

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

Shenzhen Shokz Co., Ltd.,

Plaintiff,

v.

Shenzhen Wenming Technology Co., Ltd,
guizhoushengxinhongshengshangmaoyouxiang
ongsi, Shenzhen Youbo Technology Co., Ltd,
Shanghai Kushi Information Technology Co.,
Ltd., Suzhou Mojawa Intelligent Electronic
Co., Ltd, MRNEIO LLC

Defendants.

Case No. 1:24-CV-06717

JURY TRIAL DEMANDED

**DEFENDANT SUZHOU MOJAWA INTELLIGENT ELECTRONIC CO., LTD'S
INITIAL NON-INFRINGEMENT, UNENFORCEABILITY AND INVALIDITY
CONTENTIONS**

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Defendant Suzhou Mojawa Intelligent Electronic Co., Ltd (“Mojawa”) provides these Initial Non-Infringement, Unenforceability and Invalidity Contentions (“Contentions”) concerning U.S. Patent Nos. 11,197,084 (“’084 Patent”) and 11,310,582 (“’582 Patent”) (collectively, “Asserted Patents”) pursuant to the Court’s Local Patent Rules.

Mojawa’s Contentions reflect its current knowledge. This litigation is in its earliest stages, and Mojawa reserves the right, to the extent permitted by the Court and the applicable statutes and rules, to modify and/or supplement these Contentions in response to becoming aware of additional information regarding non-infringement, additional prior art or other information regarding invalidity or unenforceability, any modification or supplementation of Plaintiff’s Infringement Contentions, any claim construction by the Court, or as otherwise may be appropriate.

The Court’s Local Patent Rules contemplates these Initial Non-Infringement, Unenforceability and Invalidity Contentions being prepared and served in response to Plaintiff’s Infringement Contentions and the allegations therein regarding Plaintiff’s theory of infringement with respect to each Accused Instrumentality. *See* LPR 2.3. Plaintiff’s Infringement Contentions, however, fail to provide full, fair, and timely disclosure as to how Mojawa allegedly infringes each element of each asserted claim of the Asserted Patents (“Asserted Claims”). Mojawa also reserves the right to seek leave to amend these Contentions in light of positions that Plaintiff or its expert witnesses may assert concerning claim construction, infringement, validity, and/or subject-matter eligibility issues.

Mojawa’s exhibits attached hereto (Exhibits A1-A8, B1-B7) cite to particular teachings and disclosures of the prior art as applied to limitations or features of the Asserted Claims. However, persons having ordinary skill in the art may view an item of prior art in the context of

other publications, literature, products, and understanding. Thus, the cited portions of prior art identified herein are only exemplary. Mojawa may rely on the entirety of the prior art included in Mojawa's exhibits, including uncited portions of those items, and on other publications and expert testimony shedding light on those items, including as aids in understanding, interpreting, or providing context for the cited portions, and as further evidence that the prior art discloses a claim limitation or feature.

Mojawa may rely upon documents, products, testimony, and other evidence to establish bases for, and motivations to make, combinations of cited prior art that render the Asserted Claims obvious. Mojawa may also rely upon corroborating documents, products, testimony, and other evidence, including materials obtained through further investigation and third-party discovery of cited prior art, that describes the invalidating aspects identified in these contentions; evidence of the state of the art in the relevant time period (irrespective of whether such prior art qualifies as prior art to the Asserted Patents), including prior art listed on the face of the Asserted Patents and/or disclosed in the specification ("Admitted Prior Art"); and/or expert testimony to provide context to or aid in understanding the cited prior art.

The prior art references discussed in the exhibits attached hereto disclose the elements of the Asserted Claims explicitly or inherently, and they may be relied upon to show the state of the art in the relevant time frame. To the extent the attached claim charts cite to a reference for each element or limitation of an Asserted Claim, Mojawa contends that such reference anticipates that claim. In addition, Mojawa contends in the alternative that each Asserted Claim is rendered obvious for the reasons set forth herein and in the attached charts. To the extent obviousness combinations are included herein and/or in the attached claim charts, they are exemplary and not inclusive of all possible combinations, are provided in the alternative to Mojawa's anticipation

contentions, and should not be construed to suggest that any reference included in the combinations is not by itself anticipatory. For purposes of these Contentions, Mojawa identifies prior art references and provides element-by-element claim charts based, in part, on the apparent claim constructions advanced by Plaintiff in its Infringement Contentions and claim construction disclosures. The citation of prior art herein and the accompanying exhibits is not necessarily intended to reflect Mojawa's claim construction contentions, and may instead reflect Plaintiff's apparent (and potentially erroneous) claim constructions implied by its Infringement Contentions. Nothing stated herein should be treated as an admission or suggestion that Mojawa agrees with Plaintiff regarding either the scope of any of the Asserted Claims or the claim constructions apparently being advanced in Plaintiff's Infringement Contentions. Moreover, nothing in these Contentions constitutes an admission or acquiescence that any of Mojawa's accused products, features, or technology meets any limitation of the Asserted Claims.

Pursuant to the Court's Local Patent Rules, Mojawa has provided disclosures and related documents pertaining to the Asserted Claims as identified by Plaintiff in its Infringement Contentions. Mojawa will further supplement its document productions should it later find additional, responsive documents, such as documents produced by third-parties in response to discovery requests. Much of the prior art identified below reflects common knowledge and the state of the art before the alleged priority date(s) of the Asserted Patents.

Each of the Asserted Claims is invalid for being anticipated by and/or obvious in view of one or more items of prior art identified herein, alone or in combination. Specific examples of this anticipation and obviousness, along with the motivation to combine the identified prior art, are set forth in Sections IV and V, *infra*. See Exhibits A1-A8, B1-B7. Mojawa further reserves

the right to assert additional theories of invalidity not addressed or required to be disclosed in these Contentions.

In addition to the prior art identified below and the accompanying invalidity claim charts, Mojawa also incorporates by reference any prior art disclosed at any time during the prosecution of the Asserted Patents or related patents, by parties in the present litigation, or by any party during any past, present, or future litigation or U.S. Patent and Trademark Office proceeding involving the Asserted Patents or related patents.

