

CEREBRUM SENSOR TECHNOLOGIES,
INC. AND TIRE STICKERS LLC,

Plaintiffs,

v.

REVVO TECHNOLOGIES, INC.,

Defendant.

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) C.A. No. 24-245- JLH-SRF
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OF COUNSEL:
Reuben Chen
COOLEY LLP
3175 Hanover Street
Palo Alto, California 94304-1130
(650) 843-5000
rchen@cooley.com

Adam Pivovar
Rachel Preston
COOLEY LLP
1299 Pennsylvania Avenue, NW, Suite 700
Washington, DC 20004-2400
(202) 842-7800
apivovar@cooley.com
rp Preston@cooley.com

Kelly E. Farnan (#4395)
Sara M. Metzler (#6509)
Jessica E. Blau (#7163)
Richards, Layton & Finger, P.A.
One Rodney Square
920 North King Street
Wilmington, DE 19801
(302) 651-7700
farnan@rlf.com
metzler@rlf.com
blau@rlf.com

Patent Owner's Exhibit 2001
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Pursuant to the Case Scheduling Order, Defendant Revvo Technologies, Inc. (“Revvo”) hereby provides the following invalidity contentions.

I. RESERVATION OF RIGHTS

Revvo reserves the right to amend these contentions. For example, Plaintiff Cerebrum Senso Technologies, Inc. and Tire Stickers LLC’s (“Plaintiff”) infringement contentions, are deficient at least because they fail to explain how each limitation of each asserted claim is allegedly infringed. The accused products do not meet the claim limitations under any plausible construction of the asserted claims of U.S. Patent Nos. 10,137,741 (“the ’741 Patent”); 11,124,027 (“the ’027 Patent”), and 11,835,421 (“the ’421 Patent”) (collectively, the “Patents-in-Suit” or “Asserted Patents”). To the extent Plaintiff provides further details regarding its infringement theory (or theories), Revvo reserves the right to amend and supplement its disclosures to show where the accused features were taught in the prior art and how relevant claim limitations were not properly disclosed in the specification.

Revvo further reserves the right to amend these contentions because discovery has just begun. For example, Plaintiff and third parties may possess relevant documents and things, such as prior art products, systems, manuals, specifications, and papers. Revvo reserves the right to amend and supplement these contentions in view of materials discovered or produced after the date of these contentions. To the extent Plaintiff contends that any limitations are missing from the prior art, Revvo reserves the right to identify additional disclosures and teachings in the cited references or in other references. To date, Plaintiff has not yet provided any responses as to whether the limitations of the asserted claims were disclosed in the prior art.

The Court has also not yet construed the claims. Revvo reserves the right to amend these contentions to account for the claim constructions provided by the Court or in view of Plaintiff’s proposed claim constructions. To be clear, Revvo’s disclosure of these contentions should not be

construed as conceding or adopting any argument regarding claim construction. These invalidity contentions may include alternative theories premised on apparent interpretations of the claims being pursued by Plaintiff. Including these theories does not bind Revvo to any claim construction or suggest that Plaintiff' improper interpretations of the claims should be adopted. Likewise, Revvo's proposed obviousness references, products, and systems are provided in the alternative to Revvo's anticipation contentions. Specifically, Revvo contends that each reference and system identified herein anticipates and/or renders the asserted claims obvious (alone or in combination with other references), particularly under any interpretation of the claims that would allegedly be satisfied by the accused products and services.

Finally, Revvo's contentions should not be construed as exhaustive. The prior art is rich and crowded. Revvo's contentions identify exemplary prior art, but Revvo reserves the right to further provide evidence of well-known principles from the prior art, the state of the art, old modes and devices, and additional invalidity charts in view of Plaintiff' allegations. Where a reference is cited in Revvo's charts as disclosing a certain claim limitation or feature, Revvo also contends that the reference renders obvious that limitation. Where a reference is cited in Revvo's charts as rendering obvious a certain claim limitation, Revvo does not admit that the limitation is not disclosed, and reserves the right to show that the limitation is disclosed as well as obvious. Moreover, nothing in these contentions should be viewed as an admission that other portions, sections, figures, or disclosures within a reference do not also disclose, teach, or otherwise suggest features of the asserted claims.

Additionally, Revvo reserves the right to use these disclosures as well as further discovery and disclosures relating to the alleged utility and advantages of the asserted claims over old modes and devices for purposes of any damages issues in the case.

II. INVALIDITY CONTENTIONS

The prior art in the field of the Patents-in-Suit is voluminous. Although discovery has just begun and Revvo's investigation is continuing, Revvo provides initial invalidity claim charts identified as Exhibit A ('741 patent), Exhibit B ('027 patent), and Exhibit C ('421 patent) for representative prior art disclosures against Plaintiff's asserted claims.

To the extent that these initial invalidity charts refer to prior art products, these items were either in public use, sold, or offered for sale before the effective filing date of the Patents-in-Suit. Revvo reserves the right to amend and supplement these disclosures to identify other or additional types, models, versions, products, devices, systems, functions, implementations, and dates, in view of discovery obtained subsequent to the date of these contentions, including formal discovery from third parties in response to subpoenas.

