UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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IMIRACLE HK LIMITED,

Petitioner,

v.

VPR BRANDS, LP,

Patent Owner.

Case IPR2023-01255

Patent 8,205,622

PATENT OWNER'S PRELIMINARY RESPONSE

LIST OF EXHIBITS

Exhibit No.	Title of Document
2001	Decision Denying Institution – IPR2022-00299, Paper 12
2002	Statutory Disclaimer Disclaiming Claims 12, and 16-18.

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Statutes

Patent Owner, VPR BRANDS, LP, ("VPR") files this Opposition in response to IMIRACLE HK LIMITED ("iMiracle" or "Petitioner") Petition for *Inter Partes Review* of United States Patent Number 8,205,622 (the "'622 Patent"), filed December 20, 2021 (the "Petition").

Patent Owner respectfully requests the Director deny institution.

I. INTRODUCTION

Petitioner challenges Claims 12-15 and 17-19 of '622 Patent.

As an initial matter Patent Owner filed a Statutory Disclaimer, pursuant to 37 C.F.R. §1.321 and 35 U.S.C. §253, disclaiming Claims 12 and 16-18 of the '622 Patent. (EX 2002). Accordingly, the only challenged claims that remain before the Board and subject to institution are Claims 13-15 of the '922 Patent.

iMiracle's petition fails to demonstrate a "reasonable likelihood that petitioner will prevail," and also fails to establish a reasonable likelihood that the challenged claims are unpatentable by a preponderance of the evidence. iMiracle's references fail to disclose, teach, or otherwise make obvious, the claimed "single chip micyoco" (microcontroller) that "instructs…a time period and magnitude of the electric current" sent to the atomizer of the challenged claims.

Institution should be denied.

II. OVERVIEW OF THE '622 PATENT AND THE CITED ART

A. Overview of the '622 Patent

The ‘622 Patent is directed to disclose a novel electronic cigarette. The ‘622 patent improved and simplified both e-cigarette construction and electronic circuitry. Through the use of a single chip microcontroller[1] to control the vaporization process upon activation by an electric airflow sensor.

The electric airflow sensor detects air movement generated by a user's inhaling or puffing action. Upon detecting air movement, the sensor sends a signal to the single chip microcontroller. The microcontroller in turn sends a signal to the power supply (battery) to supply electric power to the heating element of the atomizer which initiates vaporization. (‘622 Patent, col. 2, ln. 51-64). In a preferred embodiment, the ‘622 patent discloses an electric airflow sensor as a diaphragm microphone which converts pressure waves into electrical energy using a thin sheet of material capable of vibrating.

In its preferred embodiment, the electronic cigarette is constructed of two primary components, an electronic inhaler and an electronic atomizer. Each primary component houses sub-components. Figures 2 and 5, shown below, detail

[1] Or “micyoco,” which was defined by Patent Owner in prior proceedings as “a microcontroller including a processor, software instructions to be executed by the processor, memory, and I/O processed by the processor.”

the structure for the atomizer and inhaler components of the ‘622 Patent, respectively.[2]

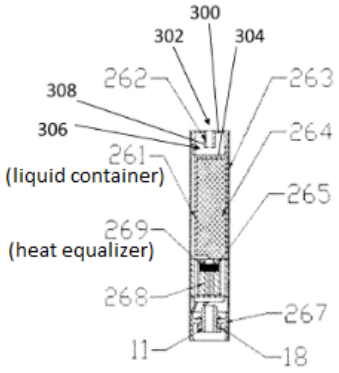

Figure 2

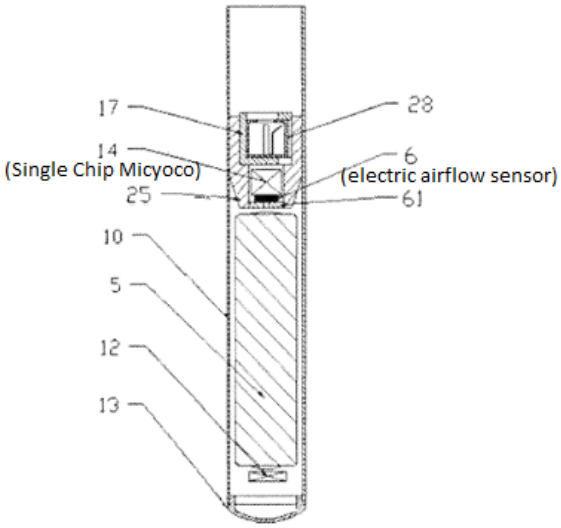

Figure 5

One advantage of the ‘622 Patent is that it integrates the liquid container with the heating element together in the atomizer unit. (‘622 Patent, col. 2, ln. 65 - col. 3, ln. 3, Figure 2).