I. ALLEGED PRIORITY DATES

In its Infringement Contentions, Plaintiff contends that each of the Asserted Claims of the Asserted Patents is entitled to an earliest priority date of the filing date of Chinese Application No. 201910009927.4:

- '084 Patent: January 5, 2019
- '582 Patent: January 5, 2019

Mojawa asserts that Plaintiff is not entitled to its claimed priority dates for at least the reasons set forth below. To the extent that Plaintiff is later permitted to modify, and in fact modifies in any manner, the alleged priority date for the Asserted Claims of the Asserted Patents, Mojawa reserves the right to respond and challenge that date. Mojawa further reserves the right to amend and/or supplement these Contentions in response to any modification of the alleged priority date.

A. '084 Patent Priority Date

Mojawa contends that the '084 Patent is entitled to a priority date of no earlier than December 30, 2020. Key limitations of asserted independent claim 1 of the '084 patent, were not disclosed in the Chinese priority application CN109788386A (Application No. 201910009927.4), including at least the limitations “elastic *waterproof* material” and “the

control circuit or the battery driving the earphone core to vibrate, the vibration of the earphone core generating a driving force to drive a housing panel of the core housing to vibrate, the driving force being not parallel to a normal line of the housing panel.” Rather, those claim elements were disclosed for the first time in the U.S. application of the ’084 patent filed on Dec. 30, 2020. Therefore, the ’084 Patent is entitled to a priority date of no earlier than December 30, 2020.

B. ’582 Patent Priority Date

Mojawa contends that the ’582 Patent is entitled to a priority date of no earlier than December 30, 2020. Key limitations of asserted independent claim 1 of the ’582 patent, were not disclosed in the Chinese priority application CN109788386A (Application No. 201910009927.4), including at least the limitations “elastic *waterproof* material,” “the core housing including a housing panel facing human body and a housing back panel opposite to the housing panel,” “the vibration of the earphone core drives the housing panel and the housing back panel to vibrate, the vibration of the housing panel having a first phase, the vibration of the housing back panel having a second phase, wherein when the vibration frequencies of the housing panel and the housing back panel is within a range of 2000 Hz to 3000 Hz, an absolute value of a difference between the first phase and the second phase is less than 60 degrees,” and “the control circuit or the battery driving the earphone core to vibrate to generate a sound.” Rather, those claim elements were disclosed for the first time in the U.S. application of the ’582 patent filed on Dec. 30, 2020. Therefore, the ’582 Patent is entitled to a priority date of no earlier than December 30, 2020.

II. STATE OF THE ART

The prior art identified herein and discussed in the exhibits attached hereto may be relied on to show the state of the art prior to Plaintiff's alleged priority dates for the Asserted Patents. This prior art identification is only exemplary and is not in any way intended to limit the scope of what one of ordinary skill in the art would have understood, or the breadth of the state of the art, at this time period. Mojawa reserves the right to rely upon additional prior art, information, testimony, and/or knowledge to demonstrate what one of ordinary skill in the art would have understood prior to Plaintiff's alleged priority dates for the Asserted Claims of the Asserted Patents.

Mojawa may further rely upon the Admitted Prior Art disclosed in the Asserted Patents, including but not limited to the concepts discussed therein, and the following exemplary admissions:

- “Generally, people can hear the sound because air transmits vibration to the eardrum through the external ear canal, and the vibration formed by the eardrum drives the human auditory nerve, thereby perceiving the sound. At present, earphones are widely used in people's lives. For example, users can use earphones to play music, answer calls, etc. Earphones have become an important item in people's daily life. Ordinary earphones can no longer meet the normal use of users in some special scenes (e.g., swimming, rainy days, etc.). Thus, earphones with waterproof function and better sound quality are more popular with consumers. Therefore, it may be necessary to provide a loudspeaker apparatus with waterproof function and easy to produce and assemble.” ’582 at 1:20-32; ’084 at 1:20-32.
- “The storage device may include but is not limited to common types of storage devices such as a solid-state storage device (a solid-state drive, a solid-state hybrid hard drive, etc.), a mechanical hard drive, a USB flash drive, a memory stick, a storage card (e.g., CF, SD, etc.), and other drives (e.g., CD, DVD, HD DVD, Blu-ray, etc.), a random access memory (RAM), a read-only memory (ROM), etc. The RAM may include but is not limited to a decimal counter, a selection tube, a delay line memory, a Williams tube, a dynamic random access memory (DRAM), a static random access memory (SRAM), a thyristor random access memory (T-RAM), a zero capacitive random access memory (Z-RAM), etc. The ROM may include but is not limited to a magnetic bubble memory, a magnetic button line memory, a thin film memory, a magnetic plating line memory, a magnetic core memory, a drum memory, an optical disk driver, a hard disk, a magnetic

tape, an early non-volatile memory (NVRAM), a phase change memory, a magneto-resistive random access memory, a ferroelectric random access memory, a non-volatile SRAM, a flash memory, an electronically erasable rewritable read-only memory, an erasable programmable read-only memory, a programmable read-only memory, a shielded heap read memory, a floating connection gate random access memory, a nano random access memory, a racetrack memory, a variable resistance memory, a programmable metallization unit, etc.” ’582 at 6:44-7:5; ’084 at 6:53-7:14.

Mojawa may also rely on certain prior art technologies and/or prior art systems and references as describing or indicating the state of the art, as known to a person of skill in the art, at the time of Plaintiff’s alleged priority dates for the Asserted Claims of the Asserted Patents. These include all technologies, systems, and references cited in the Asserted Patents and related patent applications and/or raised during any proceedings before the U.S. Patent and Trademark Office. Mojawa may rely on articles, publications, textbooks and/or physical devices to establish the state of the art at the time of Plaintiff’s alleged priority dates for the Asserted Claims of the Asserted Patents. At a minimum, the following technologies and references were part of the state of the art, and would have been known to a person of skill in the art, at the time of the alleged priority dates for the Asserted Claims of the Asserted Patents:

- Earphones, including earphones with waterproof function and better sound quality, *e.g.*, ’582 at 1:20-32; ’084 at 1:20-32;
- Wearable bone conduction earphones, *e.g.*, Shokz’s AS800 product;
- Storage devices, including solid-state storage devices, mechanical hard drives, a USB flash drive, a memory stick, a storage card (*e.g.*, CF, SD, etc.), and other drives (*e.g.*, CD, DVD, HD DVD, Blu-ray, etc.), a random access memory (RAM), a read-only memory (ROM), etc., *e.g.*, ’582 at 6:44-7:5; ’084 at 6:53-7:14.