Additionally, to the extent that prior art patent applications and issued patents contain substantially the same subject matter (*e.g.*, published U.S. patent applications, and issued U.S. patents, foreign applications or issued patents). Any citation to, reference to, or quotation from any of these patent applications or patents, therefore, should be understood as encompassing any parallel citation to the same subject matter in other related or corresponding applications or patents. Revvo also reserves the right to later rely upon all references or portions of references provided above to supplement or amend its disclosures contained herein.

Also, to the extent not expressly mentioned herein, Revvo incorporates by reference (1) any and all prior art contained or identified in documents produced thus far by Plaintiff to Revvo in this case; (2) any and all additional materials regarding invalidity that should have been produced to Revvo but have not been produced to date, to the extent that any exist; and (3) any prior art of which the named inventor of the Asserted Patents is aware and/or on which he contends

the alleged invention of the Asserted Patents build upon or improve. Revvo further intends to rely on admissions of the named inventor concerning the prior art, including statements found in the Asserted Patents, their prosecution histories, related patents and/or patent applications, any deposition testimony, and the papers filed and any evidence submitted by Plaintiff in conjunction with this litigation. For systems and products, Revvo also intends to rely on additional information describing those same systems and products, including any information received from third parties in response to subpoenas.

Many of the references cite or relate to additional references and/or products. Revvo may rely upon such cited additional references and copies or exemplars of such products or systems. Revvo may also rely upon the disclosures of the references cited and/or discussed during the prosecution of the Asserted Patents and/or the assertions presented regarding those references.

In some instances, multiple prior art publications and/or physical references discuss or address the same or substantially similar underlying product, features, implementation, or other subject matter, such as commercial products, or multiple publications discussing the same subject matter. Where multiple references discuss or relate to the same or related underlying products, systems, or other subject matter, it would have been obvious to combine the discussions and disclosures of the references as they would be understood to describe features or potential features of the underlying project, system, technique, or other subject matter. Similarly, where one reference cites or discusses other references or their teachings, or references have one or more authors in common and a related area of subject matter, it would have been obvious to consider the teachings of the references in combination with each other due to the express relationships and commonalities between the references.

Additionally, because discovery has only recently commenced, Revvo reserves the right to

present additional prior art references and/or disclosures located during the course of such discovery or further investigation, and to assert invalidity based on these materials to the extent that such discovery or investigation yields information forming the basis for such invalidity.

Revvo reserves the right to amend and supplement these Invalidity Contentions

A. Invalidity Based on the Prior Art

Subject to Revvo's reservation of rights, Revvo identifies the attached and cited prior art that anticipate the Asserted Claims under 35 U.S.C. § 102, either expressly or inherently, and/or render obvious the Asserted Claims under 35 U.S.C. § 103, either alone or in combination with other references, as set forth in Exhibits A-C. Each Asserted Claim is anticipated by, and/or obvious in view of, one or more items of prior art identified in these disclosures, alone or in combination.

Much of the art identified in the attached charts reflects common knowledge and the state of the art at the time of the earliest effective filing date of the Patents-in-Suit. Revvo may rely on additional citations, references, expert testimony, fact testimony, and other corroborating evidence to provide context and background illustrating the knowledge of a person of ordinary skill in the art at the time of the claimed inventions and/or to aid in understanding the cited portions of the references and/or cited features of the systems. Revvo may also rely on expert testimony explaining relevant portions of references, relevant hardware or software products or systems, and other discovery regarding these subject matters. Additionally, Revvo may rely on other portions of any prior art reference for purposes of explaining the background and general technical subject area of the reference. Revvo also reserves all rights to provide expert discovery and expert testimony in accordance with the case and case schedule.

Where an individual reference is cited with respect to all elements of an Asserted Claim, Revvo contends that the reference anticipates the claim under 35 U.S.C. § 102 and also renders

obvious the claim under 35 U.S.C. § 103, both by itself in view of the knowledge of a person of ordinary skill in the art and in combination with the other cited references to the extent the reference is not found to disclose one or more claim elements. A single prior art reference, for example, can establish obviousness where the differences between the disclosures within the reference and the claimed invention would have been obvious to one of ordinary skill in the art. For example, “[c]ombining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness.” *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009). To the extent Plaintiff contends that an embodiment within a particular item of prior art does not fully disclose all limitations of a claim, Revvo accordingly reserves its right to rely on other embodiments in that prior art reference, or other information, to show single reference obviousness under 35 U.S.C. § 103.

Where an individual reference is cited with respect to fewer than all elements of an asserted claim, Revvo contends that the reference renders obvious the claim under 35 U.S.C. § 103 in view of each other reference and combination of references that discloses the remaining claim element(s), as indicated in the claim charts submitted herewith and in the discussion below. “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007), quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966). Exemplary motivation-to-combine references are discussed below.