Previous atomizing units in the prior art were non-integrated. Instead, atomizing units were separated from chambers for the atomizing liquid. The liquid chamber was made as a separate piece that needed to be inserted into the atomizing chamber before the electronic cigarette could be used. For example, USPN 8,375,957 (“Hon”), cited by iMiracle in the Petition, disclosed a separate

[2] Parenthetical annotations added to identify key components relevant to patentability analysis presented herein.

"cigarette bottle assembly" that needed to be inserted into the atomizer assembly prior to use. (Hon, col. 3, ln. 1-3, ln. 48-54, and Figure 4.)

Another advantage of the '622 Patent is the electric airflow sensor that detects the user's "puffing" action. When the user inhales through a mouthpiece, the inhalation airflow automatically wakes up the device and initiates the vaporization process. ('622 Patent, col. 3, ln. 23-28, Figure 5.)

Another advantage of the '622 Patent is the single chip microcontroller, referred to as a "micyoco", to control the entire vaporization process. The single chip microcontroller places all of the control circuits for the electronic cigarette in a single chip with programming. Programming a single chip with all the necessary instructions for receiving and sending electrical signals to the atomizer component is simpler than using multiple different circuits and transistors to perform the same function.

For example, the primary cited are by petitioner, Tao, discloses "[t]he electret microphone 8 sends the signal to the microprocessor in the electronic circuit board 7, and the microprocessor transmits an instruction to the ultrasonic circuit for transmission to the vaporizer 10." EX1004 (Declaration of Robert H. Sturges); quoting EX1006 (Tao). Tao does not employ a single-chip controller for both receiving and sending the instructions, but instead utilizes as secondary "ultrasonic circuit" to transmit instructions to the vaporizer.

The electronic airflow sensor of the ‘622 Patent, upon detecting an airflow, sends a signal to the single chip micyoco, which in turn sends a signal to control the duration and magnitude of the electric current provided to the heating element. (‘622 Patent, col. 4, ln. 18-23 (“The single chip micyoco 3 instructs the electric power source 5 to supply electricity to the system by its 1 embedded computer programs when a signal is generated through the airflow detected by the electric sensor 6 from the user's puffing action.”))

Challenged claims 13-15 of the ‘622 Patent require a “single chip micyoco” (microcontroller) that both “receives the signal from the electric airflow sensor” and “instructs the electric source to send an electric current to the electronic atomizer, and a time period and magnitude of the electric current.”

As outlined below, the prior art cited by iMiracle (namely, Tao, Yang, and Wang411) in its the Petition utilized multiple circuit components to control the atomization process and did not “instruct… the magnitude of the electric current.”

The cited art failed to disclose or teach (or otherwise make obvious) the single chip microcontroller of the present invention that functions to both receive the signal from the airflow sensor and instruct the power source on the time period and magnitude of the electric current sent to the heating element of the atomizer.

B. Claim Construction

VPR does not challenge the claim construction set forth by Petitioner. The following agreed upon claim constructions are relevant here.

Claim Term	**Appears in Claims**	**Proposed Construction**
Single Chip Micyoco	13, 14, 15	A microcontroller including a processor, software instructions to be executed by the processor, memory, and I/O processed by the Processor.
instructs	13, 14, 15	Provides a signal that tells the power supply to provide or not provide electricity to the inhaler and atomizer.
Time period and a magnitude of the electric current	13, 14, 15	The duration of time and the strength of the current that is provided to the heating element.