Mojawa may also rely on patents and/or publications that encompass the state of the art at the time of Plaintiff’s alleged priority dates.

III. IDENTIFICATION OF PRIOR ART

In addition to the prior art identified in the Asserted Patents and their prosecution history, Mojawa intends to rely upon the prior art identified below. Mojawa provides the full identity of

each item of prior art, including each patent or published application by its patent or publication number, country of origin, and date of issue or publication. Mojawa identifies each item of prior art based on currently available information and reserves the right to amend the information provided and/or provide further information as it becomes known to Mojawa.

Mojawa's identification of patents and publications as prior art herein and in the exhibits attached hereto under 35 U.S.C. §§ 102 and 103 includes the patents and publications themselves as well as the use, sale, and/or offer for sale of the products, devices, and/or systems described therein. Although Mojawa's investigation continues, information available to date indicates that such products, devices, and/or systems were known or used before Plaintiff's alleged priority date for the Asserted Claims. Upon information and belief, these prior art products, devices, and/or systems and their associated references anticipate and/or render obvious each of the Asserted Claims. Mojawa further intends to rely on inventor admissions concerning the scope of the prior art relevant to the Asserted Patents found in, inter alia, the prosecution history of the Asserted Patents and any related patents, patent applications, and/or re-examinations; any past deposition testimony of the named inventor of the Asserted Patents and/or of any omitted inventors; and the papers filed and any evidence submitted by Plaintiff in conjunction with this litigation.

Mojawa reserves the right to supplement these contentions to incorporate discovery regarding prior art systems that may be related to the Asserted Patents, as necessary. Mojawa reserves the right to rely upon additional evidence of invalidity obtained from third-parties in the future. Mojawa also reserves the right to advance a contention that the Asserted Patents are invalid under 35 U.S.C. § 115 in the event that Mojawa obtains further evidence to assert that the

alleged invention in the Asserted Patents, or any part of it, derived from any other individual besides the listed inventor on the face of the Asserted Patents.

A. Prior Art Patents

Based upon current information, Mojawa contends that the following prior art patents and published patent applications anticipate or render obvious one or more Asserted Claims of the Asserted Patents under 35 U.S.C. § 102 and/or 103. Mojawa attaches claim charts as Exhibits A1-A8 and B1-B7 identifying examples of where, in certain items of prior art listed in the Table below, the elements of each Asserted Claim of the Asserted Patents are found.

Country	Patent/Publication No.	Filing/Publication/Issue Date	Inventor (et al.)
CN	101911727A	Filing Date: 2009-01-06 Publication Date: 2010-12-08	索伦·斯蒂恩·尼尔森
CN	104023288A	Filing Date: 2014-05-23 Publication Date: 2014-09-03	Du '288
CN	104703109A	Filing Date: 2014-12-03 Publication Date: 2015-06-10	C. F. 李
CN	106792418A	Filing Date: 2016-12-20 Publication Date: 2017-05-31	蒋华
CN	106937222A	Filing Date: 2015-08-13 Publication Date: 2017-07-07	Liao '222
CN	107454492A	Filing Date: 2017-08-18 Publication Date: 2017-12-08	Li '492
CN	107484054A	Filing Date: 2017-08-18 Publication Date: 2017-12-15	李永坚
CN	107682766A	Filing Date: 2017-09-19 Publication Date: 2018-02-09	白航空
CN	108184196A	Filing Date: 2018-01-08 Publication Date: 2018-06-19	张磊
CN	109121038A	Filing Date: 2018-08-30 Publication Date: 2019-01-01	林肇堃
CN	202268994U	Filing Date: 2011-07-27 Publication Date: 2012-06-06	黄晖
CN	202931524U	Filing Date: 2012-05-16 Publication Date: 2013-05-08	浅香宏充
CN	203942093U	Filing Date: 2014-04-03 Publication Date: 2014-11-12	王寅生

Country	Patent/Publication No.	Filing/Publication/Issue Date	Inventor (et al.)
CN	204465795U	Filing Date: 2014-12-10 Publication Date: 2015-07-08	刘文邦
CN	204948313U	Filing Date: 2015-09-06 Publication Date: 2016-01-06	张浩锋
CN	205017577U	Filing Date: 2015-10-19 Publication Date: 2016-02-03	Xu '577
CN	205336486U	Filing Date: 2015-12-15 Publication Date: 2016-06-22	张浩锋
CN	205356672U	Filing Date: 2015-12-24 Publication Date: 2016-06-29	Wang '672
CN	205946108U	Filing Date: 2016-08-30 Publication Date: 2017-02-08	陈迁
CN	206323527U	Filing Date: 2016-12-13 Publication Date: 2017-07-11	杨应聪
CN	206402405U	Filing Date: 2016-12-13 Publication Date: 2017-07-11	言华
CN	206948550U	Filing Date: 2017-05-17 Publication Date: 2018-01-30	吴欣文
CN	207732943U	Filing Date: 2018-01-25 Publication Date: 2018-08-14	钱绍诚
JP	2007049599A	Filing Date: 2018-01-25 Publication Date: 2018-08-14	钱绍诚
JP	2007189269A	Filing Date: 2005-12-22 Publication Date: 2007-07-26	Nakada
JP	2008294872A	Filing Date: 2007-05-26 Publication Date: 2008-12-04	Numata '872
KR	100663333B1	Filing Date: 2005-10-31 Publication Date: 2007-01-02	오상길
US	4,564,955	Filing Date: 1983-10-19 Issue Date: 1986-01-14	Birch
US	4,727,582	Filing Date: 1985-03-15 Issue Date: 1988-02-23	De Vries
US	5,369,857	Filing Date: 1992-12-08 Issue Date: 1994-12-06	Sacherman
US	2004/0055811	Filing Date: 2002-09-19 Publication Date: 2004-03-25	Shih
US	2004/0109576	Filing Date: 2003-04-21 Publication Date: 2004-06-10	You
US	2006/0262954	Filing Date: 2003-07-24 Publication Date: 2006-11-23	Lee
US	2009/0136071	Filing Date: 2008-11-10 Publication Date: 2009-05-28	Sattler
US	2010/0316239	Filing Date: 2010-06-08 Publication Date: 2010-12-16	Tada

