

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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ZOLL MEDICAL CORPORATION, :

Plaintiff, :

v. :

C.A. No. 12-1778-LPS

RESPIRONICS, INC., :

Defendant. :

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**MEMORANDUM OPINION**

April 29, 2016  
Wilmington, Delaware



**STARK, U.S. District Judge:**

On December 27, 2012, Plaintiff Zoll Medical Corporation (“Zoll” or “Plaintiff”) filed suit against Defendant Respironics, Inc. (“Respironics” or “Defendant”) alleging infringement of U.S. Patent No. 6,681,003 (the “’003 patent”). The patent claims methods and systems for the collection and transmission of data from wearable medical devices that monitor and treat patients.

The parties submitted technology tutorials and claim construction briefs. (D.I. 89, 91, 108, 109) The Court held a claim construction hearing on February 29, 2016. (*See* D.I. 126 (“Tr.”))

## **I. LEGAL STANDARDS**

The ultimate question of the proper construction of a patent is a question of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). “It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.” *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources “in light of the statutes and policies that inform patent law.” *Id.*

“[T]he words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312-13 (internal citations and quotation marks omitted). “[T]he ordinary meaning of a

claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). The patent specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent . . . .” *Id.* (internal citation omitted).

It is likewise true that “[d]ifferences among claims can also be a useful guide . . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15 (internal citation omitted). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. It bears emphasis that “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker*

*Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (internal quotation marks omitted).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence,” “consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

In some cases, “the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 135 S. Ct. at 841. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the

pertinent field.” *Id.* Nonetheless, courts must not lose sight of the fact that “expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, while extrinsic evidence “may be useful” to the court, it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osrām GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

## **II. MOTION TO STRIKE**

Zoll moved to strike the responsive claim construction declaration of Defendant’s expert, Dr. Stankovic. (*See* D.I. 114) As discussed below, the Court has resolved each of the claim construction disputes in this case solely on the intrinsic record. Therefore, Plaintiff’s motion will be denied as moot.

### III. CONSTRUCTION OF THE DISPUTED TERMS

#### A. “wearable medical device” / “worn by the patient”<sup>1</sup>

##### Zoll

“wearable medical device”: Need not be construed, but if construed, “a medical device capable of being worn in whole or in part”

“worn by the patient”: Need not be construed, but if construed, “worn by the patient in whole or in part”

##### Respironics

“wearable medical device”: “A medical device designed to be worn in its entirety on a patient’s body”

“worn by the patient”: “worn in its entirety by the patient as opposed to merely interfacing with the patient”

##### Court

“wearable medical device”: “A medical device designed to be worn in its entirety on a patient’s body”

“worn by the patient”: “worn in its entirety by the patient as opposed to merely interfacing with the patient”

The asserted claims of the ’003 patent are directed to systems and methods employing “wearable” medical devices that are “worn” by a patient. *See, e.g.* ’938 pat. col. 10:28-31; 10:56-59; 11:60-64. The parties disagree about whether these limitations require that a device be worn in its entirety or whether the claims also cover devices worn “in part.”

The claim language is unambiguous. It describes “a *wearable* medical device” connected to a patient “such that *the* medical device *is worn* by the patient.” (Emphasis added) These words do not suggest that the claimed device may be worn only “in part.”

Zoll nevertheless urges the Court to give the word “wearable” a special meaning, such

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<sup>1</sup>This term appears in claims 2, 4, and 19 of the ’003 patent.

that it includes within its scope devices that are not fully “wearable” in the plain and ordinary sense of that word. Zoll argues that while the plain and ordinary meaning of “wearable” might suggest a device that allows the wearer to be mobile, the term as used in the patent requires only that the device be operatively attached to the wearer for an extended period of time, in a manner workable for the context in which it is used. (Tr. at 5-8, 12-14) For example, a medical device designed for use while sleeping may be “wearable” even if one could not readily move around while connected to the device, since one would not be moving around while sleeping anyway. (Tr. at 7-8)