Revvo reserves the right to rely upon any references or assertions identified herein in connection with Revvo’s contention that each Asserted Claim is invalid under 35 U.S.C. § 103

and to rely upon expert testimony addressing such references and assertions. The fact that prior art is identified to anticipate the Asserted Claims presents no obstacle in also relying on that reference as a basis for invalidity based on obviousness. It is established that “a rejection for obviousness under § 103 can be based on a reference which happens to anticipate the claimed subject matter.” *In re Meyer*, 599 F.2d 1026, 1031 (C.C.P.A. 1979). To the extent any prior art item cited above may not fully disclose a limitation of an Asserted Claim or is alleged by Plaintiff to lack disclosure of the limitation, such limitation is present and identified in another prior art item as shown in the attached claim charts.

Although Revvo has identified at least one disclosure of a limitation for each prior art reference, each and every disclosure of the same limitation in the same reference is not necessarily identified. Rather, Revvo cites representative portions of an identified reference, even where a reference may contain additional support for a particular claim limitation. Persons of ordinary skill in the art generally read an item of prior art 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 the reference, along with other publications and their general scientific knowledge. As such, Revvo may rely upon uncited portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are cited.

Each prior art reference may be combined with one or more other prior art references to render obvious the Asserted Claims in combination. The disclosures of these references also may be combined with information known to persons skilled in the art at the time of the alleged invention, and understood and supplemented in view of the common sense of persons skilled in the art at the time of the alleged invention, including any statements in the intrinsic record of the

Asserted Patents and related applications.

A person of ordinary skill would have been motivated to combine the identified prior art based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. The identified prior art references, including portions cited in the invalidity charts, address the same or similar technical issues and suggest the same or similar solutions to those issues as the Asserted Claims. On such basis, on an element-by-element basis, Revvo expressly intends to combine one or more prior art items identified in the attached charts with each other to address any further contentions from Plaintiff that a particular prior art item supposedly lacks one or more elements of an Asserted Claim. In other words, Revvo contends that each charted prior art item can be combined with other charted prior art items when a particular prior art item lacks or does not explicitly disclose an element or feature of an Asserted Claim. Further, to the extent that Plaintiff contends that any of the prior art fails to disclose one or more limitations of the Asserted Claims, Revvo reserves the right to identify other prior art references that, when combined with the prior art, would render the claims obvious despite an allegedly missing limitation. Revvo will further specify the motivations to combine the prior art, including through reliance on expert testimony, at the appropriate later stage of this lawsuit.

A person of skill in the art would have been motivated to combine the identified prior art items. As the United States Supreme Court held in *KSR International Company v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007): “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” The Supreme Court further held that, “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the

same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.* at 417.

The Supreme Court has further held that “in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* at 420. It is sufficient that a combination of elements was “obvious to try” holding that, “[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *Id.* at 421. “In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.” *Id.* Finally, the Supreme Court recognized that “[g]ranting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.” *Id.* at 419. All of the following rationales recognized in *KSR* support a finding of obviousness:

- Combining prior art elements according to known methods to yield predictable results;
- Simple substitution of one known element for another to obtain predictable results;
- Use of known technique to improve similar devices (methods, or products) in the same way;
- Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and
- Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

Certain of these rationales are discussed more specifically below. The fact that others are not discussed more specifically should not be interpreted as an admission or concession that it does not apply. To the contrary, the discussion below simply provides more explanation of these specific rationales.

Revvo further contends that the prior art identified in these Invalidity Contentions is evidence of simultaneous or near-simultaneous independent invention by others of the alleged invention as recited in one or more of the Asserted Claims. Revvo reserves its right to rely on the simultaneous or near-simultaneous independent invention by others as further evidence of the obviousness of the Asserted Claims.

Each limitation of the Asserted Claims was well known to those of ordinary skill in the art before the proper priority date of the Patents-in-Suit, as detailed in the attached charts and within the knowledge of a person of ordinary skill based on the state of the art before the effective filing date of the Patents-in-Suit.

The elements recited in the Asserted Claims are mere combinations and modifications of these well-known elements. A person of ordinary skill in the art would be able, and motivated, to improve the existing technology in the same or similar manner by combining or modifying the individual elements that were already known in the art to yield predictable results.

Revvo provides the attached exemplary charts showing where and how the prior art renders the Asserted Claims invalid, as single individual references, in combination one or more of the Primary References and/or in potential further combination with other prior art.

Revvo contends that each reference identified below and in the charts anticipates the Asserted Claims under 35 U.S.C. § 102. Revvo further contends, in the alternative, that each of the references renders the Asserted Claims obvious alone (including single reference obviousness) or in combination with the references listed in the chart under 35 U.S.C. § 103. These are a preliminary initial identification subject to the reservations of rights articulated above. Additionally, any reference to a figure in cited text incorporates by reference the figure itself, and any citation to a figure incorporates by reference any description of that figure in a reference. Similarly, any reference to a cited part or portion of a document encompasses all figures and text within the cited page or portion. Revvo also reserves all rights to amend and supplement, including to rely upon additional documents and evidence as discovery continues. Nothing in Revvo's contentions or charts should be deemed as an admission. Revvo reserves all rights to rely upon documents, products, systems, devices, patents, and/or publications related to the art identified in these contentions.