Country	Patent/Publication No.	Filing/Publication/Issue Date	Inventor (et al.)
US	2013/0329918	Filing Date: 2012-06-06 Publication Date: 2013-12-12	Kubba
US	2014/0055932	Filing Date: 2012-08-31 Publication Date: 2014-02-27	Nakamura
US	2014/0185822	Filing Date: 2013-09-11 Publication Date: 2014-07-03	Kunimoto
US	2014/0334658	Filing Date: 2013-08-07 Publication Date: 2014-11-13	Wang
US	2016/0269838	Filing Date: 2016-05-25 Publication Date: 2016-09-15	Harte '838
US	2016/0329041	Filing Date: 2014-12-17 Publication Date: 2016-11-10	Qi '041
US	2017/0195767	Filing Date: 2016-11-23 Publication Date: 2017-07-06	Kim
US	2017/0374479	Filing Date: 2017-07-16 Publication Date: 2017-12-28	Qi
US	2019/0253781	Filing Date: 2019-04-24 Publication Date: 2019-08-15	Kunimoto
WIPO	WO 2018/131762	Filing Date: 2017-07-11 Publication Date: 2018-07-19	허진숙
US	9,253,563	Filing Date: 2013-10-25 Publication Date: 2016-02-02	Fukuda '563
US	10,778,824	Filing Date: 2017-01-12 § 371(c)(1), (2) Date: 2018-07-18	Hosoi '824
US	2016/0241689	Filing Date: 2014-10-30 Publication Date: 2016-08-18	Watanabe
WIPO	WO 2008/007666	Filing Date: 2007-07-10 Publication Date: 2008-01-17	Fujita '666
WIPO	WO 2017/126406	Filing Date: 2017-01-12 Publication Date: 2017-07-27	裕司 細井

IV. SUMMARY OF PRELIMINARY INVALIDITY CONTENTIONS

In addition to and including the prior art disclosed in the exhibits attached hereto, each of the Asserted Claims of the Asserted Patents is anticipated by and/or obvious in view of one or more of items of prior art identified above in Section III.A (list of prior art patents), alone or in combination. Generally, it would have been obvious to one of ordinary skill in the art to combine any of these systems and references to arrive at the claimed invention. The combination of

familiar elements according to known methods is obvious here because it yielded predictable results. Motivation to combine any two or more of the identified systems and references comes from the fact that all of the systems and references teach improvements to technology related to speakers. A person of ordinary skill in the art would have been motivated to combine the various teachings by considerations of efficiency, effectiveness, convenience, cost-savings, and accessibility.

The Asserted Claims of the Asserted Patents are directed to obvious combinations of old and familiar steps or elements, each performing the same function it has long been known to perform, which yield nothing more than predictable results. Put another way, the claimed subject matter is obvious because it is nothing more than (i) combinations of prior art elements according to known methods to yield predictable results, (ii) simple substitutions of one known element for another to yield predictable results, (iii) applications of known techniques to known devices ready for improvement to yield predictable results, and/or (iv) obvious to try. One of skill in the art would have been motivated to either modify the prior art identified herein or to combine the prior art in a manner indicated by, for example, their background knowledge, design incentives, effects of demands known to the design community, or other market forces, in particular the desire to improve technology related to speakers. Further, the prior art discussed in this Section IV addresses many of the same, as well as different, design features of apparatuses, systems, and/or methods for technology related to speakers. This would have further motivated one of skill in the art to combine the cited prior art. In view of the simplicity of the claimed subject matter and its use of well-known components with recognized benefits, the common sense of those skilled in the art also would have served as a motivation to combine any of the

identified references, and demonstrates that the Asserted Claims of the Asserted Patents would have been obvious.

Mojawa has attached exhibits containing claim charts identifying examples of prior art that anticipate and/or render obvious each Asserted Claim of the Asserted Patents. Specifically, to the extent the attached claim charts cite to a reference for each element or limitation of an Asserted Claim, Mojawa contends that such reference anticipates that claim. In addition, Mojawa contends in the alternative that each Asserted Claim is rendered obvious for the reasons set forth in this document. Finally, in each of the attached claim charts, where Mojawa cites to a particular figure in a prior art reference, the citation encompasses the caption and description of the figure, and any text relating to the figure and the invention disclosed therein. Likewise, where Mojawa cites to particular text regarding a figure, the citation encompasses the corresponding figure, any text relating to the figure, and the invention disclosed therein.

Claim Charts

U.S. Patent No. 11,310,582	U.S. Patent No. 11,197,084
A1 – Li '492	B1 – Li '492
A2 – Liao '222	B2 – Fujita '666
A3 – Qi '041	B3 – Hosoi '824
A4 – Du '288	B4 – Du '288
A5 – Numata '872	B5 – Numata '872
A6 – Harte '838	B6 – Harte '838
A7 – Wang '672	B7 – Fukuda '563
A8 – Xu '577	

To the extent that Plaintiff contends that any one of the prior art references in the attached claim charts does not disclose one or more elements of the Asserted Claims, it would have been obvious to combine each such reference with one or more other prior art references, as discussed more fully below, *infra* Section V.

As detailed in the attached claim charts and in this document, the Asserted Claims of the Asserted Patents are obvious in view of the state of the prior art alone and/or in combination with the references described in Exhibits A1-A8 and B1-B7, as well as other items of prior art described herein. The alleged “inventions” claimed in the Asserted Claims of the Asserted Patents would have been obvious because the prior art, common knowledge, and the nature of the problems, viewed through the eyes of a person ordinarily skilled in the art, suggested the claimed elements. A person of ordinary skill in the relevant fields would have possessed knowledge and skills rendering him or her capable of combining the prior art references with knowledge in the field and common sense. Moreover, the Asserted Claims represent well-known combinations of familiar and pre-existing elements, yielding only predictable results.