C. Overview of the Cited Prior Art

The IPR petition asserts three prior art references as to Claims 13-15 of the '622 Patent: (1) Chinese Patent Publication No. 201051862 ("Tao") (EX1006); (2) Chinese Patent Publication No. 201029436 ("Yang") (EX1009); and (3) International Patent Application Publication No. WO 2008/139411 ("Wang411") (EX1012). The remaining prior art included and/or cited in iMiracle's petition was cited as to the now disclaimed claims, and no longer relevant to this petition.

The prior art cited does not teach or disclose the *single chip* microcontroller and vaporization controls required in Claims 13-15 of the '622 Patent. Accordingly, the below overview of the prior art focuses on the control circuitry of the cited prior art.

1. **Tao**

Tao discusses a simulated cigarette comprising and electronic circuit board, wherein "the electronic circuit board (7) is composed of a microprocessor and an ultrasonic circuit." EX1006 at 3. Tao does not disclose a *single chip* microcontroller, but a circuit board comprising both a microcontroller and an ultrasonic circuit in order to "instruct" the "time period and magnitude of the electric current" sent to the atomizer.

Tao explains that "[t]he electronic circuit board 7 is composed of a microprocessor and an ultrasonic circuit." EX1006 at 7. "An output terminal of the electret microphone 8 is connected to the electronic circuit board 7" and "[a]n output terminal of the electronic circuit board 7 is connected to the vaporizer 10" and a heating element. Id. The "electronic circuit board" of Tao is not a *single chip* microcontroller, but a circuit board comprising multiple controllers, including a "microprocessor and an ultrasonic circuit."

The '622 patent is differentiated from Tao, inter alia, teaching a *single chip* microcontroller that instructs the time period and magnitude of the current sent to the heating element.

2. **Yang**

The "Yang" reference, similar to Tao, discloses an electronic cigarette comprising an "integrated circuit", that, in part, comprises a "controller," not a

single chip microcontroller. EX1009 at 6. The "integrated circuit of Yang further comprises a power amplifier." Id. at 5-6.

When "airflow enters from the air inlet end, the vibration of the airflow causes the sensor 3 to work and send out a pulse signal, so that a controller in the integrated circuit 2 is started." Id. at 5. "The power amplifier of the integrated circuit 2 keeps supplying power to a smoke generator 18 for a set period after receiving an instruction from the controller, so that [the heating coil 16 of] the smoke generator [18] operates to gasify the liquid tobacco to form smoke." Id. at 5-6.

Additionally, Yang discloses a circuit that instructs a "set period" of time. However, Yang does not teach or disclose instructing a "magnitude" of the current. Yang simply disclosed a controller that "keeps supplying power…for a set period." Yang discloses simply on-off circuit, where the duration of the "on" cycle is controlled, but not the magnitude of the current. Id. at 5- 6

The '622 patent is differentiated from Yang by, inter alia, teaching a *single chip* microcontroller that instructs the magnitude of the current sent to the heating element.

3. **Wang411**

The "Wang411" reference, similar to Yang, discloses an electronic cigarette comprising "control electronics 23", that, in part, comprises a "processor 23.1," not a *single chip* microcontroller. EX1012, ¶ [0027].

As shown and described in the block diagram of Figure 4 of Wang411:

> Figure 4 shows the main structural blocks of the control electronics 23, according to the present invention. This includes an electret-type sensor device 24, an 8-bit Central Processing Unit 65, a heating device 22, a temperature control unit 61, a Pulse Width Modem 62, a 12 bit Analog/Digital converter 63 and a Programmable Gate Array 64.

EX1009, ¶ [0061].

The "control electronics 23" of Wang411 do not disclose or teach a *single chip* microcontroller, but instead disclose "control electronics" comprising a variety of chip components. Id.

Additionally, Wang411 discloses a circuit that acts simply as an on/off circuit, where, upon activation by the circuit, the control circuit causes the "accumulator 22 to release its entire electric energy to the heating device." Id., ¶ [0022]. Wang411 teaches that the "sensor device 24 has the main purpose to detect airflow through the first device 20 emitting a signal to the control electronics 23 which in turn will cause the accumulator 22 to release its entire electric energy to the heating device 22." Id., ¶¶[0027], [0022].