Ex. A

Reference	'741 chart
Patch Rubber Company (PRC) Tire Patches	A-01
Prema Tire Patches	A-02
Rema Tip Top Tire Patches	A-03
Technical Rubber Company/TECH (TRC) Tire Patches	A-04
Bielicki	A-05

Reference	'741 chart
Wilson-506	A-06
DiRocco	A-07
Koch-046	A-08

Ex. B

Reference	'027 chart
Patch Rubber Company (PRC) Tire Patches	B-01
Prema Tire Patches	B-02
Rema Tip Top Tire Patches	B-03
Technical Rubber Company/TECH (TRC) Tire Patches	B-04
Bielicki	B-05
Wilson-506	B-06
DiRocco	B-07
Koch-046	B-08

Ex. C

Reference	'421 chart
Yamaguchi-727	C-01
Yamaguchi-566	C-02
Koch-046	C-03
Wilson-506	C-04
VDO (Conti) REDI-Sensor	C-05
Michelin Track-Connect	C-06

Reference	'421 chart
Revvo-Nuro Sensor	C-07
Dodani-063	C-08
TRW-TPMS Sensor	C-09

As explained above, Revvo reserves the right to amend and supplement these contentions and charts, including in light of discovery obtained from third parties and the construction of the claim terms. Revvo also reserves the right to rely on expert discovery and testimony.

Additionally, as noted above, these claim charts are based on Revvo's current understanding of the claim constructions applied by Plaintiff, even though Revvo does not necessarily agree with those constructions, and reserves the right to dispute them. By doing so, however, Revvo does not concede that these claim elements are definite or that one of skill in the art would have been informed with reasonable certainty about the scope of the claim element under *Nautilus v. Biosig Instrument*, 134 S. Ct. 2120 (2014). To the extent any limitation is deemed not to be met exactly by an item of prior art, Revvo contends that the difference would have been obvious to a person of ordinary skill in the art and/or within the knowledge of one skilled in the art at the time of the alleged invention, so that the claimed invention would have been obvious both in light of the single reference alone and/or in light of combined references. Revvo does not admit or concede that such element is not expressly or inherently disclosed by the reference at issue.

As a general matter, all portions of each prior art item are relied upon to support the disclosure of each patent claim limitation, as all portions provide general support. Supporting citations are nevertheless provided, but do not necessarily represent every location where a particular claim element may be found in the prior art item. Revvo reserves the right to rely on

additional, or different, portions of the prior art items other than those specifically cited in these claim charts, and to supplement and/or amend these charts.

B. Invalidity Under 35 U.S.C. § 112

“[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.” *Nautilus v. Biosig Instruments*, 134 S. Ct. 2120, 2124 (2014). Here, as reflected in the claim language and Plaintiff’s deficient allegations of infringement, the claims are invalid for indefiniteness based on various recitations within the asserted claims and the lack of any reasonable certainty associated with such claim language.

Additionally, written description and enablement impose separate, but related requirements. *LizardTech v. Earth Resource Mapping*, 424 F.3d 1336, 1344-46 (Fed. Cir. 2005). For written description, the test is “whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms. v. Eli Lilly & Co.*, 598 F. 3d 1336, 1351 (Fed. Cir. 2010) (*en banc*). The “enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation.” *Auto. Techs. Int’l v. BMW of N. Am.*, 501 F.3d 1274, 1282 (Fed. Cir. 2007) (internal quotation omitted); *Creative Kingdoms v. Int’l Trade Comm’n*, 588 F. App’x 993, 994 (Fed. Cir. 2014). The written description and enablement requirements are fundamental to the *quid pro quo* of the patent system, ensuring that the scope of the claims does not “overreach[] the scope of the inventor’s contribution.” *Ariad*, 598 F.3d at 1353-54; *Billups-Rothenberg v. Associated Reg’l & Univ. Pathologists*, 642 F.3d 1031, 1036 (Fed. Cir. 2011) (“written description requirement exists to ensure that inventors do not attempt to preempt the future before it has arrived”) (internal quotation marks and citation

omitted).

