

*Abbott Laboratories and
Abbott Diabetes Care Inc., v. Altivera LLC*

IPR2024-00425

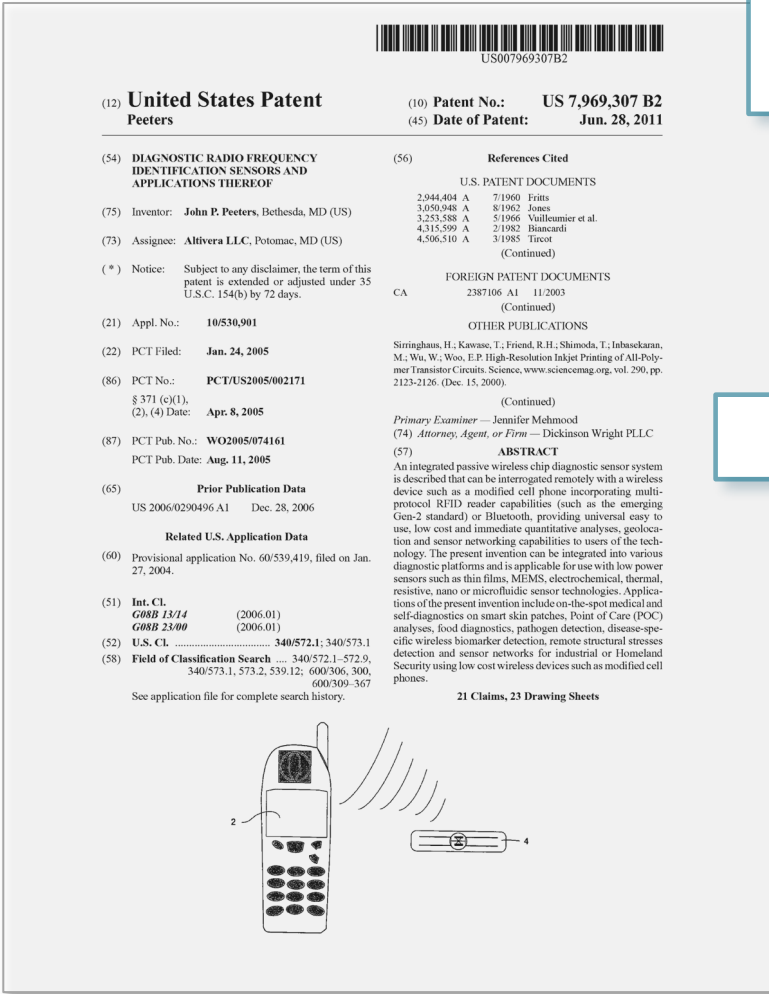
April 23, 2025, Oral Hearing
Patent Owner's Demonstratives
Altivera LLC

Roadmap

1. '803 patent ("Bandy") is not "by another"
2. Petitioner has failed to show motivation to combine Beck and Heller
3. Petitioner has failed to show any disclosure of sensor unit comprising a "unique identification ID number" in Beck/Heller/Lovejoy combination
4. Construction of "the remote server authenticates said unique sensor ID associated with said unique wireless device ID"
 - A. Petitioner has failed to show any "association" in Beck/Heller/Lovejoy combination
 - B. Petitioner has failed to show any "association" in '803 patent

The '307 Patent

The '307 Patent



(10) Patent No.: US 7,969,307 B2
(45) Date of Patent: Jun. 28, 2011

(54) DIAGNOSTIC RADIO FREQUENCY IDENTIFICATION SENSORS AND APPLICATIONS THEREOF

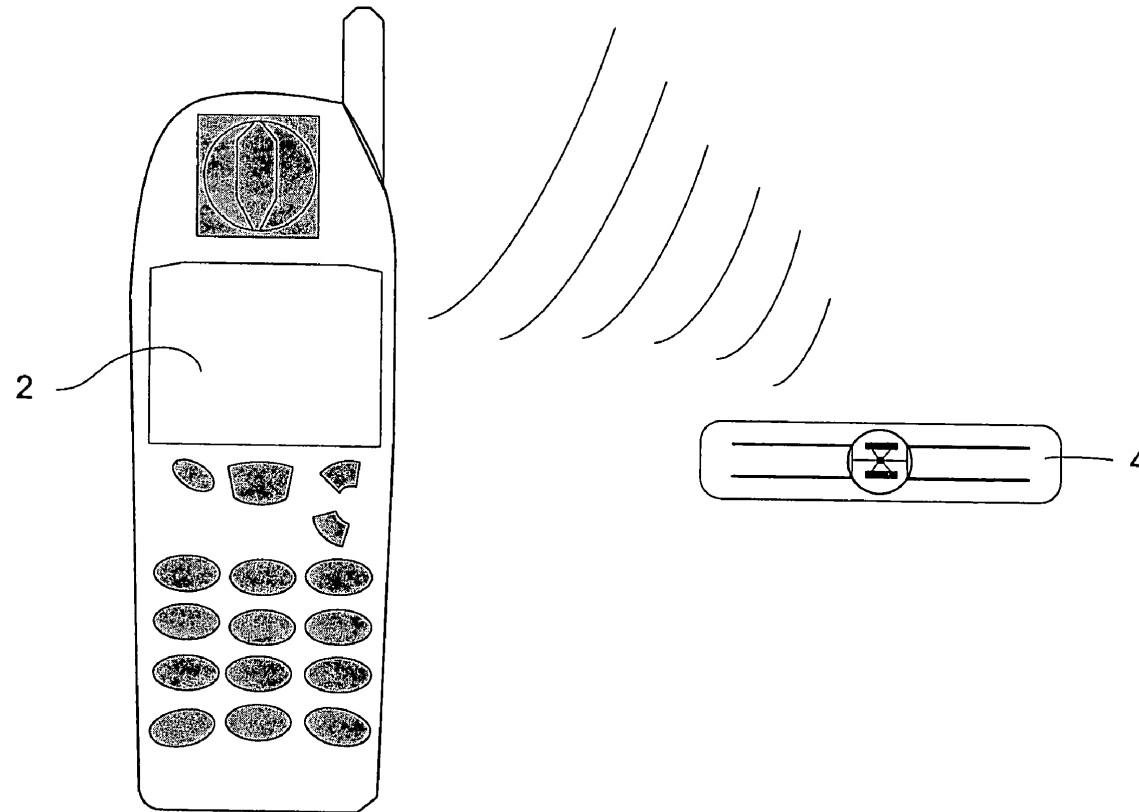
(75) Inventor: John P. Peeters, Bethesda, MD (US)