When the "control circuit" senses airflow, it simply activates the circuit, and "to release its entire electric energy to the heating device," and instructs neither the magnitude nor the duration of the electric current.

The '622 patent is differentiated from Wang411 by, inter alia, teaching a *single chip* microcontroller that instructs the magnitude and duration of the current sent to the heating element.

III. ANALYSIS

Petitioner asserted five challenges, however challenges 4 and 5 were directed entirely at the now disclaimed Claim 17 and 18 of the '622 Patent. Accordingly, Patent Owner will only address challenges 1-3, with respect to Claims 13, 14 and 15.

Petitioner challenges independent Claim 13 and its dependent claims 14-15, on the following grounds:

Ground	Claims Challenged	Basis	Cited Prior Art
1	13, 14, 15	§ 102	Tao
2	13, 14, 15	§ 103	Yang in view of Tao
3	13, 14	§ 102, § 103	Wang411

A. Challenged Claims 12, 17 and 18 Are Disclaimed by patent Owner and Not Subject to Institution of This Inter Partes Review

Patent Owner filed a Statutory Disclaimer, pursuant to 37 C.F.R. §1.321 and 35 U.S.C. §253, disclaiming challenged Claims 12 and 16-18 of the '622 Patent. (EX 2002).

Federal Circuit precedent dictates that the PTAB must treat statutorily disclaimed claims as though they never existed. *In re Yamazaki*, 702 F.3d 1327, 1332 (Fed. Cir. 2012).

When issuing its "determination… regarding whether to institute proceedings on the ['622] patent, [the disclaimed claims do] not factor into the analysis because Federal Circuit precedent dictates that the PTAB must treat statutorily disclaimed claims as though they never existed." *Liqwd, Inc. v. L'Oréal USA, Inc*., Civil Action No. 17-14-JFB-SRF, 2018 U.S. Dist. LEXIS 162347, at *5 (D. Del. Aug. 30, 2018) (quoting *In re Yamazaki*, 702 F.3d at 1332.)

Accordingly, Claims 12 and 16-18 of the '622 Patent are no longer subject to institution. The only challenged claims that remain before the Board and subject to institution are Claims 13-15 of the '922 Patent. *Universal Secure Registry, LLC v. Apple Inc*., Civil Action No. 17-585-CFC-SRF, 2018 U.S. Dist. LEXIS 159539, at *9 (D. Del. Sep. 19, 2018). ("[T]he filing of a statutory disclaimer does not substantively affect the PTAB's institution analysis with respect to the remaining claims of the challenged patent.")

B. Institution should be denied, as to Clams 13, 14 and 15, because the patented invention is distinguishable from the cited prior art.

1. Ground 1 – Claims 13, 14, and 15 Are Not Anticipated under § 102 by Tao.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2.d 628, 631 (Fed. Cir. 1987); *See Also* MPEP § 2131.

Claims 13 is an independent claim. Claims 14 and 15 depend on claim 13. Accordingly, prior art that does not anticipate Claim 13, cannot possibly anticipate Claims 14 or 15. Claim 13, and thus dependent Clams 14 and 15, requires a "single chip micyoco" (microcontroller) that both "receives the signal from the electric airflow sensor" and "instructs the electric source to send an electric current to the electronic atomizer, and a time period and magnitude of the electric current."

iMiracle failed to meet its burden to establish that the "single chip micyoco" element of Claim 13 of the '622 patent claim is disclosed by Tao. "In an [inter partes review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc*., 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3); ("35 U.S.C. § 316(e); *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc*., 800 F.3d

1375, 1378 (Fed. Cir. 2015) (The burden never shifts to Patent Owner.); See also, 37 C.F.R. § 42.104.

Claim 13 (and thereby Claims 14 and 15) requires a "single chip micyoco," and that the single chip "instructs the electric power source to send an electric current to the electronic atomizer and a time period and a magnitude of the electric current."

Tao discusses a simulated cigarette comprising and electronic circuit board, wherein "the electronic circuit board (7) is composed of a microprocessor and an ultrasonic circuit." EX1006 at 3. Tao does not disclose a *single chip* microcontroller, but a circuit board comprising both a microcontroller and an ultrasonic circuit in order to "instruct" the "time period and magnitude of the electric current" sent to the atomizer. See also, Petitioner's Expert Declaration, EX1005, ¶ 108.