Plaintiff's infringement contentions suggest that Plaintiff may interpret the claims to have a scope that is not sufficiently described or enabled, including under full scope, by the patents' specifications. The specifications fail to support the limitations as broadly as those limitations are apparently being applied by Plaintiff. The Asserted Claims are each invalid for lack of an adequate written description and non-enablement, particularly according to Plaintiff's apparent interpretation and application. The Patents-in-Suit speak in vague terms about wishes and goals. But merely reciting goals and wishes does not meet the requirements of 35 U.S.C. § 112. "Patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable Tossing out the mere germ of an idea does not constitute enabling disclosure." *Genentech v. Novo Nordisk A/S*, 108 F.3d 1361, 1366 (Fed. Cir. 1997); *Sitrick v. Dreamworks*, 516 F.3d 993, 999-1000 ("The full scope of the claimed invention must be enabled Because the asserted claims are broad enough to cover both movies and video games, the patents must enable both embodiments."). For example, a patentee may not describe and enable one embodiment and then capture other, "distinctly different" embodiments within the claim scope. *Auto. Tech.*, 501 F.3d at 1282-85 (affirming summary judgment of non-enablement because the patentee described and enabled only mechanical sensors but the generic "sensor" claims also covered electronic sensors); *Rivera v. Int'l Trade Commission*, 857 F.3d 1315 (Fed. Cir. 2017) (holding that disclosure of a single-brew coffee machine using pods did not also disclose a pod-less machine); *Synthes USA v. Spinal Kinetics*, 734 F.3d 1332, 1341-42 (Fed. Cir. 2013) (affirming invalidity, because "the as-filed disclosure did not demonstrate possession of an intervertebral implant that employed *any sort* of openings *anywhere* on the cover plates" as it "never discloses anything broader than using grooves to anchor the fiber

system to the cover plates”) (emphasis in original); *Ariad*, 598 F.3d at 1358 (finding invalidity as a matter of law—“Here, the specification at best describes decoy molecule structures and hypothesizes with no accompanying description that they could be used to reduce NF-κB activity. Yet the Asserted Claims are far broader.”); *ICU Med. v. Alaris Med. Sys.*, 558 F.3d 1368, 1377-78 (Fed. Cir. 2009) (affirming summary judgment of invalidity for claim term that generically covered both valves with and without spikes where specification described and enabled only spiked valves); *Anascope v. Nintendo of Am.*, 601 F.3d 1333, 1340-41 (Fed. Cir. 2010) (claims invalid because written description failed to support multiple input members that together operated in six degrees of freedom); *Liebel-Flarsheim v. Medrad*, 481 F.3d 1371, 1379 (Fed. Cir. 2007) (same regarding claim covering both jacketed and jacketless injectors where specification described and enabled only jacketed injector); *Purdue Pharma v. Recro Tech.*, No. 2016-2260, 2017 WL 2547306, at *2 (Fed. Cir. June 13, 2017) (“[A] description that merely renders the invention obvious does not satisfy the [written description] requirement.”).

Plaintiff’s infringement contentions remain deficient, Plaintiff has not yet provided its proposed constructions, and the claims have not yet been construed. Revvo reserves the right to identify claim limitations to demonstrate that the Asserted Claims (as construed) fail to comply with Section 112, including for indefiniteness and/or for lack of written description or enablement, after claim construction and/or in the event that Plaintiff provides further discovery or contentions.

In view of the foregoing Revvo identifies below the following initial grounds of invalidity under Section 112. Revvo provides these contentions without the benefit of claim construction discovery and ongoing discovery. These Section 112 contentions reflect that Plaintiff’s apparent asserted scope of the claim language as reflected in Plaintiff’s Infringement Contentions suggest an unclear, broader scope than the specification sufficiently supports, though at this stage Plaintiff

has not yet disclosed its claim construction positions. Discovery remains in its early stages, and Revvo's analysis and investigation continues. Revvo accordingly reserves the right to supplement and/or amend these disclosures in view of further discovery, information, and/or analysis.

Where a certain claim term or limitation in one claim is identified as being subject to a Section 112 invalidity defect, Revvo contends that the same claim term or limitation, and each constituent phrase and term containing substantially the same claim limitation, is subject to the same defect in every instance the term or limitation is recited throughout the Asserted Claims. Furthermore, each ground of invalidity under Section 112 for any identified claim also applies to any asserted claim that depends from it.

The Asserted Claims are invalid for lack of written description, lack of enablement, and/or indefiniteness based on the following recited limitations/terms/phrases, particularly under Plaintiff's strained interpretations of the claims as reflected in Plaintiff's infringement contentions and patent marking:

- “display assembly”
- “vulcanized”
- “vulcanized rubber article”
- “display assembly for attachment with a vulcanized rubber article”
- “layer(s)”
- “display layer(s)”
- “one or more display layers”
- “elastomeric material”
- “one or more display layers of elastic material”
- “display indicia”
- “configured to provide a display indicia”
- “an intermediate layer”
- “an elastomeric material that is different from”
- “intermediate layer . . . that is different from that of the one or more display layers”
- “intermediate layer is in direct contact with at least of the one or more display layers”
- “vulcanized together”