(22) PCT Filed: Jan. 24, 2005

Related U.S. Application Data
(60) Provisional application No. 60/539,419, filed on Jan. 27, 2004.

Ex. 1001 ('307 Patent), Cover

The '307 Patent



Ex. 1001 ('307 Patent), Fig. 1

The '307 Patent



The '307 Patent



The '307 Patent



Petitioner's grounds

Grounds	Claims	Prior Art
1	1, 2, 5, 9, 10	'803 patent
2	3	'803 patent + Heller
3	1-3, 5, 9, 10	Beck + Heller + Lovejoy

'803 patent is not “by another”

The '803 Patent is not “by another”

- **Dr. Bandy contributed only the “binary tree traversal protocol”**
- **The “binary tree traversal protocol” is not properly relied on in the Petition**
- **The “binary tree traversal protocol,” and interrogation protocols that isolate tags generally, are useless for the invention claimed in the '307 Patent**

Petitioner's position

- **The '803 Patent is “by another” because Dr. Bandy contributed an interrogation protocol known as the “binary tree traversal protocol” for limitations [1k] and [1j].**

Dr. Bandy explained his contribution

Q. The other technology you mentioned was interrogation protocol. Is that right?

A. Yes. Exactly. That's the process whereby the reader is able to singulate out of a -- say a thousand tags -- okay? -- which tag it wants to talk to, wants to interrogate. And we used a very clever scheme for doing that. It was very fast.

Ex. 1030, 24:13-20

all this power. So we went to a very simple tag design that basically had one function, which was basically to -- able to go -- we call it tree-walking, a logic tree-walking algorithm, where all tags respond initially to the interrogation signal. But we would then send out the logic symbol, logic zero or one, for which tags to respond to next. And those who didn't have that next logic symbol just went to sleep, and only those tags that had the next logic symbol would respond and so on.

Ex. 1030, 25:6-16

Dr. Bandy did not contribute a communications interface

Q:

Is an RF power and communications interface something that would have been in Matrics' products?

Ex. 1030, 58:13-15

A:

A. Not the communications model. We didn't do that. As I explained before, what we were

Ex. 1030, 58:16-17

in a very specific way. We weren't communicating back any status of the tag. We were communicating back ones and zeros that at the end indicated what the random number was. Very different, you know, kind of logic operation.

Ex. 1030, 59:4-8

Dr. Bandy testified that Claim 1 of the '803 Patent was all “John’s stuff”

But I can't say we contributed anything specifically to this claim, because what he claimed was new art implemented with known art. So I'd have to say no. This is all John's stuff.

Ex. 1030, 71:3-6

Dr. Bandy testified that Dr. Peeters invented the '307 Patent

Q. Do you recall Dr. Peeters explaining at that meeting his background on sensors?

A. Yes. Yes. I remember very specifically that he was the one who was talking about using cell phones as an RFID reader. And he was well ahead of his time, because of course today, cell phones do incorporate NFC tag reader capability. It's pretty amazing how that evolved, and John, I think, was the first person who basically was saying, you know, the cell phone has the inherent technology that could -- to incorporate additional technology into it to turn it into an NFC reader. He was very visionary in that regard. I give him a lot of credit for that. So...

Ex. 1030, 46:1-14

Q. In paragraph 7, you wrote that shortly after the meeting in May 2003, Dr. Peeters came up with the idea that a wireless RFID sensor could be incorporated into a disposable diagnostic skin patch. Do you see that?

A. Yeah. I actually remember that. I mean, I was particularly -- I remember being kind of taken by that idea, because it was one that seemed to be -- that could be implemented.

