signal toward said bird from said at least one photon emitter, wherein said photon signal comprises offset pulsing of two color spectra,
[1.16] wherein the combined effect of the first modulated photon pulse group and the second modulated photon pulse group of the signal are configured to modulate said bird's opsins to produce a desired response from said bird,
[1.17] wherein said desired response from said bird is chosen from
[i] hunger,
[ii] reduction of stress,
[iii] calming,
[iv] improving egg quality,
[v] socialization,
[vi] facilitation of nutrient uptake in the wavelength range of 10nm to 450nm, and
[vii] regulation of circadian rhythm".

VI. In the present decision, reference is made to the following documents:

D5: US 2014/0250778 A1

VII. The arguments of the parties relevant to the decision are set out in the reasons for the decision presented below.

Reasons for the Decision

1. The appeal is admissible.

2. The Board notes that the respondent-proprietor's announcement that it would not attend oral proceedings is equivalent to a withdrawal of its request for oral proceedings (see Case Law of the Boards of Appeal, 11th edition, 2025 (CLBA), III.C.5.3.2.a and the decisions cited). In the light of this and the Board's preliminary opinion expressed in its communication, the Board decided to cancel the scheduled oral proceedings and continue the proceedings in writing.

3. Auxiliary request 5 (as maintained)

3.1 In its communication (section 7), the Board expressed its preliminary opinion that the subject matter of claim 1 lacked an inventive step starting from D5. In particular the Board wrote the following:

"7. Auxiliary request 5, claim 1, inventive step starting from D5 with the skilled person's general knowledge

7.1 Background to consideration of auxiliary request 5

7.1.1 Before delving into inventive step for claim 1 of auxiliary request 5, the Board finds it useful to look at how the opposition division considered the main

request, which it found to lack inventive step and which has not been appealed by the respondent proprietor.

7.1.2 The opposition division found the subject matter of claim 1 of the patent as granted to be novel with respect to D5 but that it lacked inventive step starting from D5 in combination with the skilled person's general knowledge (see its decision, reasons, sections 14 and 27 to 29). In particular, in its consideration of granted claim 1, the opposition division found the only distinguishing feature to be the last claim feature, feature 1.13 (feature 1.17 of the present claim). Amongst other things, the division noted that, although D5 was mainly directed to a method of producing a desired response in plants by exposing them to photon signals, it also disclosed applying the same technique to organisms in general, which D5 specifically reminds includes birds (cf. D5, paragraph [0042] and claim 29). Moreover, the opposition division noted (reasons, point 14) that a photoperiodic response in an organism was a generic concept compared to the specific case thereof - the circadian rhythm feature vii - defined in claim 1 as granted. However, the opposition division considered (see impugned decision, reasons, section 29) that claim 1 as granted lacked inventive step because

" [...] D5 mentions induction of a "photoperiodic response" of an organism (claims 29 and 60). It would be then obvious for the skilled person to choose, as the response to be evoked, regulation of a circadian rhythm, being one of very few basic time-related cycles a bird is subjected to".

7.2 Auxiliary request 5, claim 1, differing features

Compared to the main request, the present request adds the new features 1.4 to 1.7, in summary: - a master logic controller in communication with the photon emission controller, at least one sensor, comprising a *microphone or scales*, monitoring a condition associated with the bird that is communicated to the master controller. It is not disputed that D5 discloses neither scales nor a microphone (cf. paragraph [0083]).

7.3 Technical effect of the differing features

7.3.1 In its decision (paragraphs 41 to 43), the opposition division does not specify an objective technical problem. However, it appears to have implicitly considered the opponent's implicit problem of finding alternative sensors, referring to D5, paragraph 41, figure 11 and claims 33, 36 and 44.

7.3.2 The Board notes that the idea of using a master logic controller communicating with a photon emission controller is disclosed in D5, see for example claim 33. Claim 44 discloses the idea of providing a sensor to monitor the environment or physiological condition of an organism, but does not specify any particular sensor. As pointed out by the opposition division, D5, paragraph [0083] mentions a number of sensors, for example a leaf temperature sensor and a camera.