- “vulcanized together before attachment with the vulcanized rubber article”
- “wherein the one or more display layers and the intermediate layer are vulcanized together before attachment with the vulcanized rubber article”
- “adhesive layer”
- “adhesive layer in direct contact with an underside surface of the intermediate layer”
- “adhesive layer in direct contact with an underside surface of the intermediate layer opposite the one or more display layers”
- “capable of”
- “chemical bond”
- “a material capable of forming a chemical bond”
- “a material capable of forming a chemical bond with a surface of the vulcanized rubber article”
- “ambient temperature conditions”
- “a material capable of forming a chemical bond with a surface of the vulcanized rubber article at ambient temperature conditions”
- “hand pressure”
- “providing the chemical bond attachment with the surface of the vulcanized rubber article by hand pressure”
- “material capable of providing the chemical bond attachment with the surface of the vulcanized rubber article by hand pressure”
- “cavity”
- “a cavity disposed therein”
- “element”
- “an element disposed within the cavity”
- “disposed beneath”
- “disposed beneath the one or more display layers”
- “the cavity is disposed beneath the one or more display layers”
- “a display assembly . . . comprising”
- “attaching a display assembly to a surface of a vulcanized rubber article”
- “a surface of a vulcanized rubber article”
- “preparing a surface of a vulcanized rubber article by cleaning the surface”
- “an adhesive material to form an adhesive layer”
- “applying an adhesive material to form an adhesive layer”
- “placing a display assembly into contact with the surface with the adhesive layer interposed therebetween”
- “form a bond between the display assembly and the surface of the display assembly”
- “the intermediate layer is vulcanized to at least one of the one or more display

layers”

- “before attachment”
- “before attachment to the vulcanized rubber article”
- “wherein the intermediate layer is vulcanized to at least one of the one or more display layers before attachment to the vulcanized rubber article”
- “wherein during the step of placing, an underside surface of the intermediate layer of the display assembly is placed into direct contact with the adhesive layer”
- “chemically bonds”
- “wherein the adhesive layer is formed from a material that chemically bonds the display assembly to the surface of the vulcanized rubber article at ambient temperature conditions and by hand pressure”
- “treating the surface of the vulcanized rubber article”
- “treating the surface of the vulcanized rubber article to roughen the surface”
- “treating the surface of the vulcanized rubber article to roughen the surface before the step of placing”
- “a vulcanized rubber tire”
- “a display assembly disposed onto the target surface”
- “prior to attachment to the target surface”
- “an intermediate layer formed from an elastomeric material different from that of the one or more display layers and vulcanized to at least one of the one or more display layers prior to attachment to the target surface”
- “an adhesive layer forming a chemical bond between an underside surface of the intermediate later and the target surface,”
- “wherein the chemical bond is formed at ambient temperature conditions”
- “an assembly”
- “An assembly for attachment with a vulcanized rubber article”
- “outer layer”
- “visual feature”
- “an outer layer of elastomeric material”
- “an outer layer of elastomeric material having a visual feature”
- “adhered”
- “an adhesive layer adhered to an interface surface of the outer layer”
- “barrier material composition”
- “at least a portion of the outer layer”
- “at least a portion of the outer layer adjacent the interface surface comprises a barrier material composition,”
- “capable of chemically bonding”
- “wherein the adhesive layer is formed from a material capable of chemically bonding with a surface of a vulcanized rubber article”

- “impairs migration”
- “impairs migration of a material constituent within the assembly ”
- “the barrier material composition impairs migration of a material constituent within the assembly when the assembly is attached to a vulcanized rubber article”
- “for attaching an assembly to a surface of a vulcanized rubber article”
- “identifying a surface of a vulcanized rubber article”
- “placing an assembly into contact with the identified surface”
- “bonds”
- “bonds the assembly to the vulcanized rubber article”
- “an adhesive layer interposed between the identified surface and the assembly”
- “wherein the outer layer is in contact with an adhesive layer interposed between the identified surface and the assembly that bonds the assembly to the vulcanized rubber article”
- “mitigate migration of material from the vulcanized rubber article”
- “a barrier material composition to mitigate migration of material from the vulcanized rubber article”
- “the outer layer comprises a barrier material composition to mitigate migration of material from the vulcanized rubber article”
- “preparing the identified surface”
- “preparing the identified surface before the step of placing”
- “applying pressure to the assembly”
- “applying pressure to the assembly after the step of placing”
- “a target surface disposed along a portion of the rubber tire”
- “an assembly disposed onto the target surface”
- “connected with”
- “an adhesive layer connected with the outer layer”
- “at least a portion of the outer layer comprises a barrier material composition to mitigate migration of material from the rubber tire”
- “the assembly further comprises a cavity disposed therein”
- “an element disposed within the cavity”
- “wherein the cavity is disposed beneath the outer layer”
- “an assembly for attachment to a vulcanized rubber tire”
- “bonding”
- “an adhesive layer bonding the assembly to portion of a vulcanized rubber tire”
- “a cavity disposed within the assembly”
- “a cavity disposed within the assembly for accommodating an element therein”
- “barrier”
- “material”
- “material migrating from the vulcanized rubber tire”