Ex. 1030, 53:2-10

Petitioner did NOT rely on binary tree traversal interrogation

Limitation [1k] recites: “wherein the wireless device communicates with the RF addressable sensor interface to obtain the ID and sensor data.” Bandy discloses that “RF addressable sensor 110 communicates the digital sensor data to wireless sensor reader 140/340,” which can “include both the *tag identification number stored in memory 246 and the sensor data obtained by the sensor elements.*”

Bandy at 16:41-51, Figs. 7A-7B. Bandy also discloses that “wireless sensor reader 140/340 receives the sensor data from the RF addressable sensor 110. Sensor data can include sensor element output data, sensor table data, reference data, and/or other data.” Bandy at 15:23-26, Fig. 5. Further, “*the sensor 110 identifies itself (e.g., by providing its identification number)* and provides the cell phone reader with the necessary information for analyzing the sensor output.” *Id.* at 10:14-32; *see also id.* at 13:1-13 (“RFID tag processor 356 includes logic to interrogate and read RFID tag information from RF addressable sensors.”); Sarrafzadeh Decl.

¶191; *see also* Bandy at 4:56-65, 17:54-56, Figs. 8-16.

Pet., 29

Petitioner did NOT rely on binary tree traversal interrogation

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¶191; *see also* Bandy at 4:56-65, 17:54-56, Figs. 8-16.

Pet., 29

Petitioner did NOT rely on binary tree traversal interrogation

In step 780, the RF addressable sensor 110 communicates the digital sensor data to wireless sensor reader 140/340. The details of this communication are dependent upon the protocol used for communication between the wireless sensor reader 140/340 and the RF addressable sensor 110. In an embodiment of the present invention, the protocol used is a binary tree traversal protocol. In this embodiment, the tag identification number signaled by the RF addressable sensor 110 may include both the tag identification number stored in memory 246 and the sensor data obtained by the sensor elements. Alternatively, reader 140/340 may place the RFID

Ex. 1005, 16:41-51

Interrogation was well-known in the prior art

the RFID tag components of the RF addressable sensor. For more information concerning interrogation of tags, and more generally, communication between an RFID reader and a population of tags in accordance with an embodiment of the present invention, see U.S. Pat. No. 6,002,344, entitled, “System and Method for Electronic Inventory” which is incorporated herein by reference in its entirety, and the

Ex. 1005, 11:2-8

Dr. Peeters was already familiar with techniques for wireless interrogation of tags to identify a particular tag

[11] **Patent Number:** **6,031,454**

[75] **Inventors:** **Michael L. Lovejoy**, Albuquerque, N.Mex.; **John P. Peeters**, Bethesda, Md.; **A. Wayne Johnson**, Albuquerque, N.Mex.

[22] **Filed:** **Nov. 13, 1997**

Ex. 1009, Cover

FIGS. 5A, 5B and 5C show three of several possible methods of transmitting and receiving radar pulses between the interrogator and the RR-tags. FIG. 5A shows a method providing the lowest power, but lowest accuracy. The interrogator sends out the radar pulse to the RR-tags that it is responsible for by sending a specific PCM code as shown. The various RR-tags that are programmed to respond to this code respond in assigned time windows as shown. Hence, the particular arrival time of a RR-tag's pulse back to the interrogator will uniquely identify that tag. Additionally, the data contained in the RR-tag's pulsed will be phasecoded to some limited number of bits which convey exposure or other data from the person or object carrying that RR-tag. FIG. 5B shows another method that compromises the interrogator somewhat due to a longer signal pulse, but provides better accuracy in locating the RR-tag. In this method, the interrogator sends out a pulses that alerts all the RR-tags it is responsible for and a second pulse which causes an individual RR-tag to respond. As before, the presence of a response in the allotted time window uniquely identifies that particular RR-tag with the return signal conveying other information in the phase coded modulation of the returning radar signal. FIG. 5C is another variation in which the interrogator sends out a single pulse to all of the RRtags it

Ex. 1009, 10:44-67

is responsible for. Each RR-tag has a random generator that controls the time at which it will respond back to the interrogator. The signal for each RR-tag will come back at a different time to the interrogator in almost all cases. Each RR-tag return signal will be a somewhat longer signal than with the previous methods since it will include identification data, the random time delay that RR-tag used (necessary for the interrogator to compute the location of that RR-tag), and additional exposure or other data as well. In all these methods, the range is conventionally computed from the various time delays between the interrogation pulse and the returning RR-tag pulse.

Ex. 1009, 11:1-12

Sur-reply, 16-17

IPR2024-00425 DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner did NOT rely on binary tree traversal interrogation

Limitation [1j] recites: “wherein the RF addressable sensor communicates with a remote wireless device, said wireless device having multiple wireless communication means, geolocation means and a unique ID, whereby said wireless device is coupled to at least one communications network linked to [a]t least one remote server.”

Bandy discloses that RF addressable sensors 120 are capable of communicating with remote wireless sensor reader 140, which “can be any wireless device capable of communicating via air interface protocol with the population of RF addressable sensors 102” and “could be a wireless phone, a personal digital assistant (PDA), a computer having wireless communications

Pet., 23

capabilities, or other type of mobile, handheld, and/or computing device.” Bandy at 5:6-18. Fig. 1; Sarrafzadeh Decl. ¶170. Further, Bandy discloses that “reader 140 and the population of sensors 102” can communicate via one or more protocols for RFID tag communications and sensor communications. Bandy at 5:24-30.

