

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

COREPHOTONICS, LTD.,
Patent Owner

IPR2020-00905
U.S. Patent 10,225,479

PETITIONER'S REPLY

Table of Contents

I. Introduction.....1

II. Claim Construction.....1

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

III. Obviousness.....6

 A. Patent Owner’s expert, Dr. Hart, applies the wrong standard for a
 POSITA in his obviousness analysis.....6

 B. Claims 1, 10-14, 16, 18, 23, 32-36, 38, and 40 are obvious over the
 combination of Parulski and Konno.....7

 1. A POSITA would have implemented Parulski’s Fig. 14
 method to output a combined image with a broadened depth
 of field by using Parulski’s range mapping method in Fig. 11
 to identify and extract objects.....7

 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.11

 C. Claims 2-4 and 24-26 are obvious over the combination of Parulski,
 Konno, and Szeliski.....14

 D. Claims 5-9 and 27-31 are obvious over the combination of Parulski,
 Konno, Szeliski, and Segall.....15

 E. Claims 15 and 37 are obvious over the combination of Parulski,
 Konno, and Stein.16

IV. Secondary Considerations18

 A. No nexus.....18

 1. Patent Owner is not entitled to a presumption of nexus.19

 2. Patent Owner fails to prove nexus.20

 B. Praise/licensing lacks nexus and is self-serving.23

 C. Patent Owner did not show commercial success.25

 D. No failure of others.....25

 E. No evidence of copying.....26

V. Conclusion27
VI. Certificate of Word Count28
CERTIFICATE OF SERVICE.....29

PETITIONER'S EXHIBIT LIST

Updated: May 7, 2021

APPL-1001	U.S. Patent No. 10,225,479 to Shabtay et al. (the "'479 Patent'')
APPL-1002	Prosecution File History of the '479 Patent (the "'242 App'')
APPL-1003	Declaration of Dr. Fredo Durand Ph.D.
APPL-1004	CV of Dr. Fredo Durand
APPL-1005	U.S. Patent No. 7,859,588 to Parulski et al. ("Parulski")
APPL-1006	Used in co-filed Petition
APPL-1007	Used in co-filed Petition
APPL-1008	Used in co-filed Petition
APPL-1009	Used in co-filed Petition
APPL-1010	Used in co-filed Petition
APPL-1011	Used in co-filed Petition
APPL-1012	Used in co-filed Petition
APPL-1013	Richard Szeliski, COMPUTER VISION – ALGORITHMS AND APPLICATIONS (2011) ("Szeliski")
APPL-1014	Used in co-filed Petition
APPL-1015	JP Pub. No. 2013-106289 to Konno et al. ("Konno"), Certified English translation and Original
APPL-1016	Ralph E. Jacobson et al., The Manual of Photography: photographic and digital imaging, 9th Edition, 2000 ("Jacobson")
APPL-1017	U.S. Patent App. Pub. No. 2010/0321511 to Koskinen et al. ("Koskinen")

APPL-1018	U.S. Patent No. 7,206,136 to Labaziewicz et al. (“Labaziewicz”)
APPL-1019	Used in co-filed Petition
APPL-1020	Warren J. Smith, MODERN LENS DESIGN (1992) (“Smith”)
APPL-1021	Declaration of Dr. Jose Sasián, Ph.D.
APPL-1022	ZEMAX Development Corporation, ZEMAX Optical Design Program User’s Manual, February 14, 2011 (“ZEMAX User’s Manual”)
APPL-1023	U.S. Patent No. 8,908,041 to Stein et al. (“Stein”)
APPL-1024	U.S. Patent No. 8,406,569 to Segall et al. (“Segall”)
APPL-1025	U.S. Patent No. 8,824,833 to Dagher et al. (“Dagher”)
APPL-1026	Used in co-filed Petition
APPL-1027	File History for Provisional No. 61/752,515 to Stein (“Stein provisional”)
APPL-1028	Used in co-filed Petition
APPL-1029	Used in co-filed Petition
APPL-1030	Used in co-filed Petition
APPL-1031	Product announcement for Sony ICX612 12 MP image sensor
APPL-1032	Product announcement for Sony ICX652 13.5 MP image sensor
APPL-1033	Used in co-filed Petition
APPL-1034	U.S. Patent No. 7,112,774 to Baer
APPL-1035	Robert E. Fischer et al., OPTICAL SYSTEM DESIGN (2008)
APPL-1036	Email from Patent Owner’s counsel authorizing electronic service

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.