- “a material composition that acts as a barrier to material migrating from the vulcanized rubber tire”
- “the outer layer comprises a material composition that acts as a barrier to material migrating from the vulcanized rubber tire”
- “at least a portion of the cavity is disposed beneath the outer layer”
- “the adhesive layer is connected with the outer layer”
- “an indicia”
- “outer surface”
- “the outer layer includes an indicia along an outer surface”
- “sensor assembly”
- “an object that is rotated in use”
- “sensor assembly configured for attachment with an object that is rotated in use”
- “housing”
- “internal cavity”
- “enclosed”
- “enclosed within”
- “an internal cavity that is enclosed within the housing”
- “a housing comprising an outer surface and an internal cavity that is enclosed within the housing”
- “electrical sensor device”
- “disposed within the internal cavity”
- “an electrical sensor device that is disposed within the internal cavity”
- “attached therein to prevent movement of the device”
- “attached therein to prevent movement of the device within the internal cavity”
- “an electrical sensor device that is disposed within the internal cavity and attached therein to prevent movement of the device within the internal cavity”
- “above or below the electrical sensor device”
- “an unfilled open space above or below the electrical sensor device in the housing”
- “wherein the internal cavity comprises an unfilled open space above or below the electrical sensor device in the housing”
- “the sensor assembly is attached with the object”
- “when the sensor assembly is attached with the object and the object is rotated in use”
- “the electrical sensor device is configured to sense, transmit and/or receive information regarding surrounding conditions, orientation and/or location when the sensor assembly is attached with the object and the object is rotated in use”
-
- “retaining member”
- “attachment”

- “a retaining member that is configured to accommodate attachment of the housing therewith”
- “surface”
- “outside surface”
- “the retaining member has an outside surface”
- “the retaining member has an outside surface configured for attachment to rotate with the object when the object is rotated in use”
- “display features or indicia”
- “when the housing is attached with the retaining member”
- “attached”
- “attached within the internal cavity”
- “to retain its position therein”
- “contact”
- “contact the electrical sensor device”
- “one or more surface features within the cavity that contact the electrical sensor device to retain its position therein”
- “wherein the electrical sensor device is attached within the internal cavity by one or more surface features within the cavity that contact the electrical sensor device to retain its position therein”
- “a complementary shape to facilitate attachment of the housing with the retaining member”
- “the housing and retaining member are configured having a complementary shape to facilitate attachment of the housing with the retaining member”
- “wall structure”
- “surrounds”
- “surrounds the internal cavity”
- “wherein the housing comprises a wall structure that surrounds the internal cavity,”
- “open chamber”
- “an open chamber that is configured to accommodate the housing wall structure therein to provide attachment therewith”
- “wherein the retaining member comprises a wall structure having an open chamber that is configured to accommodate the housing wall structure therein to provide attachment therewith”
- “the retaining member is formed from an elastomeric material”
- “mitigates”
- “mitigates transmission of shock forces from the object to the housing”
- “when the retaining member is attached to the object”
- “the retaining member is formed from an elastomeric material that mitigates transmission of shock forces from the object to the housing when the retaining

- member is attached to the object”
- “wherein the retaining member is formed from an elastomeric material that mitigates transmission of shock forces from the object to the housing when the retaining member is attached to the object and the housing is attached to the retaining member”
- “an opening”
- “the housing includes an opening”
- “the housing includes an opening through the outside surface to the internal cavity”
- “a filter”
- “filter air passing into the internal cavity”
- “a filter that is positioned to filter air passing into the internal cavity before reaching the electrical sensor device”
- “the housing includes an opening through the outside surface to the internal cavity, and further includes a filter that is positioned to filter air passing into the internal cavity before reaching the electrical sensor device”
- “a sensing system”
- “a receiver”
- “the object”
- “external from the object”
- “wherein the sensing system comprises a receiver that is external from the object and that is configured to receive data from the electrical sensor device by wireless communication”
- “connected”
- “connected therewith”
- “the electrical sensor device comprises an accelerometer sensor”
- “configured to send data from the accelerometer sensor ”
- “wherein the electrical sensor device comprises an accelerometer sensor connected therewith and is configured to send data from the accelerometer sensor wirelessly to the external receiver”
- “sensor element”
- “storage element”
- “the sensor element is configured to sense one or more variables selected from the group consisting of air pressure, temperature, acceleration, and orientation or location of the environment, the sensor assembly, or the object”
- “the object is a vulcanized rubber vehicle tire”
- “an element attached with the tire that rotates with the tire”
- “the retaining member is attached to an inside surface of the vehicle tire or an element attached with the tire that rotates with the tire”
- “a sensor assembly and sensing system for use with an object that rotates in use”