To the extent the Board construes the term “wireless communication means” under 35 U.S.C. § 112 ¶ 6, Bandy discloses this limitation. For example, the wireless sensor reader 140 is coupled to and wirelessly communicates with wireless communication network 170 “according to one or more protocols,” “such as used in IS-41 or GSM wireless communications networks.” *Id.* at 5:45-63, Fig. 1. Bandy also discloses that the wireless sensor reader 140 can communicate with RF addressable sensors “via an air interface protocol,” yet another wireless communication means. *Id.* at 5:11-13; Sarrafzadeh Decl. ¶173. Thus, Bandy

Pet., 24

Petitioner did NOT rely on binary tree traversal interrogation

Wireless sensor reader **140** includes logic to interrogate the population of RF addressable sensors **102** and logic to read sensor data and RFID tag data transmitted by the RF addressable sensors **110**. In an embodiment, wireless sensor reader **140** also includes logic to process the received sensor data. Wireless sensor reader **140** can be any wireless device capable of communicating via an air interface protocol with the population of RF addressable sensors **102**. In embodiments of the present invention, wireless sensor reader **140** could be a wireless phone, a personal digital assistant (PDA), a computer having wireless communications capabilities, or other type of mobile, handheld, and/or computing device.

Ex. 1005, 5:6-18

radio frequency (RF) transmissions. In an embodiment of the present invention, reader **140** and the population of sensors **102** communicate via a single protocol for both RFID tag communications and sensor communications. In an alternate embodiment, reader **140** and the population of sensors **102** communicate via a first protocol for RFID tag communications and via a second protocol for sensor communications. Examples of protocols used for RFID tag

Ex. 1005, 5:23-30

Dr. Bandy contributed only the “binary tree traversal protocol”

Wireless sensor reader **140** includes logic to interrogate the population of RF addressable sensors **102** and logic to read sensor data and RFID tag data transmitted by the RF addressable sensors **110**. In an embodiment, wireless sensor reader **140** also includes logic to process the received sensor data. Wireless sensor reader **140** can be any wireless device capable of communicating via an air interface protocol with the population of RF addressable sensors **102**. In embodiments of the present invention, wireless sensor reader **140** could be a wireless phone, a personal digital assistant (PDA), a computer having wireless communications capabilities, or other type of mobile, handheld, and/or computing device.

Ex. 1005, 5:6-18

radio frequency (RF) transmissions. In an embodiment of the present invention, reader **140** and the population of sensors **102** communicate via a single protocol for both RFID tag communications and sensor communications. In an alternate embodiment, reader **140** and the population of sensors **102** communicate via a first protocol for RFID tag communications and via a second protocol for sensor communications. Examples of protocols used for RFID tag

Ex. 1005, 5:23-30

In step **780**, the RF addressable sensor **110** communicates the digital sensor data to wireless sensor reader **140/340**. The details of this communication are dependent upon the protocol used for communication between the wireless sensor reader **140/340** and the RF addressable sensor **110**. In an embodiment of the present invention, the protocol used is a binary tree traversal protocol. In this embodiment, the tag identification number signaled by the RF addressable sensor **110** may include both the tag identification number stored in memory **246** and the sensor data obtained by the sensor elements. Alternatively, reader **140/340** may place the RFID

Pet., 23-24, 29

Ex. 1005, 16:41-51

Dr. Sarrafzadeh did NOT consider prior art interrogation

Q. So you don't know whether there was an interrogation protocol not invented by Dr. Bandy that could interrogate a few tags per second prior to Dr. Bandy's contribution to the Bandy reference; is that right?

A. What I can say is that I have not opined on all possible interrogation protocols that existed before.

Ex. 2024, 24:3-9

The “binary tree traversal protocol” is useless for the invention of the '307 Patent

Wireless sensor reader **140** includes logic to interrogate the population of RF addressable sensors **102** and logic to read sensor data and RFID tag data transmitted by the RF addressable sensors **110**. In an embodiment, wireless sensor

Ex. 1005, 5:6-9

In step **550**, the RFID tag processor **356** isolates an RF addressable sensor **110** from the population **102** using a conventional general read protocol such as binary tree traversal.

Ex. 1005, 15:32-35

initialize and power the sensors. The wireless sensor reader then isolates an individual RF addressable sensor. In an

Ex. 1005, 2:43-44

Q. But again, what does it mean when it's interrogating?

I understand it can be faster or it can be slower, but what does it mean to interrogate a tag?

MR. PETERS: Object to form.

THE WITNESS: I mentioned that, for example, as is stated in the patent by Bandy, the Bandy protocol is as specifically to isolate a tag. And more specifically, I stated that Dr. Peeters didn't seem to have contributed to the interrogation beyond his assertion that the possessed background knowledge, general knowledge. So that's when you're, for example, isolating a tag using Bandy's protocol.

