

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
WESTERN DIVISION**

**VALENCELL, INC.,**

**Plaintiff,**

**v.**

**FITBIT, INC.,**

**Defendant.**

**C.A. No. \_\_\_\_**

**JURY TRIAL DEMANDED**

**PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Valencell, Inc. ("Valencell") files this Original Complaint against Fitbit, Inc. ("Fitbit" or "Defendant") for infringement of U.S. Patent Nos. 8,923,941 ("the '941 patent"); 8,886,269 ("the '269 patent"); 8,929,965 ("the '965 patent"); and 8,989,830 ("the '830 patent") (collectively "the patents-in-suit").

**THE PARTIES**

1. Valencell is a Delaware corporation with its principal place of business at 4601 Six Forks Rd., Suite 103, Raleigh, North Carolina.

2. Fitbit is a Delaware corporation with a principal place of business at 150 Spear Street, Suite 200, San Francisco, CA 94105. Fitbit has appointed Company Corporation, 2711 Centerville Road, Suite 400, Wilmington, DE 79808, as its registered agent for service of process.

**JURISDICTION AND VENUE**

3. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.* This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). This Court has personal jurisdiction over Fitbit. Fitbit is subject to

this Court's specific and general personal jurisdiction pursuant to due process and/or the North Carolina long-arm statute, N.C.G.S. § 1-75.4 due at least to its substantial business in this State and judicial district, including: (A) at least part of their infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from goods sold and services provided to North Carolina residents.

4. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b) because, among other things, Fitbit is subject to personal jurisdiction in this district, has regularly conducted business in this judicial district, and certain of the acts complained of herein occurred in this judicial district. Further, a substantial part of the acts giving rise to the allegations of this Complaint occurred in this District.

#### **FACTUAL ALLEGATIONS**

5. On information and belief, Fitbit has known about Valencell since at least 2009, when Dr. Steven LeBoeuf, co-founder of Valencell, approached James Park, co-founder of Fitbit about incorporating a heart rate monitor in Fitbit's products. In 2013, Fitbit expressed an interest in acquiring a license to Valencell's patents. Fitbit did not respond to follow up efforts by Valencell.

6. On information and belief, in January 2014, Valencell and Fitbit both attended the Consumer Electronics Show ("CES"). The booths for Valencell and Fitbit were in close proximity. During CES, Fitbit Chief Revenue Officer, Woody Scal, after reviewing Valencell's wrist sensor module reference design, expressed great interest in the application of Valencell's patented technology, including its wrist sensor modules. After CES, Mr. Scal did not respond to Valencell's follow-up requests.

7. On information and belief, at least as early as June 2014, Fitbit was aware of Valencell's patent portfolio, including the applications that would ultimately issue as the patents-in-suit. In or around June 2014, Fitbit began listing various Valencell patent applications in Information Disclosure Statements that Fitbit filed with the Patent Office.

8. On information and belief, Fitbit began selling the Charge HR and Surge (collectively the "Accused Devices") on January 6, 2015. Since at least that date, Fitbit has sold the Accused Devices in the United States. Each of the Accused Devices contains a heart rate sensor, which it uses to calculate the pulse of the end user.

9. In February 2015, Valencell contacted Fitbit about a partnership opportunity, but Fitbit did not respond.

**COUNT I**  
**(Infringement of U.S. Patent No. 8,923,941)**

10. Valencell incorporates paragraphs 1 through 9 herein by reference.

11. Valencell is the assignee of the '941 patent, entitled "Methods and apparatus for generating data output containing physiological and motion-related information," with ownership of all substantial rights in the '941 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '941 patent is attached as Exhibit A.

12. The '941 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

13. Fitbit has and continues to directly infringe one or more claims of the '941 patent in this judicial district and elsewhere in North Carolina and the United States without the consent or authorization of Valencell, by or through their making, having made, offering

for sale, selling, importing, and/or using wearable devices incorporating a heart rate sensor, including, but not limited to the Accused Devices. Fitbit's infringement has been willful.

