

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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APPLE INC.,  
Petitioner

v.

COREPHOTONICS LTD.  
Patent Owner

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

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

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    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

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## 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

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