Ex. 2024, 15:5-17

Sur-reply, 17-18

IPR2024-00425 DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The “binary tree traversal protocol” is useless for the invention of the '307 Patent

wherein the wireless device communicates with the RF addressable sensor interface to obtain the ID and sensor data;

Ex. 1001, Claim 1

Q. Other than that disclaimer, do you see any actual disclosure of that in the '307?

A. I read the patent as a whole, including that disclaimer, so I would say yes, it can deal with multiple tags.

Q. Right. But other than that disclaimer, do you see anything that discloses multiple tags?

A. Again, I read a patent as a whole, including any disclaimer claims, prior art, background, and I would say, based on all of that together, one POSITA would understand that there could be multiple tags.

Ex. 2024, 99:18-100:3

No motivation to combine Beck and Heller

No motivation to combine Beck and Heller

- **Petitioner has burden to show motivation to combine**
- **Beck's test-strip based glucose meter is incompatible with Heller's in vivo sensor unit**
- **Petitioner cannot explain how the combination would work, or identify which components would be included**

Beck discloses remote *medical device* access

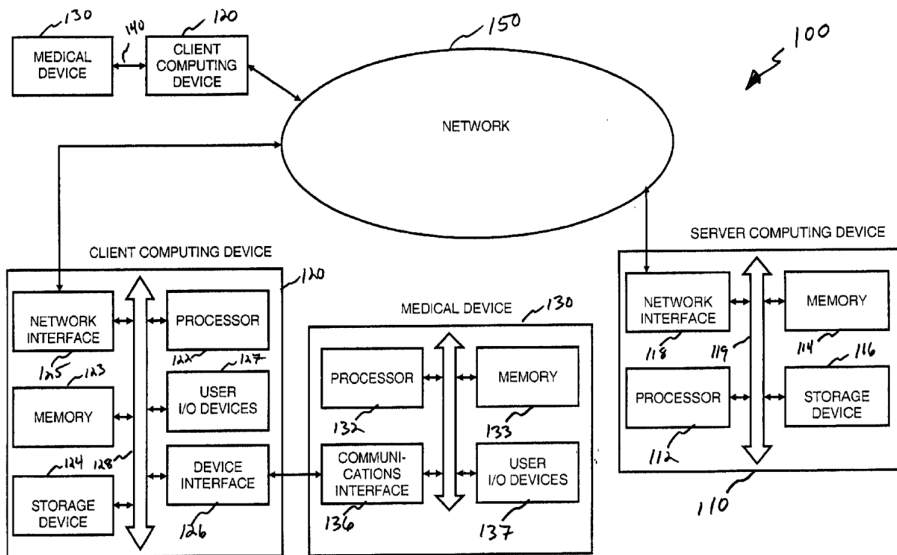
Heller discloses *in vivo* monitoring of an analyte

(19) **United States**

(12) **Patent Application Publication** (10) Pub. No.: US 2002/0178126 A1
Beck et al. (43) Pub. Date: Nov. 28, 2002

(54) REMOTE MEDICAL DEVICE ACCESS

(22) Filed: May 25, 2001



Ex. 1007, Cover

(54) **Title:** ANALYTE MONITORING DEVICE AND METHODS OF USE

(57) **Abstract:** An analyte monitor includes a sensor, a sensor control unit, and a display unit. The sensor has, for example, a substrate, a recessed channel formed in the substrate, and conductive material disposed in the recessed channel to form a working electrode. The sensor control unit typically has a housing adapted for placement on skin and is adapted to receive a portion of an electrochemical sensor. The sensor control unit also includes two or more conductive contacts disposed on the housing and configured for coupling to two or more contact pads on the sensor. A transmitter is disposed in the housing and coupled to the plurality of conductive contacts for transmitting data obtained using the sensor. The display unit has a receiver for receiving data transmitted by the transmitter of the sensor control unit and a display coupled to the receiver for displaying an indication of a level of an analyte. The analyte monitor may also be part of a drug delivery system to alter the level of the analyte based on the data obtained using the sensor.

Ex. 1016, Cover

The present invention is, in general, directed to devices and methods for the *in vivo* monitoring of an analyte, such as glucose or lactate. More particularly, the present invention relates to devices and methods for the *in vivo* monitoring of an analyte using an electrochemical sensor to provide information to a patient about the level of the analyte.

Ex. 1016, 1:3-7

Beck's glucose meter uses test strips

[0034] As shown, the system 100 further includes a medical device 130. The medical device 130 of the system 100 is generally operable to monitor one or more biological/physiological conditions and communicate with the client computing device 120 via the physical communications link 140 established between the client computing device 120 and the medical device 130. In an exemplary embodiment, the medical device 130 includes a glucose meter such as the glucose meters manufactured by Roche Diagnostics Corporation which are generally operable to measure blood glucose levels of blood applied to test strips. While the medical device 130 of the exemplary embodiment includes a glucose meter, the medical device 130 could be implemented to monitor and/or analyze other biological/physiological parameters or conditions such as body fluids or bodily functions (e.g. blood, urine, saliva), bodily signals (e.g. electrocardio-signals, brain waves, blood pressure waves), and/or other bodily stimuli (e.g. respiration) to obtain measurements of blood pressure, blood gases, blood coagulation, electrolytes, cardiovascular activity, drug levels, respiration rate, stress, etc.

