

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC. and FITBIT, INC.
Petitioners

v.

VALENCELL, INC.
Patent Owner

Case IPR2017-00318¹
Patent 8,886,269

**PETITIONER APPLE INC.'S
REPLY TO PATENT OWNER RESPONSE**

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P.O. Box 1450
Alexandria, VA 22313-1450

¹ IPR2017-01554 has been joined to this current proceeding.

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 A. “Cladding Material”3

 B. “Light Guiding Interface”5

IV. Goodman discloses or suggests every element of claim 1.8

 A. Valencell’s manufactured “assembly” of Goodman’s device
 contradicts Goodman’s disclosure.9

 B. Goodman discloses a “window formed in the cladding material
 that serves as a light-guiding interface to the body of the
 subject” even under Valencell’s proposed construction.11

V. Asada discloses or suggests every element of claim 1.12

 A. Asada’s Layer 3 is an “inner body portion comprising light
 transmissive material.”13

 B. “wherein 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
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 C. Valencell mischaracterizes the correlation of the claim elements
 with Asada’s disclosure as a combination of embodiments.17

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 1. Valencell mischaracterizes Hick’s Figure 6.19

 2. Valencell’s alleged “detriments” would not have deterred
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 B. Grounds 3, 8, 9: Asada/Goodman in View of Hannula – Claims
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PETITIONER'S UPDATED EXHIBIT LIST

<i>Apple (APL)</i> <i>Ex. No.</i>	<i>Description</i>
1001	U.S. Patent No. 8,886,269 to LeBoeuf <i>et al.</i> titled "Wearable Light-Guiding Devices for Physiological Monitoring," issued March 24, 2015
1002	U.S. Patent No. 8,886,269 File History
1003	Declaration of Dr. Brian W. Anthony in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 8,886,269
1004	<i>Curriculum Vitae</i> of Dr. Brian W. Anthony
1005	Asada, H. <i>et al.</i> "Mobile Monitoring with Wearable Photoplethysmographic Biosensors," IEEE Engineering in Medicine and Biology Magazine, May/June 2003; pp. 28-40
1006	U.S. Patent No. 5,226,417 to Swedlow <i>et al.</i> titled "Apparatus for the Detection of Motion Transients," issued July 13, 1993
1007	U.S. Patent No. 4,830,014 to Goodman <i>et al.</i> titled "Sensor Having Cutaneous Conformance," issued May 16, 1989
1008	U.S. Patent No. 6,745,061 to Hicks <i>et al.</i> titled "Disposable Oximetry Sensor," issued June 1, 2004
1009	U.S. Patent No. 7,190,986 to Hannula <i>et al.</i> titled "Non-Adhesive Oximeter Sensor for Sensitive Skin," issued March 13, 2007
1010	U.S. Patent No. 5,797,841 to Delonzor <i>et al.</i> titled "Shunt Barrier in Pulse Oximeter Sensor," issued August 25, 1998
1011	U.S. Patent Application Publication No. 2007/0123763 to Al-Ali <i>et al.</i> titled "Optical Sensor Including Disposable and Reusable Elements," published May 31, 2007
1012	Excerpt from Merriam Webster's Collegiate Dictionary, Eleventh Edition, 2008; p. 828
1013	Mendelson, Y. <i>et al.</i> , "Skin Reflectance Pulse Oximetry: In Vivo Measurements from the Forearm and Calf," Journal of Clinical Monitoring, Vol. 7, No. 1, January 1991; pp. 7-12
1014	Konig, V. <i>et al.</i> , "Reflectance Pulse Oximetry – Principles and Obstetric Application in the Zurich System," Journal of Clinical Monitoring and Computing, Vol. 14, No. 6, August 1998; pp. 403-412

<i>Apple (APL) Ex. No.</i>	<i>Description</i>
1015	Mendelson, Y. <i>et al.</i> "A Wearable Reflectance Pulse Oximeter for Remote Physiological Monitoring," Proceedings of the 28 th IEEE EMBS Annual International Conference, New York City, New York, August 30-September 3, 2006; pp. 912-915
1016	U.S. Patent No. 6,608,562 to Kimura <i>et al.</i> titled "Vital Signal Detecting Apparatus," issued August 19, 2003
1017	Tremper, K. <i>et al.</i> , "Pulse Oximetry," Medical Intelligence Article, Anesthesiology, Vol. 70, No. 1, January 1989; pp. 98-108
1018	Declaration of Gerard P. Grenier in support of Asada, H. <i>et al.</i> "Mobile Monitoring with Wearable Photoplethysmographic Biosensors," IEEE Engineering in Medicine and Biology Magazine, May/June 2003; pp. 28-40 (APL1005)
1019	<i>Intentionally Left Blank</i>
1020	<i>Intentionally Left Blank</i>
1021	<i>Intentionally Left Blank</i>
1022	Transcript of teleconference among Board and Parties held on October 13, 2017, <i>Apple Inc. v. Valencell, Inc.</i> , Case Nos. IPR2017-00315, IPR2017-00317, IPR2017-00318, IPR2017-00319, and IPR2017-00321.
1023-1099	<i>Intentionally Left Blank</i>
1100	Transcript of the Deposition of Dr. Albert Titus, November 9, 2017, <i>Apple Inc. v. Valencell, Inc.</i> , Case No. IPR2017-00318.
1101	Transcript of the Deposition of Dr. Albert Titus, November 10, 2017, <i>Apple Inc. v. Valencell, Inc.</i> , Case No. IPR2017-00317.
1102	Declaration of Dr. Brian W. Anthony in Support of Petitioner's Reply to Patent Owner's Response
1103	Declaration of Dr. Brian W. Anthony in Support of Petitioner's Opposition to Patent Owner's Motion to Amend in <i>Inter Partes Review</i> of U.S. Patent No. 8,886,269
1104	U.S. Patent Application Publication No. 2009/0105556 to Fricke <i>et al.</i> titled "Measurement of Physiological Signals," published April 23, 2009
1105	G. Sen Gupta <i>et al.</i> , Design of a Low-cost Physiological Parameter Measurement and Monitoring Device, Instrumentation and Measurement Technology Conference, IEEE (2007)

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