The obviousness combinations set forth in these contentions reflect Mojawa’s present understanding of the potential scope of the claims that Plaintiff appears to be advocating and should not be seen as Mojawa’s acquiescence to Plaintiff’s interpretation of the patent claims. Mojawa reserves the right to amend or supplement these contentions regarding anticipation and/or obviousness of the Asserted Claims as appropriate, including in response to further information from Plaintiff or information obtained through discovery.

In addition, persons of ordinary skill in the art generally understand a prior art reference as a whole and in the context of other publications and literature. Thus, to understand and interpret any specific statement or disclosure within a prior art reference, such persons would

rely on other information within that reference, along with other publications, and on their general scientific knowledge. As noted above, Mojawa will rely upon the prior art items identified herein in their entirety, including un-cited portions.

Additionally, any reference, or combination of references, that anticipates or renders obvious an independent Asserted Claim, also renders obvious any Asserted Claim dependent on that independent Asserted Claim because every element of each dependent Asserted Claim was known by a person of ordinary skill at the time of Plaintiff's alleged priority dates, and it would have been obvious to combine those known elements with the independent Asserted Claims at least as a matter of common sense and routine innovation.

Mojawa puts forth the below exemplary combinations that further demonstrate the obviousness of the Asserted Claims. Mojawa is currently unaware of the extent, if any, to which Plaintiff will contend that limitations of the Asserted Claims are not disclosed in the art identified by Mojawa. To the extent that an issue arises with any such limitation, Mojawa reserves the right to identify other references that would have made obvious the additional allegedly missing limitation to the disclosed apparatus.

Each Asserted Claim of the Asserted Patents is rendered obvious under 35 U.S.C. § 103 in view of at least, and without limitation, the following combinations of references:

A. '582 Patent Combinations

One of the Following Primary References	In Combination with One or More of the Following References
CN107454492A (Li '492)	Liao '222 Qi '041 Du '288 Numata '872 Harte '838 Wang '672 Xu '577
CN106937222A (Liao '222)	Li '492

One of the Following Primary References	In Combination with One or More of the Following References
	Qi '041 Du '288 Numata '872 Harte '838 Wang '672 Xu '577
US20160329041A1 (Qi '041)	Li '492 Liao '222 Du '288 Numata '872 Harte '838 Wang '672 Xu '577
CN104023288A (Du '288)	Li '492 Liao '222 Qi '041 Numata '872 Harte '838 Wang '672 Xu '577
JP2008294872A (Numata '872)	Li '492 Liao '222 Qi '041 Du '288 Harte '838 Wang '672 Xu '577
US20160269838A1 (Harte '838)	Li '492 Liao '222 Qi '041 Du '288 Numata '872 Wang '672 Xu '577
CN205356672U (Wang '672)	Li '492 Liao '222 Qi '041 Du '288 Numata '872 Harte '838 Xu '577
CN205017577U (Xu '577)	Li '492 Liao '222 Qi '041

One of the Following Primary References	In Combination with One or More of the Following References
	Du '288 Numata '872 Harte '838 Wang '672

B. '084 Patent Combinations

One of the Following Primary References	In Combination with One or More of the Following References
CN107454492A (Li '492)	Fujita '666 Hosoi '824 Du '288 Numata '872 Harte '838 Fukuda '563
WO2008007666A1 (Fujita '666)	Li '492 Hosoi '824 Du '288 Numata '872 Harte '838 Fukuda '563
U.S. 10,778,824 B2 (Hosoi '824)	Li '492 Fujita '666 Du '288 Numata '872 Harte '838 Fukuda '563
CN104023288A (Du '288)	Li '492 Fujita '666 Hosoi '824 Numata '872 Harte '838 Fukuda '563
JP2008294872A (Numata '872)	Li '492 Fujita '666 Hosoi '824 Du '288 Harte '838 Fukuda '563
US20160269838A1 (Harte '838)	Li '492 Fujita '666 Hosoi '824

One of the Following Primary References	In Combination with One or More of the Following References
	Du '288 Numata '872 Fukuda '563
US9253563B2 (Fukuda '563)	Li '492 Fujita '666 Hosoi '824 Du '288 Numata '872 Harte '838

V. MOTIVATION TO COMBINE

To the extent that Plaintiff contends that an Asserted Claim is not rendered obvious by any of the above-listed combinations, a person of ordinary skill in the art would be motivated and able to combine known principles in the art and/or other prior art references identified herein with the above-listed combinations in order to satisfy any limitation that is purportedly missing from the combination.

The motivation to combine these references is described above and in greater detail below. Mojawa will continue to specify the motivations to combine the prior art, including through reliance on expert testimony, at the appropriate later stage of this lawsuit.

A. '582 Patent

Mojawa contends that the Asserted Claims of the '582 Patent are invalid for being anticipated by, or obvious in view of, at least the prior art references below for at least the following reasons.

1. Li '492 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577. Each of Li '492,

Liao '222, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Li '492's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same

way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

2. Liao '222 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Liao '222, Li '492, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577. Each of Liao '222, Li '492, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Liao '222, Li '492, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Liao '222, Li '492, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Liao '222's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to

combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Liao '222, Li '492, Qi '041, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

3. Qi '041 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Qi '041, Li '492, Liao '222, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577. Each of Qi '041, Li '492, Liao '222, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Qi '041, Li '492, Liao '222, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Qi '041, Li '492, Liao '222, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Qi '041's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Qi '041, Li '492, Liao '222, Du '288, Numata '872, Harte '838, Wang '672, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