7.3.3 In its decision (section 43), the opposition division found that: "D5 deals mainly with plant manipulation, mentioning birds only briefly (§ 0042); also § 0024 refers to plant production. Moreover, the sensors listed in D5 (§ 0083) relate mainly to measurement of plant parameters. Even assuming that the skilled person would consider utilisation of a sensor

to monitor birds, they would have chosen one of the sensors already mentioned in § 0083, that would be suitable to measure animal-related parameters. Thus D5 does not hint towards application of scales or microphones as defined in the present claim 1.

Claim 1 of Auxiliary Request 5 is thus inventive".

7.3.4 In its appeal grounds (see section III. 4), the appellant-opponent considered that claim I leaves open whether the control of the light source is adapted in response to weight [detected by scales] or sound [detected by a microphone]. In addition it saw no technical connection between the desired responses (i) to (vi) listed in feature 1.7 and [what can be measured by] a microphone or scales.

7.3.5 In this regard, the respondent-proprietor (see its reply to the appeal, page 12) argued that paragraphs [0062] and [0070] of the patent explain that the input from the sensors (last 7 lines of paragraph [0070]) lead to adjustment of the photon modulation, so the sensors claimed are *synergistically* linked to the master logic controller and the photon modulation system [which should bring about the desired effects of the last claim feature]. The Board disagrees.

7.3.6 The Board notes that the claim itself does not define that any sensor should influence photon modulation. At most it is only stated that data from the sensors is communicated to the master logic controller (claim feature 1.7, cf. D5, claim 15). In any case, D5 itself (see paragraphs [0084 and [0085]) discloses the idea of using a generic sensor to influence photon modulation in organisms - including those that are not plants - therefore, even if the

claim were to have defined such an influence of sensor data on photon modulation (the Board sees no such definition), this is known as such from D5. Moreover, the Board sees no mention in the patent as a whole, let alone the claim, that specifically data from a *microphone* or a *scales* should be used to influence photon modulation. These are only mentioned in paragraph [0060], without saying as to what they might be used for, other than measuring volume [of sound] and weight. Where the patent explains that sensors influence photon modulation (for example paragraph [0062]), no *specific* sensor is mentioned.

Moreover, it is not the case that the patent suggests that the *only* disclosed purpose of providing sensors might be to influence photon modulation (which might imply that this must also be the case in the claim): On the contrary, the patent explains (paragraph [0063]) that the sensors may simply be used to control aspects of the bird's environment, such as a watering and feeding system, based on the needs of the birds (cf. D5, paragraph [0086]). In the light of this, the Board is of the opinion that the patent, neither explicit nor implicitly defines that providing scales or a microphone should influence the modulated photon pulse groups whose combined effect should bring about any of the desired responses (i) to (vii) listed in the last claim feature.

Therefore, for the purpose of examining inventive step, the differing features introduced in auxiliary request 5 (microphone or scales etc.) must be treated independently of the differing feature responses i to vii) considered by the opposition division for claim 1 as granted.

7.4 As has been explained, there is no disclosed connection between these sensors and influencing the birds' desired response. Therefore, the Board considers that the objective technical problem proposed by the respondent-proprietor (reply to appeal, page 12), concerning achieving a more versatile system to achieve a desired response for one or more birds, is not solved by the claim.

7.5 Moreover, the patent contains no particular statement as to what purpose a microphone or scales might serve in relation to a bird. At most, the patent merely states that [sound] volume and weight can be monitored (cf. paragraph [0060] again), which seem to be no more than the monitoring capabilities inherent to these particular sensors, irrespective of where and for what purpose they are used.

7.6 The sensors (microphone, scales) in their claim context of a method of inducing a desired response in a bird appear merely to provide a more comprehensive pallet of information about the birds and their environment, without improving the response as such. This appears to represent a mere adaption of the more plant related method of D5's detailed embodiments (see paragraph [0083], soil moisture sensors etc.).

In the Board's view, absent any statement as to what the microphone or scales might achieve in relation to the birds, the objective technical problem can be expressed as: *How to modify D5 's method of inducing a desired response in birds by choosing a sensor for providing more information about the birds and their environment*.

In this regard, whilst the opposition division did not develop an objective technical problem, its approach in considering inventive step of auxiliary request 5 (point 43) was to emphasise that D5 is mainly concerned with plants and that, with reference to paragraph [0083], the skilled person would only obviously choose a sensor mainly conceived for monitoring plants when choosing one to measure animal [bird] parameters. The approach seems to imply the skilled person would be looking to modify a method concerned with plants. In the Board's view, this is not correct. Rather, the problem presented to the skilled person must be framed in terms of a method that induces a desired response in birds, as is known from D5. This is reflected by the objective technical problem developed above.