Zoll’s argument is based primarily on statements the patentee made during prosecution.<sup>2</sup> Distinguishing the claimed invention from a prior art medical device capable of periodically measuring patient vital signs, the patentee explained that the prior art device included “no teaching or suggestion of a wearable medical device for the *continuous monitoring* of medical parameters and further include[d] no teaching or suggestions of providing any type of *treatment . . . in response* to monitored medical data.” (D.I. 89-1 at 88 (emphasis added)) In Zoll’s view, this statement conveys that continuous monitoring, and the treatment it enables, distinguish the patented invention from the prior art. Because the potential for continuous monitoring is what makes wearability so valuable, Zoll argues, the term “wearable” should be construed to include within its scope *any* device that is operatively attached to the patient in a manner that allows for continuous monitoring.

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<sup>2</sup>Zoll also argues that a construction requiring the claimed medical device to be worn in its entirety would read out a preferred embodiment consisting of a medical device and external modem. (Tr. at 8-9) The Court disagrees. The specification describes the modem as being “*used as* part of the medical device,” but does not state that the modem *is* part of the medical device. ’003 pat. 6:39-41 (emphasis added).

While Zoll is correct that these statements show that the claimed device provides for continuous monitoring, they do not show that the term “wearable” is synonymous with continuity, which is the implication of Zoll’s position. In fact, the prosecution history shows that the patentee added limitations requiring continuity *before* it added the wearability limitations. (See D.I. 89-1 at 65, 90) Since the claims *already* included the limitations – i.e., remaining operatively connected, so as to allow continuous monitoring – that Zoll attributes to the word “wearable,” even before “wearable” was added, the addition of the word “wearable” suggests that the term itself means something more. As Zoll’s strongest argument for its position is ultimately unpersuasive, and the intrinsic evidence supports Respironics, the Court rejects Zoll’s proposed construction.<sup>3</sup>

**B. “information database” / “patient database”<sup>4</sup>**

<b>Zoll</b> “a collection of patient records at one or more data centers”
<b>Respironics</b> “a storage location for data and/or information”
<b>Court</b> “a storage location for data and/or information”

The parties agree that the terms “information database” and “patient database” should

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<sup>3</sup>The Court’s construction requiring the device to be worn in its “entirety” leaves some uncertainty regarding what, exactly, must be worn. In their briefing and at oral argument, the parties made certain assumptions about what is part of a device and what is not. (See, e.g. Tr. at 9, 23-24 (discussing whether external modem is “part of” wearable device)) However, construction of the term “medical device,” alone, was not put before the Court. Moreover, the description of the medical device in the asserted method claim differs somewhat from that contained in the asserted system claims. Thus, the parties have not, at this time, put the Court in a position in which it could construe “medical device.”

<sup>4</sup>This term appears in claims 4 and 19 of the ’003 patent.



have the same meaning. They further agree that the terms refer to a storage location for information about patients and their devices. However, they disagree about the best language for describing what information is stored and whether that information must be stored at a data center.

With regard to what information is stored, the parties agree that the claims require storing information about patients and about their devices' performance and/or operations. *See* '938 pat. col. 11:3-7 and 12:7-11. Zoll argues that the information is stored as part of a "patient record," whereas Respironics argues that the claim does not require a specific storage format. The Court agrees with Respironics that the intrinsic record does not require Zoll's proposed limitation.

Zoll argues that the claimed database must be located at a data center, based on the specification's description of the database as "centrally located" and its statement that collection of data at a "central location" is a key advantage of the claimed invention. As Respironics notes, it is improper to limit the scope of a claim based on the purpose or alleged advantages of a patented invention. *See Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 832 (Fed. Cir. 2003). The patentee did not act as its own lexicographer or disclaim any part of the plain and ordinary meaning of the disputed term.

C. “storage means”<sup>5</sup>

**Zoll**

Need not be construed and not a “means plus function” term subject to 35 U.S.C. § 112(f).