Tao explains that "[t]he electronic circuit board 7 is composed of a microprocessor and an ultrasonic circuit." EX1006 at 7. "An output terminal of the electret microphone 8 is connected to the electronic circuit board 7" and "[a]n output terminal of the electronic circuit board 7 is connected to the vaporizer 10" and a heating element. Id. The "electronic circuit board" of Tao is not a *single chip* microcontroller, but a circuit board comprising multiple controllers, including a "microprocessor and an ultrasonic circuit."

Tao does not disclose a "single chip" microcontroller, but instead discloses an electronics board featuring multiple controller circuits, and therefor fails to disclose or otherwise anticipate "each and every element" of Claims 13-15.

Petitioner failed to meet its burden to establish a likelihood that Claims 13, 14, 15 are unpatentable as anticipated by Tao.

2. Ground 2 – Claims 13, 14, and 15 Are Not Rendered Obvious under §103 by Yang in view of Tao.

Petitioner failed to meet its burden. The "single chip micyoco" required by the challenged claims is not disclosed, taught or otherwise rendered obvious by Yang and Tao.

As an initial note, and outlined in Petitioner's memorandum, iMiracle attempt to combine Tao and Yang for the purpose of disclosing the electronic airflow sensor and other elements of the '622 Patent, but not the single chip micyoco. See iMiracle's Petition, p. 37, subsections 7 and 8 (Petitioner's arguments under Ground 2 for obviousness, relying solely on Yang as to the single chip micyoco elements.)

The Board denied institution where, as here, a petitioner presented a Section 103 obviousness challenge founded on an incorrect assertion that the combination of prior art adds up to every claim limitation. *See Sony Interactive Entertainment LLC v. BOT M8, LLC*, IPR2020-01218, Paper 8 (P.T.A.B. Jan. 27, 2021) (denying institution where the numerous obviousness where Petitioner failed to point to

"any explicit disclosure" but instead "relie[d] on [expert] testimony that a person of skill in the art" would understand that the challenged claim element would be obvious.)

Petitioner's obviousness arguments are based entirely on The Declaration of Dr. Robert H. Sturges (EX1004), its expert's self-serving and conclusory opinions that the cited art renders obvious the "single chip micyoco" of Claim 13. Expert testimony cannot establish missing elements from challenged claims. *See,* PTAB Consolidated Trial Practice Guide, November 2019, at 36 ("Expert testimony, however, cannot take the place of a disclosure in a prior art reference, when the disclosure is required as part of the unpatentability analysis."); *K/S Himpp v. Hear-Wear Techs., LLC,* 751 F.3d 1362, 1365 (Fed. Cir. 2014) (conclusory assertions about knowledge in the art cannot, without supporting evidence, supply a missing claim limitation).

Petitioner's expert failed to provide any evidence to support his conclusions that the integrated circuits and controllers of the cited are disclosing the *single chip* micyoco of the '622 patent. As in *Sony,* IPR2020-01218, iMiracle does not point to "explicit disclosures" in the art, and instead merely relies on the conclusory expert testimony that the claim elements would be obvious to one skilled in the art. *Sony,* IPR2020-01218, Paper 8 at 20.

As acknowledge in the petition, Yang teaches integrated circuit with multiple circuit components, such that "[w]hen airflow enters from the air inlet end, the vibration of the airflow causes the sensor 3 to work and send out a pulse signal, so that a controller in the integrated circuit 2 is started." Id. (quoting EX1009, 5).

Claim 13 require a "single chip micyoco," and that the single chip micyoco "instructs the electric power source to send an electric current to the electronic atomizer and a time period and a magnitude of the electric current."

Yang discloses a "power amplifier of the integrated circuit 2 keeps supplying power to a smoke generator 18 for a set period after receiving an instruction from the controller, so that [the heating coil 16 of] the smoke generator [18] operates to gasify the liquid tobacco to form smoke." Id. at 5- 6.