Ex. 1007, [0034]

levels, respiration rate, stress, etc.” Beck [0034]. Beck also states that “[i]n an exemplary embodiment, the medical device 130 includes a glucose meter such as the glucose meters manufactured by Roche Diagnostics Corporation which are generally operable to measure blood glucose levels of blood applied to test strips.” Beck [0034].

Petition, 42

improve Beck's medical device. Sarrafzadeh Decl. ¶233. For example, a POSITA would have viewed Heller's disclosure of a reference temperature sensor to account for the relationship between temperature and sensor current-analyte level (Heller at 66:30-68:20) as a way to improve Beck's medical device 130 that measures glucose and other biological or physiological conditions. Beck [0034];

Petition, 44

Dr. Warren's undisputed opinion is that the test strips are sensors

Dr. Warren:

blood applied to test strips.” Ex. 1007, [0034]. It is the test strips that are the glucose sensors, as a test strip contains, e.g., enzymes that chemically react with glucose to create carriers in the form of an electrical current. And Beck nowhere discloses these

Ex. 2009, ¶ 112.

Dr. Sarrafzadeh:

Q. What about the test strip? Is the test strip a sensor?

MR. PETERS: Object to form.

THE WITNESS: You asked that before and my answer was there is sensing where you exactly draw the line is not something that I have opined on. Same answer for today.



Petitioner acknowledged glucose meter sensors were “electrochemical electrodes”

A POSITA would have understood that the biological/physiological sensors disclosed by Beck would include at least one sensor element, such as electrochemical electrodes in the case of a glucose meter. Sarrafzadeh Decl.

¶¶257-258.

Pet., 48



Dr. Sarrafzadeh cannot explain the Beck/Heller combination

Q. Do you have an opinion on whether using those known methods to provide this combination would or would not include the display unit/receiver of Heller?

MR. PETERS: Same objection.

THE WITNESS: Again, as clearly said, "A POSITA would have been motivated or found it obvious to integrate Heller's adhesive patch." So let's underline that, "Heller's adhesive patch into Beck's medical device so to attach it to the skin of a person." That's my opinion.

Ex. 2011, 95:15-24

Petitioner cannot explain its proposed modifications

Pet. 42 (quoting Heller 9:12-16, 12:31-13:2). Petitioner showed a POSITA would have been motivated to apply Heller's teachings to Beck, including a temperature sensor to improve sensor accuracy (Pet. 44), a substrate as a known way to implement sensors for glucose and other measurements and to provide structure to facilitate affixing the sensor to a person (Pet. 44-45), and use of an adhesive patch to facilitate such affixing (Pet. 45).

Reply, 4

No disclosure of “unique identification ID number” for a sensor unit in
Beck/Heller/Lovejoy

The *diagnostic sensor unit* must have a unique identification ID number

1. A radio frequency (RF) addressable **diagnostic sensor unit** comprising:
 - at least one sensor element;
 - at least one reference sensor element;
 - a **unique identification ID number**;

Ex. 1001 ('307 Patent), Claim 1

Petitioner relies solely on Beck for unique identification ID number

4. [1c]: Unique ID Number

Beck discloses this limitation. Sarrafzadeh Decl. ¶269. For example, Beck discloses a client computing device 120 with a device identification component 214 “to identify the medical device 130 without the need for the user to enter identifying information for the medical device.” Beck [0055], Fig. 2. The device identification component identifies the medical device 130 based on information including “identification codes retrieved from the medical device 130” and “serial numbers retrieved from the medical device 130.” Beck [0055]. A “serial number” or “identification code” for the medical device is a unique ID number that would uniquely identify the medical device. Sarrafzadeh Decl. ¶270.

Pet., 51

Dr. Warren's undisputed opinion is that the test strips are sensors

Dr. Warren:

blood applied to test strips.” Ex. 1007, [0034]. It is the test strips that are the glucose sensors, as a test strip contains, e.g., enzymes that chemically react with glucose to create carriers in the form of an electrical current. And Beck nowhere discloses these

Ex. 2009, ¶ 112.

Dr. Sarrafzadeh:

Q. What about the test strip? Is the test strip a sensor?

MR. PETERS: Object to form.

THE WITNESS: You asked that before and my answer was there is sensing where you exactly draw the line is not something that I have opined on. Same answer for today.



Where is the sensor unit's unique identification ID number coming from?

Beck (test strips have no unique ID)
+
Heller (no unique ID)
=
Beck/Heller (unique sensor ID)

Petitioner incorrectly asserts the unique ID need not be unique

In Beck, the unique IDs are used for authentication and to download software. Beck [0065], [0067]. This information tells the server about the “type of medical device,” enabling the server to provide the correct “protocol component” (software) “to be used with the identified medical device.” Beck [0067], [0069], [0070]-[0072]. Likewise, in the '307 patent, the sensor ID “identifies uniquely the

Reply, 10

Q. So in the example of the glucose meter with a serial number 123, if I had another glucose meter next to it that also has a serial number 123, that would no longer be a unique identification number; correct?