If the term is deemed subject to 35 U.S.C. § 112(f):

Function: “store information”

Structure: “memory”

**Respironics**

Function: “store information”

Structure: “memory of the wearable medical device”

**Court**

Function: “store information”

Structure: “memory”

The parties disagree about whether this term is a “means-plus-function” term governed by 35 U.S.C. § 112(f). The use of the word “means” in a patent claim raises a rebuttable presumption of a means-plus-function limitation. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). A party seeking to overcome that presumption has the burden of showing, by a preponderance of the evidence, that the term should not be construed as a means-plus-function term. *See Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371-72 (Fed. Cir. 2003). Specifically, a party can rebut the presumption by showing that the functional “**claim element** recites sufficient structure or material for performing that function.” *Rodime PLC v. Seagate Tech., Inc.*, 174 F.3d 1294, 1302 (Fed. Cir. 1999) (emphasis added). Zoll argues that such is the case here, but it fails to point to **claim** language that recites structure. (D.I. 109 at 20) Zoll has failed to overcome the presumption that this is a means-plus-function term.

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<sup>5</sup>This term appears in claim 2 of the '003 patent.

The parties agree that, as a means-plus-function term, “stor[ing] information” is the function associated with the term. They also agree that the appropriate structure is “memory.” Their disagreement is whether that memory must be memory “of the wearable medical device.” While the recited storage refers to memory “of the [antecedent] medical device,” adding “wearable” is unnecessary and risks confusing the jury through redundancy. Each claim initially recites a “wearable medical device,” but then subsequent references to that device omit the word “wearable.” ’003 pat. col. 10:30-45. Thus, the Court construes the means as “memory.”

**D. “means for monitoring and storing”<sup>6</sup>**

<p><b>Zoll</b>  <u>Function</u>: “monitoring and storing [the specified information and data]”  <u>Structure</u>: “sensor(s), timer(s) and related circuitry, and memory”</p>
<p><b>Respironics</b>  <u>Function</u>: “monitoring and storing [the specified information and data]”  <u>Structure (monitoring)</u>: Insufficient structure disclosed, in violation of 35 U.S.C. § 112(f)  <u>Structure (storing)</u>: “memory of the wearable medical device”</p>
<p><b>Court</b>  <u>Function</u>: “monitoring and storing [the specified information and data]”  <u>Structure (monitoring)</u>: “holter monitor or wearable cardiac defibrillator monitor”  <u>Structure (storing)</u>: “memory”</p>

The parties agree that the asserted claims are means-plus-function claims. They also agree that the claimed functions are “monitoring” and “storing” the information and data specified in the claims. Each claim recites different types of data that are monitored and stored.

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<sup>6</sup>This term appears in claims 4, 5, and 19 of the ’003 patent.

Based on the parties' briefing and their presentations at the hearing, the Court understands the agreed-upon functions corresponding to the claim terms as follows:

Claim 4: "monitoring and storing operations information of the medical device and patient compliance and use data"

Claim 5: "monitoring and storing operations information of the medical device and patient compliance and use data" and "monitoring an operating status of the medical device"

Claim 19: "monitoring and storing patient medical parameters, device performance data and patient compliance data"

*See* '003 pat. col. 10:53-11:10; 11:54-12:14 (underlining added to show data types).

The parties agree that "memory" is the structure corresponding to each of the "storing" functions.<sup>7</sup> They disagree, however, about the structures corresponding to the "monitoring" function. Respironics argues that the patent does not disclose structure sufficient to perform the full scope of any of the asserted claims' monitoring functions, and, consequently, each of the asserted claims is indefinite. Zoll, of course, disagrees.