Yang disclosed an "integrated circuit" generally. "The disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation." MPEP § 2121.01 (citing *Elan Pharm., Inc. v Mayo Found For Med. Educ. & Research*, 346 F.3d 1051, 1054 (Fed. Cir. 2003) (Without a disclosure enabling one skilled in the art to produce a transgenic mouse without undue experimentation, the reference would not be applicable as prior art.)).

Yang failed to disclose the type of "integrated circuit" and/or its controller components. Yang did not disclose a single chip microcontroller. And, other than conclusory expert testimony, Petitioner fails to provide any evidentiary basis how the nonspecific "integrated circuit" and "controller" disclosed by Yang renders the single chip micyoco of Claim 13 obvious.

Further, the integrated circuit of Yang does not provide a signal to the power supply that controlled "the strength of the current that is provided to the heating element," as claimed in the '622 patent and required by the parties' agreed upon claim construction.

Yang discloses a circuit that instructs a "set period" of time. However, Yang does not teach or disclose instructing a "magnitude" of the current. Yang simply disclosed a controller that "keep supplying power…for a set period." Yang discloses simply on/off circuit, where the duration of the "on" cycle is controlled, but not the magnitude of the current. Id. at 5- 6

Yang does did not disclose a *single chip* microcontroller that instructs the magnitude of the current sent to the heating element, as required by the claims of the '622 patent. Again, beyond conclusory assertions, Petitioner fails to explain how Yang renders obvious the requirement of Claim 13 that the single chip microcontroller "instruct the magnitude of the current."

For the reasons stated above, Petitioner failed to meet its burden to establish a likelihood that Claims 13, 14, and 15 are unpatentable and rendered obvious by Yang, in view of Tao.

3. **Ground 3 – Claims 13-14 Are Not Anticipated under §102 or Obvious under §103 by Wang411**.

Claim 16 is an independent claim. Claim 16 requires an "electric airflow sensor." The "Wang411" reference, similar to Yang, discloses an electronic cigarette comprising "control electronics 23", that, in part, comprises a "processor 23.1," not a *single chip* microcontroller. EX1012, ¶ [0027].

As shown and described in the block diagram of Figure 4 of Wang411:

> Figure 4 shows the main structural blocks of the control electronics 23, according to the present invention. This includes an electret-type sensor device 24, an 8-bit Central Processing Unit 65, a heating device 22, a temperature control unit 61, a Pulse Width Modem 62, a 12 bit Analog/Digital converter 63 and a Programmable Gate Array 64.

EX1009, ¶ [0061].

The "control electronics 23" of Wang411 do not disclose or teach a *single chip* microcontroller, but instead disclose "control electronics" comprising a variety of chip components. Id.

Similar to Yang, Wang411 provided a nonspecific general disclosure of "control electronics." Beyond conclusory assertions, Petitioner fails to provide "an explicit disclosure" to supports its conclusion that such a general disclosure for

"control electronics" renders the specific single chip micyoco of Claim 13 obvious. See, *Sony*, IPR2020-01218, Paper 8.

Additionally, Wang411 discloses a circuit that acts simply as an on/off circuit, where, upon activation by the circuit, the control circuit causes the "accumulator 22 to release its entire electric energy to the heating device." Id., ¶ [0022]. Wang411 teaches that the "sensor device 24 has the main purpose to detect airflow through the first device 20 emitting a signal to the control electronics 23 which in turn will cause the accumulator 22 to release its entire electric energy to the heating device 22." Id., ¶¶[0027], [0022].

When the "control circuit" senses airflow, it simply activates the circuit, and "to release its entire electric energy to the heating device," and instructs neither the magnitude nor the duration of the electric current.

Wang411 did not disclose a *single chip* microcontroller that instructs the time period or magnitude of the current sent to the heating element, as required by the claims of the '622 patent. Again, beyond conclusory assertions, Petitioner fails to explain how Wang411 renders obvious the requirement of Claim 13 that the single chip microcontroller "instructs… the time period and magnitude of the electric current."

For the reasons stated above, Petitioner failed to meet its burden to establish a likelihood that Claims 13 and 14 are unpatentable and anticipated or rendered obvious by Wang411.

C. The requested review should not be instituted because the PTAB previously denied institution of another petition concerning the same patent, and because of iMiracle's delay.