MR. PETERS: Object to form.

THE WITNESS: I would say that is unique because the whole purpose is what kind of software you are delivering to these systems. And the general use case is that you have one glucose monitor in an environment, let's say, in a home. Therefore, that ID can be used to deliver the right software to it for interpretation.

Ex. 2024, 81:19-82:5

Medical device serial number does not identify sensor units

recited in the body of the claim); Sarrafzadeh2 ¶44. Nevertheless, Beck’s serial number, which identifies the “type of medical device” (e.g., glucose meter), also identifies every component of that meter, including the individual sensors that are undisputedly necessary and obvious in such a glucose meter, enabling a remote device to determine their “type”—e.g., glucose sensors. Sarrafzadeh2 ¶45.

Reply, 10

Dr. Sarrafzadeh could not explain how to determine which strips were used with a glucose meter based on the device's serial number

How can you take the serial number of the glucose meter and determine which strip was used in that glucose meter?

MR. PETERS: Object to form. Foundation.

THE WITNESS: I don't know if anybody would be interested in that.

Ex. 2024, 64:20-25

Dr. Sarrafzadeh could not explain how to determine which leads or electrodes were used with an EKG based on the device's serial number

Q. You can't tell given -- let's assume that leads do have serial numbers. You can't tell from the serial number of the EKG machine the serial number of the leads that go with that EKG machine, can you?

MR. PETERS: Objection. Foundation.

THE WITNESS: I need to investigate the serial number on the leads. That's not something I have provided an opinion on in my report.

Ex. 2024, 95:17-24

Does the serial number of the EKG machine tell you anything about the serial numbers of the electrodes being used?

MR. PETERS: Object to form. Foundation.

THE WITNESS: I have not provided an opinion on a serial number of the electrodes. It was not relevant to my analysis. Therefore, I cannot opine on that.

Ex. 2024, 96:6-12

No unique sensor unit ID in Beck/Heller/Lovejoy

- **Beck discloses only serial numbers for medical devices, not unique IDs for sensor units**
- **Petitioner's belated arguments should be rejected**
 - **ID must be unique between each sensor unit**
 - **Serial number of medical device does not indicate the particular sensor units being used by that devices**

“the remote server authenticates said unique sensor ID associated with said unique wireless device ID”

The purpose of association is for authentication

57. Requiring an association between the unique wireless device ID and the unique sensor ID in the claim would have been meaningless unless the unique wireless ID was part of the authentication process, i.e., it would have served no purpose if not needed for authentication. A POSITA would have understood that

Ex. 2009, ¶ 57

The Applicant recognized the requirement of transmitting both the unique sensor ID and unique wireless ID

seeks the Examiner's reconsideration. Most notably, the present invention in claim 65 actively recites limitation wherein the remote device communicates the unique sensor ID and unique wireless ID to a remote server which uses this information to send the wireless device the information or software necessary to communicate with the unique sensor ID. This allows the present invention to utilize a wireless device that can be made compatible with a wide plurality of unique sensors by uploading the data or software necessary to interact with them. The cited

Ex. 1002, 65

Dr. Sarrafzadeh recognized that both must be transmitted

Most notably, the present invention in claim 65 actively recites limitation wherein *the remote device communicates the unique sensor ID and unique wireless ID to a remote server which uses this information to send the wireless device the information or software necessary to communicate with the unique sensor ID.*

307 FH at 65 (January 25, 2011 Amendment and Response) (emphasis added).

The Applicant confirmed that the remote server “uses” the received **unique sensor/wireless ID** to send the necessary software, which means that the “necessary software” is sent “in response to” authentication of the unique sensor ID.

Ex. 1003, ¶ 61

Dr. Sarrafzadeh recognized that both must be transmitted

Q. And you believe this quote shows the applicant's understanding of the construction of the limitation we've been discussing; correct?

A. I said that, "The applicant confirmed that the remote server uses the received unique information to send the necessary software, which means that the necessary software is sent in response to authentication of the unique sensor ID."

Q. That's not exactly -- I don't think you read your opinion quite right.

You said, "The applicant confirmed the remote server uses the received unique sensor/wireless ID to send the necessary software"; correct?

A. It does say that, yes. The paragraph speaks for itself. Paragraph 61.

Ex. 2011, 59:6-20

POR, 20

IPR2024-00425 DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner has no argument against dual transmission

PO asserts that the prosecution history requires that both IDs “are *transmitted to the remote server.*” POR 20. Even if true, this does not support PO’s construction, which requires *authentication* of the wireless device ID, not just transmission.

Reply, 2-3

No “association” in Beck/Heller/Lovejoy
combination

Petition cites no association

historic measurement data.” Beck [0076]. Accordingly, a POSITA would have understood that Beck discloses that only in response to authenticating the unique sensor ID associated with the unique wireless device ID will the remote server (Beck’s server computing device) communicate to the wireless device (e.g., Beck’s client computing device) (1) processed information relating to the sensor data and (2) software related to the unique sensor ID necessary for the wireless device to interpret the sensor anywhere worldwide. Sarrafzadeh Decl. ¶¶331-332.