A party asserting indefiniteness must demonstrate "by clear and convincing evidence[] that the specification lacks disclosure of structure sufficient to be understood by one skilled in the art as being adequate to perform the recited function." *Chi. Bd. Options Exch., Inc. v. Int'l Secs. Exch., LLC*, 748 F.3d 1134, 1141 (Fed. Cir. 2014). Under 35 U.S.C. § 112, a means-plus-function claim is indefinite if it fails to "clearly link[]" the claimed function to a structure disclosed in the specification. *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1299 (Fed. Cir. 2005). The structure disclosed must be sufficient to perform each

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<sup>7</sup>Defendant again argues that the memory is "memory of the wearable medical device." The Court declines to include this language in its construction, for the reasons discussed above in connection with "storage means."

of the claimed functions. *See Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1318-19 (Fed. Cir. 2012). If the patent discloses structure sufficient to perform “some, but not all, of the functions associated with a means-plus-function limitation,” then the claims are indefinite. *Id.*

Respironics argues that the asserted claims are indefinite because the patent fails to disclose structure sufficient to perform the “monitoring” functions. As highlighted above, each asserted claim requires monitoring not only a patient’s medical parameters, but also at least one of “device performance data,” “patient compliance [and use] data,” “operations information of the medical device,” and “an operating status of the medical device.” (D.I. 89 at 15)<sup>8</sup>

Respironics acknowledges that the patent discloses structure for monitoring raw medical data (e.g., ECG readings), but argues that the prosecution history shows that monitoring performance and compliance requires “something more” than recording raw medical readings. (D.I. 89 at 12-17) According to Respironics, it follows that the patent fails to recite structure sufficient to perform the claimed monitoring functions, since it recites *nothing more* than structure for recording raw medical readings.

Zoll correctly responds that the patent discloses examples of performance and compliance data involving measurements other than raw medical readings.<sup>9</sup> *See, e.g.*, ’003 pat. col. 4:28-32.

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<sup>8</sup> “[O]perations information of the medical device” and “device performance data” are used interchangeably throughout the ’003 patent. For example, the patent refers to analyzing “noise” in device readings to evaluate patient health and ensure “correct operation of the device.” ’003 pat. 4:55-59. Similarly, the prosecution history describes noise data that is used to determine whether the device is working properly as “device performance data.” (D.I. 78-1 at 56-57) For simplicity the Court refers only to “device performance data” in its analysis.

<sup>9</sup> During prosecution, the patentee distinguished the claimed invention from prior art devices “*merely concerned with* taking medical readings from a patient,” explaining that the claimed invention included the additional feature of enabling analysis of compliance and performance. (D.I. 89-1 at 61 (emphasis added)) But this does not mean that the claims require

The Court finds that any data that provides a sufficient basis for assessing some aspect of performance or compliance is device “performance” or “compliance” data within the meaning of the monitoring terms. As for the corresponding structures, the patent “clearly links” sensors to the monitoring functions. For example, the specification describes collecting “sensor data” to evaluate whether the device is properly positioned on a patient’s body. ’003 pat. col. 4:44-59. To provide a basis for evaluating device performance and patient compliance, however, additional structure is necessary to (at a minimum) record the date and time associated with each sensor reading.<sup>10</sup> (*Id.* at ¶¶ 26-27) For example, the specification also explains how patient compliance is evaluated using sensor data listed by date and time. ’003 pat. 4:44-59; 8:66-9:7.

The patent describes only two structures that perform **both** the sensing **and** the timing components of the monitoring function: a “holter monitor” and a “wearable cardiac defibrillator monitor.” Each device is described as capable of both sensing a patient’s condition and

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that such analysis be based on something more than medical readings. To the contrary, the specification describes many ways in which aggregated medical readings can serve as a basis for evaluating compliance and performance. *See, e.g.* ’003 pat. col. 4:44-59 (describing how “noise” in ECG signals can signal whether device is properly positioned); *id.* at 8:66-9:7 (describing how “ECG recordings” that are date- and time-stamped may be used to assess patient compliance based on “how many hours each day the patient has actually been wearing the monitor such that data is being inputted into the system”); *id.* at 5:67-6:13 (describing how continuous monitoring allows for data collection that enables tracking of “operational status of individual systems”).