It is well settled that "the Director has complete discretion to decide not to institute review." *Saint Regis Mohawk Tribe v. Mylan Pharms. Inc.*, 896 F.3d 1322, 1327 (Fed. Cir. 2018); see also *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) ("[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion."). The Director has delegated these discretionary institution decisions to the Board. See 37 C.F.R. § 42.4(a).

Here, institution should be denied for two reasons: (A) When previously presented with a petition for institution concerning the same patent, on similar grounds, the PTAB denied institution [EX 2001, IPR2022-00299, Paper 12]; and (B) iMiracle engaged in undue delay.

1. The PTAB previously denied institution of a petition concerning the same patent.

35 U.S.C. § 325(d) concerning multiple proceedings provides that "[i]n determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31 [35 USC §§ 321 et seq., 301 et seq., or 311 et seq.], the Director may take into account whether, and reject the petition or request because, the

same or substantially the same prior art or arguments previously were presented to the Office."

Petitioner provided new art to allegedly disclose the electric airflow sensor (or microphone sensor) of the '622 Patent. However, the new art relied on by Petitioner did not create any new arguments with regard to the "single chip micyoco" element of the '622 patent.

As outlined above, and as was the case with the prior art cited in the denied Petition in IPR2022-00299, the prior art cited by iMiracle omitted the use of a single chip microcontroller, and the cited art utilizes multiple control circuits to control the atomization process. The cited art failed to disclose or teach (or otherwise make obvious) the single chip microcontroller of the present invention that functions to both receive the signal from the airflow sensor and instruct the power source on the time period and magnitude of the electric current sent to the heating element of the atomizer.

2. **iMiracle's undue delay counsels in favor of denying institution.**

iMiracle, despite being well aware of the patent claims relevant to this litigation, strategically delayed the filing of its IPR. To gain every inch of

advantage, iMiracle filed its IPR over a year after receiving a letter detailing the dispute of this patent infringement.[3]

Congress and the Patent Office designed IPRs "to establish a more efficient and streamlined patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs" (emphasis added)); *see* H. Rep. No. 112-98, Part I, at 48 (2011). The way the IPR procedure is being used in this case is counterproductive and contrary to legislative intent. The parties have already expanded significant resources to get to the current procedural posture. An IPR is supposed to provide a cost-effective alternative to litigation, not an added expense to litigation as it is being used here.

The legislative history of 35 U.S.C. § 315(b) shows that the primary concern related to the one-year time period was to provide defendants sufficient time to fully analyze the patent claims, but not to create an open-ended process. See 157 Cong. Rec. S5429 (daily ed. Sept. 8, 2011) (statement of Senator Kyl) ("it is important that the section 315(b) deadline afford defendants a reasonable opportunity to identify and understand the patent claims that are relevant to the litigation"). In other words, the interpretation of 35 U.S.C. § 315(b) must be consistent with the legislative intent to provide defendants sufficient time to

[3] iMiracle and its affiliates were put on notice by letter dated July 6, 2022 – to which iMiracle's counsel responded on August 8, 2022. This IPR was initiated on July 29, 2023.

analyze the patent claims so that they can decide whether to challenge the patentability of the claims in an inter partes review.

There is no explanation for iMiracle's unjustifiable delay other than tactical gamesmanship. iMiracle waited over a year from it's notice of the '622 Patent to file its IPR and disclose its invalidity analysis in this dispute. iMiracle's unjustified delay in filing its IPR petition alone is sufficient basis for denial. See, e.g., *Realtime Data LLC v. Actian Corporation*, No. 6:15-CV-463-RWS-JDL, 2016 WL 3277259, at *3 (E.D. Tex. June 14, 2016) ("Defendants waited between seven and eleven months to file their IPR petitions…which demonstrates a lack of diligence on the part of the Defendants, and they have not attempted to provide an explanation for this unjustifiable delay.")[4]

iMiracle is using the IPR procedure "as a tool for harassment or litigation gamesmanship." *Johnson Health Tech. Co. v. Icon Health & Fitness, Inc.*, IPR2014-01242, Paper 16 (PTAB Feb. 11, 2015) (institution denied). iMiracle violated the rules on patent lawsuit disclosures that "require both the plaintiff and