14. Each of the Accused Devices directly infringes at least claim 14 of the '941 patent.

15. Each of the Accused Devices is a wearable device and includes a housing and a chipset enclosed within the housing. The chipset includes at least one PPG sensor, one motion sensor, and one signal processor that is configured to process signals from the motion sensor and the PPG sensor to reduce motion artifacts from the PPG signals. Each of the Accused Devices housing includes at least one window that optically exposes the at least one PPG sensor to a body of a subject wearing the device. Each of the Accused Devices housing includes a non-air light transmissive material in optical communication with the at least one PPG sensor and the window.

16. Valencell has been damaged as a result of Fitbit's infringing conduct described in this Count. Fitbit is, thus, liable to Valencell in an amount that adequately compensates Valencell for Fitbit's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT II**  
**(Infringement of U.S. Patent No. 8,886,269)**

17. Valencell incorporates paragraphs 1 through 16 herein by reference.

18. Valencell is the assignee of the '269 patent, entitled "Wearable light-guiding bands for physiological monitoring," with ownership of all substantial rights in the '269 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '269 patent is attached as Exhibit B.

19. The '269 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

20. Fitbit has and continues to directly infringe one or more claims of the '269 patent in this judicial district and elsewhere in North Carolina and the United States without the consent or authorization of Valencell, by or through their making, having made, offering for sale, selling, importing, and/or using wearable devices incorporating a heart rate sensor, including, but not limited to the Accused Devices. Fitbit's infringement has been willful.

21. Each of the Accused Devices directly infringes at least claim 1 of the '269 patent.

22. Each of the Accused Devices is a monitoring device and includes a band that encircles a portion of the subject's body. The band includes a generally cylindrical outer body portion and a generally cylindrical inner body portion secured together in concentric relationship. The inner body portion includes a light transmissive material and has outer and inner surfaces. The inner body portion includes a layer of cladding material near the inner body portion inner surface with at least one window formed in the cladding material that serves as a light-guiding interface to the body of the subject. Each of the Accused Devices includes at least one optical emitter and at least one optical detector attached to the band. The light transmissive material is in optical communication with the at least one optical emitter and the at least one optical detector and is configured to deliver light from the at least one optical emitter to one or more locations of the body of the subject via the at least one window and to collect light from one or more locations of the body of the subject via the at least one window and deliver the collected light to the at least one optical detector.

23. Valencell has been damaged as a result of Fitbit's infringing conduct described in this Count. Fitbit is, thus, liable to Valencell in an amount that adequately compensates Valencell

for Fitbit's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT III**  
**(Infringement of U.S. Patent No. 8,929,965)**

24. Valencell incorporates paragraphs 1 through 23 herein by reference.

25. Valencell is the assignee of the '965 patent, entitled "Light-guiding devices and monitoring devices incorporating same," with ownership of all substantial rights in the '965 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '965 patent is attached as Exhibit C.

26. The '965 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

27. Fitbit has and continues to directly infringe one or more claims of the '965 patent in this judicial district and elsewhere in North Carolina and the United States without the consent or authorization of Valencell, by or through their making, having made, offering for sale, selling, importing, and/or using wearable devices incorporating a heart rate sensor, including, but not limited to the Accused Devices. Fitbit's infringement has been willful.

28. Each of the Accused Devices directly infringes at least claim 1 of the '965 patent.

29. Each of the Accused Devices has a sensor for detecting and/or measuring physiological information from a subject. Each of the Accused Devices includes a housing, at least one optical emitter that is supported by the housing, at least one optical detector that is supported by the housing, and a first light guide that is supported by the housing. The first light guide is in optical communication with the at least one optical emitter. The first light guide comprises a distal end having an exposed end surface that is configured to engage a portion of a

body of the subject. The first light guide is configured to deliver light from the at least one optical emitter directly into the body of the subject via the exposed end surface thereof. Each of the Accused Devices includes a second light guide that is supported by the housing. The second light guide is in optical communication with the at least one optical detector. The second light guide includes a distal end having an exposed end surface that is configured to engage a portion of the body of the subject. The second light guide is configured to collect light directly from the body of the subject via the exposed end surface thereof and deliver collected light to the at least one optical detector.