<sup>10</sup>Zoll urges the Court to adopt “timers and related circuitry” as the structure corresponding to this aspect of the function. Even though the specification does not disclose either “timers” or “related circuitry,” Zoll contends this construction is appropriate because its expert opines that a person of ordinary skill in the art (“POSA”) would understand the patent to “reflect a disclosure of timers . . . [and] to include circuitry related to the sensors and timers.” (D.I. 109 at 18-19) Even if Zoll is correct that a POSA would understand the patents in this way, its proposed construction is not appropriate because, “[u]nder 112 ¶6, the question is not what structures a person of ordinary skill in the art would know are capable of performing a given function, but what structures are specifically disclosed and tied to that function in the specification.” *Saffran v. Johnson & Johnson*, 712 F.3d 549, 563 (Fed. Cir. 2013).

recording the patient's condition in a manner that allows for evaluation of patient compliance and device performance. '003 pat. 4:14-59; 8:66-9:7. Thus, "holter monitor" and "wearable cardiac defibrillator monitor" are the structures corresponding to the claimed monitoring function.

**E. "means for connecting the medical device" / "means for downloading device parameter software to the medical device"<sup>11</sup>**

**Zoll**

Function: "connecting the medical device to the communication network; downloading device parameter software to the medical device from the communication network"

Structure: "data modems"

**Respironics**

Function: "connecting the medical device to the communication network; downloading device parameter software to the medical device from the communication network"

Structure: "internal or external modem, or a base station with a modem, or other data transfer technologies"

**Court**

Function: "connecting the medical device to the communication network; downloading device parameter software to the medical device from the communication network"

Structure: "internal or external modem, or a base station with a modem, or other data transfer technologies"

The parties agree that this is a means-plus-function term and that the function is as described in the claims. The parties also agree that modems are one disclosed structure for performing both the connecting and downloading functions.

The parties' first point of disagreement relates to whether the Court's construction should include each modem configuration that is disclosed in the specification. Respironics argues that the Court should do so, while Zoll argues this is improper. The construction of the structure

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<sup>11</sup>This term appears in claims 4 and 19 of the '003 patent.

portion of a means-plus-function term should include all of the structure necessary to perform the claimed function. *See Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1352 (Fed. Cir. 2003); *see also Asyst Technologies, Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370-71 (Fed. Cir. 2001). As Respironics noted at the claim construction hearing, each of the disclosed embodiments requires more than modem technology alone (e.g., cords) to perform the function of “connecting.” Therefore, the Court will list each separate embodiment in its proposed construction, rather than reducing each to a “modem.”

Respironics also urges the Court to include in its construction “other data transfer technologies,” which is structure set forth in the specification as an alternative to a modem. ’003 pat. 6:39-43. A means-plus-function claim should be construed to “embrace [all] distinct and alternative structures” that are clearly linked to performance of the claimed function. *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1346 (Fed. Cir. 2002). Each disclosed structure must be described in sufficient detail that a POSA would be able to identify the claimed class of structures. *See Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1322 (Fed. Cir. 2004). Zoll insists that the disclosure of “other data transfer technology” adds no meaningful structure, but Zoll provides no support for the proposition that a POSA would be unable to identify the claimed class of structures based on this language. Absent such evidence, the Court will include this alternative structure in its construction. *See Atmel Corp v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1382 (Fed. Cir. 1999).



**F. “means for connecting the patient database to the communication network”<sup>12</sup>**

**Zoll**

Function: “connecting the patient database to the communication network”

Structure: “gateway or communication server with modem bank”

**Respironics**

Function: “connecting the patient database to the communication network”

Structure: “modem or other data transfer technologies”

**Court**

Function: “connecting the patient database to the communication network”

Structure: “gateway or communication server with modem bank”

The parties agree that this is a means-plus-function term and agree that the function is “connecting the patient database to the communication network.” They disagree about the corresponding structure.

