

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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APPLE INC.,  
Petitioner

v.

COREPHOTONICS, LTD.  
Patent Owner

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IPR2018-01133  
U.S. Patent No. 9,538,152

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**PETITION FOR *INTER PARTES* REVIEW**  
**UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

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**PETITIONER'S EXHIBIT LIST**

May 22, 2018

APPL-1001	U.S. Patent No. 9,538,152 to Shabtay et al. (the “152 Patent”)
APPL-1002	Prosecution File History of the ’152 Patent (the “823 App”)
APPL-1003	Prosecution File History of U.S. Provisional App. No. 61/730,570 (the “570 App”)
APPL-1004	Declaration of Dr. Oliver Cossairt (“Cossairt”)
APPL-1005	Curriculum Vitae of Dr. Oliver Cossairt
APPL-1006	U.S. Patent Application Publication No. 2008/0030592 to Border et. al (“Border”)
APPL-1007	U.S. Patent No. 7,859,588 (“Parulski”)
APPL-1008	Ralph E. Jacobson et al., <i>The Manual of Photography: photographic and digital imaging</i> , 9 <sup>th</sup> Edition, 2000 (“Jacobson”)
APPL-1009	Michael Langford et al., <i>Langford’s Advanced Photography</i> , 7th Edition, 2008 (“Langford”)
APPL-1010	Richard Szeliski, <i>Computer Vision: Algorithms and Applications</i> , 2011 (“Szeliski”)

## **I. INTRODUCTION**

U.S. Patent No. 9,538,152 (the “’152 Patent,” APPL-1001) is generally directed to “multi-aperture imaging (‘MAI’) systems ... with high color resolution and/or optical zoom.” (APPL-1001), ’152 Patent, 1:15-18. The claims of the ’152 Patent are directed to a multi-aperture imaging system using 1) two cameras having respective field of views (FOVs) and image sensors with color filter arrays to provide two images and 2) a processor providing an output image based on a relationship between a zoom factor input and the FOVs of the two cameras. As shown in this Petition, these concepts in a digital camera that uses multiple lenses and image sensors were known in the art before the priority date of the ’152 patent.

This Petition, along with the cited evidence, demonstrates that claims 1-4 of the ’152 Patent are rendered obvious under (pre-AIA) 35 U.S.C. § 103(a). Apple Inc. (“Petitioner”) therefore respectfully requests these claims be held unpatentable and cancelled.

## **II. MANDATORY NOTICES**

### **A. Real Party-in-Interest**

The real party-in-interest is Apple Inc.

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