

Filed: June 11, 2021

Filed on behalf of:

Patent Owner Masimo Corporation  
By: Joseph R. Re (Reg. No. 31,291)  
Stephen W. Larson (Reg. No. 69,133)  
Jarom D. Kesler (Reg. No. 57,046)  
Jacob L. Peterson (Reg. No. 65,096)  
William R. Zimmerman (admitted *pro hac vice*)  
Jeremiah S. Helm, Ph.D. (admitted *pro hac vice*)  
KNOBBE, MARTENS, OLSON & BEAR, LLP  
2040 Main Street, Fourteenth Floor  
Irvine, CA 92614  
Tel.: (949) 760-0404  
Fax: (949) 760-9502  
E-mail: AppleIPR2020-1539-554@knobbe.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

APPLE INC.

Petitioner,

v.

MASIMO CORPORATION,

Patent Owner.

---

Case IPR2020-01539  
U.S. Patent 10,588,554

---

**PATENT OWNER RESPONSE**

## TABLE OF CONTENTS

### Page No.

I.	INTRODUCTION .....	1
II.	MASIMO’S PIONEERING TECHNOLOGY .....	5
A.	The ’554 Patent Claims .....	5
B.	Introduction To Independent Claims .....	6
C.	The ’554 Patent Prosecution .....	8
III.	THE PETITION’S PROPOSED COMBINATIONS.....	9
IV.	CLAIM CONSTRUCTION .....	9
V.	LEVEL OF ORDINARY SKILL IN THE ART .....	9
VI.	LEGAL STANDARD .....	10
VII.	GROUND 1 FAILS TO DEMONSTRATE OBVIOUSNESS .....	11
A.	Ground 1’s Cited Art And Asserted Combination.....	11
1.	Petitioner’s Combination Of Ohsaki And Aizawa .....	12
2.	Dr. Kenny’s Erroneous Characterization Of Ohsaki .....	16
3.	Petitioner’s Addition Of Inokawa To The Combination of Ohsaki and Aizawa .....	18
4.	Petitioner’s Addition Of Mendelson 2006 To The Combination Of Ohsaki, Aizawa, And Inokawa .....	19
B.	A POSITA Would Not Have Been Motivated To Combine Ohsaki’s Board With Aizawa’s Sensor.....	20

**TABLE OF CONTENTS**  
**(Cont'd)**

	<b>Page No.</b>
1. A POSITA Would Have Understood That Ohsaki's Rectangular Board Is Incompatible With Aizawa's Radially Symmetric Sensor Arrangement .....	21
a) Modifying Ohsaki's Rectangular Board Would Eliminate Ohsaki's Already Limited Advantages .....	21
b) A POSITA Would Not Have Been Motivated To Add A Rectangular Board To Aizawa's Circular Sensor .....	27
2. A POSITA Would Have Understood That Ohsaki's Board "Has A Tendency To Slip" At Aizawa's Required Measurement Location On The Palm Side Of The Wrist, Near The Artery.....	30
a) Aizawa's Flat Acrylic Plate Improves Adhesion On The Palm Side Of The Wrist.....	30
b) Ohsaki's Convex Board Has "A Tendency To Slip" When Positioned On The Palm Side Of The Wrist .....	36
c) A POSITA Would Not Have Been Motivated To Eliminate The Benefits Of Aizawa's Flat Adhesive Acrylic Plate By Including A Lens/Protrusion Similar To Ohsaki's Board .....	39
3. A POSITA Would Not Have Been Motivated To Add A Convex Lens/Protrusion To Aizawa's Sensor Because It Would Have Been Expected To Reduce The Optical Signal .....	42

**TABLE OF CONTENTS**  
**(Cont'd)**

	<b>Page No.</b>
a)    A POSITA Would Have Understood That A Convex Cover Directs Light To The Center Of The Sensor .....	43
b)    A POSITA Would Not Have Been Motivated To Direct Light Away From Aizawa's Detectors .....	45
4.    A POSITA Would Not Have Selected A Convex Cover To Protect The Optical Elements .....	50
C.    Petitioner Identifies No Valid Motivation To Add A Second Emitter .....	51
D.    Petitioner's Motivation To Add Mendelson 2006 Undermines Its Motivation to Add A Second Emitter.....	58
E.    The Petition Provides No Evidence Of An Expectation Of Success .....	62
F.    The Challenged Dependent Claims Are Nonobvious .....	63
1.    The Challenged Dependent Claims are Nonobvious For The Same Reasons As Claims 1 and 20 .....	63
2.    Claim 28 Is Nonobvious For Additional Reasons .....	64
VIII. GROUND 2 FAILS FOR THE SAME REASONS AS GROUND 1 .....	67
A.    Claim 11 Is Nonobvious For Additional Reasons .....	67
B.    Claim 13 Is Nonobvious For Additional Reasons .....	68
C.    Claim 17 Is Nonobvious For Additional Reasons .....	69

**TABLE OF CONTENTS**  
*(Cont'd)*

**Page No.**

IX. RESERVATION OF RIGHTS .....	69
---------------------------------	----

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.