7.7 In its appeal grounds (page 20), the appellant-opponent put forward that: [The skilled person] will undoubtedly always use a scale to determine the weight [of birds] and check the progress of rearing. It also argued that the skilled person knows that the animals' noises provide information about their well-being. It concluded that the subject matter of claim I lacks inventive step starting from D5 with the general knowledge of the skilled person. The Board tends to agree with this conclusion.

7.7.1 The Board finds it plausible that the weight of birds would be a standard choice of additional information for the skilled person when carrying out a method of inducing a desired response in a bird. Starting from D5, this is all the more true since D5 is concerned with optimising organism growth, including that of birds (cf. D5, abstract and paragraph [0042]). As the appellant-opponent argued (appeal grounds, page

20), the weight of poultry is at the centre of interest during rearing [of birds].

7.8 Therefore, faced with the objective technical problem (choosing a sensor for providing more information about the birds), the Board considers that it would be obvious for the skilled person to modify D5's method by providing scales and feeding the data therefrom to the master logic controller, as is the case for the other sensors of D5 (cf. paragraph [0085]). The obviousness of using a microphone may also need to be discussed. Amongst other questions, would sound be something one might want to monitor when raising chickens?

7.9 The additional feature of scales added to auxiliary request 5 is thus obvious. Together with the opposition division's finding for claim I as granted (lack of inventive step), the Board is of the preliminary opinion that the subject matter of claim 1 of auxiliary request 5 lacks inventive step".

3.2 Having reviewed this aspect of the communication, the Board considers it was correct, in particular it considers the idea of modifying D5's method by providing at least one sensor comprising scales in the way claimed to be obvious, whether or not it would be obvious to provide a microphone as an alternative to scales (cf. claim feature 1.5). Therefore, the Board considers its preliminary assessment (communication, point 7.9) that the subject matter of claim 1 of auxiliary request 5 lacks inventive step was correct.

3.2.1 In this regard, the Board's opinion has not been changed by the respondent-proprietor's submissions made in its letter of 6 August 2025, that is, after the

Board issued its communication. The reasons being as follows:

Firstly, in this letter the respondent-proprietor submitted that the proprietor's decision not to appeal the decision of the opposition division did not mean that it agreed with the conclusion of the opposition division, finding the main request (patent as granted) to lack an inventive step over D5. Irrespective of the admissibility of this submission, the Board notes that it is not reasoned. Therefore, the submission is moot.

Secondly, the respondent-proprietor's argument that D5 primarily relates to a method and system relating to the growth, repair or destruction of plants and that it mainly teaches about plants was already made in its reply to the appeal (see top of page 12). This was thus taken into account by the Board in its communication, as demonstrated by, for example, the last paragraph of section 7.6 of the communication.

Thirdly, in its letter of 6 August 2025, the respondent-proprietor submitted that: *D5 simply would not be the most promising starting point for an obvious development leading to the claimed invention, and that a proper assessment of the claimed invention would find that claim 1 involves an inventive step.*

With regard to the first part of this submission, whether or not the proprietor might consider that some unspecified prior art might constitute a more promising starting point for assessing inventive step than D5 does not invalidate the Board's assessment that D5 would lead the skilled person to the claimed subject matter as a matter of obviousness. In the second part of the same submission (a proper assessment would lead

to a different result), the respondent has not substantiated why it considers that a different result should be arrived at. In other words the respondent has not explained in what way the Board's inventive step assessment in its communication might not have constituted a proper assessment. Therefore, the submission is moot.

3.3 For these reasons, the Board confirms its preliminary opinion as set out in its communication that the subject matter of claim 1 of auxiliary request 5 (as maintained) lacks inventive step starting from D5 with the skilled person's general knowledge.

4. Therefore, the appeal of the opponent is allowable and the impugned decision must be set aside. Moreover, since the respondent-proprietor's only request is that the opponent's appeal be dismissed, the Board can but revoke the patent, Article 101(2) EPC with Article 111(1) EPC.

Order

For these reasons it is decided that:

1. **The decision under appeal is set aside.**

2. **The patent is revoked.**

The Registrar: The Chairman:

A. Chavinier C. Heath

Decision electronically authenticated