[4] *TruePosition, Inc., v. Polaris Wireless, Inc.*, No. CV 12-646-RGA/MPT, 2013 WL 5701529, *6 (D. Del. Oct. 21, 2013), report and recommendation adopted, No. CV 12-646-RGA, 2013 WL 6020798 (D. Del. Nov. 12, 2013) (finding that filing IPR petitions close to the statutory deadline "may suggest an unfair tactical advantage or dilatory motive"); *Pragmatus Mobile, LLC v. Amazon.com, Inc.*, No. CV 14-436-LPS, 2015 WL 3799433, at *1 (D. Del. June 17, 2015) ("The timing of Moving Defendants' filing suggests they may be seeking a tactical advantage, given they were aware of the prior art asserted in their IPR petition many months before filing the petition just three days before the statutory deadline."); *TPK Touch Solutions, Inc v. Wintek Electro-Optics Corporation*, 2013 WL 6021324 (N.D. Cal. 2013) (noting lack of diligence by patent challenger in requesting IPR).

the defendant in patent cases to provide early notice of their infringement and invalidity contentions..” *O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc.*, 467 F.3d 1355, 1365–66 (Fed. Cir. 2006). Patent litigation “require[s] parties to crystallize their theories of the case early in litigation.” Id. at 1366 n.12. Instead of disclosing its invalidity claims in this case, iMiracle is using its IPR to advance theories of invalidity.

iMiracle has not demonstrated diligence. *West v. Jewelry Innovations, Inc.*, No. C 07–1812 JF (HRL), 2008 WL 4532558, at *3 (N.D. Cal. Oct. 8, 2008) (finding that the defendant did not establish diligence of its prior art search because it did “not provide any information about when or why it began the inquiries…”); *Streak Prods., Inc. v. Antec, Inc.*, 2010 WL 3515752, at *2 (N.D. Cal. Sept. 8, 2010) (requiring defendant to submit declarations describing their prior art search

IV. CONCLUSION

For the foregoing reasons, iMiracle’s petition fails to demonstrate a “reasonable likelihood that petitioner will prevail,” and also fails to establish a reasonable likelihood that the challenged claims are unpatentable by a preponderance of the evidence. iMiracle’s references fail to disclose, teach, or otherwise make obvious, the claimed “single chip micyoco” (microcontroller) that

"instructs…a time period and magnitude of the electric current" sent to the atomizer.

The Director should deny institution.

Date: October 30, 2023

Respectfully submitted,

/s/ Joseph A. Dunne

Joseph A. Dunne
Lead Counsel
175 Pearl St., 3rd Floor
Brooklyn, NY 11201
Main: (561) 404-4350
Direct: (929) 200-8446

CERTIFICATE OF COMPLIANCE

1. This PATENT OWNER'S PRELIMINARY RESPONSE complies with the type-volume limitation of 14,000 words, comprising 5,166 words, excluding the parts exempted by 37 C.F.R. §42.24(a)(1).

2. This PATENT OWNER'S PRELIMINARY RESPONSE complies with the general format requirements of 37 C.F.R. §42.6(a) and has been prepared using Microsoft Word 2010 in 14-point Times New Roman font.

Date: October 30, 2023

Respectfully submitted,

/s/ Joseph A. Dunne

Joseph A. Dunne
Lead Counsel
175 Pearl St., 3rd Floor
Brooklyn, NY 11201
Main: (561) 404-4350
Direct: (929) 200-8446

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing PATENT OWNER'S PRELIMINARY RESPONSE and all accompanying Exhibits were served electronically via e-mail on October 30, 2023, in their entireties on the following Attorneys for Petitioner:

David Lindner
dlindner@crowell.com
Alissa Askuvich
aaskuvich@crowell.com
Crowell & Moring LLP
455 North Cityfront Plaza Drive
Suite 3600
Chicago, IL 60611

Date: October 30, 2023 Respectfully submitted,

/s/ Joseph A. Dunne

Joseph A. Dunne
Lead Counsel
175 Pearl St., 3rd Floor
Brooklyn, NY 11201
Main: (561) 404-4350
Direct: (929) 200-8446