The specification of the ’003 patent explains that the patient database exchanges data both with wearable medical devices and with “various concerned persons” who wish to access patient and device data from remote locations. ’003 pat. 5:17-22, 5:36-42, 5:59-60, 6:33-48. This exchange is facilitated by the database’s connection with a “communications network.” *Id.* The specification describes the structure used to connect the database with the communications network only in its description of Figure 1. There, the patent describes how interested parties can communicate with the patient database via an Internet “gateway” or “communication server.” *Id.* at 6:33-44. Figure 1 illustrates these connections, and the Court adopts them in its construction of the corresponding structure.

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<sup>12</sup>This term appears in claims 4 and 19 of the ’003 patent.

The scope of a means-plus-function limitation does not include every structure disclosed in the specification that is capable of performing the claimed function; rather, a particular structure falls within the scope of the claims only if the specification “clearly links or associates that structure to the function.” *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). As Respironics notes, the specification discusses various other means by which devices can connect with a communications network, but none of these describes a connection between the *patient database* and communications network. Because the specification of the ’003 patent clearly links only the previously-described structures to the function of connecting the patient database to a communications network, the Court has limited its construction to those structures.

**G. “means for exchanging” / “means for transmitting”<sup>13</sup>**

**Zoll**

Function (claim 4, 19): “exchanging information between the medical device and the patient database and transmitting the [specified information and data] to the patient database via the communication network”

Function (claim 8): “transmitting the patient medical information from the medical device to the patient database”

Structure: “data modem(s), the server(s) on which the patient database resides, and a gateway or communication server with a modem bank”

**Respironics**

Function (exchanging): “exchanging information between the medical device and the patient database and transmitting the [specified information and data] to the patient database via the communication network”

Function: (transmitting in claim 8)

Structure: “internal or external modem or a base station with a modem, or other data transfer technologies”

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<sup>13</sup>This term appears in claims 4, 8, and 19 of the ’003 patent.

**Court**

Function (claim 4, 19): “exchanging information between the medical device and the patient database and transmitting the [specified information and data] to the patient database via the communication network”

Function (claim 8): “transmitting the patient medical information from the medical device to the patient database”

Structure: “data modem(s), the server(s) on which the patient database resides, and a gateway or communication server with a modem bank”

The parties agree that this is a means-plus-function term and further agree that the associated functions are as listed in the claims. They disagree about the corresponding structure.

The function described involves exchanging and transmitting information between the wearable device and patient database via the communications network. The patent links this function both to structures associated with the device and to structures associated with the patient database. As explained above in connection with the term “means for connecting the medical device,” the specification links “modems or other data transfer technologies” to the function of connecting the medical device to the communications network. Similarly, as explained in connection with the term “means for connecting the patient database,” the specification links “gateway or communication server with a modem bank” to the function of connecting the patient database to the communications network. The Court adopts both of these structures in the present construction.

H. “means for accessing the patient database via the communication network”<sup>14</sup>

<p><b>Zoll</b> <u>Function</u>: “accessing the patient database via the communication network”  <u>Structure</u>: “a website and server(s)”</p>
<p><b>Respironics</b> <u>Function</u>: “accessing the patient database via the communication network”  <u>Structure</u>: “Home or office computer”</p>
<p><b>Court</b> <u>Function</u>: “accessing the patient database via the communication network”  <u>Structure</u>: “a website and server(s)”</p>

The parties agree that this is a means-plus-function term and that the associated functions are as listed in the claims. They disagree about the corresponding structure.

The disputed claim term appears in a limitation that describes a “system . . . including means for accessing the patient database via the communication network, wherein medical personnel can analyze the patient medical information from a remote location.” ’003 pat. col. 11:46-49. Respironics asserts that the structure corresponding to this function is a “home or office computer,” citing language in the Abstract of the ’003 patent that describes the invention as allowing “physicians and technicians . . . to access the [database] from any home or office computer” and language elsewhere in the specification that describes the invention as enabling distribution of data “to remote computers.” *Id.* at 5:28-32. The Court agrees with Zoll that these are examples of the devices from which patient data may be accessed, and are distinct from the claimed “means for accessing the patient database,” which refers to the web site and servers

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<sup>14</sup>This term appears in claim 16 of the ’003 patent.

described throughout the specification. *Id.* at 4:4-6, 6:62-67, 8:33-48.