4. Du '288 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Du '288, Li

'492, Liao '222, Qi '041, Numata '872, Harte '838, Wang '672, and Xu '577. Each of Du '288, Li '492, Liao '222, Qi '041, Numata '872, Harte '838, Wang '672, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Du '288, Li '492, Liao '222, Qi '041, Numata '872, Harte '838, Wang '672, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Du '288, Li '492, Liao '222, Qi '041, Numata '872, Harte '838, Wang '672, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Du '288's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Du '288, Li '492, Liao '222, Qi '041, Numata '872, Harte '838, Wang '672, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another

to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

5. Numata '872 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Numata '872, Li '492, Liao '222, Qi '041, Du '288, Harte '838, Wang '672, and Xu '577. Each of Numata '872, Li '492, Liao '222, Qi '041, Du '288, Harte '838, Wang '672, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each Numata '872, Li '492, Liao '222, Qi '041, Du '288, Harte '838, Wang '672, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Numata '872, Li '492, Liao '222, Qi '041, Du '288, Harte '838, Wang '672, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Numata '872's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Numata '872, Li '492, Liao '222, Qi '041, Du '288, Harte '838, Wang '672, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

6. Harte '838 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Harte '838, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Wang '672, and Xu '577. Each of Harte '838, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Wang '672, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Harte '838, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Wang '672, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions

of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Harte '838, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Wang '672, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Harte '838's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Harte '838, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Wang '672, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

7. Wang '672 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Wang '672, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Xu '577. Each of Wang '672, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Xu '577 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Wang '672, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Xu '577 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Wang '672, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Xu '577 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Wang '672's device with the device disclosed in other prior art cited in A1-A8, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly,

combining the teachings of Wang '672, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Xu '577 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

8. Xu '577 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '582 Patent, would have been motivated to combine the teachings of Xu '577, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Wang '672. Each of Xu '577, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Wang '672 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Xu '577, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Wang '672 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '582 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Xu '577, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Wang '672 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Xu '577's device with the device disclosed in other prior art cited in A1-A8, in order to provide

additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Xu '577, Li '492, Liao '222, Qi '041, Du '288, Numata '872, Harte '838, and Wang '672 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

B. '084 Patent

Mojawa contends that the Asserted Claims of the '084 Patent are invalid for being anticipated by, or obvious in view of, at least the prior art references below for at least the following reasons.

1. Li '492 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings of Li '492,

Fujita '666, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563. Each of Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Li '492's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain

predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

2. Fujita '666 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings of Fujita '666, Li '492, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563. Each of Fujita '666, Li '492, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each Fujita '666, Li '492, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Fujita '666, Li '492, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Fujita '666's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Fujita '666, Li '492, Hosoi '824, Du '288, Numata '872, Harte '838, and Fukuda '563 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

3. Hosoi '824 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings Hosoi '824, Li '492, Fujita '666, Du '288, Numata '872, Harte '838, and Fukuda '563. Each of Hosoi '824, Li '492, Fujita '666, Du '288, Numata '872, Harte '838, and Fukuda '563 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Hosoi '824, Li '492, Fujita '666, Du '288, Numata '872, Harte '838, and Fukuda '563 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of

the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Hosoi '824, Li '492, Fujita '666, Du '288, Numata '872, Harte '838, and Fukuda '563 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Hosoi '824's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Hosoi '824, Li '492, Fujita '666, Du '288, Numata '872, Harte '838, and Fukuda '563 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

4. Du '288 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings of Du '288, Li '492, Fujita '666, Hosoi '824, Numata '872, Harte '838, and Fukuda '563. Each of Du '288, Li '492, Fujita '666, Hosoi '824, Numata '872, Harte '838, and Fukuda '563 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Du '288, Li '492, Fujita '666, Hosoi '824, Numata '872, Harte '838, and Fukuda '563 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Du '288, Li '492, Fujita '666, Hosoi '824, Numata '872, Harte '838, and Fukuda '563 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Du '288's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly,

combining the teachings of Du '288, Li '492, Fujita '666, Hosoi '824, Numata '872, Harte '838, and Fukuda '563 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

5. Numata '872 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings of Numata '872, Li '492, Fujita '666, Hosoi '824, Du '288, Harte '838, and Fukuda '563. Each of Numata '872, Li '492, Fujita '666, Hosoi '824, Du '288, Harte '838, and Fukuda '563 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Numata '872, Li '492, Fujita '666, Hosoi '824, Du '288, Harte '838, and Fukuda '563 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Numata '872, Li '492, Fujita '666, Hosoi '824, Du '288, Harte '838, and Fukuda '563 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Numata '872's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to

provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Numata '872, Li '492, Fujita '666, Hosoi '824, Du '288, Harte '838, and Fukuda '563 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

6. Harte '838 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings of Harte '838, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Fukuda '563. Each of Harte '838, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Fukuda '563 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Harte '838, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Fukuda '563 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Harte '838, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Fukuda '563 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Harte '838's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Harte '838, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Fukuda '563 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations

of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

7. Fukuda '563 Primary Reference

A person of ordinary skill in the art, at the time of the alleged inventions of the Asserted Claims of the '084 Patent, would have been motivated to combine the teachings Fukuda '563, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Harte '838. Each of Fukuda '563, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Harte '838 describes apparatuses, systems, and/or methods for improving technology related to speakers.

As such, each of Fukuda '563, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Harte '838 occupies the same technological space and is directed to the same concepts and problems. This would have led one of skill in the art at the time of the purported inventions of the '084 Patent to consult each reference and combine their teachings to provide the most efficient and capable apparatus.

Because Fukuda '563, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Harte '838 disclose similar components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or substituting Fukuda '563's device with the device disclosed in other prior art cited in Exhibits B1-B7, in order to provide additional functionality, to improve upon the same basic techniques taught in each reference, and/or to solve similar issues recited in each. *KSR*, 550 U.S. at 417.