Pet., 65

Dr. Sarrafzadeh cites no association

331. Therefore, a POSITA would have understood that Beck discloses that only in response to authenticating the unique sensor ID associated with the unique wireless device ID will the remote server (Beck's server computing device) communicate to the wireless device (e.g., Beck's Internet enabled cellular phone) (1) processed information relating to the sensor data and (2) software related to the unique sensor ID necessary for the wireless device to interpret the sensor anywhere worldwide.

332. Accordingly, Beck discloses a system that meets the proposed construction for this limitation—"wherein the remote server authenticates a unique sensor ID associated with a unique wireless device ID and in response to authentication communicates to the wireless device (1) processed information relating to the sensor data and (2) software related to the unique sensor ID necessary for the wireless device to interpret the sensor anywhere worldwide."

Ex. 1003, ¶¶ 331-332

Board's Preliminary View

Ex. 1001, 19:51–52 (emphasis added). The language and structure of the limitation reads that the unique wireless ID is “*associated with*” the unique sensor ID. As such, the last portion of the limitation reciting “associated with said unique wireless device ID” serves to further describe the unique sensor ID, specifically, that the unique sensor ID is associated with the unique wireless device ID.

Inst. Dec., 10

Reply relies on “network address”

The Petition showed that Beck discloses that the client computing device (which includes a network address) retrieves “serial numbers” from the medical device. Pet. 60. As recited in the claim, this step makes the “unique sensor ID associated with said unique wireless device ID.” Beck’s server authenticates both

Reply, 14

Petitioner's new argument fails

- **Argument is untimely**
- **Medical device serial number is not unique sensor ID**
- **Reading is not “associating”**

No “association” in ‘803 patent

Petition cites no association

“When the necessary processing and analysis information is downloaded from a remote location, *only the ID of the RFID-sensor* is necessary, providing a highly streamlined solution for universal sensor analyses for wireless devices such as cell phones.” *Id.* at 10:37-41. Bandy also discloses that the wireless

Pet., 30

Reply relies on “network address”

sensor output.” Pet. 30 (quoting Bandy 10:19-24). This reading process of the sensor 110 by the wireless sensor reader creates an association between the wireless device and sensor element. Sarrafzadeh2 ¶¶24, 51. The wireless device is

Reply, 23

Reply relies on “network address”

Further, to the extent PO relies on Dr. Warren’s assertion that the association is inherently done in the ’307 patent, it is obvious in Bandy for the same reasons. *See* Ex.1031 49:17-51:18. Specifically, the server is able to provide the correct software for the correct sensor to the correct wireless reader, and therefore must, according to Dr. Warren, associate the IDs. Sarrafzadeh2 ¶24.

Reply, 24

So a Bluetooth-enabled device, a cell device -- that wireless reader would inherently incorporate a unique ID that must then be associated with the unique sensor ID in order for this -- for these teachings to be implemented properly.

Ex. 1031, 51:14-18

Thank You

'307 Patent, Claim 1

1. A radio frequency (RF) addressable diagnostic sensor unit comprising:

- at least one sensor element;
- at least one reference sensor element;
- a unique identification ID number;
- a sensor interface having an analog to digital converter coupled to the at least one sensor and reference sensor element;
- at least one antenna;
- a substrate;
- an RF power and communication interface coupled to the at least one antenna and sensor interface;
- a controller coupled to the RF power and communications interface and the sensor interface; and
- a memory coupled to the controller and the sensor interface;

wherein the RF addressable sensor communicates with a remote wireless device, said wireless device having multiple wireless communication means, geolocation means and a unique ID, whereby said wireless device is coupled to at least one communications network linked to at least one remote server; and

wherein the wireless device communicates with the RF addressable sensor interface to obtain the ID and sensor data;

wherein the remote server authenticates said unique sensor ID associated with said unique wireless device ID and communicates to said wireless device processed information relating to said sensor data and software related to the unique sensor ID, thereby allowing said wireless device to interpret said sensor anywhere worldwide.

Ex. 1001, Claim 1

Duncan Parking

DUNCAN PARKING
TECHNOLOGIES,
INC., Appellant

v.

IPS GROUP, INC., Appellee

IPS Group, Inc., Plaintiff-Appellant

v.

Duncan Solutions Inc., Duncan Park-
ing Technologies, Inc., CivicSmart,
Inc., Defendants-Appellees

2018-1205
2018-1360

United States Court of Appeals,
Federal Circuit.

[9] Thus, to decide whether a reference patent is “by another” for the purposes of 35 U.S.C. § 102(e), the Board must (1) determine what portions of the reference patent were relied on as prior art to anticipate the claim limitations at issue, (2) evaluate the degree to which those portions were conceived “by another,” and (3) decide whether that other person’s contribution is significant enough, when measured against the full anticipating disclosure, to render him a joint inventor of the applied portions of the reference patent. We conclude that the Board erred

Duncan Parking Techs., Inc. v. IPS Grp., Inc., 914 F.3d 1347, 1358 (Fed. Cir. 2019),

IPR2024-00425 DEMONSTRATIVE EXHIBIT – NOT EVIDENCE