#### **IV. CONCLUSION**

The Court will deny Plaintiff's motion to strike as moot and will construe the disputed terms as explained above. An appropriate Order follows.

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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ZOLL MEDICAL CORPORATION,	:	
	:	
Plaintiff,	:	
	:	
v.	:	C.A. No. 12-1778-LPS
	:	
RESPIRONICS, INC.,	:	
	:	
Defendant.	:	
	:	

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**ORDER**

At Wilmington, this **29th** day of **April, 2016**:

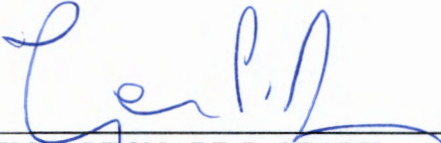
For the reasons set forth in the Memorandum Opinion issued this date,

**IT IS HEREBY ORDERED** that Plaintiff's motion to strike (D.I. 114) is DENIED AS MOOT.

**IT IS FURTHER ORDERED** that the disputed claim terms of U.S. No. 6,681,003 (the "003 patent") are construed follows:

Claim Term	Court's Construction
<p><b>“wearable medical device” / “worn by the patient”</b></p> <p>[’003 patent, claims 2, 4, and 19]</p>	<p><u>“wearable medical device”</u>: “A medical device designed to be worn in its entirety on a patient’s body”</p> <p><u>“worn by the patient”</u>: “worn in its entirety by the patient as opposed to merely interfacing with the patient”</p>
<p><b>“information database” / “patient database”</b></p> <p>[’003 patent, claims 4 and 19]</p>	<p>“a storage location for data and/or information”</p>
<p><b>“storage means”</b></p> <p>[’003 patent, claim 2]</p>	<p>“memory”</p>
<p><b>“means for monitoring and storing”</b></p> <p>[’003 patent, claims 4, 5, and 19]</p>	<p><u>Function</u>: “monitoring and storing [the specified information and data]”</p> <p><u>Structure (monitoring)</u>: holter monitor or wearable cardiac defibrillator monitor</p> <p><u>Structure (storing)</u>: “memory”</p>
<p><b>“means for connecting the medical device” / “means for downloading device parameters software to the medical device”</b></p> <p>[’003 patent, claims 4 and 19]</p>	<p><u>Function</u>: “connecting the medical device to the communication network; downloading device parameter software to the medical device from the communication network”</p> <p><u>Structure</u>: “internal or external modem, or a base station with a modem, or other data transfer technologies”</p>
<p><b>“means for connecting the patient database to the communication network”</b></p> <p>[’003 patent, claims 4 and 19]</p>	<p><u>Function</u>: “connecting the patient database to the communication network”</p> <p><u>Structure</u>: “gateway or communication server with modem bank”</p>

<p><b>“means for exchanging” / “means for transmitting”</b></p> <p>[’003 patent, claims 4, 8, and 19]</p>	<p><u>Function (claim 4, 19)</u>: “exchanging information between the medical device and the patient database and transmitting the [specified information and data] to the patient database via the communication network”</p> <p><u>Function (claim 8)</u>: “transmitting the patient medical information from the medical device to the patient database”</p> <p><u>Structure</u>: “data modem(s), the server(s) on which the patient database resides, and a gateway or communication server with a modem bank”</p>
<p><b>“means for accessing the patient database via the communication network”</b></p> <p>[’003 patent, claims 16]</p>	<p><u>Function</u>: “accessing the patient database via the communication network”</p> <p><u>Structure</u>: “a website and server(s)”</p>

  
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 HON. LEONARD P. STARK  
 UNITED STATES DISTRICT JUDGE