There is no essential feature in any of the references that conflicts with an essential feature of any other. One of ordinary skill in the art would have naturally been motivated to combine the teachings found within these references to provide, and would have reasonably expected to succeed in providing, more desirable and functional apparatuses. Indeed, a person of

ordinary skill in the art would have understood that combining these references would require at most only simple modifications well within the level of ordinary skill in the art. Accordingly, combining the teachings of Fukuda '563, Li '492, Fujita '666, Hosoi '824, Du '288, Numata '872, and Harte '838 is merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

VI. INVALIDITY UNDER 35 U.S.C. § 112

In addition to the other grounds of invalidity set forth herein, Mojawa contends that the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 112 for lack of written description, lack of enablement, and indefiniteness. These contentions shall not be construed as an admission that any claim construction advanced by Mojawa in this case is in any way inconsistent, flawed, or erroneous. Nor should these contentions prevent Mojawa from advancing claim construction and/or non-infringement positions in lieu of, or in addition to, invalidity positions. Further, these contentions shall not be construed as an admission of or acquiescence to Plaintiff's purported construction of the claim language or of other positions advanced by Plaintiff during the course of this litigation. Mojawa's Invalidity Contentions under 35 U.S.C. § 112 may depend, in part, on the Court's claim construction, as well as Plaintiff's alleged scope of the Asserted Claims of the Asserted Patents. As such, Mojawa only identifies the issues under 35 U.S.C. § 112 of which they are presently aware and reserves the right to challenge any

additional claim terms under 35 U.S.C. § 112 and reserves the right to revise, amend, and/or supplement the information provided herein.

A. Lack of Written Description (35 U.S.C. § 112 ¶ 1)

The Asserted Claims of the Asserted Patents are invalid because they fail to meet the “written description” requirement of 35 U.S.C. § 112 ¶ 1. *See e.g. Ariad v. Lilly*, 598 F.3d 1336 (Fed. Cir. 2010) (en banc); *LizardTech Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005) (finding claims invalid under 35 U.S.C. § 112 where the specification failed to include a written description of the full scope of the claimed invention); *In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1320 (Fed. Cir. 2011) (“[W]hen analyzing whether a patent meets the written description requirement, one cannot ‘bootstrap’ the knowledge of a person of ordinary skill in the art (‘POSITA’) into the analysis and fill the gap in the disclosure through obviousness.”).

1. ’084 Patent

Mojawa contends that the Asserted Claims of the ’084 patent are invalid under 35 U.S.C. § 112 ¶ 1 because the ’084 specification lacks adequate written description of at least the following claim limitations:

Patent/Claim	Term
’084 Patent, Claim 1	“the driving force being not parallel to a normal line of the housing panel”
’084 Patent, Claim 13	“wherein when a straight line of the driving force has a positive direction”

'084 Patent, Claim 15	“wherein the driving force has a component in a first quadrant or a third quadrant of an XOY plane coordinate system”
'084 Patent, Claim 15	“an origin O of the XOY plane coordinate system is on a contact surface between the loudspeaker apparatus and a human body, an X-axis of the XOY plane coordinate system is parallel to a coronal axis of the human body, a Y-axis of the XOY plane coordinate system is parallel to a sagittal axis of the human body, a positive direction of the X-axis faces outside of the human body, and a positive direction of the Y-axis faces front of the human body”

To the extent other Asserted Claims contain one or more of these terms or phrases, either directly or through being a dependent claim of a claim that does, those Asserted Claims of the '084 Patent are invalid under 35 U.S.C. § 112 ¶ 1.

2. '582 Patent

Mojawa contends that the Asserted Claims of the '582 patent are invalid under 35 U.S.C. § 112 ¶ 1 because the '582 specification lacks adequate written description of at least the following claim limitations:

Patent/Claim	Term
'582 Patent, Claim 1	“the vibration of the earphone core drives the housing panel and the housing back panel to vibrate, the vibration of the housing panel having a first phase, the vibration of the housing back panel having a second phase, wherein when the vibration frequencies of the housing panel and the housing back panel is within a range of 2000 Hz to 3000 Hz, an absolute value of a difference between the first phase and the second phase is less than 60 degrees”
'582 Patent, Claim 15	“wherein the vibration of the housing panel generates a first leaked sound wave, the vibration of the housing back panel generates a second leaked sound wave, wherein the first leaked sound wave and the second leaked sound wave are superimposed on each other, which reduces an amplitude of the first leaked sound wave”

To the extent other Asserted Claims contain one or more of these terms or phrases, either directly or through being a dependent claim of a claim that does, those Asserted Claims of the '582 Patent are invalid under 35 U.S.C. § 112 ¶ 1.

B. Enablement (35 U.S.C. § 112 ¶ 1)

The Asserted Claims of the Asserted Patents are invalid because the Asserted Patents do not enable one of ordinary skill in the art to make and/or use the full scope of certain recited elements of the Asserted Claims without undue experimentation. *See, e.g., United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) (“The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation.”); *Trustees of Bos. Univ. v. Everlight Elecs. Co.*, 896 F.3d 1357, 1362 (Fed. Cir. 2018) (“to be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without ‘undue experimentation.’”).

3. '084 Patent

The following terms render one of more of the claims of the '084 Patent invalid for lack of enablement under 35 U.S.C. § 112, as the claims, specification, and prosecution histories would not enable one of skill in the art to practice the claimed invention(s) without undue experimentation:

Patent/Claim	Term
'084 Patent, Claim 1	“the driving force being not parallel to a normal line of the housing panel”
'084 Patent, Claim 13	“wherein when a straight line of the driving force has a positive direction”
'084 Patent, Claim 15	“wherein the driving force has a component in a first quadrant or a third quadrant of an XOY plane coordinate system”

'084 Patent, Claim 15	“an origin O of the XOY plane coordinate system is on a contact surface between the loudspeaker apparatus and a human body, an X-axis of the XOY plane coordinate system is parallel to a coronal axis of the human body, a Y-axis of the XOY plane coordinate system is parallel to a sagittal axis of the human body, a positive direction of the X-axis faces outside of the human body, and a positive direction of the Y-axis faces front of the human body”
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To the extent other Asserted Claims contain one or more of these terms or phrases, either directly or through being a dependent claim of a claim that does, those Asserted Claims of the '084 Patent are invalid under 35 U.S.C. § 112 ¶ 1.

