

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

COREPHOTONICS LTD.
Patent Owner

IPR2020-00905 & IPR2020-00906
U.S. Patent 10,255,479

**DECLARATION OF FRÉDO DURAND, PH.D.
UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITIONER'S REPLIES**

TABLE OF CONTENTS

I. INTRODUCTION..... 4

II. CLAIM CONSTRUCTION 5

 A. “fused image with a point of view (POV) of the Wide camera” (claims 1 and 23)..... 5

 B. “to find translations between matching points in the images to calculate depth information and to create a fused image suited for portrait photos” (claim 19) 10

III. OBVIOUSNESS 12

 A. Claims 1, 10-14, 16, 18, 23, 32-36, 38, and 40 are obvious over the combination of Parulski and Konno..... 12

 1. A POSITA would have implemented Parulski’s Fig. 14 method of outputting a combined image with a broadened depth of field by using Parulski’s range mapping method in Fig. 11 to identify and extract objects..... 13

 2. Parulski teaches outputting a “*fused image with a point of view (POV) of the Wide camera*” when this term is properly construed to include Wide position POV..... 20

 B. Claims 2-4 and 24-26 are obvious over the combination of Parulski, Konno, and Szeliski. 23

 C. Claims 5-9 and 27-31 are obvious over the combination of Parulski, Konno, Szeliski, and Segall 24

 D. Claims 15 and 37 are obvious over the combination of Parulski, Konno, and Stein..... 25

 E. Claims 19 and 20 are obvious over the combination of Parulski, Ogata, Kawamura, and Soga because Patent Owner does not dispute that “a camera controller configured to ... to process the Wide and Tele image *to find translations between matching point in the images to calculate depth information and to create a fused image suited for portrait photos*” is satisfied under Petitioner’s construction..... 27

 F. Claims 21 and 22 are obvious over the combination of Parulski, Ogata, Kawamura, Soga, and Morgan-Mar. 27

IV.	SECONDARY CONSIDERATIONS	28
A.	Patent Owner's secondary considerations of non-obviousness are not relevant because there is no nexus.	28
B.	The industry praise/licensing has no nexus and much of the alleged is from biased sources.	29
C.	Patent Owner did not show commercial success.	44
D.	There was no failure of others, and Petitioner did not copy.	45
V.	DECLARATION.....	49

I. INTRODUCTION

1. I, Frédo Durand, who previously submitted a declaration as APPL-1003 in both IPR2020-00905 (905 IPR) and IPR2020-00906 (906 IPR). The terms of my engagement, my background, qualifications and prior testimony, and the legal standards and claim constructions I am applying are set forth in my previous CV and declaration. *See* APPL-1003; APPL-1004. I offer this declaration in reply to the Response the Patent Owner filed in these proceeding. In forming my opinion, I have considered the materials noted in my previous declaration, as well as the following additional materials:

- (1) Dr. Hart's Declaration, Ex. 2001;
- (2) Declaration of Eran Kali, Ex. 2013;
- (3) Patent Owner's Response in IPR2020-00905, Paper No. 16;
- (4) Patent Owner's Response in IPR2020-00906, Paper No. 16;
- (5) Ralph E. Jacobson et al., *The Manual of Photography: photographic and digital imaging*, 9th Edition, 2000 ("Jacobson"), APPL-1017;
- (6) U.S. Patent App. Pub. No. 2010/0321511 to Koskinen et al. ("Koskinen"), APPL-1016;
- (7) Dr. Hart's deposition transcript, April 29, 2021 ("Hart Deposition"), APPL-1037;

(8) Any additional documents discussed below.

II. CLAIM CONSTRUCTION

A. “fused image with a point of view (POV) of the Wide camera” (claims 1 and 23)

2. Dr. Hart incorrectly proposes to construe “fused image with a point of view (POV) of the Wide camera” as “*fused image in which the positions and shapes of objects reflect the POV of the Wide camera.*” Ex. 2001, ¶46. As an initial matter, Dr. Hart’s construction redundantly replaces “with a point of view (POV)” with “in which the positions and shapes of objects reflect the POV.” This proposal unhelpfully fails to provide any meaning to the construed term “point of view (POV),” as the construction repeats the term within the construction. Dr. Hart asserts that “POV” itself refers to a particular position of objects in the image and perspective/shape of objects in an image. Ex. 2001, ¶43. Thus, a more appropriate construction under Patent Owner’s theory would be “*fused image in which the positions and shapes of objects reflect those of the Wide camera.*”

3. But Dr. Hart’s construction, even when clarified to remove the redundancy, is still incorrect because it uses the word “and” instead of the word “or.” Specifically, Dr. Hart’s erroneously requires a fused image in which *both* object positions *and* shapes reflect those of the Wide camera, which is not required by the claim language and conflicts with the specification. The ’479 patent refers

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.