30. Valencell has been damaged as a result of Fitbit's infringing conduct described in this Count. Fitbit is, thus, liable to Valencell in an amount that adequately compensates Valencell for Fitbit's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT IV**  
**(Infringement of U.S. Patent No. 8,989,830)**

31. Valencell incorporates paragraphs 1 through 30 herein by reference.

32. Valencell is the assignee of the '830 patent, entitled "Wearable light-guiding devices for physiological monitoring," with ownership of all substantial rights in the '830 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements. A true and correct copy of the '830 patent is attached as Exhibit D.

33. The '830 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

34. Fitbit has and continues to directly infringe one or more claims of the '830 patent in this judicial district and elsewhere in North Carolina and the United States without

the consent or authorization of Valencell, by or through their making, having made, offering for sale, selling, importing, and/or using wearable devices incorporating a heart rate sensor, including, but not limited to the Accused Devices. Fitbit's infringement has been willful.

35. Each of the Accused Devices directly infringes at least claim 1 of the '830 patent. Each of the Accused Devices has a monitoring device configured to be attached to the body of a subject. Each of the Accused Devices includes an outer layer and an inner layer secured together. The inner layer includes light transmissive material and has inner and outer surfaces. Each of the Accused Devices includes a base secured to at least one of the outer and inner layers. The base includes at least one optical emitter and at least one optical detector. Each of the Accused Devices includes a layer of cladding material near the outer surface of the inner layer. Each of the Accused Devices includes at least one window formed in the layer of cladding material that serves as a light-guiding interface to the body of the subject. The light transmissive material is in optical communication with the at least one optical emitter and the at least one optical detector. The light transmissive material is configured to deliver light from the at least one optical emitter to the body of the subject along a first direction and to collect light from the body of the subject and deliver the collected light in a second direction to the at least one optical detector, and the first and second directions are substantially parallel.

36. Valencell has been damaged as a result of Fitbit's infringing conduct described in this Count. Fitbit is, thus, liable to Valencell in an amount that adequately compensates Valencell for Fitbit's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

### **JURY DEMAND**

Valencell hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.



**PRAYER FOR RELIEF**

Valencell requests that the Court find in its favor and against Fitbit, and that the Court grant Valencell the following relief:

- a. A judgment that Fitbit has directly infringed the patents-in-suit, contributorily infringed the patents-in-suit, and/or induced the infringement of the patents-in-suit;
- b. A preliminary and permanent injunction preventing Fitbit and its officers, directors, agents, servants, employees, attorneys, licensees, successors, and assigns, and those in active concert or participation with any of them, from directly infringing, contributorily infringing, and inducing the infringement of the patents-in-suit;
- c. A judgment that Fitbit's infringement of the patents-in-suit has been willful;
- d. A ruling that this case be found to be exceptional under 35 U.S.C. § 285, and a judgment awarding to Valencell its attorneys' fees incurred in prosecuting this action;
- e. A judgment and order requiring Fitbit to pay Valencell damages under 35 U.S.C. § 284, including supplemental damages for any continuing post-verdict infringement up until entry of the final judgment, with an accounting, as needed, and enhanced damages for willful infringement as provided by 35 U.S.C. § 284.
- f. A judgment and order requiring Fitbit to pay Valencell the costs of this action (including all disbursements);
- g. A judgment and order requiring Fitbit to pay Valencell pre-judgment and post-judgment interest on the damages awarded;
- h. A judgment and order requiring that in the event a permanent injunction preventing future acts of infringement is not granted, that Valencell be awarded a compulsory ongoing licensing fee;
- i. That Valencell be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: January 4, 2016

Respectfully submitted,

/s/ Lynne A. Borchers

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**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on January 4, 2016, I electronically filed the foregoing with the Clerk of Court for the United States District Court for the Eastern District of North Carolina using the CM/ECF Filing System, which will send notification via electronic means to all counsel of record.

This 4th day of January, 2016.

*/s/ Lynne A. Borchers*

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