4. '582 Patent

The following terms render one of more of the claims of the '582 Patent invalid for lack of enablement under 35 U.S.C. § 112, as the claims, specification, and prosecution histories would not enable one of skill in the art to practice the claimed invention(s) without undue experimentation:

Patent/Claim	Term
'582 Patent, Claim 1	“the vibration of the earphone core drives the housing panel and the housing back panel to vibrate, the vibration of the housing panel having a first phase, the vibration of the housing back panel having a second phase, wherein when the vibration frequencies of the housing panel and the housing back panel is within a range of 2000 Hz to 3000 Hz, an absolute value of a difference between the first phase and the second phase is less than 60 degrees”
'582 Patent, Claim 15	“wherein the vibration of the housing panel generates a first leaked sound wave, the vibration of the housing back panel generates a second leaked sound wave, wherein the first leaked sound wave and the second leaked sound wave are superimposed on each other, which reduces an amplitude of the first leaked sound wave”

To the extent other Asserted Claims contain one or more of these terms or phrases, either directly or through being a dependent claim of a claim that does, those Asserted Claims of the '582 Patent are invalid under 35 U.S.C. § 112 ¶ 1.

C. Indefiniteness (35 U.S.C. § 112 ¶ 2)

The Asserted Claims of the Asserted Patents are invalid because they fail to meet the definiteness requirement of 35 U.S.C. § 112 ¶ 2, for failing to particularly point out and distinctly claim the subject matter the applicants regard as their alleged invention. *See, e.g., Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901, (2014) (“a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.”). In particular, the Asserted Claims of the Asserted Patents are indefinite because of at least the terms or phrases listed in the Table below. Further, Mojawa incorporates by reference the arguments on indefiniteness that will be included in their Markman briefing.

1. '084 Patent

The following terms render one or more claims of the '084 Patent indefinite under 35 U.S.C. § 112:

Patent/Claim	Term
'084 Patent, Claims 1, 13 ,15	“driving force”
'084 Patent, Claim 11	“integrally formed”

To the extent other Asserted Claims contain one or more of these terms or phrases, either directly or through being a dependent claim of a claim that does, those Asserted Claims of the '084 Patent are invalid under 35 U.S.C. § 112 ¶ 2.

The Asserted Claims of the '084 Patent are further indefinite because they fail to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention.

2. '582 Patent

The following terms render one or more claims of the '084 Patent indefinite under 35 U.S.C. § 112:

Patent/Claim	Term
'582 Patent, Claim 1	“a first phase”
'582 Patent, Claim 1	“a second phase”
'582 Patent, Claim 13	“integrally formed”
'582 Patent, Claim 14	“the vibration signal”
'582 Patent, Claim 15	“first leaked soundwave”
'582 Patent, Claim 15	“second leaked soundwave”

To the extent other Asserted Claims contain one or more of these terms or phrases, either directly or through being a dependent claim of a claim that does, those Asserted Claims of the '582 Patent are invalid under 35 U.S.C. § 112 ¶ 2.

The Asserted Claims of the '582 Patent are further indefinite because they fail to inform, with reasonable certainty, those skilled in the art about the scope of the alleged invention.

VII. INVALIDITY UNDER 35 U.S.C. § 101

In addition to the other grounds of invalidity set forth herein, Mojawa contends that the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 101. Mojawa hereby reserves the right to revise, amend, and/or supplement the information provided herein.

35 U.S.C. § 101 lists four broad categories of patent-eligible subject matter but is subject to “an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas,” which form the “basic tools of scientific and technological work,” are not eligible for patent protection. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (internal quotation marks omitted). “The ‘abstract ideas’ category embodies ‘the longstanding rule that an idea of itself is not patentable.’” *Id.* at 209 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (quoting *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498 (1874))).

Alice set forth a two-step inquiry. “First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* at 217. In making this inquiry, the claims “must be considered as a whole.” *Alice*, 573 U.S. at 218 n.3 (quoting *Diamond v. Diehr*, 450 U.S. 175, 188 (1981)). If the claims recite an abstract idea, the second step requires a “search for an ‘inventive concept’—an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* at 218 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2016)). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the claim is more than a drafting effort designed to monopolize the abstract idea.’” *Id.* at 221 (quoting *Mayo*, 566 U.S. at 78) (alterations omitted). “At step two, more is required than well-understood, routine, conventional activity already engaged in by the relevant community.” *Smartflash LLC v. Apple Inc.*, 680 F. App’x 977, 981 (Fed. Cir. 2017) (citation omitted).

VIII. INITIAL NON-INFRINGEMENT CONTENTIONS

Mojawa's non-infringement contentions are contained in the charts attached hereto as Exhibits C1 ('084 patent) and C2 ('582 patent). However, as noted above, Plaintiff's Infringement Contentions fail to provide full, fair, and timely disclosure as to how Mojawa allegedly infringes each element of each Asserted Claim.

For the '084 patent, Plaintiff's Infringement Contentions fail to set forth how the accused products purportedly meet all of the asserted claim limitations. For instance, for limitation [1c] "a core housing for accommodating an earphone core, the core housing being fixed to the first plug end and elastically abutted against the protective sleeve," Plaintiff's contentions fail to account for hardware differences between the claim language and the accused products Mojo 1 and Mojo 2. For that reason, Plaintiff's contentions for the remaining dependent claims of the '084 patent are equally deficient.

That same is true of Plaintiff's claim chart for the '582 patent. For the same claim limitation [1c], Plaintiff's contentions fail to account for hardware differences between the claim language and the accused products Mojo 1, Mojo 2, and Run Plus. For that reason, Plaintiff's contentions for the remaining dependent claims of the '582 patent are equally deficient.

Plaintiff's Contentions have not properly put Mojawa on notice of its infringement theories, which has prejudiced Mojawa. In particular, the deficiencies in Plaintiff's Contentions prevent Mojawa from properly developing its noninfringement defenses, and also impacts Mojawa's ability to prepare invalidity contentions and engage in the claim construction process.

Dated: January 30, 2025

Respectfully submitted,

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MOJAWA INTELLIGENT

ELECTRONIC CO., LTD

CERTIFICATE OF SERVICE

I, Shaobin Zhu, hereby certify that on January 30, 2025, a copy of the foregoing was served on all counsel of record via electronic mail.

/s/ Shaobin Zhu
Shaobin Zhu