- “an open internal cavity”
- “an outer structure that defines an open internal cavity”
- “a housing comprising an outer structure that defines an open internal cavity therein”
- “an electrical sensor device disposed within the internal cavity”
- “fixed placement”
- “one or more surface features of the housing”
- “having a fixed placement therein by one or more surface features of the housing configured to contact the electrical sensor device”
- “an electrical sensor device disposed within the internal cavity and having a fixed placement therein by one or more surface features of the housing configured to contact the electrical sensor device”
- “surrounding conditions”
- “the electrical sensor device is configured to monitor and transmit and/or receive information regarding surrounding conditions, orientation and/or location,”
- “a sensor”
- “the operating parameter”
- “transmitting and/or receiving information relating to the operating parameter being monitored by the sensor”
- “a retaining member having an outside surface configured for attaching with a surface of the object or an element connected with the object to rotate with the object in use”
- “an attachment between the housing and the retaining member”
- “a receiver”
- “an open space above or below the electrical sensor device “
- “the internal cavity comprises an open space above or below the electrical sensor device disposed within the internal cavity”
- “when attached to the object”
- “mitigates transmission of shock forces received from the object when attached to the object before reaching the housing”
- “wherein the retaining member is formed from an elastomeric material that mitigates transmission of shock forces received from the object when attached to the object before reaching the housing attached with the retaining member”
- “data from the accelerometer sensor”
- “the system is configured to determine one or more parameters consisting of a tire diameter, slip, strain, road conditions or soil conditions, a tire tread depth, a tire radial load, and vehicle camber and/or toe alignment from the accelerometer sensor data”
- “an electrical sensor device within an internal cavity of a housing”

- “the housing includes an outer structure that defines the internal cavity”
- “an electrical sensor device within an internal cavity of a housing, wherein the housing includes an outer structure that defines the internal cavity,”
- “the housing comprises an opening extending from an outer surface of the housing to the internal cavity
- “a portable power source”
- “an electrical sensor device within an internal cavity of a housing, wherein the housing includes an outer structure that defines the internal cavity . . . wherein the housing comprises an opening extending from an outer surface of the housing to the internal cavity;”
- “attaching”
- “attaching the housing after the step of installing to a retaining member”
- “bonding technique”
- “wherein the retaining member is configured to accommodate attachment with the housing by mechanical or bonding technique”
- “connected with the object before or after formation of the object”
- “wherein the retaining member is connected with the object before or after formation of the object”
- “an operating parameter of the object”
- “monitoring an operating parameter of the object through the use of the electrical sensing device”
- “attached in place”
- “the electrical sensor device is attached in place within the internal cavity by contact between the electrical sensor device and one or more surface features in the internal cavity”
- “wherein during the step of installing, the electrical sensor device is attached in place within the internal cavity by contact between the electrical sensor device and one or more surface features in the internal cavity”
- “the object is a made from vulcanized rubber”
- “before the step of attaching, the retaining member is attached with the object or an element that rotates with the object before or after the object has been formed”
- “the object is a vehicle tire”
- “wherein the retaining member is attached to a surface that is inside of the vehicle tire”
- “the housing is positioned relative to the retaining member according to a display feature that is positioned on the housing”
- “the sensor monitors operating parameters comprising one or more of operating conditions, orientation, and location”
- “feature”

- “feature of the electrical sensor device”
- “to change one or more feature of the electrical sensor device”
- “during the step of monitoring, one or more of a tire outside diameter, a tire tread depth, slip, strain, road or soil conditions, a tire radial load, and a vehicle camber and/or toe alignment parameter is determined from information sent wirelessly from the sensor assembly”

Additionally, at least asserted claims of the ’741 patent, ’027 patent, and ’421 patent are invalid for indefiniteness under 35 U.S.C. § 112, by improperly claiming both an assembly and method steps for using that assembly. *See, e.g., IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005).

OF COUNSEL:

Reuben Chen
COOLEY LLP
3175 Hanover Street
Palo Alto, California 94304-1130
(650) 843-5000
rchen@cooley.com

Adam Pivovar
Rachel Preston
COOLEY LLP
1299 Pennsylvania Avenue, NW, Suite 700
Washington, DC 20004-2400
(202) 842-7800
apivovar@cooley.com
rpreston@cooley.com

/s/ Kelly E. Farnan

Kelly E. Farnan (#4395)
Sara M. Metzler (#6509)
Jessica E. Blau (#7163)
Richards, Layton & Finger, P.A.
One Rodney Square
920 North King Street
Wilmington, DE 19801
(302) 651-7700
farnan@rlf.com
metzler@rlf.com
blau@rlf.com

Attorneys for Defendant Revvo Technologies, Inc.

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CERTIFICATE OF SERVICE

I hereby certify that on November 27, 2024, true and correct copies of the foregoing document were caused to be served on the following counsel of record as indicated:

BY ELECTRONIC MAIL

Karen Jacobs
Lucinda C. Cucuzzella
Morris, Nichols, Arsht & Tunnell LLP
1201 North Market Street
Wilmington, DE 19801

BY ELECTRONIC MAIL

Christopher Franich
Snell & Wilmer L.L.P.
Executive Center Del Mar
12230 El Camino Real, Suite 300
San Diego, CA 92130

BY ELECTRONIC MAIL

Christopher D. Bright
Snell & Wilmer L.L.P.
Plaza Tower
600 Anton Boulevard, Suite 1400
Costa Mesa, CA 92626-

BY ELECTRONIC MAIL

Morgan R. Povinelli
Snell & Wilmer L.L.P.
2001 K Street NW
Suite 425 North
Washington, DC 20006

/s/ Kelly E. Farnan

Kelly E. Farnan (#4395)
farnan@rlf.com